

# AXIO

**BETTER BY DESIGN**

TEMPERATURE & RELATIVE HUMIDITY  
EMERGENCY & WATER LEAK  
GAS & SMOKE DETECTION  
METERING & MONITORING  
INPUT OUTPUT MODULES  
OCCUPANCY & LIGHTING  
VALVES & ACTUATORS  
LIQUID LEVEL & FLOW  
THERMOSTATS  
CONTROLLERS  
AIR VELOCITY  
PRESSURE

BMS PERIPHERALS & CONTROLS  
**PRODUCT CATALOGUE 2016**

PART OF THE ANNICOM GROUP

## W E L C O M E

Thank you for choosing AXIO, the truly British-born Controls Brand. We have made a host of exciting changes for 2016; from doubling our production capacity to investing heavily in the people and products that make AXIO so popular.

Our stock levels are greater than ever and our new distribution network in the Middle East will ensure faster deliveries and lower freight costs for all of our customers in that region. We have a huge list of new products which will be incorporated into our new look website to be launched soon, alongside a dedicated Middle East website. Overleaf you will find two pages dedicated to our most exciting new products and a full glossary of all our new additions this year.

You will notice three icons placed around the catalogue for new products and price drops (there are quite a few!). You'll also see several price breaks have been introduced to our most popular lines.

As AXIO has continued to evolve we have remained true to the values we know are important to you; innovative and flexible design, truly British made products, from concept to manufacture, and most importantly, products that demonstrate our passion and commitment to developing excellent Peripherals and Control Devices.

Thanks to you, our customers, AXIO continues to bring you the best of British engineering and manufacture, at incredible prices.



Dennis Gates  
Managing Director

## W H A T ' S N E W



*We've introduced more new products this year than ever. Look out for the red icon for all the latest additions.*



*You've asked, we've listened. Price breaks on a wide range of our most popular products; buy a minimum quantity, or by the box, for even better pricing.*



*We've streamlined our production and invested in new equipment to bring you the best possible pricing on our most popular products. Look out for the Price Drop icon to see what you could save.*



*Providing the best courier services available doesn't come cheap, that's why this year we've finally had to increase our delivery charge to £9.50. To counteract this, we're offering free carriage on orders over £200 up to 25Kgs.*

# PRODUCT CATALOGUE 2016

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## NEW PRODUCT HIGHLIGHTS

Some of our most exciting new products for 2016

### AX-RM2L

#### 2 STAGE RELAY MODULE WITH LCD



Our most advanced relay module yet; set individual switching points of either relay, either sharing one 0-10Vdc or accepting a 0-10Vdc each.

The RM2L also includes all features of the AX-RM2T; Raise/Lower, pump changeover, cascade, binary control and single/dual stage timer delay.

See **Page 14** for more information.

### AX-ADPT-D

#### AIR DIFF. PRESSURE TRANSMITTER



High-quality, single range Air Differential Pressure Transmitters.

These units feature a very small form factor, terminal cap protector and multiple DIN rail mounting options. The AX-ADPT-D provides excellent value for money and ships complete with a Duct Fixing Kit.

See **Page 46** for more information.

### AX-CN-FXO

#### FAN CHANGEOVER CONTROLLER



Provides automatic changeover for two fans based on time or failure. Triggered by high/low current or air pressure/flow loss. Includes air filter monitoring and configurable alarm relays.

Application environments include kitchens, toilets, bathrooms, wetrooms and extraction/air handling.

See **Page 19** for more information.

### AX-WM-HM

#### WATER METER & INTEGRATOR

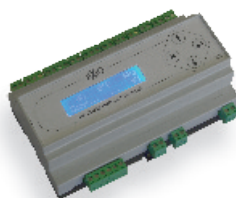


Comes complete with a fully electronic calculator, pocket and sensor leads. With a 10 year battery life & suitable for temperatures up to 90oC, the unit is available in 15mm & 20mm line sizes and features both pulse and M-Bus outputs as standard.

See **Page 58** for more information.

### AX-CN-PUC

#### PACKAGE UNIT CONTROLLER



A compact and cost effective solution for control of Package Units; fan coil and air Handling Units in a single package.

Control up to 4 compressors, an Inverter Drive, a Power Controller and a Humidifier all from a single unit.

See **Page 21** for more information.

### AX-GS-CM

#### CARBON MONOXIDE SENSORS



A high-quality, tamper-proof CO transmitter for use in car parks and other non-ventilated areas.

The output voltage is configurable for either 0-5Vdc, 2-10Vdc or 0-10Vdc. An optional relay with jumper selectable trip points is available.

See **Page 61** for more information.

### AX-CN-ST

#### THERMOSTAT WITH DUTY ROTATION



Offers the rich feature set of the AX-ET range with Duty Rotation, improving plant longevity through equal loading across all connected devices.

Units are housed in an IP20 DIN rail mounted enclosure, improving protection and aesthetics.

See **Page 26** for more information.

### AX-GS-CD-T51S

#### CARBON DIOXIDE SWITCH WITH LEDS



Adjustable switched output for CO2 applications where more advanced control is not required.

The unit incorporates an intuitive Visual Level Indicator display. The mounting style and 230Vac supply make this unit an excellent option for classroom installation.

See **Page 61** for more information.

### AX-RHT-T3

#### THIMBLE RH&T TRANSMITTER



An RH&T Transmitter with detachable thimble in a huge range of materials, colours and finishes. The AX-RHT-T range allows discreet monitoring of Relative Humidity and Temperature. Especially suitable to environments where the sensor must be as unobtrusive as possible.

See **Page 38** for more information.

### AX-HL

#### HYDROSTATIC LEVEL TRANSMITTERS



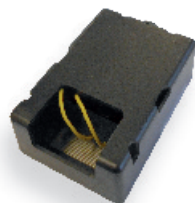
Measures the level of clean or contaminated water offering an excellent alternative to Ultrasonic equivalents. Provided with cable clamp and terminal for fast, easy installation.

4-20mA and 0-10Vdc versions with Intrinsically Safe option. Temperature Output option also available.

See **Page 69** for more information.

### AX-CDM

#### CONDENSATION MONITOR



A self-contained sensor whose main application is the early detection of condensation in chilled-beam air conditioning systems.

The new AX-CDM offers a 5m cable and both Normally Open and Normally Closed Contacts on the same unit, at an incredible price.

See **Page 43** for more information.

### AX-UL-PSW

#### ULTRASONIC PUMP CONTROL SYSTEM



Provides fully automatic level control of small tanks, sumps etc. Complete with an IP68 protected ultrasonic level transmitter.

The current controlled switch operates in differential level mode as default, with programmable high and low levels.

See **Page 70** for more information.

# PRODUCT CATALOGUE 2016

## NEW PRODUCTS & RANGES

### NEW BACNET & MODBUS PRODUCTS

A full overview of our latest BACnet and Modbus products

#### AX-GS-CD-T

#### MODBUS GAS DETECTION SYSTEM



A complete gas detection system with an impressive array of sensors and features, with a Modbus RS485 Port as standard for connecting to BMS and other networks. The new AX-GS-TC-6 range of controllers feature either 8 or 32 addressable gas detector inputs, allowing you to monitor a vast array of rooms and gasses, with one control unit.

See **Page 63** for more information.

#### AX-TE-WSP

#### TEMPERATURE & SETPOINT ADJUSTER



Wall mounted temperature transmitter with attractive blue backlight. Features include 0-10Vdc outputs for both temperature and Setpoint, standard fitment to a standard single-gang backbox.

Modbus RTU version increases flexibility and is offered at an extremely competitive price point.

See **Page 63** for more information.

#### AX-RM1MB



MODBUS RELAY MODULES  
Page 12

#### AX-TBS



FAN COIL & VAV CONTROLLERS  
Page 20

#### AX-ADPT-DA



AIR PRESSURE TRANSMITTERS  
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#### AX-RDPM



ROOM PRESSURE TRANSMITTERS  
Page 47

#### AX-GS-CD-T81M



CARBON DIOXIDE SENSORS  
Page 60

#### AX-KWH-1630



KILOWATT HOUR METERS  
Page 53

## GLOSSARY OF ALL NEW PRODUCTS

### INPUT OUTPUT MODULES

7	AX-ASM	Analogue Switching module
12	AX-RM1MB	Modbus Relay module
14	AX-RM2L	2 Stage Relay module with LCD

### CONTROLLERS

21	AX-CN-PUC	Package Unit Controller
20	AX-TBS	Fan Coil & VAV Controllers
21	AX-CN-FXO	Fan Changeover Controller
19	AX-CDFC	Free Cooling Controller - Proportional
19	AX-PI	PI Controller - New Variants incl. 0-10V input

### THERMOSTATS

26	AX-CN-ST	Enclosed Thermostat with Duty Rotation
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### TEMPERATURE & RELATIVE HUMIDITY

38	AX-TE-WSP	Temperature Display & Setpoint with Modbus
33-35	AX-TE-*TX-W	Active Temperature Sensors - Wide Range
36	AX-TE-BPP	Thimble & Button Sensors with Plate Options
34	AX-TE-ISP	New 316 Stainless Steel Pockets
39	AX-RH-H	Humidistats
33	AX-TE-F	More IP68 Flying Leads as Standard
39-40	AX-RHT-*2	2% Relative Humidity Sensors
40	AX-RHT-T	Thimble Relative Humidity Sensor
41	AX-RH-RES	Resistive Output Humidity Sensor

### EMERGENCY, WATER LEAK & DISPLAYS

43	AX-CDM	Condensation / Chilled Beam Monitor
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### PRESSURE

46	AX-ADPT-D	Single Range Air Diff. Pressure Transmitters
46	AX-ADPT-DA	Multi Range Air Diff. Pressure Transmitters
47	AX-PVCT	Air Pressure Accessories
47	AD-RDPM	Room Differential Pressure Monitors
47	AX-LSPTD	Liquid Static Pressure Transmitters

### POWER SUPPLIES, MONITORING & METERING

51	AX-TX-D60	Compact 60VA DIN Rail Mounted Transformer
52	AX-CSG	Current Transducers - Selectable Ranges
53	AX-KWH	KWH Meters with Modbus & BACNet
57	AX-WM-U	Ultrasonic Water Meters
59	AX-WM-HM	Combined Water Meter & Integrator

### GAS & SMOKE DETECTION

60	AX-GS-CD-T81M	Modbus Carbon Dioxide Sensors
61	AX-GS-CM-V	Carbon Monoxide Sensors
61	AX-GS-CD-T51S	Carbon Dioxide Switch - LED Indication
62	AX-GS-FT	Smoke Detector Fast Sampling Tubes
62	AX-GS-F134A	Freon Gas Sensors
63	AX-GS-TC	Gas Detection System, Modbus Output

### AIR VELOCITY, FLOW & LIQUID LEVEL

67	AX-WS	Weather Station - Fully Customisable
69	AX-UL-PSW	Ultrasonic Pump Level Control System
70	AX-HL	Hydrostatic Level Transmitters

### OCCUPANCY & LIGHTING

72	AX-OC	Wall Mount Occupancy with Volt Free Contact
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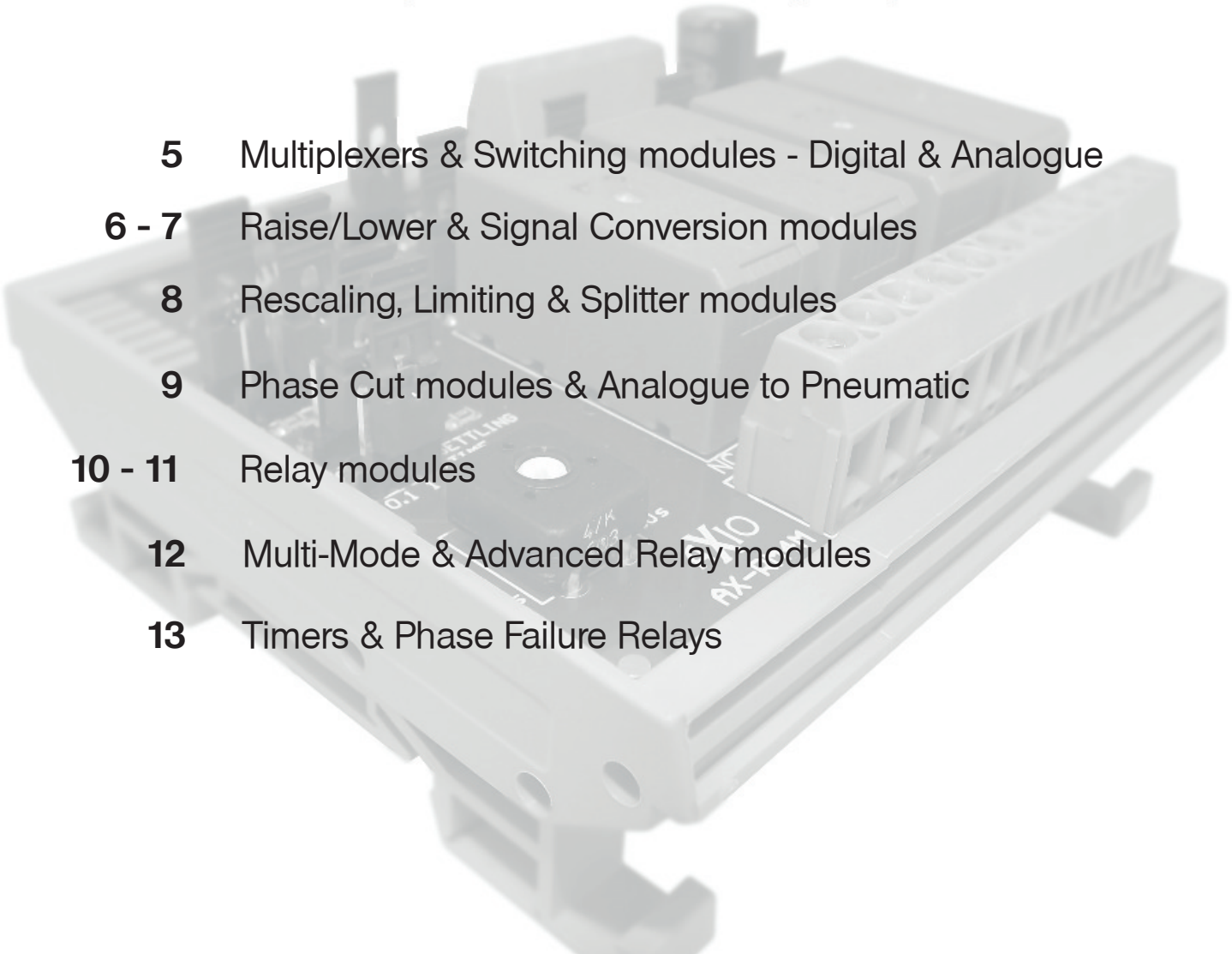
### COMMISSIONING TOOLS & BESPOKE PRODUCTS

86	AX-REF-VI	Analogue Output Reference Device with 24V
86	-	Range of Commissioning Tools

# INPUT OUTPUT MODULES

Annicom designs and manufactures an extensive range of Input Output modules. Use our range to convert to or from almost any control signal, to multiplex a wide variety of inputs, or interface with a large range of legacy devices to avoid expensive installation.

Our range extends to manufacturer specific modules for Siemens and Honeywell to meet their project requirements. Annicom's aim is to be able to convert any BMS signals to, or from, an analogue signal.

- 
- 5** Multiplexers & Switching modules - Digital & Analogue
  - 6 - 7** Raise/Lower & Signal Conversion modules
  - 8** Rescaling, Limiting & Splitter modules
  - 9** Phase Cut modules & Analogue to Pneumatic
  - 10 - 11** Relay modules
  - 12** Multi-Mode & Advanced Relay modules
  - 13** Timers & Phase Failure Relays

## D I D Y O U K N O W ?

Annicom Multi-Mode relays have the most operating modes of any in the industry. Functions include circular and linear sequencing, Raise/Lower and Binary.

# INPUT OUTPUT MODULES

## MULTIPLEXERS & SWITCHING MODULES - DIGITAL & ANALOGUE

### AX-DIM4-MI / DIM6-MI

#### DIGITAL INPUT MULTIPLEXER - ANALOGUE OUTPUT - 4 or 6 INPUTS



Calculates a single analogue value based on the status of the four or six digital input signals. This signal can then be decoded within a BMS controller to give the status of each individual digital input. The module is designed as a direct replacement for the equivalent "Trend" module.

#### FEATURES

- Can be powered from 24Vac/dc
- Jumper-selectable voltage or current output
- Inputs can be volt free or 24Vac/dc

Order Codes	Description	Single	15 (Boxes)
AX-DIM4-MI5	Four channel digital input Multiplexer	£18.00	£17.00
AX-DIM6-MI-V	Six channel Multiplexer, voltage output	£33.00	£32.00
AX-DIM6-MI-I	Six channel Multiplexer, current output	£33.00	£32.00

#### SPECIFICATION

Input:	DIM4	4 x Volt free or 4x 24Vac/dc or combination
	DIM6	6 x Volt free or 6x 24Vac/dc or combination
Output:	Voltage	0-10Vdc max load 10mA
	Current	0 to 20mA (max load resistance 470Ω)

### AX-DIM5R

#### DIGITAL INPUT MULTIPLEXER - RESISTANCE OUTPUT - 5 INPUTS



Multiplexes five digital inputs into one floating resistance output. The resistance output range is designed to interface directly with the TAC Micronet range of controllers but can also be used with any similar compatible controller.

#### FEATURES

- LED Status indication
- For TAC Micronet Controller (or similar)
- 22.1kΩ offset jumper

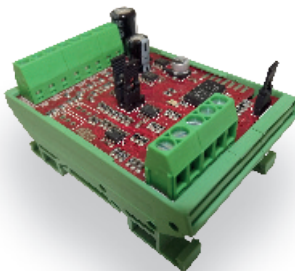
Order Codes	Description	List Price
AX-DIM5R	Five channel Multiplexer, resistance output	£33.00

#### SPECIFICATION

Power Supply:	24Vac/dc ±15% (40mA max @ 24Vdc)
Input:	5x Volt free or 5x 24Vdc or combination
Output tolerance:	±2Ω of nominal maximum
Offset:	22.1kΩ
Output:	Rp off 779.9 to 1557.9Ω
	Rp on 752.4 to 1455.3Ω

### AX-VMUX / VDEMUX

#### ANALOGUE INPUT MULTIPLEXER / DEMULTIPLEXER - 4 INPUTS / OUTPUTS



Multiplex / De-Multiplex four 0-10V input signals over two analogue lines, effectively doubling the number of available analogue outputs from a BMS. Additional AX-VMUX can be cascaded using one additional analogue line each, each effectively giving an additional 3 analogue outputs.

The VMUX can be used in conjunction with the VEDUMUX to transfer many 0-10V signals over a small number of wires, significantly reducing cabling runs.

#### FEATURES

- Can be powered from 24Vac/dc
- Combine modules for many signals over few lines
- 4 x 0-10V inputs / outputs

Order Codes	Description	List Price
AX-VMUX	Four channel Analogue Input Multiplexer	£27.00
AX-VDEMUX	Four channel Analogue De-Multiplexer	£27.00

#### SPECIFICATION

Power Supply:	24Vac/dc ±15% (40mA max @ 24Vdc)
Selection:	1-4Vdc max load 5mA (Input or Output)
<b>AX-VMUX</b>	
Input:	4 x 0-10Vdc max load 1mA
Output:	0-10Vdc max load 5mA
<b>AX-VDEMUX</b>	
Input:	1 x 0-10Vdc max load 1mA
Output:	4 x 0-10Vdc max load 5mA

### AX-ASM

#### ANALOGUE SWITCHING MODULE



NEW

The AX-ASM analogue switch module switches low-voltage AC or DC signals. The module has two changeover contacts that can be switched every 15 or 30 seconds (set by a jumper) or remotely with a volt free contact.

The AX-ASM is ideal for multiplexing low voltage input signals. To aid commissioning a jumper is provided to select either of the inputs.

#### FEATURES

- Long-life relay, 100 million operations minimum
- Automatic switch-over, remote or timed selection
- Small-form factor
- Ideal for multiplexing low-voltage input signals
- LED indication

Order Codes	Description	List Price
AX-ASM	Analogue Switching module	£25.00

#### SPECIFICATION

Power Supply:	24Vac/dc ±15% (40mA max @ 24Vdc)
Input / Output:	0-10Vdc or 0-24Vac < 10mA.
Select Input:	VFC or open-collector to switch 24Vdc @ 10mA

### AX-ARL

### ANALOGUE TO RAISE / LOWER CONVERTERS



The AX-ARL range converts a 0-10V dc input signal into a Raise/Lower relay output pair. The modules can be configured for two variable and one fixed range per unit.

Applications include the control of window actuators or Raise/Lower actuators, in conjunction with a BMS or stand alone proportional controller eg. Retrofitting.

Order Codes		List Price
AX-ARL	Raise/Lower control module	£18.00
AX-ARL2	Raise/Lower control module	£18.00
AX-ARL-SSR	Raise/Lower solid state triac control module	£32.00
AX-ARL2-SSR	Raise/Lower solid state triac control module	£32.00

#### FEATURES

- One fixed and two adjustable time ranges
- Low noise zero crossing outputs
- Automatic 24 hour reset
- Complete with DIN rail carrier

#### SPECIFICATION

Power Supply:	24Vac 50/60Hz		
Input Signal:	0-10Vdc (1mA max)		
Output:	2 x SPCO (or SSR Triac o/p)		
Contact Rating:	12A @ 250Vac (res)		
Raise/Lower Times:		Variable 1	Fixed
	ARL	90-300 secs	210 secs
	ARL2	10-30 secs	90 secs
			Variable 2
			30-150 secs
			60-120 secs

### AX-RLA- / RL230ACT

### RAISE / LOWER TO ANALOGUE CONVERTERS



The AX-RLA isolates and converts a Raise/Lower input signal into a 0-10 volt analogue output. The unit provides 16 Raise/Lower cycle times and a manual output override for commissioning.

Input load resistors can be selected for triac switching. The unit also provides a 24V supply feed through for valve actuators etc. to simplify cabling.

Order Codes		List Price
AX-RLA-AC	Raise/Lower to Analogue module 24Vac	£35.00
AX-RLA230ACT	Raise/Lower to Analogue module 230Vac	£59.00

#### FEATURES

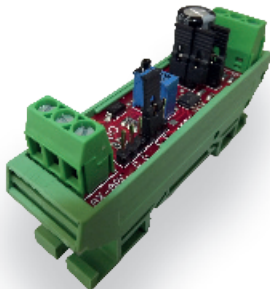
- 16 standard actuator timing ranges
- 24Vac to drive the actuator
- 0-10Vdc output

#### SPECIFICATION

Power Supply:	RLA-AC	24Vac @ 50/60Hz ±15%
	RLA230	230Vac @ 50/60Hz
Input:	RLA	Relay contact, transistor, triac, 24Vac
	RLA230	230Vac Raise/Lower
Input Ranges:	30 up to 480 seconds (typical actuator times)	
Output:	0-10V @ 10mA max	
	24Vac to drive the valve actuator	

### AX-VI / ARM / ABC / VSM

### SIGNAL CONVERSION MODULES (ANALOGUE TO ANALOGUE)



A series of modules which can convert current to voltage (or vice-versa) and also opto-isolate the input signal from the output to the BMS or other controller. The new AX-ABC converts an analogue signal to 0-10Vdc and can also power the signal loop.

Order Codes		List Price
AX-ABC	Analogue to 0-10Vdc conversion module	£18.00
AX-ABC-Dual	Two Analogue to 0-10Vdc conversion module	£34.00
AX-VI	0-10Vdc to 4-20mA conversion module	£24.00
AX-VSM	0-60Vdc to 0-10Vdc scaling module	£22.00
AX-ARM	Analogue Rescaling module	£70.00

#### FEATURES

- Powered from standard 24Vac supply
- Huge range of analogue conversions
- Small form factor
- Fits standard Din Rail
- Offers cost-saving when retrofitting

#### SPECIFICATION

Power Supply:	24Vac/dc ±15%
Input:	Refer to data sheets
Output:	Refer to data sheets

### AX-DAOM

### DUAL ANALOGUE OUTPUT MODULE (SIGNAL SPLITTER)



The AX-DAOM converts a 0-10Vdc or 2-10Vdc input signal to two 0-10Vdc or 2-10Vdc output signals, with an adjustable deadband. Either output can be inverted via a jumper.

Applications include providing Heating and Cooling signals from a single 0-10Vdc output.

Order Codes		List Price
AX-DAOM	Dual Analogue Output module	£28.00

#### FEATURES

- Adjustable deadband around 5V
- Can be powered from 24Vac/dc
- LED Status indication
- Reverse functions for each output

#### SPECIFICATION

Power Supply:	24Vac/dc ±10% (40mA max @ 24Vdc)
Input:	0-10Vdc
Output:	2 x 0-10Vdc max load 10mA each
Deadband:	Adjustable around 5V

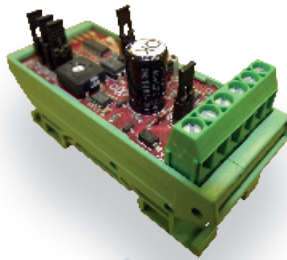


# INPUT OUTPUT MODULES

## RAISE / LOWER & SIGNAL CONVERSION MODULES

### AX-PTA / MPTA

### PULSE-WIDTH TO ANALOGUE CONVERTERS



The AX-PTA converts a pulse-width input signal into a 0-10 volt analogue output. Various pulse-widths are selectable. The MPTA features input isolation.

Order Codes		List Price
AX-PTA	Pulse-width to 0-10Vdc module	£38.00
AX-MPTA	Pulse-width/Pulse to analogue module	£80.00

#### FEATURES

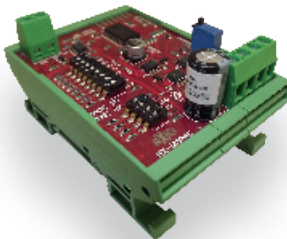
- 24Vac/dc powered
- Opto-electronically isolated (MPTA)
- 0-10Vdc output at max load 10mA

#### SPECIFICATION

Power Supply:	24Vac ±15%
Input:	Isolated 12 or 24Vac/dc or pulse
	Non-isolated 12 or 24Vac/dc or pulse or VFC
Output:	PTA 0-10Vdc @ max load 10mA
	MPTA 0-10V and 4-20mA

### AX-WMPAC

### WATER METER PULSE TO ANALOGUE (AVERAGING MODULE)



The AX-WMPAC converts the pulse signal output from a water metre into a 0-10 volt analogue output. Various maximum flow rate and litres per pulse options are easily selectable.

The unit is perfect for connecting Water Meters to BMS systems when an expensive Integrator solution is not required. An enclosure mounted option is available.

Order Codes		List Price
AX-WMPAC	WM Pulse to analogue converter - DIN rail	£38.00
AX-WMPAC-E	WM Pulse to analogue converter -IP65 enclosure	£48.00

#### FEATURES

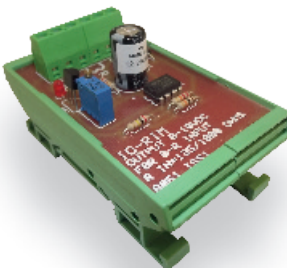
- 24Vac or dc powered
- 8 Selectable maximum flow settings
- 4 Selectable litre/pulse settings
- Significant savings over Integrator solutions

#### SPECIFICATION

Power Supply:	24Vac/dc ±15%
Input:	Reed switch pulse
Output:	0-10Vdc @ 10mA maximum load
Litre/Pulse settings:	1/10/100/1000 litre/pulse
Maximum Flow settings:	3 to 80m <sup>3</sup> /hr
Ambient Range:	0 to 50°C

### AX-RIM

### RESISTANCE TO ANALOGUE CONVERTER



The AX-RIM135 and AX-RIM1000 modules enable an existing resistance signal to be monitored by a BMS Controller. These modules convert either a 0-135Ohm or a 1KOhm signal into a 0-10Vdc output.

Applications include directly connecting Boilers, Damper Actuators and Setpoints, to a BMS Controller.

Order Codes		List Price
AX-RIM135	0 to 135Ω Resistance Input module	£26.00
AX-RIM1K	0 to 1kΩ Resistance Input module	£26.00

#### FEATURES

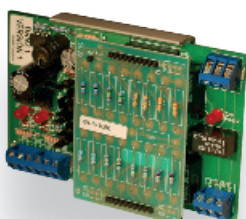
- 24Vac or dc powered
- Two standard resistance ranges available
- Allows a potentiometer to be used with a broad range of systems
- Powerful retrofitting solution

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Standard Input:	135Ω or 1kΩ
Output:	0-10Vdc

### AX-ROM

### ANALOGUE / PULSE / FLOATING POINT TO RESISTANCE CONVERTER



The AX-ROM135 and AX-ROM1K modules enable an Analogue, Pulse, or Floating Point Signal and convert to either a 0-135ohm or 1Kohm Proportional Resistive output signal. The output resistance signal does not wrap around if the input signal exceeds the highest or lowest selected input value. Both units are powered from 24Vac or 24Vdc, and feature LED indication.

Order Codes		List Price
AX-ROM135	0 to 135Ω Resistance Output module	£175.00
AX-ROM1K	0 to 1kΩ Resistance Output module	£175.00

#### FEATURES

- 24Vac or dc powered
- Two resistance ranges available as standard

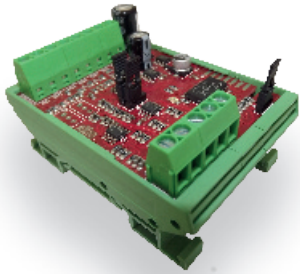
#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Input:	0-10Vdc
Standard Outputs:	135Ω or 1kΩ
Optional Outputs:	270Ω, 500Ω, 1.5kΩ, 2kΩ, 3kΩ, 4kΩ, 5kΩ, 10kΩ, 20kΩ, 40kΩ
Ambient Range:	0 to 50°C

### AX-DVRM

### DUAL VOLTAGE RESCALING MODULE

Accepts two 0-10V inputs and rescales them as set before being output as two rescaled 0-10V signals.



Order Codes		List Price
AX-DVRM	Dual Voltage Rescaling module	£29.00

#### FEATURES

- 2 independent 0-10V input/outputs
- Multi-turn presets to set rescaling values

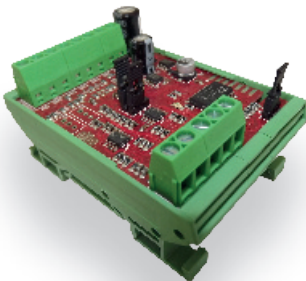
#### SPECIFICATION

Power Supply:	24Vac/dc ±15%
Input:	2 x 0-10Vdc max load 1mA
Output:	2 x rescaled 0-10Vdc max load 5mA

### AX-ALM

### ANALOGUE LIMITING MODULE

Accepts three 0-10V input signals which are then limited to within the set range before being output as limited 0-10V signals.



Order Codes		List Price
AX-ALM	Analogue Limiting module	£29.00

#### FEATURES

- 3 independent 0-10V inputs
- Adjustable maximum limit of each input
- Adjustable minimum limit of each input

#### SPECIFICATION

Power Supply:	24Vac/dc ±15%
Input:	3 x 0-10Vdc max load 1mA
Output:	3 x 0-10Vdc max load 5mA

### AX-VSR

### VOLTAGE SPLITTER & REFERENCE MODULE

The AX-VSR module takes a 0-10V input and outputs three buffered 0-10Vdc outputs. The module also includes an adjustable reference output, factory set to 10V. This can be connected to an external potentiometer to provide a low cost 0-10V Setpoint.



Order Codes		List Price
AX-VSR	Voltage Splitter and Reference module	£29.00

#### FEATURES

- 3 buffered 0-10V outputs
- Can be powered from 24Vac/dc
- Converts external potentiometer to 0-10V

#### SPECIFICATION

Power Supply:	24Vac/dc ±10% (40mA max @ 24Vdc)
Input:	0-10Vdc
Alternative Input:	1 x external potentiometer - min. 10Kohm
Output:	3 x buffered 0-10Vdc @ 5mA max load

### AX-CSM

### CURRENT SPLITTER MODULE - 2/3/4 CHANNEL

This module will accept a single analogue input and split that signal into two, three or four, 4-20mA outputs. The outputs are always scaled identically and will always track each other. The unit can also power a 24Vdc current loop signal.



Order Codes		List Price
AX-CSM-2	Current Splitter module analogue to 2 x 4-20mA	£49.00
AX-CSM-3	Current Splitter module analogue to 3 x 4-20mA	£54.00
AX-CSM-4	Current Splitter module analogue to 4 x 4-20mA	£59.00

#### FEATURES

- Field adjustable analogue input ranges
- 2, 3 or 4 x 4-20mA outputs
- Din rail mounting

#### SPECIFICATION

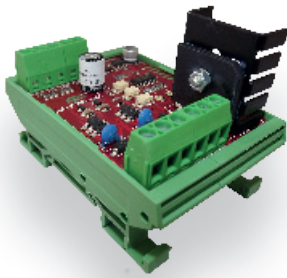
Power Supply:	24Vdc and 24Vac 50/60Hz ±15%
Inputs:	Voltage 0-5Vdc, 0-10Vdc, 2-10Vdc
	Current 0-20mA, 4-20mA, 0-10mA
Output:	2,3 or 4 x 4-20mA
Supply Current:	100mA max
Output Load:	500Ω max
Ambient Range:	0 to 50°C

# INPUT OUTPUT MODULES

## PHASE CUT MODULES & ANALOGUE TO PNEUMATIC

### AX-PCM

#### ANALOGUE TO PHASE CUT CONVERTER



A range of modules which convert a 0-10Vdc signal into a 0-20 phase-cut signal, predominantly used to drive older Staefa control valves. Versions are available to suit different loads.

Order Codes		List Price
AX-PCM2-30i	Dual channel 30VA phase cut module	£42.00
AX-PCM120i	Single channel 120VA phase cut module	£70.00

#### FEATURES

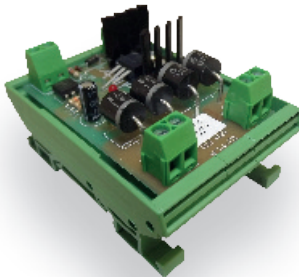
- Opto-isolated
- Output can be boosted using the AX-MPCA amplifier (PCM2-30 only)

#### SPECIFICATION

Power Supply:	24Vac ±10%	
	PCM120i	PCM2-30i
Input Signal:	0-10Vdc	2 x 0-10Vdc
Phase Cut Output:	0-20V	2 x 0-20V
Rating:	120VA	2 x 30VA

### AX-MPCA

#### PHASE CUT AMPLIFICATION MODULE



An amplifier module which boosts the output of one channel of a AX-PCM2-30i to drive loads up to 60VA. One can be applied to each of the channels, giving a maximum total of two 60VA channels.

Order Codes		List Price
AX-MPCA	Phase Cut Amplifier module	£45.00

#### FEATURES

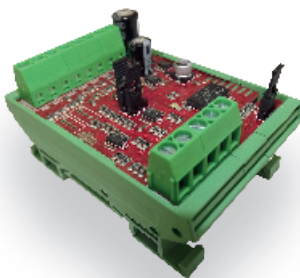
- 60VA phase-cut output
- Designed to operate with the AX-PCM2-30 phase cut module

#### SPECIFICATION

Power Supply:	24Vac
Output Supply:	0-20V Phase cut - 60VA
Input Signal:	20V Phase cut from AX-PCM-2-30i
Terminals:	Rising clamp for 0.5-2.5mm <sup>2</sup> cable

### AX-AMMM / MMA-6

#### ANALOGUE AVERAGING MODULES - 5/6 CHANNEL



The AX-AMMM accepts up to five 0-10V signals and provides four 0-10V outputs representing the average, maximum, minimum and middle value of the inputs.

Order Codes		List Price
AX-AMMM	5 Ch Minimum, maximum & averaging module	£36.00
AX-MMA-6	6 Ch Minimum, maximum & averaging module	£94.00

#### FEATURES

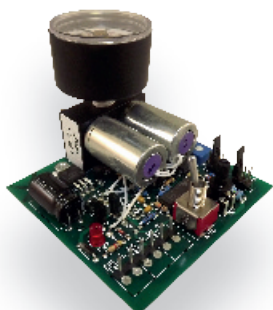
- Min, max, middle and average of 2/3/4/5 inputs
- Differential above and below of inputs 1-2 & 3-4
- Maximum and average differential of 2/3/4 inputs above and below Setpoint 10

#### SPECIFICATION

Power Supply:	24Vac/dc ±15%
Inputs:	5 x 0-10Vdc input 1mA max
Outputs:	4 x 0-10Vdc outputs 5mA max

### AX-EPC

#### ANALOGUE TO PNEUMATIC CONVERTER



Analogue to pneumatic convertor which converts an analogue input signal to a proportional pneumatic output, modulating its control valve(s) to regulate the branch line pressure to the set point determined by the input signal.

Order Codes		List Price
AX-EPC	Single Valve Analogue to Pneumatic 0-15psig	£105.00
AX-EPC-G	Single Valve Analogue to Pneumatic + Gauge 0-15psig	£115.00
AX-EPC2	Dual Valve Analogue to Pneumatic 0-15psig	£125.00
AX-EPC2-G	Dual Valve Analogue to Pneumatic + Gauge 0-15psig	£135.00

#### FEATURES

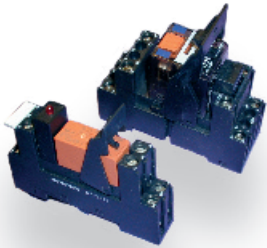
- Field selectable offset and span
- Field adjustable pressure output ranges
- Field selectable analogue input ranges
- Closed loop control

#### SPECIFICATION

Power Supply:	24Vac/dc 50/60Hz
Inputs:	0-10Vdc, 0-15Vdc, 0-20mA @ 250Ω
Air Supply:	Max 25psig Min 18psig
Output Pressure Range:	0-10, 0-15, 0-20psig jumper selectable

### AX-RM1

### STANDARD SINGLE RELAY MODULES - DIN RAIL



A range of single pole and multi-pole changeover relays designed for use in control applications. The 12Vdc version has a sensitive coil that can be driven directly by most BMS Controllers.

Order Codes		Single	10 (Boxes)
AX-RM1-12DC	12Vdc sensitive coil 10A@250Vac (res)	£3.25	£3.00
AX-RM1-24AC	24Vac coil 12A@250Vac (res)	£3.70	£3.40
AX-RM1-24DC	24Vdc coil 12A@250Vac (res)	£3.65	£3.40
AX-RM1-230AC	230Vac coil 12A@250Vac (res)	£5.00	£4.95

#### FEATURES

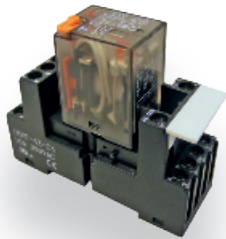
- Can convert a BMS output to digital VFC
- Large range of coil options
- Complete with DIN rail base
- Unit comprises full assembly of relay, base and clip.

#### SPECIFICATION

Output Contacts:	1 x SPCO
Ambient Range:	-25 to +85°C

### AX-RM1-2 / 3 / 4

### STANDARD MULTI-POLE SINGLE RELAY MODULES - DIN RAIL



2, 3 and 4-pole changeover relays designed for use in control applications.

Order Codes		List Price
AX-RM1-2-24AC	2 x 8A@250Vac (res) 24Vac coil	£4.50
AX-RM1-2-230AC	2 x 8A@250Vac (res) 230Vac coil	£6.00
AX-RM1-3-24AC	3 x 10A@250Vac (res) 24Vac coil	£5.25
AX-RM1-3-230AC	3 x 10A@250Vac (res) 230Vac coil	£7.00
AX-RM1-4-24AC	4 x 6A@250Vac (res) 24Vac coil	£5.50
AX-RM1-4-230AC	4 x 6A@250Vac (res) 230Vac coil	£7.50

#### FEATURES

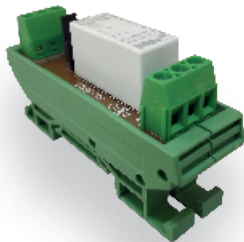
- Can convert a BMS output to digital VFC
- 2, 3 and 4-pole variants
- Range of voltage options 24Vac, 240Vac
- DC options available on request
- Complete with DIN carriers

#### SPECIFICATION

Output Contacts:	2, 3 or 4 Pole
Ambient Range:	0 to 50°C

### AX-RM1F

### SINGLE RELAY MODULE - ANALOGUE INPUT, FIXED SWITCHPOINT



The AX-RM1F is a useful alternative to traditional Single Pole 12Vdc relay modules, with the added advantages of ON/OFF/AUTO Links, with a fixed switch point of 5V and LED Indication.

The AX-RM1F is designed to provide a manual override of the output from a BMS Controller (or similar) and is particularly useful for commissioning or temporary control applications.

Order Codes		List Price
AX-RM1F	Single Relay module - Fixed switchpoint	£12.00

#### FEATURES

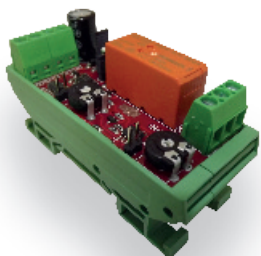
- Can convert a BMS output to digital VFC
- On/Off auto links
- DIN rail mount

#### SPECIFICATION

Input Signal:	0-10Vdc <1mA
Output Contacts:	1 x SPCO
Contact Rating:	12A @ 250Vac (res)
Fixed Switchpoint:	5Vdc
Manual Override:	ON/OFF/AUTO

### AX-RM1AB

### SINGLE RELAY MODULE - ANALOGUE INPUT, ADJUSTABLE SWITCHPOINTS



The AX-RM1AB is an advanced Single Relay module that offers adjustable Switch points (on and off) and a buffered 0-10Vdc output for controlling secondary devices from the same 0-10Vdc output.

An AUTO/ON/OFF Jumper Links is provided for commissioning or manual override purposes, with LED indication.

Order Codes		List Price
AX-RM1AB	Single Relay module Adjustable Switchpoints	£15.50

#### FEATURES

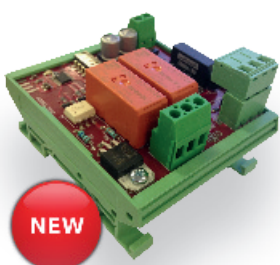
- Can convert a BMS output to digital VFC
- Adjustable switching threshold On & Off
- Contact rating - 12A @ 230Vac resistive
- DIN rail mount

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output Contacts:	1 x SPCO
Contact Rating:	12A @ 250Vac (res)
Switching Point:	0.1 to 10Vdc on & off
Input Signal:	0-10Vdc < 1mA
Buffered Output:	0-10Vdc @ 5mA max

### AX-RM1MB

### SINGLE RELAY MODULE - MODBUS ENABLED - HIGH LOAD



Especially suited to switching AC loads, the AX-RM1MB offers easy on/off control of devices that are not ModBus enabled. The module features an exceptionally high in-rush current rating (16A) for switching high AC loads. Direct connection via ModBus RTU (RS485) makes the RM1MB an attractive prospect, given its especially competitive price point. Annicom's proprietary design ensures cool running, with no additional heatsinks required.

Order Codes		List Price
AX-RM1MB	Modbus Switching module	£65.00

#### FEATURES

- High In-Rush Current Rating (16A)
- Switch Devices On/Off via Modbus
- No Bulky Heatsinks
- High Quality Relays

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output Contacts:	1 x SPCO
Inrush Rating:	16A
Constant Contact Rating:	12A @ 250Vac (res)
Input Signal:	ModBus RTU RS485

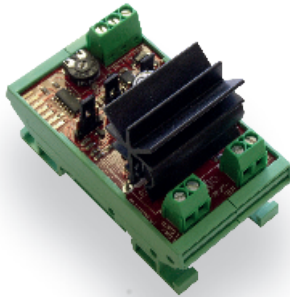
NEW

# INPUT OUTPUT MODULES

## RELAY MODULES

### AX-RM2T-SSR

#### SOLID STATE RELAY MODULES - TWO STAGE



The AX-RM2T-SSR converts a 0-10V dc input signal into a Triac output pair. The module can be configured for 4 modes of operation.

The unit is particularly useful for use with loads known to have a high inrush current (the unit switches at the zero-crossing) and noise sensitive environments prohibit the use of traditional relays.

Applications include the control of windows, valve or damper actuators, in conjunction with a BMS Controller.

Order Codes		List Price
AX-RM2T-SSR	Two Stage Triac output module 0 to 30 secs	£29.00
AX-RM2T2-SSR	Two Stage Triac output module 0 to 240 secs	£32.00

#### FEATURES

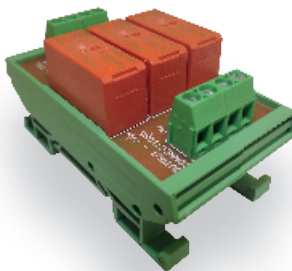
- Integrated timer function
- 2 Triac output
- Totally silent operation
- For high inrush currents
- LED Indication of output status

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output:	2 x Triacs
Output Rating:	2.1 amps max per output @ 24 or 230Vac
Input Signal:	0-10Vdc (1mA max)
Consumption:	80mA typical @ 24Vdc
Mode of Operation:	Hi/Lo, Raise/Lower, Binary, Timer
Timer:	0 to 30 (-2 240 seconds per stage)
Manual Override:	ON/OFF/AUTO

### AX-FRM3 / FRM3+1

#### FAN SPEED RELAY MODULES - 3 / 4 STAGE



Designed to take low-rated contacts from digital thermostats and output high-current relay outputs for switching fan coil motors. Particularly useful with digital or low current outputs that cannot control the fan directly. Output contacts are interlocked.

The +1 variant adds an additional, independent relay for high-current switching of on/off valves, where the thermostat output is insufficient.

Order Codes		List Price
AX-FRM3-230	Fan Speed - Three relay module 230Vac - DIN	£17.00
AX-FRM3-24	Fan Speed - Three relay module 24Vac - DIN	£16.00
AX-FRM3+1-230	FRM3-230 +1 Relay Output	£21.00
AX-FRM3+1-24	FRM3-230 +1 Relay Output	£20.00
AX-FRM3-230E	FRM3-230 IP65 Enclosure mounted	£21.00
AX-FRM3-24E	FRM3-24 IP65 Enclosure mounted	£20.00

#### FEATURES

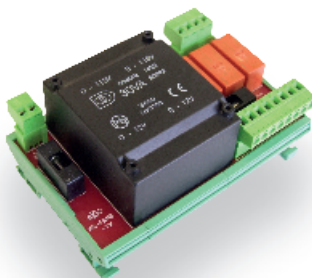
- 3 x 230Vac input (with common neutral)
- 3x or 4x SPCO output
- Different coil voltages available on request

#### SPECIFICATION

Input Signal:	3 x 230Vac or 24Vac
Output Contacts:	3x or 4x SPCO
Contact Rating:	12A @ 250Vac (res)
Ambient Range:	0 to 50°C

### AX-FRM3-TXx

#### FAN SPEED RELAY MODULE - 3 / 4 STAGE + 25/30VA TRANSFORMER



Combines the functionality of the AX-FRM3 with an encapsulated 230Vac transformer with 2 x 24Vac outputs, providing power supplies to actuators etc. without the need for an external transformer.

The +1 variant adds an additional, independent relay for high-current switching of on/off valves, where the thermostat output is insufficient.

Order Codes		List Price
AX-FRM3-TX25	Fan Speed 3 Relay module with 25VA Transformer	£33.00
AX-FRM3-TX30	Fan Speed 3 Relay module with 30VA Transformer	£35.00
AX-FRM3+1-TX25	FRM3 with 25VA Transformer + 1 Relay Output	£36.00
AX-FRM3+1-TX30	FRM3 with 30VA Transformer + 1 Relay Output	£39.00

#### FEATURES

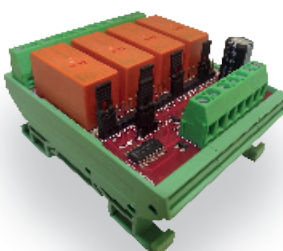
- 3 x 230Vac input (with common neutral)
- 3 x SPCO relay output
- 25VA or 30VA Transformer with 2 x 24Vac terminals

#### SPECIFICATION

Power Supply:	230Vac for transformer
Input Signal:	3 x 230Vac or 24Vac
Output Contacts:	3x or 4x SPCO
Contact Rating:	12A @ 250Vac (res)
Transformer:	230 to 24Vac - 25VA or 30VA
Ambient Range:	0 to 50°C

### AX-ORM4C

#### OVERRIDE RELAY MODULE - 4 STAGE



The AX-ORM4C is designed for applications requiring independent manual override of digital output channels from BMS Controllers. The outputs can be switched without a controller being present which makes the AX-ORM4C useful for temporary control or commissioning. Link selection enables up to 4 outputs to be switched from Input 1.

Features include LED indication of Power On and LED indication for each relay state

Order Codes		List Price
AX-ORM4C	Four-Stage Override Relay module	£42.00

#### FEATURES

- LED Status indication of relays
- Override function to facilitate easier commissioning
- Relays activated from standard controller outputs

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Must Operate:	5Vdc
Output Contacts:	4 x SPCO
Contact Rating:	12A @ 250Vac (res)
Input Signal:	4 x 0-10Vdc (2mA max)
Manual Override	3 x ON/OFF/AUTO
Ambient Range	0 to 50°C

### AX-RM2L

### MULTI-MODE RELAY MODULE - TWO STAGE - LCD



NEW

Our most advanced relay module yet, the new AX-RM2L offers superb flexibility, and easy setup via LCD. The intuitive menu system allows you to set individual switching points of each of the two relays, which can either share one 0-10Vdc or accept one 0-10Vdc each.

The RM2L also includes all the features of the AX-RM2T; Raise/Lower or pump changeover, cascade or binary control of two heating or cooling stages and single/dual stage timer delay can easily be setup via the LCD.

Order Codes		List Price
AX-RM2L	Advanced Two Relay module with LCD	£26.00

#### FEATURES

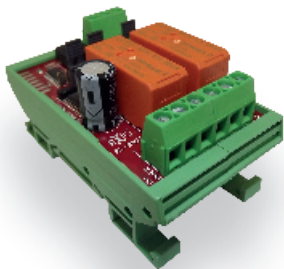
- All the functions of the AX-RM2T
- Individually Configured Relay switch on/off points
- Accepts one or two 0-10Vdc inputs
- Backlit LCD for easy commissioning

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output Contacts:	2 x SPCO
Contact Rating:	12A @ 250Vac (res)
Input Signal:	1x or 2x 0-10Vdc (1mA max)
Mode of Operation:	1) Individual Switchpoints 2) Raise/Lower 3) High/Low 4) Binary 5) Single stage timer 6) Two stage timer

### AX-RM2T

### MULTI-MODE RELAY MODULE - TWO STAGE



Provides two switched outputs from a single 0-10Vdc input (from a BMS or similar). AXIO Relay modules include an impressive array of modes, the AX-RM2T offers Raise/Lower, plant/pump changeover, cascade or binary control of two heating or cooling stages. The module can also be configured as a single/dual stage Timer.

Order Codes		1+	20+
AX-RM2T	Dual Relay module with timer 0 to 30s	£14.00	£13.50
AX-RM2T2	Dual Relay module with timer 0 to 240s	£15.00	£14.00
AX-RM2S	Dual Relay Sequencer with timer 0 to 30s	£18.00	£17.00

PRICE BREAKS

#### FEATURES

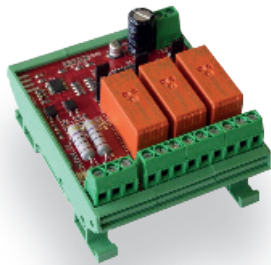
- Multiple operating modes
- LED Indication of output status
- Manual override jumpers to aid commissioning

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output Contacts:	2 x SPCO
Contact Rating:	12A @ 250Vac (res)
Input Signal:	0-10Vdc (1mA max)
Mode of Operation:	1) Raise/Lower. 2) High/Low. 3) Binary. 4) Single stage timer. 5) Two stage timer

### AX-RM3M / RL3R

### MULTI-MODE RELAY MODULE - THREE STAGE



A Triple Relay module with seven jumper-selectable operating modes and time delay. The module can be used to control three-stage loads, as a fan/heat/cool switch and includes a reverse mode and time delay.

The AX-RL3R utilises a Raise/Lower input rather than a 0-10Vdc signal.

Order Codes		List Price
AX-RM3M	Three-Stage Multi-Mode Relay module	£22.00
AX-RL3R	Raise/Lower input to 3 Stage Relay module	£32.00

#### FEATURES

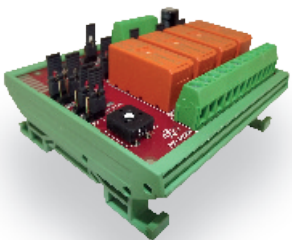
- Multiple operating modes
- LED Indication of output status
- Manual override jumpers to aid commissioning

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Input Signal - RL3R:	12/24Vac/dc or VFC Raise/Lower
Output Contacts:	3 x SPCO
Contact Rating:	12A @ 250Vac (res)
Input Signal - RM3M:	0-10 or 2-10Vdc (2mA max)
Modes of Operation:	7
Time delay:	0 to 60 seconds

### AX-RM4M

### MULTI-MODE RELAY MODULE - FOUR STAGE



Two versatile relay output modules with multiple operating modes. One unit can be configured for up to nine modes of operation to control four independent loads from a single 0-10 or 2-10Vdc signal. The signal can be reversed. Can be connected to the AX-RM6M to provide ten switched stages.

The AX-RM4AB accepts a 0-10Vdc input with four independent adjustable on/off switchpoints.

Order Codes		List Price
AX-RM4M	Four-Stage Multi-Mode Relay module	£30.00
AX-RM4AB	Four Relay module 4 adjustable switchpoints On & Off	£48.00

#### FEATURES

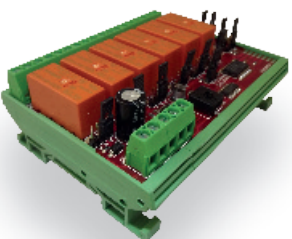
- Multiple operating modes
- LED Indication of output status
- Control four independent loads from a single analogue signal

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output Contacts:	4 x SPCO
Contact Ratings:	12A @ 250Vac (res)
Input Signal:	0-10 or 2-10Vdc (2mA max)
Modes of Operation:	9 (RM4AB - 1 mode)
Time Delay:	0 to 60 seconds (RM4M only)

### AX-RM6M

### MULTI-MODE RELAY MODULE - SIX STAGE



Accepts a 0-10Vdc input and provides six switched outputs. Up to nine different modes of operation are available and the signal can also be reversed. Can be connected to the AX-RM4M to provide ten switched stages.

Order Codes		List Price
AX-RM6M	Six-Stage Multi-Mode Relay module	£45.00

#### FEATURES

- Multiple operating modes
- LED Indication of output status
- Manual override jumpers to aid commissioning
- Contact rating 12A @ 250Vac (resistive)

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Output Contacts:	6 x SPCO
Contact Ratings:	12A @ 250Vac (res)
Input Signal:	0-10 or 2-10Vdc (2mA max)
Modes of Operation:	9
Time Delay:	0 to 60 seconds

# INPUT OUTPUT MODULES

## TIMERS & PHASE FAILURE RELAYS

### AX-DT-V0DD

#### DIGITAL TIMERS



This range of Digital Timers has either one SPDT or two DPST contacts and either eight or 17 functions and are designed for 24 to 240Vac/dc supply. The units have a slim profile and are designed for DIN rail mounting.

Order Codes		List Price
AX-DT-V0DDTS	Digital Timer 1 x C/O 8 functions	£25.00
AX-DT-V0DDTD	Digital Timer 1 x NO 8 functions	£25.00
AX-DT-V0DDTS1	Digital Timer 1 x C/O 17 functions	£28.00
AX-DT-V0DDTD1	Digital Timer 1 x NO 17 functions	£28.00

#### FEATURES

- Compact 17.5mm width
- Multi-Voltage 24 to 240Vac/dc
- 3 digit LCD for present time and run time
- Multi-functional (8 or 17 functions)

#### SPECIFICATION

Power Supply:	24 to 240Vac/dc -15 to +10%
Timing Ranges:	0.1 second to 999hrs
Switching Contacts:	8A @ 240Vac resistive
Relay Output:	V0DDTS & V0DDTS1 1 x C/O SPDT
	V0DDTD & V0DDTD1 2 x NO DPST
Functions:	V0DDTS & V0DDTD 8
	V0DDTS1 & V0DDTD1 17

### AX-AT-1CMTx

#### ANALOGUE TIMERS



This range of Analogue Timers have one SPDT contact and ten functions and are designed for 12 to 240Vac/dc supply. The units have a slim profile and are designed for DIN rail mounting.

Order Codes		List Price
AX-AT-1CMTD0	Analogue Timer 10 functions	£24.00
AX-DT-V0DDTD	Analogue Timer 10 functions	£24.00

#### FEATURES

- Compact 17.5mm width
- Multi-Voltage 12 to 240Vac/dc
- 0.1 sec to 100hrs
- 10 functions

#### SPECIFICATION

Power Supply:	14 to 240Vac/dc -15 to +10% 50/60Hz
Power Consumption:	2VA
Timing Ranges:	0.1 second to 100hrs
Setting Accuracy:	±5% of full scale
Relay Output:	1 x C/O SPDT
Switching Contacts:	8A @ 240Vac resistive 5A @ 24Vdc
LED Indication:	Green LED power on. Yellow LED relay on
Initiate Time:	100msec

### AX-SM-50x-MGx3

#### PHASE MONITORING RELAYS



These Supply Monitoring Relays have LED indication of all standard parameters. The units are designed for 3 phase 4 wire 240Vac or 415Vac or for a single phase 240Vac and have two change over contacts (DPDT). The units are DIN rail mounted.

Order Codes		List Price
AX-SM500-MG73Bx	3 Phase, 240Vac, UV/OV, single phasing protection. Adjustable ON/OFF delay time 2 x C/O	£39.00
AX-SM501-MG53Bx	3 phase 415Vac UV/OV/ASYS/ph reverse c/w adjustable ON or OFF delay time 2 x C/O	£43.00
AX-SM501-MG63Bx	3 phase 240Vac UV/OV phase protection c/w adjustable ON or OFF delay time 2 x C/O	£43.00

#### FEATURES

- Adjustable On or Off delays
- Voltage 240 to 415Vac versions
- LED indication for all faults

#### SPECIFICATION

Supply Voltage:	3 phase 240Vac or 415Vac
	1 phase 240Vac
Power Consumption:	5VA 415Vac = 10VA
Relay Output:	2 x C/O DPDT
Switching Contacts:	5A @ 250Vac/28Vdc resistive
Trip Settings:	UV 55% to 95% of Un
	OV 105% to 125% of Un
	Asy 10%
	Phase reverse Yes
	Hysteresis 7V ±2V of trip voltage (factory set)

### AX-SM175-Mx

#### PHASE FAILURE & SUPPLY MONITORING RELAYS



These compact Phase Failure and Supply Monitoring Relays can control the correct sequence of three phases and own supply voltage. The units are multi-voltage from three x 208 to 480Vac and have one SPDT contact. The unit has LED indication for all faults and for setting change and are designed for DIN rail mounting.

Order Codes		List Price
AX-SM175-MK21D5	Phase Sequence	£35.00
AX-SM175-MC21D5	Phase Sequence, Asy & phase loss monitoring	£31.00
AX-SM175-MA21DN	Phase Sequence, Asy monitoring	£31.00
AX-SM175-MD21DF	Phase Sequence, UV & OV monitoring	£34.00
AX-SM175-MG21DH	Phase Sequence, Asy & UV/OV - Off delay (5s)	£34.00
AX-SM175-MG21DF	Phase Sequence, Asy & UV/OV - On delay (5s)	£34.00

#### FEATURES

- Compact 17.5mm width
- Multi-Voltage 208 to 480Vac/dc
- LED indication for all faults

#### SPECIFICATION

Supply Voltage:	3 phase 3 wire 208 to 480Vac 45/65Hz
Power Consumption:	3VA
Setting Accuracy:	±5% of full scale
Relay Output:	1 x C/O SPDT
Switching Contacts:	5A @ 240Vac/30Vdc resistive

# CONTROLLERS

A large range of intelligent controllers to suit any application. From Proportional, PI and Heater Battery Control to complete Fan Coil and Package Unit Control solutions.

In addition to Annicom's bespoke products, the dedicated design team is constantly developing innovative controllers; recently introducing Window Actuator, Free Cooling, Fan Changeover and Package Unit Controllers.

**15 - 16** Power Controllers & Solid State Relays

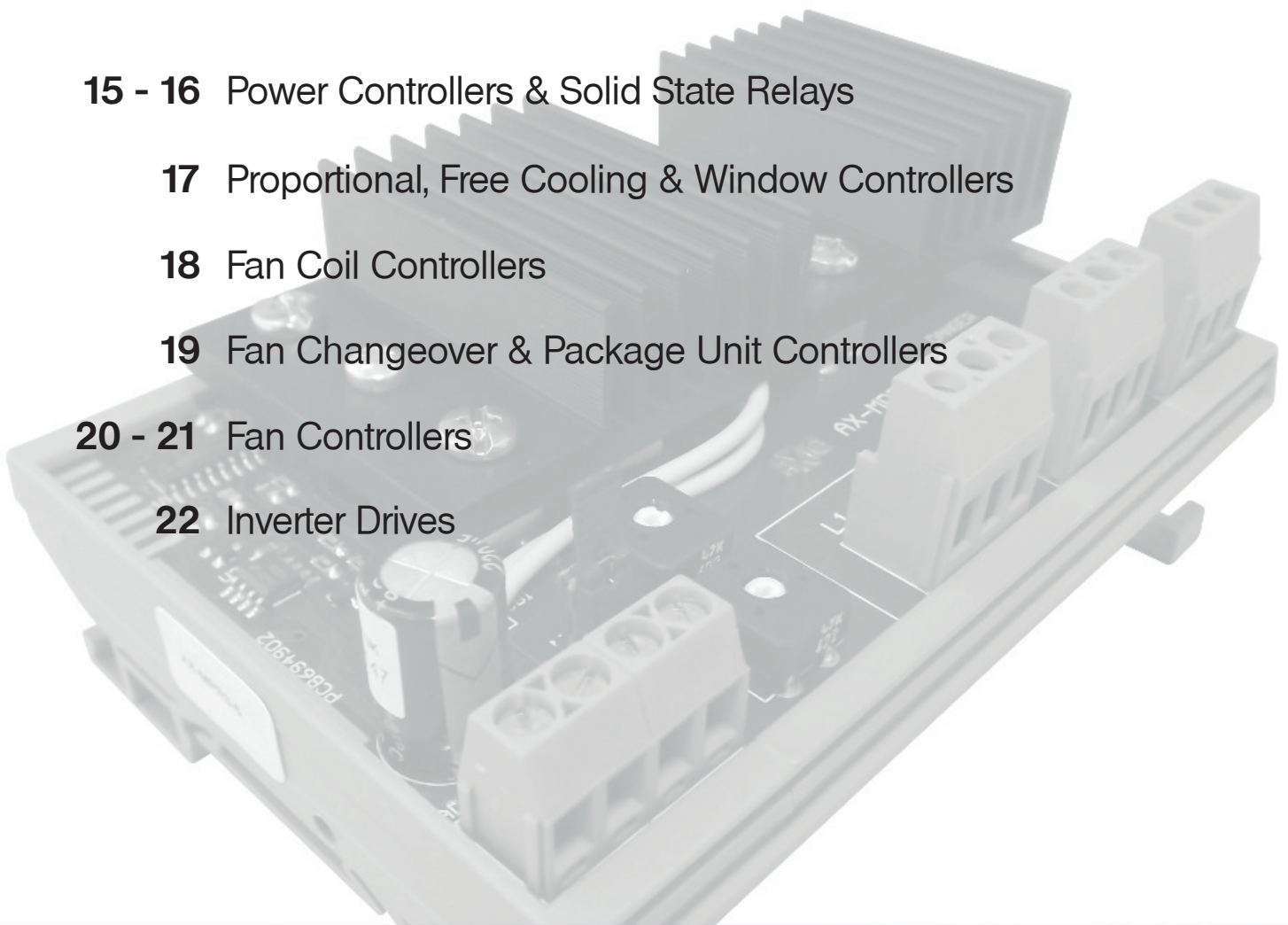
**17** Proportional, Free Cooling & Window Controllers

**18** Fan Coil Controllers

**19** Fan Changeover & Package Unit Controllers

**20 - 21** Fan Controllers

**22** Inverter Drives



## DID YOU KNOW ?

Annicom manufactures the smallest 6kW Three Phase Power Regulator in the world; the AX-MPR3-6.

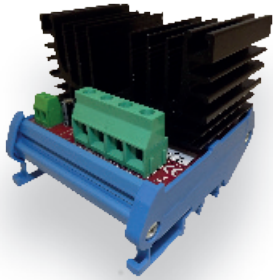


# CONTROLLERS

## POWER CONTROLLERS & SOLID STATE RELAYS

### AX-SSR1-x

#### SOLID STATE RELAYS - SINGLE PHASE - DIN RAIL MOUNT



Single Phase Solid State Relays suitable for loads up to 6kW. Various control input options are available both AC and DC. Applications include switching heating coils, duct heaters and similar products.

Order Codes		List Price
AX-SSR1-20-DC	4-38Vdc Input - Single Phase - 4.8kW (20A)	£39.00
AX-SSR1-20-24	24Vac Input - Single Phase - 4.8kW (20A)	£39.00
AX-SSR1-20-230	230Vac Input - Single Phase - 4.8kW (20A)	£59.00
AX-SSR1-25-DC	4-38Vdc Input - Single Phase - 6kW (25A)	£48.00
AX-SSR1-25-24	24Vac Input - Single Phase - 6kW (25A)	£48.00
AX-SSR1-25-230	24Vac Input - Single Phase - 6kW (25A)	£68.00

#### FEATURES

- Over temperature protection
- LED Output status indication
- DIN rail mounting
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Control Input:		24Vac or 4-38Vdc
Rated Supply:		230Vac 50/60Hz
Rated Load:	-20	20A (resistive) = 4.8kW
	-25	25A (resistive) = 6kW

### AX-SSR3-x

#### SOLID STATE RELAYS - THREE PHASE - DIN RAIL MOUNT



Three Phase Solid State Relays suitable for loads up to 12kW. Units are controlled from a voltage control signal.

Order Codes	Specify control voltage = -DC = 4-38Vdc -24 = 24Vac -230 = 230Vac	List Price
AX-SSR3-6-DC	4-38Vdc Input - Three Phase - 6kW	£54.00
AX-SSR3-12-DC	4-38Vdc Input - Three Phase - 12kW	£69.00
AX-SSR3-6-24	24Vac Input - Three Phase - 6kW	£54.00
AX-SSR3-12-24	24Vac Input - Three Phase - 12kW	£69.00
AX-SSR3-6-230	230Vac Input - Three Phase - 6kW	£68.00
AX-SSR3-12-230	230Vac Input - Three Phase - 12kW	£83.00

#### FEATURES

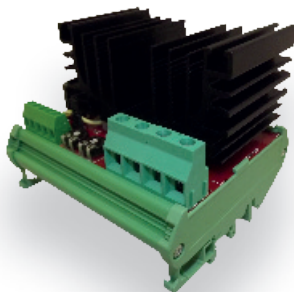
- Over temperature protection
- LED Output status indication
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Load Supply:		380 to 440Vac Three Phase 50/60Hz	
Control Input:	-24	24Vac	
	-DC	4-38Vdc	
	-230	230Vac	
Rated Load:	Load/ph	Fusing/ph	Dissipated Heat
	6kW 8.7A	10A	20W
	12kW 16.5A	20A	40W

### AX-MPR1-x

#### POWER REGULATORS - SINGLE PHASE



Single Phase Power Regulators suitable for loads up to 12kW. Units use "zero point switching" technology to reduce RFI problems and extend system lifespan. DIN rail mounted to 9kW, the 12kW is panel mounted.

Order Codes		List Price
AX-MPR1-2	Single Phase 2kW Power Regulator - DIN	£45.00
AX-MPR1-4	Single Phase 4kW Power Regulator- DIN	£70.00
AX-MPR1-6	Single Phase 6kW Power Regulator- DIN	£95.00
AX-MPR1-9	Single Phase 9kW Power Regulator- DIN	£130.00
AX-MPR1-12	Single Phase 12kW Power Regulator - Panel	£225.00

#### FEATURES

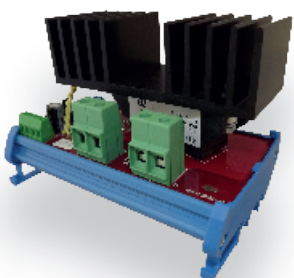
- Over temperature protection
- LED Output status indication
- Alarm output (except 2kW)
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Power Supply:	24Vac/dc $\pm 10\%$ -2kW 230Vac from load		
Input:	0-10Vdc		
Rated Load:	Load/phase	Fusing/phase	Dissipated Heat
	2kW 8.7A	10A	11W
	4kW 18A	20A	22W
	6kW 25A	30A	34W
	9kW 37.5A	40A	63W
	12kW 52A	60A	85W

### AX-MPR1-xx-RL

#### POWER REGULATORS - SINGLE PHASE - RAISE / LOWER INPUT



Single Phase Power Regulators which accept a Raise/Lower input suitable for loads up to 9kW. Units use "zero point switching" technology to reduce RFI problems and extend system lifespan.

Order Codes		List Price
AX-MPR1-2-RL	Single Phase 2kW Raise/Lower Power Regulator	£60.00
AX-MPR1-4-RL	Single Phase 4kW Raise/Lower Power Regulator	£110.00
AX-MPR1-9-RL	Single Phase 9kW Raise/Lower Power Regulator	£145.00

#### FEATURES

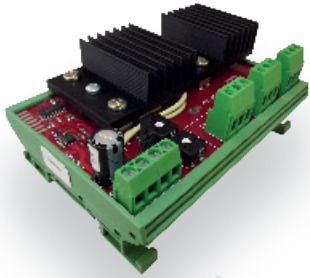
- Over temperature protection
- LED Output status indication
- Alarm output
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Power Supply:	24Vac/dc $\pm 10\%$ -2kW from supply		
Input:	24Vac Raise/Lower signal		
Rated Load:	Load/ph	Fusing/ph	Dissipated Heat
	2kW 8.7A	10A	11W
	4kW 18A	20A	22W
	9kW 37.5A	40A	63W

### AX-MPR3-x

### THREE PHASE POWER REGULATORS - DIN RAIL MOUNT



DIN Rail Mount Three Phase Power Regulators suitable for loads from 6 to 18kW. Units use "zero point switching" technology to reduce RFI problems and extend system lifespan.

Order Codes		List Price
AX-MPR3-6	Three Phase 6kW Power Regulator	£80.00
AX-MPR3-12	Three Phase 12kW Power Regulator	£95.00
AX-MPR3-18	Three Phase 18kW Power Regulator	£125.00

#### FEATURES

- Over temperature protection
- LED Output status indication
- Alarm output
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%		
Input:	0-10Vdc		
Rated Supply:	415Vac 50/60Hz (600V versions available)		
Rated Load:	Load/ph	Fusing/ph	Dissipated Heat
6kW	8.7A	10A	20W
12kW	16.5A	20A	40W
18kW	25A	30A	60W

### AX-PPR3-27 / 36 / 54

### THREE PHASE POWER REGULATORS - PANEL MOUNT - 27KW TO 54KW



Three Phase Power Regulators in rugged steel enclosures suitable for loads up to 54kW. The 54kW version uses a fan to disperse heat whereas the smaller units have unassisted cooling.

Order Codes		List Price
AX-PPR3-27	Three Phase 27kW Power Regulator	£225.00
AX-PPR3-36	Three Phase 36kW Power Regulator	£295.00
AX-PPR3-54	Three Phase 54kW Power Regulator	£385.00

#### FEATURES

- Over temperature protection
- LED Output status indication
- Alarm output
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%		
Input:	0-10Vdc		
Rated Supply:	415Vac 50/60Hz		
Rated Load:	Load/ph	Fusing/ph	Dissipated Heat
27kW	37.5A	40A	85W
36kW	150A	60A	167W
54kW	75A	80A	250W

### AX-PPR3-72 / 105

### THREE PHASE POWER REGULATORS - PANEL MOUNT - 72KW TO 105KW



Three Phase Power Regulators in a durable steel enclosure, suitable for loads up to 105kW. All heat is dissipated without the need for additional fans or heatsinks. Alarm output option.

Order Codes		List Price
AX-PPR3-72	Three Phase 72kW Power Regulator	£500.00
AX-PPR3-105	Three Phase 105kW Power Regulator	£630.00

#### FEATURES

- Over temperature protection
- LED Output status indication
- Integrated heatsink for optimum heat dissipation

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%		
Input:	0-10Vdc		
Rated Supply:	415Vac 50/60Hz		
Rated Load:	Load/ph	Fusing/ph	Dissipated Heat
72kW	100A	Internal	335W
105kW	146A	Internal	487W

### AX-PPR3-xxx

### THREE PHASE POWER REGULATORS - PANEL MOUNT - 150KW+



Three Phase Power Regulators in a durable enclosure, suitable for loads up to 400kW. All heat is dissipated without the need for additional fans or heatsinks. The units are built and fused according to the actual load requirements.

Order Codes		List Price
AX-PPR3-150	Three Phase 150kW Power Regulator	£1165.00
AX-PPR3-xxx	Three Phase Power Regulator specify load	£POA

#### FEATURES

- Over temperature protection
- LED Output status indication
- Integrated heatsink for optimum heat dissipation
- Integrated fan cooling

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%		
Input:	0-10Vdc		
Rated Supply:	415Vac 50/60Hz		
Fused:	According to load		
Ambient Range	0 to 55°C (note rated at 40°C)		
Rated Load:	See data sheets		

# CONTROLLERS

## PROPORTIONAL, FREE COOLING & WINDOW CONTROLLERS

### AX-PI

### TEMPERATURE CONTROLLER - PROPORTIONAL WITH INTEGRAL FEEDBACK

The AX-PI is an intelligent temperature controller with Integral Feedback Loop. Two analogue outputs for heating and/or cooling, Low limit input, remote Setpoint option, Setback feature and a host of adjustable parameters offer incredible flexibility.

Using the two-line LCD, setup is simple, with options to adjust or display Temperature, Setpoint, Integral feedback settings, Deadband, Proportional band, and Setback. 10K3A1 sensor inputs allow temperature and low limit to be monitored in a range of environments. The -A version provides single 0-10Vdc input, suitable for use with RH Sensors, CO2 Sensors etc.

The unit can be connected to an external switch, such as a time clock or occupancy sensor, so that the unit can revert to the Setback when the space is unoccupied or a lower Setpoint is required. TS35 suitable DIN rail carrier and high quality rising clamp terminals guarantee ease of installation.

Versions for 0-10Vdc Setpoint input, 0-10Vdc temperature input, 5V Central Output makes the AX-PI range a versatile, elegant temperature control solution.



NEW

#### FEATURES

- Heating and/or cooling 0-10V PI output
- LCD display and setup buttons
- Adjustable proportional and integral band
- Two temperature, Setback and remote Setpoint inputs
- -A version is Suitable for RH, AQ, CO2 control

Order Codes		List Price
AX-PI	DIN rail PI controller 1-11kΩ remote Setpoint	£55.00
AX-PI-5	DIN rail PI controller 5V central	£55.00
AX-PI-A	DIN rail PI controller 0-10V I/P	£60.00
AX-PI-R10V	DIN rail PI controller 0-10V remote Setpoint	£55.00
AX-POT	Remote Setpoint 1-11kΩ	£15.00

#### SPECIFICATION

Power Supply:	24Vac/dc ±15%
Power Consumption:	2VA approx
Input Signal:	Thermistor or 0-10Vdc
Output Signal:	2 x 0-10(2-10)Vdc @ 3mA
Control Range:	-5 to 95°C adjustable

### AX-CDFC

### FREE COOLING TEMPERATURE CONTROLLER - PI

The AX-CDFC automatically utilises fresh air for cooling when viable. These units are an excellent energy saving device, at a very competitive price point.

The unit controls the free cooling air supply over a Setpoint range of 15°C to 25°C when outside air is below the free cooling temperature.

This is adjustable between 10 to 0°C. The unit provides proportional control above the Setpoint and also provides an interlock signal to prevent compressor operation when free cooling is active.



NEW

#### FEATURES

- Proportional damper control
- LCD display and setup buttons
- Adjustable proportional and integral band
- 2 x temperature inputs

Order Codes		List Price
AX-CDFC	Damper Controller for Free Cooling	£60.00

#### SPECIFICATION

Power Supply:	24Vac ±15%
Power Consumption:	2VA approx
Input Signal:	thermistor temperature 10K3A1
Output Signal:	1 x 0-10(2-10)Vdc @ 3mA
Relay Output:	SPDT rated 6A @ 230Vac resistive load
Control Range:	15 to 25°C adjustable

### AX-xC-P1

### PROPORTIONAL TEMPERATURE CONTROLLERS - SPACE / DUCT / IMMERSION

Proportional Temperature Controllers that provide a 0-10Vdc output proportional to the difference between the Setpoint and the measured temperature. The output signal can be used to control a damper motor, valve actuator, relay module or a thyristor power controller among others.

Order Codes		List Price
AX-RC-P1	Room Proportional Controller 1 x 0-10V o/p	£29.00
AX-DC-P1	Duct Proportional Controller 1 x 0-10V o/p	£42.00
AX-IC-P1	Immersion Proportional Controller 1 x 0-10V o/p	£50.00

#### FEATURES

- Heating or cooling proportional 0-10V output
- Adjustable proportional band
- Room, Duct and Immersion versions

#### SPECIFICATION

Power Supply:	24Vac/dc +10% / -15%
Output Signal:	0-10Vdc min 1k Ohm
Setpoint Range:	-10 to 50°C
Ambient Range:	0 to 50°C

### AX-WAC

### WINDOW ACTUATOR CONTROLLER - THREE CHANNEL

The AX-WAC is a three channel window controller providing timed forward/reverse outputs to open and close two wire DC window actuators. Each output can be driven from a separate 0-10V input or can be combined. Any cycle time from five to 240 seconds can be set. A "Close All" input is also provided.

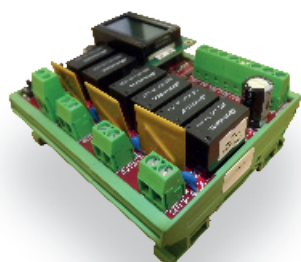
Order Codes		List Price
AX-WAC	Window Actuator Controller	£69.00

#### FEATURES

- Three independent forward/reverse outputs
- 5 to 240 seconds cycle time ranges
- "Close All" input to close all windows
- 0-5, 2-10 or 0-10V input range selection

#### SPECIFICATION

Operating Voltage:	24Vac/dc (±15%)
Inputs:	3 x Control inputs 0-5, 2-10 or 0-10Vdc
	VFC "Close all" contact
Output:	3 x Output Relay Pairs - Open/Close
Relay Rating:	5A @ 24Vdc



### AX-E07x

### ROOM FAN COIL CONTROLLERS

AX-E07xx Thermostats and Controllers are stand-alone, micro-processor based thermostats with a large LCD display. The units are designed to control the fans, valves, compressors or electric heaters in fan-coil unit and air-conditioner applications. The models are available for cooling and/or heating control of two and four-pipe fan-coil units. The models are backlit.



Order Codes	Specify Voltage	List Price
AX-E07A	Heating On/Off Fan Coil Controller	£26.00
AX-E07B	Cooling On/Off Fan Coil Controller	£26.00
AX-E07C	Heating & Cooling On/Off Fan Coil Controller	£27.00
AX-E07F	Heating or Cooling Raise/Lower Controller	£27.00
AX-E07P	Heating or Cooling Modulating Controller	£27.00

#### FEATURES

- Heating and/or Cooling versions
- Raise/Lower and analogue versions
- 3 speed fan switch
- Backlight

#### SPECIFICATION

Operating Voltage:	230Vac 50/60Hz (±10%)
Temperature Setting:	0 to 55°C
Setpoint Range:	10 to 30°C
Output: Raise/Lower:	2 x 1A @ 230Vac
Output: Analogue:	0-10Vdc
Fan Speed:	1A @ 240Vac

### AX-TBS-x

### ADVANCED ROOM FAN COIL CONTROLLERS - BACNET / MODBUS OPTIONS

The AX-TBS Room Digital FCU Controllers measure the temperature in the room and send a modulating 0-10Vdc Signal to the Fan Coil Unit actuator based on the difference between the Setpoint and the actual temperature. The unit comes complete with a 3-speed fan selector.

The unit has two energy saving inputs. The first is a window contact to switch off the air conditioning if the window is left open. The second is a digital input from a keycard or occupancy sensor to allow the unit to enter unoccupied mode.

Modbus, BACnet and Backlit LCD versions are all available.

The Annicom AX-TBS range of Fan Coil Controllers is fully configurable in-house with a virtually limitless combination of options. Please Contact the Sales Office for more information.



**NEW**

**Note:** These units are fully configurable in-house. As such we can offer any combination of features required.

Contact the Sales Office for a quotation.

#### FEATURES

- LCD Display of Temperature / Setpoint
- Options for Heating, Cooling
- Options for Modbus & BACnet
- Large LCD Screen with Backlight option
- Two Energy Saving Inputs
- Three Speed Fan Selection

#### SPECIFICATION

Power Supply:	24Vac/dc ±10%
Power Consumption:	Typical 40mA
Control:	Proportional plus integral algorithm
Ambient Range:	0-50°C
Housing:	White ABS
Display Size:	41mm x 63mm
Display Resolution:	0.1°C
Cooling Output:	0-10Vdc max 3mA
Setpoint Adjust:	Up/Down Push Buttons
Setpoint Control:	Maximum 0-50°C (range adjustable)
Fan Speed Select:	Auto - Off - Low - Med - High
Fan Speed Output:	3 x Relays 2A@250Vac inductive
Energy Saving Contact:	NO or NC contact - unoccupied mode
Window Digital Input:	NO or NC contact - disable A/C if window open
Dimensions:	94mm (w) x 118mm (h) x 34mm (d)
Weight:	120 grams
Terminals / Cable:	0.5mm to 2.5mm <sup>2</sup>

Order Codes	OUTPUTS		3 Speed Fan	Additional Relays	Occupancy / Keycard Input	Window Digital Input	Modbus RTU	BACnet MS/TP	Backlight	List Price
	Cooling	Heating								
AX-TBS-V03000000	0-10Vdc	-	YES	-	-	-	-	-	-	£49.50
AX-TBS-V03011000	0-10Vdc	-	YES	-	YES	YES	-	-	-	£50.50
AX-TBS-V03C00000	0-10Vdc	-	YES	1 Cooling	-	-	-	-	-	£51.50
AX-TBS-V13011000	0-10Vdc	1x SPDT / 1x SPST	YES	-	-	-	-	-	-	£54.00
AX-TBS-V23011000	0-10Vdc	1x SPDT / 2x SPST	YES	-	-	-	-	-	-	£56.00
AX-TBS-VV30000000	0-10Vdc	0-10Vdc	YES	-	-	-	-	-	-	£53.00
AX-TBS-1030000000	SPDT	-	YES	-	-	-	-	-	-	£39.50
AX-TBS-R03000000	Raise / Lower	-	YES	-	-	-	-	-	-	£49.00
AX-TBM-V03000100	0-10Vdc	-	YES	-	-	-	YES	-	-	£53.00
AX-TBB-V03000010	0-10Vdc	-	YES	-	-	-	-	YES	-	£69.50

# CONTROLLERS

## PACKAGE UNIT & FAN CONTROLLERS

### AX-CN-FXO

### AUTOMATIC FAN CHANGEOVER CONTROLLER

An intelligent fan control unit that provides automatic changeover for two fans based on either a time or failure. The AX-CN-FXO includes a two line display to show current state and to provide easy commissioning through visual indication.

Failure changeover can be triggered by high or low fan supply current, loss of airflow or loss of air pressure. Failure changeover can also be disabled.

A local on input is also provided with run on, either timed or based on air quality via a 0-10Vdc Input. The unit also includes air filter monitoring and configurable alarm relays.

Application environments include kitchens, toilets, bathrooms, wetrooms and all extraction or air handling environments.



**Note:** Perfect for use with our range of CO2/Air Quality Sensors, Air Static & Differential Pressure Transmitters.

#### FEATURES

- Contact for Air Flow / Air Pressure
- Over / Under Current Detection
- Timed / CO2 (Air Quality) Run On
- Air Filter Monitoring
- Configurable Timed Fan Changeover; 1-24 Hours
- Auto/Manual Switch for Commissioning
- Internally Fused

#### SPECIFICATION

Power Supply:		230Vac 50/60Hz ±15%
Inputs:	Air Flow Switch	VFC
	Air Pressure	0-10Vdc
	Air Diff. Pressure Switch	VFC
	Air Quality Sensor	0-10Vdc
	Remote On	VFC
	Local On	VFC
Outputs:	Fan 1 / Fan 2 Supply Relay	NO Contacts 12A(Res)< 250Vac Fused at 13Amps
	Status Relays x 5	NO Contacts with combined Common Terminal. 250Vac 5A(Res) each, combined max 10A.

Order Codes		List Price
AX-CN-FXO	Automatic Fan Changeover Controller	£135.00

### AX-CN-PUC

### PACKAGE UNIT CONTROLLER

The AX-CN-PUC is a compact and cost effective solution for control of package units; Fan Coil and Air Handling Units in a single package.

Control up to 4 compressors, a Variable Frequency (Inverter) Drive for pressure control, a power regulator for temperature control, and a humidifier, all from a single unit.

Three analogue inputs monitor Pressure, Relative Humidity and Temperature. The unit will also monitor up to six cooling coils, automatically turning off compressors on detection of frost. Two alarm outputs are included, one for no airflow and one as a general alarm.

Annicom offers an in-house programming service for special applications, operation can be modified to suit your requirements.



#### FEATURES

- 2 Analogue Outputs for a VFD & Power Regulator
- 4 Compressor Relay Outputs
- 1 Humidifier and 2 Alarm Relay Outputs
- 3 Analogue Inputs (Pressure, RH & T)
- Adjustable Proportional Bands
- Pre-Start on Compressor Outputs
- Din Rail Mounted Enclosure
- LCD for easy commissioning and monitoring

#### SPECIFICATION

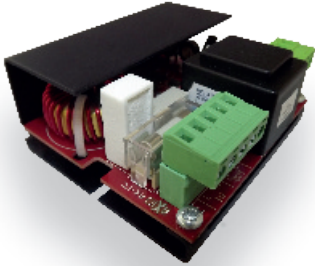
Power Supply:		24Vac 50/60Hz ±15% or 24Vdc ±15% (200mA max)
Inputs:	Duct Pressure	0-10Vdc scaled for 0-500Pa
	Relative Humidity	0-10Vdc scaled for 0-100% RH
	Temperature	0-10Vdc scaled for 0-70°C
	Airflow	Volt Free Contact (AX-ADPS)
	Frost Sensors	Up to 6x AX-TE-FT-W (IP68 Flying Lead Sensor)
Outputs:	Compressor 1-4	4x Normally Open Contacts 10A (Resistive), 250Vac
	Humidifier	1x Normally Open Contacts 10A (Resistive), 250Vac
	Common	Common for compressor & humidifier Output 10A max
	VFD (Inverter Driver)	0-10Vdc proportional and integral pressure control, 5mA

Order Codes		List Price
AX-CN-PUC	Package Unit Controller	£195.00

### AX-FC-x

### SINGLE PHASE MOTOR REGULATORS - PANEL MOUNT

Miniature Triac Motor Regulator for step-less speed regulation of controllable single phase AC motors. Loads can be controlled in both two or three wire connection mode (capacitor).



Order Codes		List Price
AX-FC-4	4A Single Phase AC Motor Regulator - DIN rail	£60.00
AX-FC-6	6A Single Phase AC Motor Regulator - DIN rail	£61.00
AX-FC-8	8A Single Phase AC Motor Regulator - DIN rail	£62.00

#### FEATURES

- Integral fuse
- Panel mount
- Remote analogue control

#### SPECIFICATION

Power Supply:	180 to 250Vac 50Hz
Control Signal:	0-10Vdc, 2-10Vdc with autostop, 10 to 0Vdc (specify on order)
Maximum Power:	FC-4 0.9kW
	FC-6 1.2kW
	FC-8 1.5kW
Maximum Current:	FC-4 4A
	FC-6 6A
	FC-8 8A
Ambient Range:	-10 to +40°C

### AX-FC-EVS

### ELECTRONIC SPEED CONTROLLERS

The AX-FC-EVS series of Electronic Speed Controllers provides an economic means of regulation for voltage controllable single phase AC motors. The AX-FC-EVS series has suitably rated integral fuses. The units offer remote control via 0-10Vdc or 4-20mA signal and are suitable for direct connection to BMS Controllers.



Order Codes		List Price
AX-FC-EVS1	Electronic Speed Controller 1.5A	£83.00
AX-FC-EVS3	Electronic Speed Controller 3.0A	£86.00
AX-FC-EVS6	Electronic Speed Controller 6.0A	£89.00
AX-FC-EVS10	Electronic Speed Controller 10.0A	£110.00

#### FEATURES

- Integral fuse
- Wall mount
- Remote analogue control

#### SPECIFICATION

Inputs:	230Vac 1 phase 50/60Hz	
Control Type:	0-10Vdc or 4-20mA	
On/Off Switch:	Mounted on side	
Minimum Speed:	Adjustable via trim pot	
Ambient Temp:	0 to 50°C (N.B. unit is rated at 30°C)	
Protection:	IP54	
Rating:	Current	Fusing
	EVS1 0.1 to 1.5A	FF 3A
	EVS3 0.3 to 3A	FF 5A
	EVS6 0.5 to 6A	FF 8A
	EVS10 1.0 to 10A	FF 14A

### AX-FC-STR

### MANUAL SPEED CONTROLLERS (TRANSFORMER) - SINGLE / THREE PHASE

The AX-FC-STR Transformer Speed Controllers vary the speed of motors according to a Off to five step manual selector knob on the front which increases or decreases the voltage to the motor.



Order Codes		List Price
AX-FC-STR-1-08	Transformer Speed Controller single phase 0.8A	£56.00
AX-FC-STR-1-15	Transformer Speed Controller single phase 1.5A	£63.00
AX-FC-STR-1-22	Transformer Speed Controller single phase 2.2A	£75.00
AX-FC-STR-1-35	Transformer Speed Controller single phase 3.5A	£90.00
AX-FC-STR-1-50	Transformer Speed Controller single phase 5.0A	£94.00
AX-FC-STR-1-75	Transformer Speed Controller single phase 7.5A	£119.00
AX-FC-STR-1-100	Transformer Speed Controller single phase 10A	£181.00
AX-FC-STR-1-130	Transformer Speed Controller single phase 13A	£195.00
AX-FC-STR-1-160	Transformer Speed Controller single phase 16A	£380.00
AX-FC-STR-1-200	Transformer Speed Controller single phase 20A	£430.00
AX-FC-STR-3-15	Transformer Speed Controller three phase 1.5A	£203.00
AX-FC-STR-3-25	Transformer Speed Controller three phase 2.5A	£213.00
AX-FC-STR-3-40	Transformer Speed Controller three phase 4.0A	£259.00
AX-FC-STR-3-60	Transformer Speed Controller three phase 6.0A	£326.00
AX-FC-STR-3-80	Transformer Speed Controller three phase 8.0A	£360.00
AX-FC-STR-3-110	Transformer Speed Controller three phase 11A	£432.00
AX-FC-STR-3-140	Transformer Speed Controller three phase 14A	P.O.A
AX-FC-STR-3-180	Transformer Speed Controller three phase 18A	P.O.A

#### FEATURES

- Integral fuse
- Wall mount
- 6 position knob control (0-5)
- Single or three phase version available

#### SPECIFICATION

Inputs:	230Vac/400Vac 50/60Hz 1 or 3 phase	
Control Type:	Manual via a 6 position knob	
Nominal Current:	0.8 to 20A	
Minimum Speed:	Adjustable via trim pot	
Ambient Range:	0 to 50°C (N.B. rated at 30°C)	
Protection:	IP54	

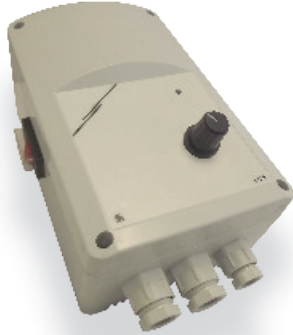
# CONTROLLERS

## FAN CONTROLLERS

### AX-FC-STL

### MANUAL FAN SPEED CONTROLLER - SINGLE PHASE

Designed for easy and trouble-free installation, the AX-FC-STL series of surface mounted manual fan speed controllers is suitable for use in humid environments. Several motors can be connected to one unit so long as the overall current limit is not exceeded. The AX-FC-STL series has suitably rated integral fuses.



#### FEATURES

- Integral fuse
- Surface mount
- Potentiometer control

Order Codes		List Price
AX-FC-STL015	Manual Fan Speed Controller 1.5A	£43.00
AX-FC-STL030	Manual Fan Speed Controller 3.0A	£45.00
AX-FC-STL050	Manual Fan Speed Controller 5.0A	£58.00
AX-FC-STL060	Manual Fan Speed Controller 6.0A	£63.00
AX-FC-STL100	Manual Fan Speed Controller 10.0A	£83.00

#### SPECIFICATION

Inputs:	230Vac 1 phase 50/60Hz
Control Type:	Manual via a potentiometer
On/Off Switch:	Mounted on side of unit
Minimum Speed:	Adjustable via trim pot
Ambient Range:	0 to 50°C (N.B rated at 30°C)
Protection:	IP54

### AX-FC-MTY

### SINGLE GANG FAN SPEED CONTROLLER - 0.5A to 4A

Designed for easy and trouble-free installation, the AX-FC-MTY series of Manual Fan Speed Controllers is suitable for use in humid environments. The units can be connected to several units at once (as long as the overall current limit is not exceeded).

The AX-FC-MTY series has suitably rated integral fuses.



#### FEATURES

- Integral fuse
- Wall and flush mount
- Potentiometer control

Order Codes	NOTE: If reverse action required change MTY to MTX	List Price
AX-FC-MTY005	Manual Fan Speed Controller 0.5A	£32.00
AX-FC-MTY010	Manual Fan Speed Controller 1.0A	£33.00
AX-FC-MTY020	Manual Fan Speed Controller 2.0A	£39.00
AX-FC-MTY025	Manual Fan Speed Controller 2.5A	£49.00
AX-FC-MTY040	Manual Fan Speed Controller 4.0A	£62.00

#### SPECIFICATION

Inputs:	230Vac 1 phase 50/60Hz
Control Type:	Manual via a potentiometer
On/Off Switch:	Inbuilt with potentiometer
Minimum Speed:	Adjustable via trim pot
Protection:	IP44 (4A versions IP54)

### AX-INV

### INVERTER DRIVES - 0.75KW to 75KW - IP21

Top of the range Inverter Drives with an extensive list of standard features, including time clocks, plain diagnostics, BACnet and remote access systems. 18 languages make the AX-INV- range an obvious choice for hassle-free, reliable installations, with an IP21 enclosure.



Order Codes		List Price
AX-INV-02A4-4	Inverter 0.75kW IP21	£483.00
AX-INV-03A3-4	Inverter 1.10kW IP21	£520.00
AX-INV-04A1-4	Inverter 1.50kW IP21	£592.25
AX-INV-05A4-4	Inverter 2.20kW IP21	£628.00
AX-INV-06A9-4	Inverter 3.00kW IP21	£689.00
AX-INV-08A8-4	Inverter 4.00kW IP21	£773.00
AX-INV-012A-4	Inverter 5.50kW IP21	£906.25
AX-INV-015A-4	Inverter 7.50kW IP21	£1062.50
AX-INV-023A-4	Inverter 11.0kW IP21	£1316.75
AX-INV-031A-4	Inverter 15.0kW IP21	£1690.50
AX-INV-038A-4	Inverter 18.5kW IP21	£1920.50
AX-INV-045A-4	Inverter 22.0kW IP21	£2197.75
AX-INV-059A-4	Inverter 30.0kW IP21	£2620.75
AX-INV-072A-4	Inverter 37.0kW IP21	£2970.50
AX-INV-087A-4	Inverter 45.0kW IP21	£3755.75
AX-INV-125A-4	Inverter 55.0kW IP21	£5071.50
AX-INV-157A-4	Inverter 75.0kW IP21	£6303.25

#### FEATURES

- EMC filters for building sector - class C2 (1st environment)
- Meets mandatory harmonic current standard EN 61000-3-12
- Coated electronic boards improve reliability & life-cycle
- Override Function for emergency situations
- Real-time clock and calendar
- BACnet MS/TP, N2, FLN and Modbus RTU embedded
- Multilingual control panel with HELP-button
- 14 HVAC pre-programmed applications
- Miniature circuit breakers can be used instead of fuses
- Swinging choke - up to 25% less harmonics
- Main switch as option for local safety
- Interactive maintenance assistant - drive alerts you when maintenance is required
- Diagnostic Assistant – plan language faults and potential solutions
- Fault logger with time clock
- Calculates energy savings and payback times
- Remote access and diagnostics
- Noise smoothing
- Uploading and downloading of parameters from one drive to another
- Easily detachable by hand (both IP21 and IP54)
- 18 languages available in one single panel, including Russian, Turkish, Czech, Polish and Chinese

#### SPECIFICATION

Please see Datasheets for model specific Information.

### AX-INV

### INVERTER DRIVES - 0.75KW to 75KW - IP54

Top of the range Inverter Drives with an extensive list of standard features, including time clocks, plain diagnostics, BACnet and remote access systems. 18 languages make the AX-INV- range an obvious choice for hassle-free, reliable installations, with an IP54 enclosure.



Order Codes		List Price
AX-INV-012A-4	ACH550 .75kW IP54 + Switch	£759.00
AX-INV-3A34B-05	Inverter 1.10kW IP54	£592.25
AX-INV-4A14B-05	Inverter 1.50kW IP54	£676.25
AX-INV-5A44B-05	Inverter 2.20kW IP54	£761.50
AX-INV-6A94B-05	Inverter 3.00kW IP54	£821.25
AX-INV-8A84B-05	Inverter 4.00kW IP54	£954.50
AX-INV-12A4B-05	Inverter 5.50kW IP54	£1027.00
AX-INV-15A4B-05	Inverter 7.50kW IP54	£1123.50
AX-INV-23A4B-05	Inverter 11.0kW IP54	£1485.75
AX-INV-31A4B-05	Inverter 15.0kW IP54	£1883.75
AX-INV-38A4B-05	Inverter 18.5kW IP54	£2113.75
AX-INV-45A4B-05	Inverter 22.0kW IP54	£2511.60
AX-INV-59A4B-05	Inverter 30.0kW IP54	£3007.25
AX-INV-72A4B-05	Inverter 37.0kW IP54	£3369.50
AX-INV-87A4B-05	Inverter 45.0kW IP54	£4129.75

#### FEATURES

- EMC filters for building sector - class C2 (1st environment)
- Meets mandatory harmonic current standard EN 61000-3-12
- Coated electronic boards improve reliability & life-cycle
- Override Function for emergency situations
- Real-time clock and calendar
- BACnet MS/TP, N2, FLN and Modbus RTU embedded
- Multilingual control panel with HELP-button
- 14 HVAC pre-programmed applications
- Miniature circuit breakers can be used instead of fuses
- Swinging choke - up to 25% less harmonics
- Main switch as option for local safety
- Interactive maintenance assistant - drive alerts you when maintenance is required
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- Fault logger with time clock
- Calculates energy savings and payback times
- Remote access and diagnostics
- Noise smoothing
- Uploading and downloading of parameters from one drive to another
- Easily detachable by hand (both IP21 and IP54)
- 18 languages available in one single panel, including Russian, Turkish, Czech, Polish and Chinese

#### SPECIFICATION

Please see Datasheets for model specific Information.



# T H E R M O S T A T S

Electronic and Intelligent Room Thermostats, for energy saving at a competitive price point. Annicom's range of AX-ET and AX-CN-ST Electronic Thermostats offer advanced control of up to six staged outputs, with LCD set-up and even Duty Rotation.

Annicom also distributes a range of well respected European manufactured Plant Thermostats, found in this section.

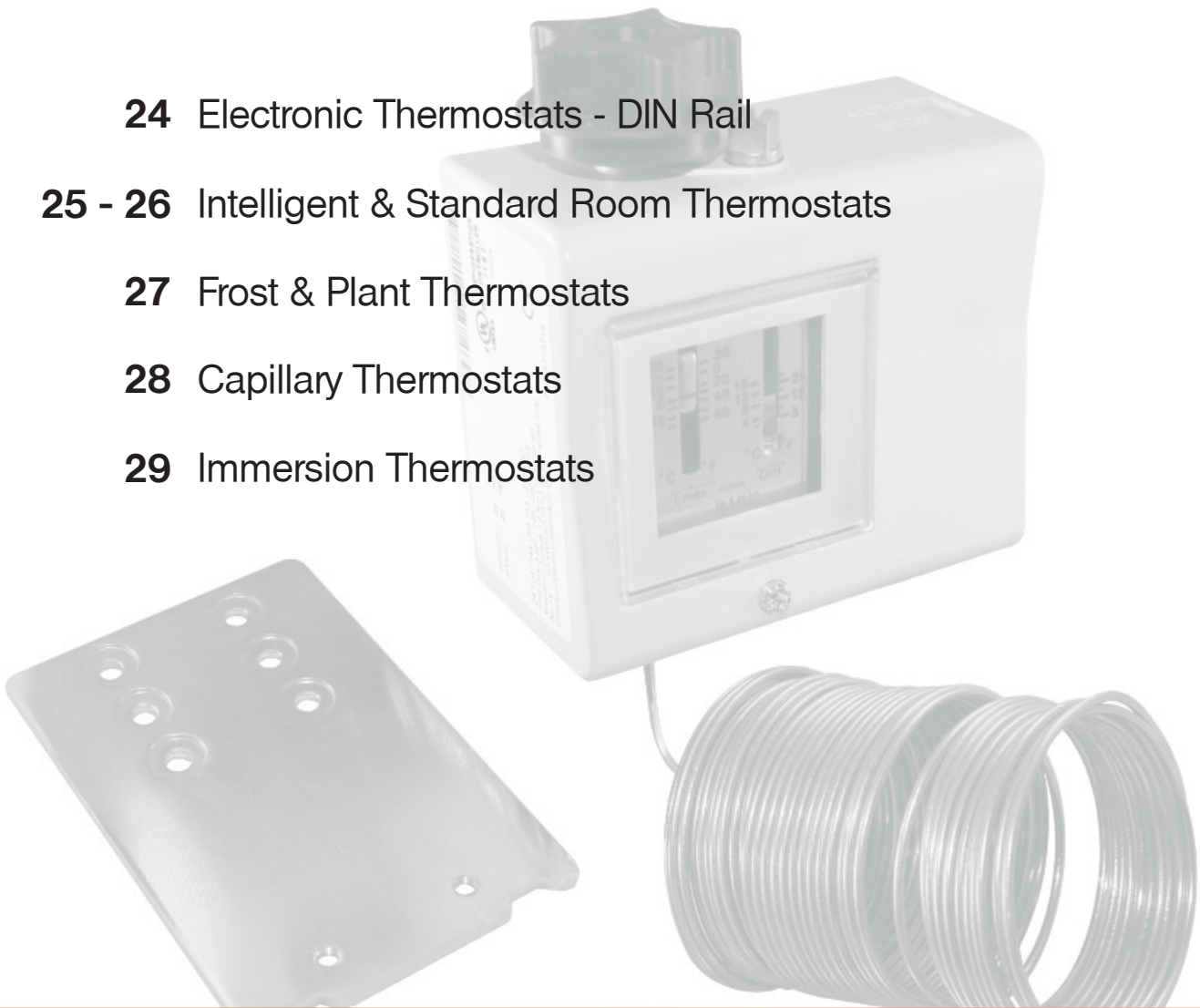
**24** Electronic Thermostats - DIN Rail

**25 - 26** Intelligent & Standard Room Thermostats

**27** Frost & Plant Thermostats

**28** Capillary Thermostats

**29** Immersion Thermostats

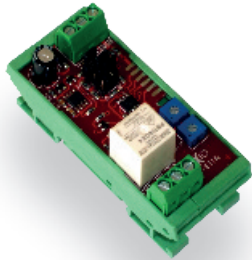


## D I D Y O U K N O W ?

Annicom's range of Intelligent Room Thermostats features include built-in occupancy and window contacts on certain versions for greater energy savings.

### AX-ET1-24-R

### ELECTRONIC THERMOSTAT - SMALL FOOTPRINT - DIN RAIL



An excellent, low-cost solution for single stage heating or cooling, with a very small footprint.

The AX-ET1-24-R simple Electronic Thermostat that monitors the temperature of air/liquid and gives a switched heating or cooling output in response to temperature change. The Setpoint is adjustable via a on board potentiometer.

Order Codes		List Price
AX-ET-1-24R	Basic single stage Electronic Thermostat	£19.00

#### FEATURES

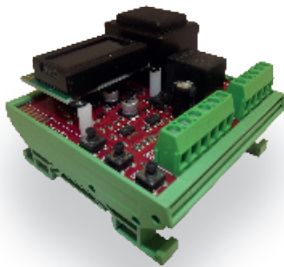
- DIN rail mount as standard
- For use with 10K3A1 sensors

#### SPECIFICATION

Input Supply:	24Vac ±15%
Output:	SPDT relay
Temperature Range:	-5 to +95°C (4 link selectable ranges) -5/35, 10/50, 35/75, 55/95
Contact Rating:	10A @ 250Vac res. (3A ind.)

### AX-ET-1-x

### SINGLE STAGE ELECTRONIC THERMOSTAT - LCD DISPLAY



A compact range of Thermostats that monitor the temperature of air/liquid and give a heating/cooling output in response to temperature change. The Setpoint is adjustable on the built in LCD via push buttons on the PCB or from a remote location with an AX-POT or similar potentiometer. Includes digital display of

Order Codes		List Price
AX-ET-1L-230	Compact single stage 230Vac Thermostat	£41.00
AX-ET-1L-24	Compact single stage 24Vac Thermostat	£35.00
AX-POT	Remote Setpoint	£15.00
AX-ET-1-ENC	IP65 Enclosure	Add £13.00

#### FEATURES

- LCD digital display of Setpoint
- 4 selectable temperature ranges
- For use with 10K3A1 sensors
- DIN rail mount as standard (enclosure mounting option)
- Night Setback adjustment input included (requires a time switch)

#### SPECIFICATION

Input Supply:	24 or 230Vac ±15% 50/60Hz
Output:	SPDT relay
Temperature Range:	-5 to +95°C -5/35, 10/50, 35/75, 55/95.
Contact Rating:	10A @ 250Vac res. (3A ind.)

### AX-ET-x

### MULTI-STAGE ELECTRONIC THERMOSTAT - LCD DISPLAY



A range of Multi Stage Electronic Thermostats that monitor the temperature of air/liquid and give multiple heating/cooling outputs in response to temperature change. All the parameters are setup via three buttons or from a remote location. Includes digital display of set point and setup parameters.

Order Codes		List Price
AX-ET-2-24	Two-stage 24Vac Thermostat	£49.00
AX-ET-2-230	Two-stage 230Vac Thermostat	£58.00
AX-ET-4-24	Four-stage 24Vac Thermostat	£75.00
AX-ET-4-230	Four-stage 230Vac Thermostat	£86.00
AX-ET-6-24	Six-stage 24Vac Thermostat	£86.00
AX-ET-6-230	Six-stage 230Vac Thermostat	£95.00
AX-ET-POT	Remote Setpoint	£15.00
AX-ET-ENC	IP65 Enclosure	Add £13.00

#### FEATURES

- LCD digital display of Setpoint
- 2, 4 or 6 stage versions
- Easy set-up with up/down and menu buttons
- Setpoint on unit
- Remote Setpoint and Setback I/PS
- For use with 10K3A1 sensors

#### SPECIFICATION

Input Supply:	24Vac or 230Vac 50/60Hz
Inputs:	Temperature, Remote Setpoint, Setback
Output:	2, 4 or 6 SPST relays
Contact Rating:	10A @ 250Vac res. (3A ind.)
Temperature Rating:	-10 to +120°C

### AX-CN-STx

### ENCLOSED MULTI-STAGE ELECTRONIC THERMOSTAT & DUTY ROTATION - LCD



The new AX-CN-ST range of multi-stage switched controllers offers the rich feature set of the AX-ET range with the advantage of an IP20 enclosure, and Duty Rotation.

The AX-CN-ST can improve plant longevity through equal loading across all connected devices, and offers increased versatility in mounting due to the new enclosure.

Order Codes		List Price
AX-CN-ST4-24	Four-stage 24Vac Enclosed Controller	£82.00
AX-CN-ST4-230	Four-stage 230Vac Enclosed Controller	£93.00
AX-CN-ST6-24	Six-stage 24Vac Enclosed Controller	£93.00
AX-CN-ST6-230	Six-stage 230Vac Enclosed Controller	£102.00

#### FEATURES

- LCD digital display of Setpoint
- 4 or 6 stage versions
- Easy set-up with up/down and menu buttons
- Remote Setpoint and Setback I/PS Options
- For use with 10K3A1 sensors
- Duty Rotation Available
- New enclosure design

#### SPECIFICATION

Input Supply:	24Vac or 230Vac 50/60Hz
Inputs:	10K3A1, Remote Setpoint, Setback
Output:	4/6 SPST relays - Optional Duty Rotation
Contact Rating:	10A @ 250Vac res. (3A ind.)
Temperature Rating:	-10 to +120°C

# THERMOSTATS

## ROOM THERMOSTATS

### AX-AUTOSTAT II

#### INTELLIGENT PIR ROOM TEMPERATURE CONTROLLER - DOUBLE GANG



A range of Intelligent Thermostats capable of switching loads up to 3kW. The units have an integrated motion detector which reduces the heating Setpoint to a Setback level when the space is unoccupied. There is an option of concealed or exposed Setpoint.

#### FEATURES

- Visible or concealed Setpoint on the same unit
- Energy-saving functions
- Simple installation

#### SPECIFICATION

Operating Voltage:	220/240Vac 50Hz
Occupied Temperature Settings:	10 to 30°C
Setback Range:	0 to 10°C from Setpoint
Maximum Load:	3kW
Timer Ranges:	15, 30 or 60 minutes

Order Codes		List Price
AX-Autostat II	Double gang room Intelligent Thermostat	£97.00

### AX-AUTOSTAT III / IV

#### INTELLIGENT PIR ROOM TEMPERATURE CONTROLLERS - SINGLE GANG



A range of Single Gang Intelligent Thermostats capable of switching loads up to 3kW. The units have an integrated motion detector which reduces the heating Setpoint to a Setback level when the space is unoccupied.

The Autosat III incorporates a window contact to turn off heating if a window is opened, whilst the Autostat IV features a concealed Setpoint for an elegant, unobtrusive solution.

#### FEATURES

- Visible/Concealed Setpoint versions
- Energy-saving functions
- Simple installation

#### SPECIFICATION

Operating Voltage:	220/240Vac 50Hz
Occupied Temperature Settings:	10 to 30°C
Setback Range:	0 to 10°C from Setpoint
Maximum Load:	3kW
Timer Ranges:	15, 30 or 60 minutes

Order Codes		List Price
AX-Autostat III	Exposed Setpoint and window contacts	£75.00
AX-Autostat IV	Concealed Setpoint	£75.00

### AX-WIRT

#### WIRELESS INTELLIGENT ROOM TEMPERATURE CONTROLLER



A two-part wireless Electronic Thermostat capable of switching loads up to 3kW. The transmitter has an integrated motion detector which reduces the heating Setpoint to a Setback level when the space is unoccupied.

#### FEATURES

- Facilitates retro-fitting without disturbing decor
- Operates from standard AAA batteries
- Simple installation

#### SPECIFICATION

Operating Voltage:	3 x AAA batteries
Occupied Temperature Settings:	15 to 25°C
Setback Range:	5 to 20°C
Transmission Frequency:	433MHz

Order Codes		List Price
AX-WIRT-7100	Wireless Room Thermostat and receiver	£98.00
AX-WIRT-000T	Wireless Room Thermostat only	£52.00
AX-WIRT-000R	Wireless receiver only	£52.00

### AX-DFCT-THx

#### ELECTRONIC ROOM THERMOSTATS



The AX-DFCT-TH Electronic Thermostats are a range of wall mounted units for heating or cooling applications. These units can be either mains or battery operated. There is also a programmable version available.

#### FEATURES

- Low profile housing
- Battery or Mains versions

#### SPECIFICATION

Measurement Range:	0 to 45°C
Setpoint Range:	5 to 35°C
Operating Voltage: H	230Vac @ 50/60Hz
Operating Voltage: B	2 x 1.5V AAA battery
Switch Rating:	SPDT 7A @ 240Vac (res) (3A ind)
Differential:	0.5°C (approx)
Ambient Range:	0 to 50°C

Order Codes		List Price
AX-DFCT-TH7281B	Electronic Room Thermostat c/w batteries	£19.00
AX-DFCT-TH7281H	Electronic Room Thermostat mains powered	£21.00
AX-DFCT-TH9520B	Programmable electronic Room Thermostat	£22.00
AX-DFCT-TH9520H	Programmable electronic Room Thermostat	£24.00

### AX-E022-x

### ROOM THERMOSTATS - LCD DISPLAY

Wall mounted units for heating and/or cooling applications. These units have a display of room temperature and Heat-Off-Cool and three speed fan switch.



Order Codes		List Price
AX-E022-A	Heating/Cooling Thermostat + 3 speed fan	£22.00
AX-E022-B	Heating/Cooling Thermostat + on/of switch	£22.00
AX-E022-C	Heating & Cooling Thermostat + 3 speed fan	£23.00

#### FEATURES

- LCD display
- 3 Speed fan switch
- Heating and/or Cooling versions

#### SPECIFICATION

Measurement Range:	0 to 40°C
Setpoint Range:	10 to 30°C
LCD	4 Digit
Operating Voltage:	230Vac 50/60Hz
Switch Rating:	Htg/Clg 1A @ 250 Vac
	Fan 6(2)A @ 250Vac
Dimensions:	92 x 92 x 31mm
Ambient Range:	0 to 50°C

### AX-TRL

### ROOM THERMOSTAT - RAISE / LOWER

The AX-TRL Raise/Lower Thermostat is designed for individual room temperature control applications. The unit has an adjustable internal Setpoint with a front plate offset adjustment. The room temperature, measured using the built in sensor, is processed using a PI control loop to control the room temperature. The outputs drive Raise/Lower (2-point) valve actuators.



Order Codes		List Price
AX-TRL	Raise/Lower Thermostat 230Vac	£44.00

#### FEATURES

- Raise/Lower Outputs
- Proportional & Integral Control
- Single Gang Flush Mounted Plate

#### SPECIFICATION

Setpoint Range:	18 to 24°C (other options)
Output Type:	Raise/Lower 230Vac
Operating Voltage:	230Vac 50/60Hz
Proportional Band:	4°C
Dimensions:	85 x 85 x 57mm
Ambient Range:	0 to 50°C

### AX-2102

### ROOM THERMOSTAT - MECHANICAL, SIMPLE

A Mechanical Room Thermostat suitable for switching low voltage and 240V. No neutral connection is required for this unit, making it suitable for use with 24V control circuits.



Order Codes		List Price
AX-2102	Room Thermostat +10°C to +30°C	£11.00

#### FEATURES

- Bellows operated thermostat
- Switches loads up to 3A
- Single unit for heating and cooling applications

#### SPECIFICATION

Operating Voltage:	Up to 220/240Vac 50/60Hz
Temperature Range:	10 to 30°C
Switching Load:	3A @ 240Vac (res) (1A ind)
Switching Differential:	1.0K (approx)

### AX-2101

### ROOM THERMOSTAT - MECHANICAL, MULTIPLE OPTIONS

Bimetallic Room Thermostats are suitable for switching up to 240V. The range includes a concealed Setpoint version.



Order Codes		List Price
AX-2101-35	Range +5°C to 35°C	£11.00
AX-2101-15	Range +5°C to +15°C (frost protection)	£11.75
AX-2101-35C	Range +5°C to 35°C (concealed Setpoint)	£10.00

#### FEATURES

- Bimetallic thermostat
- Switching loads up to 3A
- Single unit for heating and cooling applications

#### SPECIFICATION

Operating Voltage:	Up to 220/240Vac 50/60Hz
Switching Type:	SPDT volt free contacts
Switching Load:	3A @ 240Vac (res) (1A ind)
Switching Differential:	0.5K (approx)

# THERMOSTATS

## FROST & PLANT THERMOSTATS

### AX-TS-FS

#### FROST PROTECTION THERMOSTATS - MANUAL & AUTO RESET

Thermostats for frost protection in the fresh air intake of air conditioning systems. These units provide a switched output based on the average temperature detected along a six metre capillary sensor. The unit is fixed across a duct, using capillary clips, downstream of the pre-heater or frost coil and is used to prevent the icing up of filters, fans and coils.



Order Codes		List Price
AX-TS-FS-A	Frost Protection Thermostat - auto reset	£28.50
AX-TS-FS-M	Frost Protection Thermostat - manual reset	£29.50
AX-TS-FS-FC	Capillary fixing clips (pack of 6)	£5.00

#### FEATURES

- Manual and auto reset versions
- 6 metre capillary
- Easy adjustment of Setpoint
- 16A @ 250Vac resistive

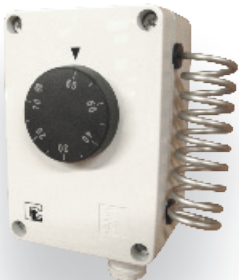
#### SPECIFICATION

Control Range:	-18 to +13°C
Operating Voltage:	240Vac @ 50/60Hz
Switch Rating:	16A @ 250Vac (res) (8A ind)
Switching Differential:	1.7°C (approx)
Capillary:	6m x 2mm diameter copper
Protection:	IP44 as standard

### AX-TW-9501/2

#### WALL MOUNTED THERMOSTATS - CONCEALED & EXPOSED SETPOINTS

Wall Mounted Thermostats for use in greenhouses, breeding sheds or other polluted areas. These units provide a switched output based on the average temperature detected along a stainless steel spiral.



Order Codes		List Price
AX-TW-9501-35	Wall Thermostat exposed Setpoint -35 to +35°C	£42.00
AX-TW-9501-60	Wall Thermostat exposed Setpoint +5 to +60°C	£42.00
AX-TW-9502-35	Wall Thermostat concealed Setpoint -35 to +35°C	£42.00
AX-TW-9502-60	Wall Thermostat concealed Setpoint +5 to +60°C	£42.00

#### FEATURES

- Concealed and exposed Setpoint versions
- Stainless steel spiral
- 16A @ 250Vac switch rating

#### SPECIFICATION

Sensitive Element:	Stainless Steel Spiral
Switching Differential:	1 to 2K
Ambient Range:	0 to 70°C
Protection:	IP55
Control Range:	9501/2-35 -35 to +35°C
	9501/2-60 +5 to 60°C
Switch Rating:	C1 16A(3) @ 250Vac
	C2 6A(1) @ 250Vac
Setpoint:	9501 External Setpoint
	9502 Internal Setpoint

### AX-TS-5310

#### PIPE STRAP-ON THERMOSTATS - PIPE / CYLINDER MOUNTING

The AX-TS-5310 Thermostat is a pipe strap-on thermostat for use on water pipes or hot water cylinders. These units provide a switched output based on the average temperature detected along a stainless steel strap or spring wire.



Order Codes		List Price
AX-TS-5310	Thermostat with stainless steel strap for pipes	£14.00
AX-TS-5320	Thermostat with spring wire for water cylinders	£14.00

#### FEATURES

- 10A @ 250V switch rating
- Includes strap or wire

#### SPECIFICATION

Sensitive Element:	Stainless Steel Strap or Spring Wire
Control Range:	17 to 90°C
Switch Type:	SDPT Volt Free Contacts
Switching Differential:	5 to 10K
Ambient Temperature:	0 to 90°C
Protection:	IP40
Switch Rating:	C1 10A(3) @ 250Vac
	C2 3A(1) @ 250Vac

### AX-TW-9503/4

### WALL MOUNTED CAPILLARY THERMOSTATS - EXPOSED & CONCEALED SETPOINT

The AX-TW-9503/4 Wall Mounted Capillary Thermostats for industrial use in polluted areas. These units provide a switched output based on the average temperature detected along a copper capillary. There are both exposed and concealed Setpoint versions and two temperature ranges.



Order Codes		List Price
AX-TW-9503-35	Wall Capillary Thermostat exp sp -35 to +35°C	£44.00
AX-TW-9503-60	Wall Capillary Thermostat exp sp +5 to +60°C	£44.00
AX-TW-9504-35	Wall Capillary Thermostat conc sp -35 to +35°C	£44.00
AX-TW-9504-60	Wall Capillary Thermostat conc sp +5 to +60°C	£44.00

#### FEATURES

- Concealed and exposed Setpoint versions
- Copper capillary
- 16A @ 250Vac switch rating

#### SPECIFICATION

Switching Differential:	1 to 2K
Ambient Range:	0 to 70°C
Protection:	IP55
Control Range:	9503/4-35 -35 to +35°C
	9503/4-60 +5 to 60°C
Switch Rating:	C1 16A(3) @ 250Vac
	C2 6A(1) @ 250Vac

### AX-TC-9520

### CAPILLARY THERMOSTATS - FIXING FLANGE & IMMERSION POCKET OPTIONS

Capillary Thermostats for heating, cooling and air conditioning systems in polluted areas (dusty and damp). These units provide a switched output based on the average temperature detected along a 1.5 metre capillary sensor.



Order Codes		List Price
AX-TC-9520-35	Capillary Thermostat -35 to +35°C 1.5m Capillary	£17.00
AX-TC-9520-60	Capillary Thermostat 0 to 60°C 1.5m Capillary	£17.00
AX-TC-9520-90	Capillary Thermostat 0 to 90°C 1.5m Capillary	£17.00
AX-TC-VT-120	Fixing Flange with ventilated tube 120mm	£4.00
AX-TC-VT-250	Fixing Flange with ventilated tube 250mm	£5.00
AX-TC-CP-90	Immersion pocket for capillary 1/2" BSP 90mm	£5.00

#### FEATURES

- Concealed and exposed Setpoint versions
- Stainless steel spiral
- 16A @ 250Vac switch rating

#### SPECIFICATION

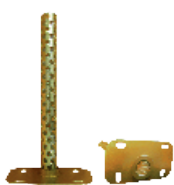
Sensitive Element:	Liquid filled coiled copper bulb
Switching Differential:	2 to 5K
Capillary:	1.5m of 2mm diameter copper
Protection:	IP40
Control Range:	AX-TC-9520-35 -35 to +35°C
	AX-TC-9520-60 0 to 60°C
	AX-TC-9520-90 0 to 90°C
Switch Rating:	C1 16A(3) @ 250Vac
	C2 6A(1) @ 250Vac
Ambient Range:	Housing 0 to 90°C
	Capillary -30 to +150°C

### AX-TC-VT-120

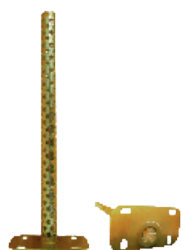
### AX-TC-VT-250mm

### AX-TC-CP-90

### AX-TI-IP-3



Fixing flange 120mm



Fixing flange 250mm



Copper Immersion Pocket 90mm



Copper Immersion Pocket 90mm for up to 3 probes

# THERMOSTATS

## IMMERSION THERMOSTATS

### AX-TI-9510



### IMMERSION THERMOSTATS - 0-60°C and 0-90°C

The AX-TI-9510 Immersion Thermostats are a range of units for heating, cooling and air conditioning systems where direct fitting is required by means of a pocket. These units provide a switched output based on the average temperature detected along a 90mm probe. There are versions for temperature ranges 0°C to 60°C and 0°C to 90°C.

Order Codes		List Price
AX-TI-9510-60	Immersion Thermostat 0 to 60°C	£18.00
AX-TI-9510-90	Immersion Thermostat 0 to 90°C	£18.00
AX-TC-CP-90	Capillary Immersion Pocket 1/2" BSP 90mm	£5.00

#### FEATURES

- 2 temperature ranges
- 90mm brass probe
- 16A @ 250Vac switch rating

#### SPECIFICATION

Switching Differential:	2 to 5K	
Protection:	IP40	
Control Range:	AX-TI-9510-60	0 to 60°C
	AX-TI-9510-90	0 to 90°C
Switch Rating:	C1	16A(3) @ 250Vac
	C2	6A(1) @ 250Vac
Ambient Range:	Housing	0 to 90°C
	Probe	-30 to +150°C

### AX-TI-95-H10



### IMMERSION THERMOSTATS WITH MANUAL RESET LIMITER

A manual reset temperature limiting thermostat with failsafe where direct fitting is required by means of a pocket. These units provide a maximum temperature limiting function of water temperature detected along a 90mm probe.

Order Codes		List Price
AX-TI-95-H10	Immersion Thermostat c/w manual reset temperature limiter and failsafe	£17.00
AX-TC-CP-90	Capillary Immersion Pocket 1/2" BSP 90mm	£5.00

#### FEATURES

- Manual reset limiter and failsafe
- 90mm brass probe
- 16A @ 250Vac switch rating

#### SPECIFICATION

Control Range:	70 to 120°C	
Switch Rating:	16A(3) @ 250Vac	
Limiter Setting:	100°C	
Protection:	IP40	
Ambient Range:	Housing	0 to 90°C
	Probe	-30 to +150°C

### AX-TE-9530/40



### IMMERSION THERMOSTATS - 2 STAGE - CONCEALED & EXPOSED SETPOINTS

Dual Immersion Thermostats are a range of units for heating, cooling and air conditioning systems where direct fitting is required by means of a pocket. These units provide a double temperature adjustment output based on the average temperature detected along a 90mm probe. The TI-9530 range have two exposed Setpoints, the TI-9540 range have one exposed and one concealed Setpoint.

Order Codes		List Price
AX-TI-9530-60	Dual Immersion Thermostat 2 x esp sp	£37.00
AX-TI-9530-90	Dual Immersion Thermostat 1 x exp, 1 x con sp	£37.00
AX-TI-9530-120	Dual Immersion Thermostat 1 x exp, 1 x con sp	£37.00
AX-TI-9540-60	Dual Immersion Thermostat 2 x esp sp	£37.00
AX-TI-9540-90	Dual Immersion Thermostat 1 x exp, 1 x con sp	£37.00
AX-TI-9540-120	Dual Immersion Thermostat 1 x exp, 1 x con sp	£37.00
AX-TI-IP-3	Brass pocket for up to 3 probes 1/2" BSP 90mm	£7.00

#### FEATURES

- Manual reset limiter and failsafe
- 90mm brass probe
- 16A @ 250Vac switch rating

#### SPECIFICATION

Stages:	2 Stage	
Switching Differentials:	2 to 5K	
Protection:	IP40	
Control Range:	-60	0 to 60°C
	-90	0 to 90°C
	-120	0 to 120°C
Switch Rating:	C1	16A(3) @ 250Vac
	C2	6A(1) @ 250Vac
Ambient Range:	Housing:	0 to 90°C
	Probe:	-30 to +150°C

### AX-TI-95-H30/40



### IMMERSION THERMOSTATS - 2 STAGE WITH MANUAL RESET

The AX-TI-95-H30/40 Dual Immersion Thermostats are a range of units for heating, cooling and air conditioning systems where direct fitting is required by means of a pocket. These units provide a one temperature Setpoint and a manual reset temperature limiter with failsafe features. The T-95-H30 range has one exposed Setpoint and one limiter, the TI-95-H40 range has one concealed Setpoint and one limiter.

Order Codes		List Price
AX-TI-95-H30-60	Immersion Limiting Thermostat 1 x exp sp	£37.00
AX-TI-95-H30-90	Immersion Limiting Thermostat 1 x exp sp	£37.00
AX-TI-95-H30-120	Immersion Limiting Thermostat 1 x exp sp	£37.00
AX-TI-95-H40-60	Immersion Limiting Thermostat 1 x con sp	£37.00
AX-TI-95-H40-90	Immersion Limiting Thermostat 1 x con sp	£37.00
AX-TI-95-H40-120	Immersion Limiting Thermostat 1 x con sp	£37.00
AX-TI-IP-3	Immersion pocket up to 3 probes 1/2" BSP 90mm	£7.00

#### FEATURES

- Manual reset limiter and failsafe
- 90mm brass probe
- 16A @ 250Vac switch rating

#### SPECIFICATION

Control Range:	As per AX-TI-9530/40	
Switching Differential:	2 to 5K	
Limiter Setting:	100°C	
Control Range:	-60	0 to 60°C
	-90	0 to 90°C
	-120	0 to 120°C
Switch Rating:	C1	16A(3) @ 250Vac
	C2	6A(1) @ 250Vac
	Safety	16A(3) @ 250Vac

# TEMPERATURE & RELATIVE HUMIDITY

Annicom proudly manufactures the entirety of our Temperature & RH sensors in the UK; from our proprietary AXIO enclosure, to our indelible silver metallised polypropylene labels, and our high quality 316 Stainless Steel probes and pockets.

Our RH&T Transmitters are renowned for their stability and accuracy, and this year we're proudly introducing 2% versions across the range. We are the only company in the industry to offer a Thimble RH&T Transmitter, complete with removable lead.

**33 - 36** Temperature Sensors

**27 - 38** Relative Humidity & Temperature Transmitters

**39** Relative Humidity Sensors & Humidistats



## D I D Y O U K N O W ?

We can brand any of our Temperature Sensors. This can be done either with an indelible silver metallised label, or even with your name and/or logo injection moulded into the lid.



# TEMPERATURE & RELATIVE HUMIDITY

## SPACE & FLYING LEAD TEMPERATURE SENSORS

### AX-TE-Rx

### SPACE TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS

A range of high-quality, UK-made Room/Space Temperature sensors for use with a wide variety of HVAC control equipment.

The AX-TE-R range is designed for both direct surface mounting and with fixing holes for standard recessed patress and conduit boxes with maximised air flow for fast response times. The Setpoint version adds a 1-11Kohm Setpoint for direction connection to either a BMS or Annicom's range of intelligent controllers.

The new TX-W version features 16 jumper selectable temperature ranges, and both loop powered 4-20mA and 0-10Vdc outputs on the same unit.

#### FEATURES

- Low profile flame-retardant housing
- Suitable for direct surface mounting or for use with a recessed patress
- Large range of sensor options



PRICE BREAKS

Order Codes	Description	1+	20+
AX-TE-RT	10K3A1 Trend, Innotech, Trane, Priva	£4.50	£4.00
AX-TE-R3K	3K3A1 Alerton	£5.00	£4.50
AX-TE-RA	10K4A1 York & Andover	£5.00	£4.50
AX-TE-RH	20K6A1 Honeywell	£6.00	£5.50
AX-TE-RD	30K6A1 Drayton	£6.00	£5.50
AX-TE-R50K	50K6A1 Priva	£6.00	£5.50
AX-TE-RNIK	Ni1000a/TCR Siemens	£8.00	£10.00
AX-TE-R100	PT100a Serek	£6.75	£6.25
AX-TE-R1K	PT1000a Cylon	£7.00	£6.00
AX-TE-R2.2K	2.2K Johnsons	£5.00	£6.25
AX-TE-RSAT	SAT1 Satchwell	£9.00	£8.00
AX-TE-RTAC	1K87A1 TAC	£6.00	£5.00
- SP	1-11KOhm Setpoint	+ £8.00	+ £8.00
AX-TE-RTX-W	4-20mA loop-powered & 0-10Vdc - Wide Range	£45.00	£42.00

#### SPECIFICATION

Housing:	ABS (Flame retardant)
Dimensions - Sensor	85 x 85 x 25mm
Dimensions - Transmitter	70 x 119 x 32mm
Protection:	IP30
Ambient Range:	-10 to +60°C
Weight:	130g / 290g (AX-TE-RTX-W)
Colour:	Off white

### AX-TE-Fx

### FLYING LEAD TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS

High quality sensors with 2 metre of screened cable. This year we have made several of our most popular versions are 5 metres and IP68 as standard, offering the highest possible protection against dust and water ingress at better prices. These -W versions can be directly immersed in water of sensing temperature or be fitted to pockets for an extremely cost effective method of monitoring temperatures in pipe work.

The -SS version includes a conformal coating and silicone potting into a stainless steel cap. This offers increased protection against condensation (non -W variants.)

The new TX-W version features 0-10Vdc Output and loop powered 4-20mA on the same unit, with up to 16 jumper selectable ranges on board, mounted in the standard AXIO enclosure.

#### FEATURES

- Cost effective solution complete with cable
- Low profile cap
- Large range of sensor options
- Several versions are IP68 and 5 Meters as standard
- Cut and strip to any length



PRICE DROP

Order Codes	Description	List Price
AX-TE-FT-W	10K3A1 IP68 2m Trend, Innotech, Trane, Priva	£4.00
AX-TE-FT-W-5m	As above with 5m cable length	£5.50
AX-TE-F3K	3K3A1 2m Alerton	£4.25
AX-TE-F3K-5m	As above with 5m cable length	£6.00
AX-TE-FA	10K4A1 2m York & Andover	£4.00
AX-TE-FA-5m	As above with 5m cable length	£5.50
AX-TE-FH-W-5m	20K6A1 5m Honeywell	£5.00
AX-TE-F50K-W-5m	50K6A1 5m Priva	£5.50
AX-TE-FNIK-W-5m	Ni1000a/TCR 5m Siemens	£7.00
AX-TE-F100-W-5m	PT100a 5m Serek	£6.50
AX-TE-F1K-W	PT1000a Cylon	£6.00
AX-TE-FSAT	SAT1 Satchwell	£9.00
AX-TE-FTAC	1K87A1 TAC	£5.00
AX-TE-FTX-W	4-20mA loop-powered & 0-10Vdc - Wide Range	£35.00
-SS	Stainless Steel Cap with Ingress Protection	Add £1.25

#### SPECIFICATION

Cable Length:	2 metres or 5 metres
Protection:	IP54 (IP68 version)
Probe:	Acetyl (stainless option)
Dimensions of Probe:	40 x 7.5mm dia
Ambient Range:	-10 to +60°C
Weight:	80g (Refer to data sheet for FTX-W)

**Note:** Longer cable lengths available on request. Contact the sales office for details.

### AX-TE-Ix

### IMMERSION TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS



NEW

The AX-TE-Ix range of Immersion Temperature Sensors interface with a wide variety of HVAC control equipment. The sensor housing offers IP65 protection against water and particulate ingress. The stainless steel probe features a sophisticated water-proofing technique that most manufacturers cannot offer as standard, to negating any water ingress.

Annicom offers a 150mm high-quality stainless steel pockets to suit our immersion sensors, featuring pressure tested single piece construction.

The new TX-W version features 0-10Vdc Output, and loop powered 4-20mA on the same unit, with up to 16 jumper selectable ranges on board.

Add the suffix -65 for 65mm versions of our pockets and sensors.

#### FEATURES

- IP65 flame-retardant housing
- No direct contact with media
- Large range of sensor options
- High temperature stainless steel probe available at extra cost
- 316 Stainless Steel Probe
- Branded / blank versions available
- Custom probe lengths available



**AX-TE-ISP-65**  
Immersion Pocket 65mm  
Stainless Steel

**AX-TE-ISP**  
Immersion Pocket 150mm  
Stainless Steel

Order Codes	Description		1+	20+
AX-TE-IT	10K3A1	Trend, Innotech, Trane, Priva	£9.50	£9.00
AX-TE-I3K	3K3A1	Alerton	£9.50	£9.00
AX-TE-IA	10K4A1	York & Andover	£10.00	£9.50
AX-TE-IH	20K6A1	Honeywell	£11.00	£10.00
AX-TE-ID	30K6A1	Drayton	£11.00	£10.00
AX-TE-INIK	Ni1000a/TCR	Siemens	£12.00	£11.50
AX-TE-I100	PT100a	Serck	£12.00	£10.00
AX-TE-I1K	PT1000a	Cylon	£12.00	£11.50
AX-TE-I2.2K	2.2K	Johnsons	£10.50	£10.00
AX-TE-ISAT	SAT1	Satchwell	£15.00	£14.50
AX-TE-ITAC	1K87A1	TAC	£11.50	£11.00
AX-TE-ITX-W	4-20mA loop-powered & 0-10Vdc - Wide Range		£44.00	£42.00
AX-TE-ISP	Pocket - 150mm - 316 Stainless Steel		£7.75	£6.95
AX-TE-ISP-65	Pocket - 65mm - 316 Stainless Steel		£7.75	£7.50

PRICE BREAKS

#### SPECIFICATION

Housing:	ABS
Probe:	Stainless steel
Dimensions: housing	55 x 90mm diam
Probe	150 x 6mm diam
Small probe	65 x 7mm diam
Protection:	IP65
Ambient Range:	-10 to +80°C
Weight:	165g (See data sheet for ITX-W)

### AX-TE-Dx

### DUCT TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS



NEW

The AX-TE-Dx range of Duct Temperature Sensors interface with a wide variety of HVAC control equipment. The sensor housing offers IP65 protection against water and particulate ingress. The stainless steel probe is left open for optimum airflow and rapid sensor response, yet remains sealed from the enclosure.

Our UK-made Temperature Sensors feature Annicom's proprietary AXIO enclosure. This UK moulded housing can be branded, or ordered blank with/without custom labels. Call the Sales Team for more information.

The new TX-W version features 16 jumper selectable temperature ranges, and both loop powered 4-20mA and 0-10Vdc outputs on the

#### FEATURES

- IP65 flame-retardant housing
- Branded / blank versions available
- Cross-axial flow tip for maximum accuracy
- Large range of sensor options
- Direct Fixing, no extra brackets required
- 316 Stainless Steel Probe

Order Codes	Description		1+	20+
AX-TE-DT	10K3A1	Trend, Innotech, Trane, Priva	£8.50	£7.25
AX-TE-D3K	3K3A1	Alerton	£9.50	£9.00
AX-TE-DA	10K4A1	York & Andover	£9.50	£8.25
AX-TE-DH	20K6A1	Honeywell	£10.00	£8.25
AX-TE-DD	30K6A1	Drayton	£10.00	£9.50
AX-TE-DN1K	Ni1000a/TCR	Siemens	£12.00	£10.00
AX-TE-D100	PT100a	Serek	£11.25	£10.75
AX-TE-D1K	PT1000a	Cylon	£11.25	£9.00
AX-TE-D2.2K	2.2K	Johnsons	£10.00	£9.00
AX-TE-DSAT	SAT1	Satchwell	£14.00	£11.75
AX-TE-DTAC	1K87A1	TAC	£10.50	£8.00
AX-TE-DTX-W	4-20mA loop-powered & 0-10Vdc - Wide Range		£44.00	£42.00

PRICE BREAKS

#### SPECIFICATION

Housing:	ABS (Flame retardant)
Probe:	Stainless steel
Dimensions: Housing	55 x 90mm diam
Dimensions: Probe	150 x 6mm diam
Protection:	IP65
Ambient Range:	-10 to +80°C
Weight:	165g (refer to a data sheet for DTX-W)

# TEMPERATURE & RELATIVE HUMIDITY

## STRAP-ON, OUTSIDE & AVERAGING TEMPERATURE SENSORS

### AX-TE-Sx

### STRAP-ON TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS



NEW

**Note:** High temperature versions suitable for temperatures 0 to 400°C. Contact the sales office for prices and details.

Annicom Strap-On Temperature Sensors feature a 2m cable and a high-quality, stainless steel strap and bent flush-fit lug for excellent thermal conductivity. The strap can be cut to length for further flexibility.

The new TX-W version features 0-10Vdc Output, and loop powered 4-20mA on the same unit, with up to 16 jumper selectable ranges on board, mounted in the standard AXIO enclosure.

#### FEATURES

- Solution complete with pipe strap
- Large range of sensor options
- Stainless Steel Bent Lug
- Branded / blank versions available

PRICE BREAKS

Order Codes			1+	20+
AX-TE-ST	10K3A1	Trend, Innotech, Trane, Priva	£10.50	£9.50
AX-TE-S3K	3K3A1	Alerton	£10.50	-
AX-TE-SA	10K4A1	York & Andover	£10.50	£9.50
AX-TE-SH	20K6A1	Honeywell	£11.50	£10.50
AX-TE-SD	30K6A1	Drayton	£11.50	£11.00
AX-TE-SNIK	Ni1000a/TCR	Siemens	£13.50	£12.50
AX-TE-S100	PT100a	Serek	£12.00	£11.50
AX-TE-S1K	PT1000a	Cylon	£12.00	£11.50
AX-TE-S2.2K	2.2K	Johnsons	£11.00	-
AX-TE-SSAT	SAT1	Satchwell	£15.00	£14.50
AX-TE-STAC	1K87A1	TAC	£11.00	£10.50
AX-TE-STX-W	4-20mA loop-powered & 0-10Vdc - Wide Range		£43.00	-

#### SPECIFICATION

Housing:	ABS (Flame retardant)
Dimensions:	55 x 90mm diam
Protection:	IP54
Ambient Range:	-10 to +60°C
Weight:	130g (See data sheet for STX-W)
Cable Length:	1m

### AX-TE-Ox

### FLYING LEAD TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS



NEW

The sensing element of this range of Outside Air Temperature Sensors is housed in a button which is fitted to Annicom's IP65 flame-retardant ABS enclosure. Annicom's proprietary anodised external element housing provides rapid response time, and integral mounting lugs offer easy commissioning.

The new TX-W version features 0-10Vdc Output, and loop powered 4-20mA on the same unit, with up to 16 jumper selectable ranges.

#### FEATURES

- P65 flame-retardant housing
- External sensing point for rapid response
- Large range of sensor options
- Branded / blank versions available

PRICE BREAKS

Order Codes			1+	10+
AX-TE-OT	10K3A1	Trend, Innotech, Trane, Priva	£8.00	£7.20
AX-TE-O3K	3K3A1	Alerton	£8.50	-
AX-TE-OA	10K4A1	York & Andover	£8.00	£7.20
AX-TE-OH	20K6A1	Honeywell	£9.00	£8.20
AX-TE-OD	30K6A1	Drayton	£9.00	-
AX-TE-ONIK	Ni1000a/TCR	Siemens	£11.00	£10.00
AX-TE-O100	PT100a	Serck	£10.00	£9.00
AX-TE-O1K	PT1000a	Cylon	£10.00	£9.00
AX-TE-O2.2K	2.2k	Johnsons	£8.00	-
AX-TE-OSAT	SAT1	Satchwell	£13.00	£10.00
AX-TE-OTAC	1K87A1	TAC	£9.50	£8.20
AX-TE-OTX-W	4-20mA loop-powered & 0-10Vdc - Wide Range		£41.00	-

#### SPECIFICATION

Housing:	ABS (Flame retardant)
Dimensions:	55 x 90mm diam
Protection:	IP65
Ambient Range:	-10 to +60°C
Weight:	130g (See data sheet for OTX-W)

### AX-TE-AVx

### FLYING LEAD TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS



NEW

**Note:** Other lengths are available : 1.8m, 6.1m and 7.3m.

High-quality flexible averaging Temperature Sensors in a range of lengths in both flexible PVC and Copper. Copper offers greater thermal conductivity, PVC offers easy installation into difficult areas through greater flexibility.

The new TX-W version features 0-10Vdc and loop powered 4-20mA on the same unit, with up to 16 jumper selectable ranges on board.

#### FEATURES

- IP65 flame-retardant housing
- External sensing point for rapid response
- Large range of sensor options
- Branded / blank versions available

Order Codes	Flexible PVC	List Price
AX-TE-AVF-T3	Flexible PVC - 3.6m - 10K3A1 Trend etc	£44.00
AX-TE-AVF-H3	Flexible PVC - 3.6m - 20K6A1 Honeywell	£48.00
AX-TE-AVF-1k3	Flexible PVC - 3.6m - Pt1000a Siemens	£52.00
AX-TE-AVF-TXW-3	3.6m - 4-20mA loop-powered & 0-10Vdc - Wide Range	£82.00
Order Codes	Copper	List Price
AX-TE-AVC-T3	Copper - 3.6m - 10K3A1 Trend etc	£65.00
AX-TE-AVC-H3	Copper - 3.6m - 20K6A1 Honeywell	£65.00
AX-TE-AVC-1k3	Copper - 3.6m - Pt1000a Siemens	£72.00
AX-TE-AVC-TXW-3	3.6m - 4-20mA loop-powered & 0-10Vdc - Wide Range	£115.00

#### SPECIFICATION

Housing:	ABS (Flame retardant)
Dimensions:	55 x 90mm diam
Protection:	IP65
Ambient Range:	-10 to +60°C
Weight:	130g (See data sheet for AVx-TX-W)

### AX-TE-T / TE-/B

### THIMBLE & BUTTON TEMPERATURE SENSORS - PLATE OPTIONS



**Note:** Other small NTC thermistor elements may also be fitted.

RAL & Pantone colours in multiple finishes now available.

Add any plate of your choice



**AX-TE-Bx-PPL**  
White Plastic Button on White Plate

Temperature Sensors mounted in a thimble or button for surface mounting. The sensors are available with a range of passive thermistors. There is also a smaller button option. A full range of finishes, materials and RAL/Pantone colours are available.

The new Plate Mounting section allows you to select a plate finish. Just add the suffix of your choice and your Thimble or Button Sensors will ship pre-fitted to the selected plate.

Annicom now offers RAL and Pantone colours in a number of finishes, please call for more information.

#### FEATURES

- Complete with cable and nut
- Button includes fibre washer
- RAL & Pantone colours available on request
- Add any plate style of your choice, simply include the part number suffix under the plates section

PRICE DROP

Order Codes	Description		List Price
<b>Thimble Sensors</b>			
AX-TE-TT	10K3A1	Trend, Innotech, Trane, Priva	£11.00
AX-TE-T3K	3K3A1	Alerton	£11.00
AX-TE-TA	10K4A1	York & Andover	£11.00
AX-TE-TH	20K6A1	Honeywell	£17.00
AX-TE-TN1K	Ni1000a/TCR	Seimens	£15.00
AX-TE-T100	PT100a	Serek	£15.00
AX-TE-T1K	PT1000a	Cylon	£13.00
AX-TE-TSAT	SAT1	Satchwell	£16.00
AX-TE-TTAC	1K87A1	TAC	£17.00
	-AL	Aluminium thimble	£10.00
	-SS	Stainless thimble	£22.00
	-BR	Brass thimble	£12.00
<b>Button Sensors</b>			
AX-TE-BT-P	White Plastic with 10K3A1 element		£8.00
AX-TE-BT-S	Stainless steel button with 10K3A1 element		£9.00
AX-TE-BT-B	Brass button with 10K3A1 element		£11.00
AX-TE-BT-C	Chrome button with 10K3A1 element		£13.00
<b>Plate Mounting</b>			
	-PPL	White Plastic Plate	+ £4.00
	-PSS	Brushed Stainless Steel Plate	+ £11.50
	-PBR	Polished Brass Plate	+ £12.50
	-PCR	Polished Chrome Plate	+ £16.00



**AX-TE-Tx-PPL**  
White Plastic Thimble on White Plate

#### SPECIFICATION

Thimble:	Plastic
Dimensions:	45 x 22mm diam
Cable Length:	2m (button lead is 250mm)
Protection:	IP30
Ambient Range:	-10 to +60°C
Weight:	80g (Refer to data sheet for TX-W)

### AX-TE-RBN-x

### BLACK BULB TEMPERATURE SENSORS - THERMISTOR & ANALOGUE OUTPUTS



Used for radiant heat in indoor applications, the sensors are designed to interface with a wide variety of HVAC control equipment. Units are available with a high quality thermistor element. Black Bulb Sensors are used to calculate comfort temperature which is specified as the average of the conductive and radiant temperatures.

#### FEATURES

- Low profile flame-retardant housing
- Suitable for direct surface mounting
- Large range of sensor options

Order Codes	Description		List Price
AX-TE-RBN-T	10K3A1	Trend, Innotech, Trane, Priva	£23.00
AX-TE-RBN-3K	3K3A1	Alerton	£23.00
AX-TE-RBN-A	10K4A1	York & Andover	£23.00
AX-TE-RBN-H	20K6A1	Honeywell	£24.00
AX-TE-RBN-D	30K6A1	Drayton	£24.00
AX-TE-RBN-N1K	Ni1000a/TCR	Seimens	£26.00
AX-TE-RBN-100	PT100a	Serek	£25.00
AX-TE-RBN-1K	PT1000a	Cylon	£25.00
AX-TE-RBN-SAT	SAT1	Satchwell	£27.00
AX-TE-RBN-TAC	1K87A1	TAC	£24.00

#### SPECIFICATION

Housing:	ABS (Flame retardant)
Dimensions: Sensor	85 x 85 x 25mm
Protection:	IP30
Ambient Range:	-10 to +60°C
Weight:	140g
Colour:	Off white

# TEMPERATURE & RELATIVE HUMIDITY

## RELATIVE HUMIDITY & TEMPERATURE TRANSMITTERS

### AX-TE-WSP

### TEMPERATURE & SETPOINT TRANSMITTERS - WALL MOUNT



Wall mounted temperature transmitter with attractive blue backlight. Features include 0-10Vdc outputs for both temperature and Setpoint, standard fitment to a standard single-gang backbox.

Modbus RTU version increases flexibility and is offered at an extremely competitive price point.

Order Codes		List Price
AX-TE-WSP	Temperature Transmitter & Setpoint - 2x 0-10Vdc	£45.00
AX-TE-WSP-MB	ModBus RTU Version	£95.00
-M	Additional Momentary Button	+ £15
-T	Thermistor Output Option (Not Available on -MB)	+ £10

#### FEATURES

- Fits a standard single gang back box
- Attractive blue backlight
- Momentary button available
- ModBus RTU version available
- Thermistor output version available

#### SPECIFICATION

Power Supply:	Voltage	24Vac/dc ±15%
	Current	See data sheet
Output:	Standard	2x 0-10Vdc
	Optional for temperature	Thermistor
Temperature Range:		-10 to +40°C
Temperature Accuracy:		±0.1°C
Ambient Range:		0 to 50°C
Setpoint Range:		15 to 35°C Custom Ranges Available

### AX-RHT-Sx

### ROOM / SPACE RELATIVE HUMIDITY & TEMPERATURE TRANSMITTERS - 2% & 3%



High-quality, cost effective Room (space) RH&T Transmitters available in both 2% and 3% accuracy versions. Jumper-selectable outputs and an optional direct resistance temperature output make these units very flexible solution. The units will fit a standard single-gang back box.

Order Codes		List Price
AX-RHT-S3	Room - 3% Accuracy - 0-10Vdc / 4-20mA	£60.00
AX-RHT-S3-x	Room - 3% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£65.00
AX-RHT-S2	Room - 2% Accuracy - 0-10Vdc / 4-20mA	£75.00
AX-RHT-S2-x	Room - 2% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£80.00

#### FEATURES

- Fits a standard single gang back box.
- 2% and 3% RH accuracy available
- High stability & reliability
- 0-5/10Vdc or 4-20mA selectable outputs

#### SPECIFICATION

Power Supply:	Voltage	24Vac/dc ±15%
	Current	See data sheet
Output:	Standard	4-20mA or 0-5 or 0-10Vdc
	Optional for temperature	Thermistor
Temperature Range:		-10 to +40°C
Temperature Accuracy:		±0.1°C
Sensor Type:		Capacitive
RH Range:		0-95%
RH Accuracy:		2% or 3%*
Stability:		±1% RH at 50% in 5 years
Ambient Range:		0 to 50°C

### AX-RHT-Dx

### DUCT RELATIVE HUMIDITY & TEMPERATURE TRANSMITTERS - 2% & 3%



Duct mounted RH & T Transmitters offer very high-quality sensing for both Humidity and Temperature. Outputs are individually selectable for either 4-20mA or 0-10Vdc and an optional direct resistive temperature output provides superb flexibility.

Housed in Annicom's UK-made IP65, flame-retardant enclosure with a 316 stainless steel probe, the AX-RHT-D range of transmitters are an obvious choice at a very competitive price point.

Order Codes		List Price
AX-RHT-D3	Duct - 3% Accuracy - 0-10Vdc / 4-20mA	£70.00
AX-RHT-D3-x	Duct - 3% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£75.00
AX-RHT-D2	Duct - 2% Accuracy - 0-10Vdc / 4-20mA	£85.00
AX-RHT-D2-x	Duct - 2% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£90.00

#### FEATURES

- High-quality 316 stainless steel probe
- 2% and 3% RH accuracy available
- High stability & reliability
- 0-5/10Vdc or 4-20mA selectable outputs

#### SPECIFICATION

Power Supply:	Voltage	24Vac/dc ±15%
	Current	See data sheet
Output:	Standard	4-20mA or 0-5 or 0-10Vdc
	Optional for temperature	Thermistor
Temperature Range:		-10 to +70°C
Temperature Accuracy:		±0.1°C
Sensor Type:		Capacitive
RH Range:		0-95%
RH Accuracy:		2% or 3%*
Stability:		±1% RH at 50% in 5 years
Ambient Range:		0 to 50°C

\*(between 5 & 95%RH)

**Note:** Wet bulb, Dewpoint and Enthalpy sensors now available.

### AX-RHT-Ox

### OUTSIDE RELATIVE HUMIDITY & TEMPERATURE TRANSMITTERS - 2% & 3%

Wall mounted RH & T Transmitters that offer a cost effective solution for RH and temperature measurement. Optional direct resistive temperature output. Outputs are individually selectable for either 4-20mA or 0-10Vdc and an optional direct resistive temperature output provides superb flexibility.

Housed in Annicom's UK-made IP65, flame-retardant enclosure, the unit features a proprietary external element housing for better accuracy and response times.



**Note:** Wet bulb, Dewpoint and Enthalpy sensors also available

#### FEATURES

- Proprietary end cap improves response
- 2% and 3% RH accuracy available
- High stability & reliability
- 0-5/10Vdc or 4-20mA selectable outputs

#### SPECIFICATION

Power Supply:	Voltage	24Vac/dc ±15%
	Current	See data sheet
Output:	Standard	4-20mA or 0-5 or 0-10Vdc
	Optional for temperature	Thermistor
Temperature Range:	-20 to +50°C	
Temperature Accuracy:	±0.1°C	
Sensor Type:	Capacitive	
RH Range:	0-95%	
RH Accuracy:	2% / 3% (between 5 & 95%RH)	
Stability:	±1% RH at 50% in 5 years	
Ambient Range:	0 to 50°C	

Order Codes		List Price
AX-RHT-O3	Outside - 3% Accuracy - 0-10Vdc / 4-20mA	£70.00
AX-RHT-O3-x	Outside - 3% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£75.00
AX-RHT-O2	Outside - 2% Accuracy - 0-10Vdc / 4-20mA	£85.00
AX-RHT-O2-x	Outside - 2% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£90.00

### AX-TE-Tx

### THIMBLE RELATIVE HUMIDITY & TEMPERATURE TRANSMITTERS - 2% & 3%

The new Thimble RH&T Transmitters offer a market-first. A detachable thimble in a huge range of materials, colours and finishes. The AX-RHT-T range allows discreet monitoring of Relative Humidity and Temperature. Especially suitable to environments where the sensor must be as unobtrusive as possible.

Features include 0-5/10Vdc or 4-20mA available through jumper selection and a splash-proof connector for safe detachment of the the thimble. Housed in Annicom's UK-made IP65, flame-retardant enclosure.



#### FEATURES

- Detachable Thimble for easy installation
- 2% and 3% RH accuracy available
- High stability & reliability
- White ABS Thimble as standard
- Brass, aluminium or stainless steel Thimble options
- 0-5/10Vdc or 4-20mA selectable outputs

#### SPECIFICATION

Power Supply:	24Vac/dc ±15%	
Output: Standard	4-20mA or 0-5 or 0-10Vdc	
Thimble:	White ABS as standard	
	Stainless Steel, Brass, Aluminium	
Sensor Type:	Capacitive	
RH Range:	0-95%	
RH Accuracy:	2% / 3% (between 5 & 95%RH)	
Stability:	±1% RH at 50% in 5 years	
Temperature Range:	0 to +50°C	
Temperature Accuracy:	±0.1°C	
Ambient Range:	0 to 50°C	

Order Codes	N.B. Minimum quantities apply for the colour variants	List Price
AX-RHT-T3	Thimble - 3% Accuracy - 0-10Vdc / 4-20mA	£90.00
AX-RHT-T3-x	Thimble - 3% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£95.00
AX-RHT-T2	Thimble - 2% Accuracy - 0-10Vdc / 4-20mA	£105.00
AX-RHT-T2-x	Thimble - 2% Accuracy - 0-10Vdc / 4-20mA + Thermistor	£110.00
-AL	Aluminium Thimble	Add £10
-BR	Brass Thimble	Add £25
-SS	Stainless Steel Thimble	Add £25
-RAL	RAL colour for Thimble - specify RAL Colour & Finish	P.O.A
-PAN	Pantone colour for ABS - specify Pantone Colour & Finish	P.O.A

# TEMPERATURE & RELATIVE HUMIDITY

## RELATIVE HUMIDITY SENSORS & HUMIDISTATS

### AX-RH-RES-x

### RELATIVE HUMIDITY TO RESISTIVE OUTPUT SENSOR - SINGLE GANG

Wall or ceiling mounted Relative Humidity Space sensor with a resistive output, there are 230 and 24Vac versions. A wide range of resistance curves can be output matched.



#### FEATURES

- Standard 3% Accuracy
- 1% RH Resolution
- Fits into standard single back box
- 230Vac & 24Vac options
- Resistive Output for direct connection to BMS Systems and Thermostats

#### SPECIFICATION

Power Supply:	-230	230Vac ±15%
	-24	24Vdc ±15%
Accuracy:	Approx 5% RH	
RH Resolution:	1% RH	
Sensor Type:	Planar Capacitive Polymer	
Output Range:	10 to 90% RH	
Output:	Resistance (max current of 1mA)	
Ambient Temperature:	0 to +50°C	

Order Codes	X- Specify Thermistor Output	List Price
AX-RH-RES-230x	230Vac RH Sensor c/w resistive o/p	P.O.A
AX-RH-RES-230Q	230Vac RH Sensor c/w Siemens RDF/RDG output	£52.00
AX-RH-RES-24x	24Vac RH Sensor c/w resistive o/p	P.O.A
AX-RH-RES-24Q	24Vac RH Sensor c/w Siemens RDF/RDG output	£48.00

### AX-RH-Hx

### DUCT & ROOM MOUNT HUMIDISTATS - EXPOSED / CONCEALED SETPOINT

Wall or duct mounted Humidistats designed for the on/off control of humidification or dehumidification equipments, or the initiation of alarms or override controls.



#### FEATURES

- Single or Dual stage units available
- Duct or Space mounted
- High stability and reliability
- Switch mains voltage

#### SPECIFICATION

Accuracy:	±5% RH
Stability Long Term:	>1.5% RH
Stage Differential:	2 to 15% RH
Differential per Stage:	6% RH
Switch Rating Resistive (Inductive):	5(3)A @ 250Vac

Order Codes		List Price
AX-RH-HSC120-E	Room Humidistat, single stage, exposed Setpoint	£73.00
AX-RH-HSC120-C	Room Humidistat, single stage, concealed Setpoint	£73.00
AX-RH-HBC111-E	Duct Humidistat, single stage, exposed Setpoint	£186.00
AX-RH-HBC111-C	Duct Humidistat, single stage, concealed Setpoint	£186.00
AX-RH-HBC112-E	Duct Humidistat, dual stage, exposed Setpoint	£250.00
AX-RH-HBC112-C	Duct Humidistat, dual stage, concealed stage	£250

# EMERGENCY, DISPLAYS & WATERLEAK DETECTION

Annicom has a large range of Alarm Annunciators and Integrators and an ever increasing range of Water Leak Detection Units to help protect your computers, plants and buildings.

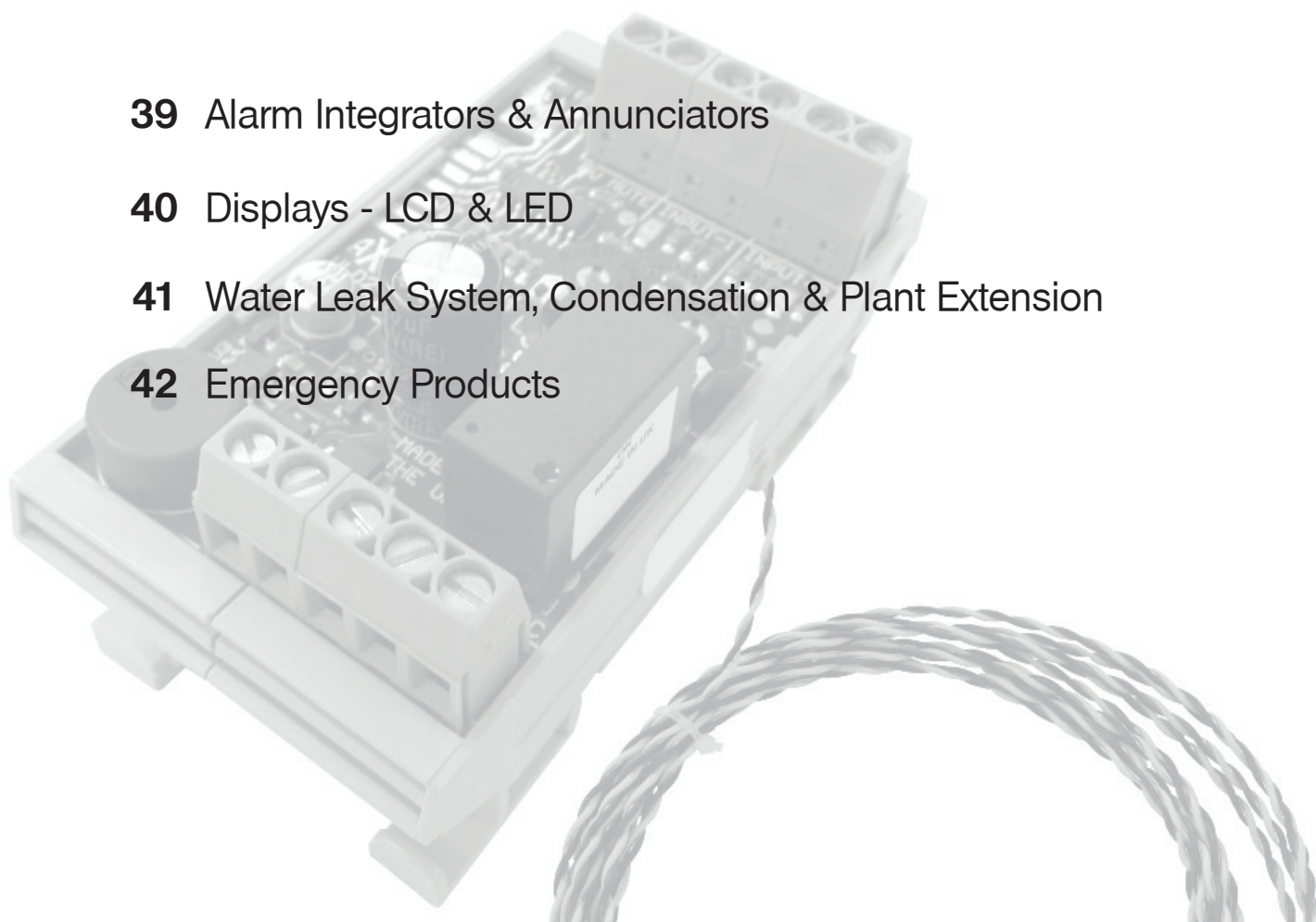
Combined with a large range of displays and emergency products, the AXIO brand offers a comprehensive Emergency and Waterleak Detection range.

**39** Alarm Integrators & Annunciators

**40** Displays - LCD & LED

**41** Water Leak System, Condensation & Plant Extension

**42** Emergency Products



## D I D Y O U K N O W ?

Annicom designs and manufactures many large LED displays for Operating, Clean and Intensive Care Rooms in hospitals.

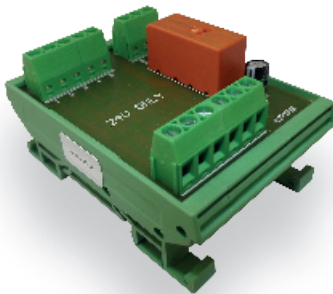


# EMERGENCY, WATERLEAK & DISPLAYS

## ALARM INTEGRATORS, ANNUNCIATORS & PLANT EXTENSION TIMERS

### AX-MA-x

### ALARM INTEGRATORS - 10/20 CHANNEL, 24AC/DC & 230VAC



Multi-channel Alarm Integrators which monitor either 10 or 20 input channels and provide a relay output in the event of an alarm signal. The units are self powered from the alarm input.

#### FEATURES

- Self powered units on 24Vac
- 10 or 20 alarm input contacts
- 20 Channel option includes a mute relay

Order Codes		List Price
AX-MA-10-24	24Vac/dc 10 ch Alarm Integration module	£18.00
AX-MA-10-230	230Vac 10 ch Alarm Integration module	£21.00
AX-MA-20-24	24Vac/dc 20 ch Alarm Integration module	£32.00
AX-MA-20-230	230Vac 20 ch Alarm Integration module	£35.00

#### SPECIFICATION

Power Supply:	230Vac	230Vac
	24Vac/dc	Self powered
Output:	1 x SPNO relay	
Contact Rating: 10 channels	8A @ 250Vac (res)	
Contact Rating: 20 Channels	5A @ 250Vac (res)	

### AX-AA-x

### ALARM ANNUNCIATORS - 1 TO 4 CHANNEL



The AX-AA range of Alarm Annunciators accept a Volt Free Contact to provide audible and visual alarms at a very competitive price point. Features include adjustable threshold and time delay, versions with up to 4 channels and an alarm output relay.

On detection of an alarm condition, the buzzer sounds and the relevant alarm LED changes from green to red. The alarm mute button enables the buzzer to be muted at any time. The LED will not reset until the alarm condition returns to the normal state.

#### FEATURES

- VFC input
- 1, 2, 3 or 4 channel versions available
- High or low alarm - jumper selectable
- Alarm output relay
- Audible alarm & mute button
- Multi-colour LEDs for easy identification

Order Codes		List Price
AX-AA-1	Alarm Annunciator - 1 channel	£45.00
AX-AA-2	Alarm Annunciator - 2 channel	£50.00
AX-AA-3	Alarm Annunciator - 3 Channel	£55.00
AX-AA-4	Alarm Annunciator - 4 channel	£60.00

#### SPECIFICATION

Power Supply:	24Vac/dc $\pm 15\%$	
Input:	VFC or 12/24Vac or Dc	
Alarm Delay:	5 to 30 secs	
Relay Output:	SPNO	
Relay Rating:	10A @ 240Vac (res)	
Buzzer:	80db @ 0.2m	
Mounting:	85 x 85mm single gang plate	
Ambient Range:	0 to 50°C	
LED Indication:	Green	= OK
	Flashing Red	= Alarm
	Red	= Muted Alarm

### AX-PET

### PLANT EXTENSION TIMER



The AX-PET is an electronic Timer Switch that provides energy saving functionality in ventilation, boiler and lighting installations.

It is ideal for applications where a simple interface is required to control the extension times of the plant or other device. The unit has a red LED display and a push button to change the extension time.

Custom timers and engraving are available upon request.

#### FEATURES

- 24Vac or 230Vac operation
- LED display
- Flush or surface mounting

**Note:** Custom times and countdowns are available as special orders.

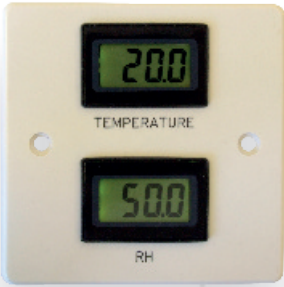
Order Codes		List Price
AX-PET	Plant Extension Timer	£39.00

#### SPECIFICATION

Power Supply:	24Vac or 230Vac	
Contact Rating:	10A @ 230Vac (res)	
Output Contacts:	1 x SPDT	
Time Selection:	10,20,30,40,50,60,70,80,90 minutes then 2,3,4,5,6,7,8,9 Hours	
Ambient Range:	0 to 50°C	
Protection:	IP20	
Dimensions:	85mm x 85mm x 14mm	

### AX-LCD-x

### LOOP POWERED DIGITAL LCD PANEL METER



A compact loop-powered LCD Digital Panel Meter giving an accurate zero corrected indication of 4-20mA loop current. LCD-2 and LCD-3 are Voltmeters.

Calibration is by two multi-turn potentiometers which allow sensitive adjustment of the instrument. No soldering is required. Connection to the current loop is via two screw terminals.

The correct decimal point is selected via a jumper link. The displays are mounted in a single gang front plate, or in the case of the LCD-3 a stainless steel plate.

Custom engraving is available, please call for a quotation.

#### FEATURES

- 11mm or 19mm digit height
- Programmable decimal point
- Simple screw terminal connections
- Loop powered LED backlighting on LCD-342
- Low voltage drop

#### SPECIFICATION

Power Supply:	LCD-2	24Vac/dc
Supply Current:	342/942	20mA
Input:	LCD-2	120mA @24Vac
	342/942	4-20mA loop powered
LCD Display:	LCD-2	2 x 0-10Vdc
	342	11mm height : 4 digit + decimal
	942	19mm height : 4 digit + decimal
Accuracy:	Max 0.1	
Linearity:	±1	
Sample Rate:	3 samples per second	
Supply Current:	20mA	
Ambient Range:	0 to +50°C	

Order Codes	Prices vary dependant on specification; engraving etc	List Price
AX-LCD-342	Single Gang Front Plate - 11mm LCD Display	£POA
AX-LCD-942	Single Gang Front Plate - 19mm LCD Display	£POA
AX-LCD-2	Single Gang Front Plate - 2x 11mm LCD Displays	£POA
AX-LCD-3	Hospital Display Unit - 3x LCD displays and 2x LEDs	£POA

### AX-LED-57-x

### 57mm LED DISPLAY - 0-10Vdc or THERMISTOR

A range of very large red LED displays mounted in a ventilated wall mounted enclosure. The units feature 57mm high red digits, with decimal display, and are engraved according to requirements. The RH and Pressure versions require a 0-10Vdc I/P and the temperature version can have a thermistor.

The AX-LED-57 is perfect for large, populated areas such as gymnasiums and swimming pools.



#### FEATURES

- 57mm digit height
- 0-10Vdc I/P (or in built thermistor for temperature)
- Simple screw terminal connections

#### SPECIFICATION

Power Supply:	24 ac/dc	
Dimensions:	218(W) x 108(H) x 45(D) mm	
Temperature Range:	0 to 40°C (as standard)	
Pressure Range:	0 to 999 Pa	
RH Range:	0 to 100% RH	
LED Size:	3 x digit 7 segment 57mm height	
Display Resolution:	0.2°C or 1 Pa	
LED Colour:	Red (Green option)	
Enclosure	White ABS Plastic	
Ambient Range:	0 to 50°C	
Input:	Pressure/RH	0-10Vdc
	Temperature	10K3A1 (built in) (or 0-10V)

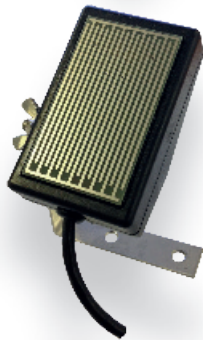
Order Codes	Other variants available	List Price
AX-LED-57-T	Enclosure Mounted LED display - Temperature	£190.00
AX-LED-57-P	Enclosure Mounted LED display - Pressure	£185.00
AX-LED-57-R	Enclosure Mounted LED display - RH	£185.00

# EMERGENCY, WATERLEAK & DISPLAYS

## WATERLEAK DETECTION SYSTEM, CONDENSATION AND PLANT EXTENSION

### AX-WLD2-

### WATERLEAK DETECTION SYSTEM & ACCESSORIES



**AX-WRS1**  
Rain Detector with Cable  
and Bracket

The AX-WLD2 range of Two Zone Water Leak Detection products is designed for DIN rail mounting wherever localised water leak detection is required. The cable used will not be subject to oxidation or erosion over time, due to an isolated AC signal for cable excitation.

A relay output provides an alarm signal to a BMS controller or a remote alarm annunciator. LED indication and sensitivity adjustment ensure easy commissioning.

#### FEATURES

- Huge range of sensors
- 2 sensor inputs for two channels of detection
- LED Indication of each zone and relay on
- AC detector excitation for reliability
- Audible alarm option
- Adjustable Sensitivity
- Custom cable lengths for the WCS are available up to 200 metres.
- Custom header cable lengths are also available

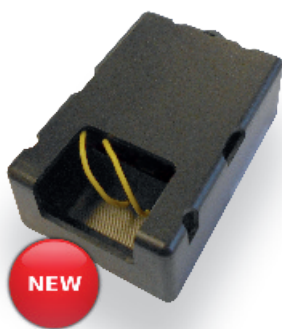
Order Codes		List Price
AX-WLD2-24	Two Zone 24V alarm detection module	£31.00
AX-WLD2-230	Two Zone 230Vac alarm detection module	£38.00
AX-WLD2-24-A	Two Zone 24V alarm detection module + alarm	£38.00
AX-WLD2-230-A	Two Zone 230Vac alarm detection module + alarm	£45.00
AX-WLD2-Enc	Enclosure for WLD2	£14.00
AX-WLD-DTA	Drip tray alarm in an enclosure	£48.00
AX-WCS-2	Cable sensor for WLD2, 2m cable 1m leader	£18.50
AX-WCS-5	Cable sensor for WLD2, 5m cable 3m leader	£24.00
AX-WCS-10	Cable sensor for WLD2, 10m cable 3m leader	£42.00
AX-WCS-15	Cable sensor for WLD2, 15m cable 3m leader	£60.00
AX-WCS-20	Cable sensor for WLD2, 20m cable 3m leader	£74.00
AX-WCS-xx	Customer spec for cable and header	£POA
AX-WPS	Point sensor for WLD2 & 2m cable	£15.00
AX-WRS1	Rain sensor with 1m cable for WLD2	£42.00

#### SPECIFICATION

Supply Voltage:	WLD2-24	24Vac/dc @ 50Hz ±15%
	WLD2-230	230Vac @ 50Hz ±15%
Supply Current:	50mA max	
Output:	SPCO relay	
Max Cable Length:	200m leak cable & leader cable per zone	
Contact Rating:	10A @ 250Vac (res)	
Alarm Hysteresis:	Depends on sensitivity setting	
Audible Alarm Output: (if -A version)	75bd @ 2.3Hz @ 10cm (when fitted)	
Ambient Range:	-10 to +50°C, 0-90% RH condensing	

### AX-CDM

### CONDENSATION DETECTOR - 5 METER CABLE



**NEW**

A self-contained sensor whose main application is the early detection of condensation in chilled-beam air conditioning systems to prevent 'indoor rain'.

The AX-CDM is installed on the coldest part of the cooling system using the supplied cable tie. The unit can be used in a 2-wire current output mode, or alternatively with the volt free change over contacts.

Useful for any application where early detection of condensation on a surface is required.

#### FEATURES

- Early detection of condensation on Chilled Beams and other surfaces
- Current Output or Volt Free Contacts
- Supplied cable-tie offers easy installation

#### SPECIFICATION

Supply Voltage:	16-30Vdc / 24Vac ±10% at 50mA max.	
Output:	2 wire	Dry < 12mA wet >18mA
	4 wire	VFC @120Vac / 24Vdc 1Amp max
Connections:	5m flying lead	
Weight / Dimensions:	120grms 90(W) x 45(H) x 32(D) mm	
Ambient Temperature:	0°C to 50°C	

Order Codes		List Price
AX-CDM	Condensation Detector - 5 metre cable	£48.00

### AX-EP-FM1

### 3 POSITION FIREMAN'S SWITCH

The AX-EP-FM1 Fireman's Switch is for use in the event of fire or other emergency. Usually located at exits to gas plant rooms, units are key operated, three position, latching switches.



### AX-EP-TL2

### ELECTRO-THERMAL LINK

The AX-EP-TL2 Electro Thermal Link is used to interrupt the electrical supply to a gas valve or alarm and is usually installed in a position where a fire hazard may occur e.g. above boilers. The link consists of a pressed metal enclosure with a perforated cover and temperature sensitive fuse.



### AX-EP-TL2

### ELECTRO-THERMAL LINK

The AX-EP-EM1 range of Emergency Stop Buttons is for use in the manual shut down of systems in the event of fire or other emergency.



Order Codes		List Price
AX-EP-FM1	3 Position Fireman's Switch	£60.00
AX-EP-FMKG	Keyguard	£20.00
AX-EP-FMW	Replacement window	£POA
AX-EP-TL2	Electro thermal link	£7.75
AX-EP-EM1	Emergency stop button - twist reset	£8.00
AX-EP-EM1K	Emergency stop button - key reset	£17.00

# P R E S S U R E

A large range of Air and Liquid Pressure sensors and switches suitable for all environments.

**Air Sensing:** monitoring fans, filters and air velocity.

**Static Sensing:** monitoring pumps and obtaining accurate pressure ranges in liquid and air.

**Liquid Differential Sensing:** monitor flow status in pumps, chillers and valves.

**44** Air Pressure

**45** Air & Liquid Pressure + Accessories

**46 - 47** Liquid Pressure



## D I D Y O U K N O W ?

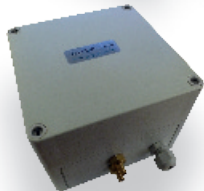
Annicom's Liquid Differential Pressure Transmitters can also be used for tank level measurement.

### AX-ADPS-x

### AIR DIFFERENTIAL PRESSURE SWITCHES

A range of high-quality Air Differential Pressure Switches manufactured in Europe, for flow proving and filter status monitoring applications.

The switching Setpoint is adjusted by means of a calibrated knob mounted under the main cover. The IP65 enclosure version is housed in a CNC machined IP65 housing, providing excellent dust and water ingress protection. A variety of tubes and fixing are available in the accessories section.



-IP65 Enclosure

PRICE BREAKS

Order Codes		1+	20+	Box (45)
AX-ADPS-88	Range 20Pa to 300Pa (10Pa differential)	£11.95	£11.30	£10.95
AX-ADPS-83	Range 50Pa to 500Pa (10Pa differential)	£11.95	£11.30	£10.95
AX-ADPS-85	Range 200Pa to 1000Pa (100Pa differential)	£11.95	£11.30	£10.50
AX-ADPS-80-IP65	Air DP switch mounted in an IP65 housing	£35.50	-	-
AX-ADPS-83-IP65	Air DP switch mounted in an IP65 housing	£35.50	-	-
AX-ADPS-85-IP65	Air DP switch mounted in an IP65 housing	£35.50	-	-

### FEATURES

- Cost effective solution
- Mains rated switch contacts
- Optional duct fixing kit
- Option for IP65 enclosure complete with brass nipples
- Spare PVC Tubing Available (Up to 30 metres in a single length)

### SPECIFICATION

Contact Rating:	1.5A @ 250Vac (res) (0.4A ind)
Maximum Operating Pressure:	5000Pa
Pressure Connections:	6mm I/D push on tubing
Cable Entry:	M20 x 1.5
Protection:	IP54 (IP65 option)
Ambient Range:	-20 to +85°C
Weight:	250g

### AX-ADPT-Dx

### AIR DIFFERENTIAL PRESSURE TRANSMITTERS - SINGLE RANGE

High-quality, single range Air Differential Pressure Transmitters.

These units feature a very small form factor, terminal cap protector and multiple DIN rail mounting options. The AX-ADPT-D provides excellent value for money.



NEW

Order Codes		List Price
AX-ADPT-D1	Single Range: 4-20mA - 0 to 250Pa	£62.00
AX-ADPT-D2	Single Range: 4-20mA - 0 to 500Pa	£62.00
AX-ADPT-D3	Single Range: 4-20mA - 0 to 750Pa	£62.00
AX-ADPT-D4	Single Range: 4-20mA - 0 to 1250Pa	£62.00
AX-ADPT-D5	Single Range: 4-20mA - 0 to 2500Pa	£62.00
AX-ADPT-D1-V	Single Range: 0-10Vdc - 0 to 250Pa	£62.00
AX-ADPT-D2-V	Single Range: 0-10Vdc - 0 to 500Pa	£62.00
AX-ADPT-D3-V	Single Range: 0-10Vdc - 0 to 750Pa	£62.00
AX-ADPT-D4-V	Single Range: 0-10Vdc - 0 to 1250Pa	£62.00
AX-ADPT-D5-V	Single Range: 0-10Vdc - 0 to 2500Pa	£62.00

### FEATURES

- Compact size
- Multi-Direction DIN rail mounting
- One touch zero & span
- Protective terminal caps included
- Supplied complete with duct fixing kit

### SPECIFICATION

Power Supply:	24Vac/dc
Accuracy:	±2% Full Scale
Stability:	±1% Full Scale per Year
Temperature Limits:	32 to 122°F (0 to 50°C)
Pressure Limits:	2 psi (13.8 kPa)
Medium:	Air / non-combustible, compatible gases
Output Signals:	4-20mA or 0-10V & 0-5V
Loop Resistance:	DC = 1000Ω max. AC = 1200Ω max
Current Consumption:	21mA max
Electrical Connections:	Screw-type terminal block
Enclosure:	NEMA1 (IP10)
Agency Approval:	CE, RoHS

### AX-ADPT-DA-x

### ADVANCED AIR DIFFERENTIAL PRESSURE TRANSMITTERS - MULTI-RANGE

This new DA range of multi-range, multi-output pressure transmitters offer a very rich feature set, at a compelling price point. Functions are included for velocity (M<sup>3</sup> / sec) and volume (CFM) and options for Modbus, Bacnet and LCD Displays. Multiple ranges and multiple outputs are selectable on the unit.

The DA can measure pressure in: Pascal, inches WC, kPa or MMWC with adjustable "K" factor and digital dampening.

The unit is housed in an attractive IP65 enclosure, and ships complete with a duct fixing kit.



NEW

Order Codes		List Price
AX-ADPT-DA-1	Multi-range: 0-25Pa, 0-40Pa, 0-50Pa, 0-125Pa	£101.00
AX-ADPT-DA-2	Multi-range: 0-250Pa, 0-500Pa, 0-750Pa, 0-1250Pa	£101.00
AX-ADPT-DA-3	Multi-range: 0-2500Pa, 0-3500Pa, 0-4500Pa, 0-5500Pa	£101.00
-B	Bacnet Communications	+ £88
-M	Modbus Communications	+ £88
-L	LCD Indicator module	+ £42

### FEATURES

- IP65 Enclosure
- Measures velocity and volume
- 4 selectable ranges
- 0-5Vdc, 0-10Vdc and 4-20mA outputs
- LCD, Modbus & BACnet available
- Very low pressure versions
- Supplied complete with duct fixing kit

### SPECIFICATION

Power Supply:	24Vdc/ac
Accuracy:	±1% FS to ±2% Full Scale
Stability:	±1% / year Full Scale Deflection
Temperature Limits:	0 to 150°F (-18 to 66°C)
Pressure Limits:	1 psi max, operation, 10 psi burst
Medium:	Air and compatible non-combustible gases
Output Signals:	4-20mA (2-wire), 0-5Vdc, 0-10Vdc (3-wire)
Response Time:	Adjustable: 0.5 to 15 sec. Time constant
Current Draw:	40mA max
Display (optional):	5 digit LCD
Electrical Connections:	3-wire removable European style block - 16 to 22 AWG (1.3mm <sup>2</sup> to .33mm <sup>2</sup> )
Enclosure:	IP65
Agency Approval:	BTL, CE

# PRESSURE

## AIR & LIQUID PRESSURE AND ACCESSORIES

### AX-ADPS-x / PVCT-x

### AIR DIFFERENTIAL PRESSURE TUBING & ACCESSORIES

A range of accessories for use with our range of AX-ADP differential pressure devices. Complete Duct Fixing Kits, individual pressure tips, lengths of tubing (coloured and clear) and mounting brackets are all available.

When ordering tubing, please specify length, by replacing 'x' with your chosen length in metres.



#### FEATURES

- Suitable for all Differential Pressure Devices
- Industry Standard tube dimensions
- Colour options for differentiating between units

**Part Number Examples:**  
For 25 metres of clear tube, use the order code

#### AX-PVCT-C25

Order Codes		List Price
AX-ADPS-DFK	Standard Duct Fixing Kit : 2m of PVC Tube, 2 Pressure Tips	£2.00
AX-ADPS-SPT1	Single Static Pressure Tip	£0.45
AX-PVCT-Cx	PVC Tubing 8mm OD, 5mm ID. x = length. Price Per Meter	£1.00
AX-PVCT-Bx	PVC Tubing as above, Blue Colour. x = length. Price Per Meter	£1.00
AX-PVCT-Rx	PVC Tubing as above, Red Colour. x = length. Price Per Meter	£1.00
AX-PVCT-C30R	30 Meter Reel Clear PVC Tubing. Ships on the Spool	£19.00
AX-ADPS-BRKT-L	Mounting Bracket for the AX-ADPS range	£2.95

**Note:** Tubing is provided in lengths of up to 30m, lengths ordered in excess of this will be cut at 30m intervals. For up to 100m lengths please call the Sales Office for a quotation.

### AX-RDPM

### ROOM DIFFERENTIAL PRESSURE MONITORS / TRANSMITTERS

A range of Room Differential Pressure Monitors designed to control pressure in a variety of applications, such as clean rooms and ICUs.

Several bi-directional pressure ranges and selectable output signal types for the most flexible application are available. Using precision high sensitivity silicon sensing capabilities and the latest ASIC technology the AX-RDPM substantially reduces off-set errors due to changes in temperature, stability to warm up, long term instability and position sensitivity.

Can be used for static pressure monitoring applications by simply allowing one of the ports to remain open to normal atmospheric pressure.



#### FEATURES

- 1/8" BSP female connections
- On-board zero function
- Alarm Output with adjustable trip points
- LCD Indication Option
- Selectable ranges
- BACnet Version Available
- Perfect for Clean Rooms and Fire Prevention

Order Codes		List Price
AX-RDPM1	Multi-Range : $\pm 1$ "WC, $\pm 0.5$ "WC, $\pm 250$ Pa, $\pm 125$ Pa	£395.00
AX-RDPM2	Multi-Range : $\pm 0.25$ "WC, $\pm 0.125$ "WC, $\pm 60$ Pa, $\pm 30$ Pa	£395.00
-B	BACnet Communications	+ £78
-A	Alarm, silencer, buzzer out, relay out & Setpoint	+ £10
-LCD	LCD display	+ £10
-SP	Stainless pick up port	+ £27
-OP	Outside pick up port	+ £27

#### SPECIFICATION

Power Supply:	15 to 27Vac or 20 to 35Vdc
Thermal Effects:	< $\pm 3.5\%$ over compensated range
Accuracy:	$\pm 1\%$ F.O. ( $\pm 2\%$ for 30 Pa ranges)
Output:	0-5, 0-10Vdc or 4-20mA
Response Time:	0.5 secs
Zero Adjustment:	Push button auto-zero
Relay Output:	N.O. Contact 2.5A @ 120Vac or 30Vdc
Relay Trip Point:	Adjustable from zero to span
Relay Delay:	5 seconds on / 5 seconds off

### AX-LSPTD-x

### LIQUID STATIC PRESSURE TRANSMITTERS

A range of high-quality Pressure Transmitters designed for the HVAC industry. Units are available with either a 0-10Vdc or 4-20mA output. Both 0-10Vdc and 4-20mA variants are available and the units are pre-fitted with a flying lead. A Din Plug variant is available.



#### FEATURES

- Robust stainless steel construction
- Male 1/4" BSP connection
- Flying lead connection
- DIN Plug variant available
- Wide range
- Suitable for air, gas & liquids

Order Codes	Current Output 4-20mA - 2 wire	List Price
AX-LSPTD-I-500m	Range 0 to 500mbar	£95.00
AX-LSPTD-I-1	Range 0 to 1 bar	£95.00
AX-LSPTD-I-1.5	Range 0 to 1.5 bar	£95.00
AX-LSPTD-I-2	Range 0 to 2 bar	£95.00
AX-LSPTD-I-2.5	Range 0 to 2.5 bar	£95.00
AX-LSPTD-I-4	Range 0 to 4 bar	£95.00
AX-LSPTD-I-6	Range 0 to 6 bar	£95.00
AX-LSPTD-I-10	Range 0 to 10 bar	£95.00
AX-LSPTD-I-16	Range 0 to 16 bar	£95.00
AX-LSPTD-I-25	Range 0 to 25 bar	£95.00
AX-LSPTD-I-40	Range 0 to 40 bar	£95.00
Order Codes	Voltage Output 0-10Vdc - 3 wire	List Price
AX-LSPTD-V-500m	Range 0 to 500mbar	£95.00
AX-LSPTD-V-1	Range 0 to 1 bar	£95.00
AX-LSPTD-V-1.5	Range 0 to 1.5 bar	£95.00
AX-LSPTD-V-2	Range 0 to 2 bar	£95.00
AX-LSPTD-V-2.5	Range 0 to 2.5 bar	£95.00
AX-LSPTD-V-4	Range 0 to 4 bar	£95.00
AX-LSPTD-V-6	Range 0 to 6 bar	£95.00
AX-LSPTD-V-10	Range 0 to 10 bar	£95.00
AX-LSPTD-V-16	Range 0 to 16 bar	£95.00
AX-LSPTD-V-25	Range 0 to 25 bar	£95.00
AX-LSPTD-V-40	Range 0 to 40 bar	£95.00

#### SPECIFICATION

Power Supply:	14-30Vdc
Pressure Range:	1 bar to 600 bar
Output:	-I 4-20mA
	-V 0-10Vdc
Operating Temperature:	Ambient 0 to +80°C
	Fluid 0 to +100°C

### AX-LSPS-1381-x

### LIQUID STATIC PRESSURE SWITCHES - FIXED or ADJUSTABLE RESET VERSIONS

These Pressure Switches have an adjustable switching threshold and either a fixed or adjustable differential. Normally used to switch an alarm or warning light, cutting off the supply to a pump.



Cert No. 085

#### FEATURES

- Cost effective solution
- Suitable for use with main voltage
- Fixed or adjustable differential (hysteresis)

#### SPECIFICATION

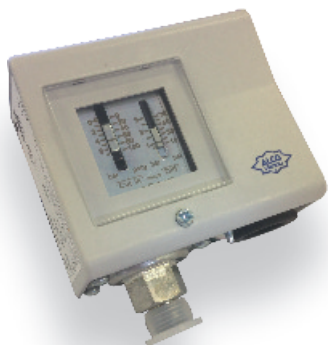
Range:	AX-LSPS1381-1	0.1 to 1 bar
	AX-LSPS1381-4	0.2 to 4 bar
	AX-LSPS1381-11	0.5 to 11 bar
	AX-LSPS1381-28	2 to 28 bar
	AX-LSPS1381-40	2 to 40 bar
Fixed Differential:	AX-LSPS1381-1	0.04 bar
	AX-LSPS1381-4	0.07 bar
	AX-LSPS1381-11	0.3 bar
	AX-LSPS1381-28	0.6 bar
	AX-LSPS1381-40	0.8 bar
Materials:	Pressure Chamber	Brass
	Diaphragm	Beryllium copper
	Sealing Gasket	< 11 Bar PTFE > 11 Bar Nitrile rubber
	Housing	Aluminium/Diecast Zinc
	Lid	Glass filled nylon
	Mounting Bracket	Zinc plated steel bracket
Pressure Connection:	1/2" BSP Male	
Contact Rating:	10A @ 250Vac Inductive	
Protection:	IP65	
Fluid Temperature:	-10 to +85°C	
Dimensions:	92 x 105 x 77mm	
Weight:	760g	
Adjustable Differential: -V	Adjustable 5 to 95% of range	

Order Codes		List Price
AX-LSPS1381-1	Fixed reset differential 0.1 to 1 bar	£77.00
AX-LSPS1381-4	Fixed reset differential 0.2 to 4 bar	£77.00
AX-LSPS1381-11	Fixed reset differential 0.5 to 11 bar	£77.00
AX-LSPS1381-28	Fixed reset differential 2 to 28 bar	£77.00
AX-LSPS1381-40	Fixed rest differential 2 to 40 bar	£77.00
AX-LSPS1381-1V	Adjustable differential 0.1 to 1 bar	£117.00
AX-LSPS1381-4V	Adjustable differential 0.2 to 4 bar	£117.00
AX-LSPS1381-11V	Adjustable differential 0.5 to 11 bar	£117.00
AX-LSPS1381-28V	Adjustable differential 2 to 28 bar	£117.00
AX-LSPS1381-40V	Adjustable differential 2 to 40 bar	£117.00

### AX-LSPS-PS1

### LIQUID STATIC PRESSURE SWITCH - COST EFFECTIVE

Cost effective Static Pressure devices capable of direct switching of 240V loads. Normal applications are monitoring of pumps, chillers, valves etc.



#### FEATURES

- Cost effective solution
- Adjustable pressure range
- High rated SPDT contacts
- Auto reset
- Suitable for use with mains voltage
- Adjustable differential

#### SPECIFICATION

	Range	Differential
AX-LSPS-PS1-1	-0.75 to 3 bar	0.25 to 1.5 bar
AX-LSPS-PS1-3	-0.5 to 7 bar	0.5 to 5 bar
Pressure Connection:	1/4" BSP Male	
Contact Rating:	24A @ 230Vac (res) (10A ind)	
Protection:	IP44	
Ambient Range:	-50 to +70°C	
Fluid Temperature:	-50 to +170°C	
Dimensions:	42 x 85 x 75mm	
Weight:	350g	

Order Codes		1+	20+
AX-LSPS-PS1-1	Liquid Pressure Switch -0.75 to 3 bar	£24.50	£21.50
AX-LSPS-PS1-3	Liquid Pressure Switch -0.5 to 7 bar	£24.50	£21.50

PRICE BREAKS



# PRESSURE

## LIQUID DIFFERENTIAL PRESSURE

### AX-LDPS1382 / 1482

### LIQUID DIFFERENTIAL PRESSURE SWITCH - WIDE RANGE INCL. LOW PRESSURE

High quality Differential Pressure devices capable of direct switching of 240Vac loads. Cost effective solution for filter dirty, flow proving and flow failure detection.



Cert No. 085

Order Codes		List Price
AX-LDPS1382-1	Range 0.07 to 1 bar	£121.00
AX-LDPS1382-4	Range 0.2 to 4 bar	£121.00
AX-LDPS1382-11	Range 0.5 to 11 bar	£121.00
AX-LDPS1382-28	Range 2 to 28 bar	£121.00
AX-LDPS1482-125	Range 5 to 125 mbar	£121.00
AX-LDPS1482-250	Range 15 to 250 mbar	£121.00
AX-LDPS1482-400	Range 25 to 400 mbar	£121.00

#### FEATURES

- Robust stainless steel construction
- Female BSP connection
- Suitable for water, oil, steam or air
- Complete with DIN plug connector

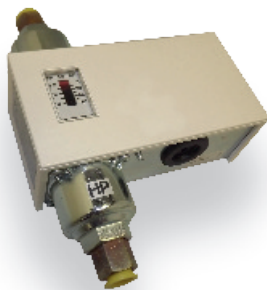
#### SPECIFICATION

	Pressure Range	Hysteresis
AX-LDPS1382-1	0.07 to 1 bar	0.04 bar
AX-LDPS1382-4	0.2 to 4 bar	0.07 bar
AX-LDPS1382-11	0.5 to 11 bar	0.3 bar
AX-LDPS1382-28	2.0 to 28 bar	0.6 bar
AX-LDPS1482-125	5 to 125 mbar	2.5 mbar
AX-LDPS1482-250	15 to 250 mbar	4 mbar
AX-LDPS1482-400	25 to 400 mbar	10 mbar
Max. Line Pressure:	>250 mbar	34 bar max
	<125 mbar	14 bar max
Out of Balance Pressure:	4 x pressure range	
Pressure Connections:	1/8" BSP female Brass	
Switch Rating:	10A @ 250Vac inductive @ 30Vdc inductive	1A
Media Temperature:	-10 to +85°C	
Protection:	IP65	

### AX-LDPS-FD113

### DIFFERENTIAL PRESSURE SWITCH - INDUSTRY STANDARD, COST-EFFECTIVE

A Differential Pressure Switch capable of direct switching of 240V loads. Cost effective solution for both flow proving and flow failure detection. The unit has an adjustable Setpoint and differential and has a scale to show the Setpoint.



Order Codes		1+	20+
AX-LDPS-FD113	Range 0.3 to 4.5 bar	£44.00	£39.00

PRICE BREAKS

#### FEATURES

- Cost effective solution
- Suitable for use with mains voltage
- Adjustable Setpoint and differential

#### SPECIFICATION

Contact Rating:	3A @ 250Vac (res)
Contact Type:	SPDT
Pressure Connection:	1/4" BSP female
Range:	0.3 to 4.5 bar
Differential:	0.2 bar
Max Operating Pressure	12 bar
Protection:	IP30
Operating Temperature:	-10 to +70°C

### AX-LDPT482-x

### LIQUID DIFFERENTIAL PRESSURE TRANSMITTER - MULTIPLE RANGES

A range of highly accurate Differential Pressure Transmitters available with either a 0-10Vdc or 4-20mA output. Rugged construction for demanding applications.



Order Codes	Voltage Output	List Price
AX-LDPT482V-160	Range 0 to 160 mbar	£185.00
AX-LDPT482V-400	Range 0 to 400 mbar	£185.00
AX-LDPT482V-1	Range 0 to 1 bar	£185.00
AX-LDPT482V-2	Range 0 to 2 bar	£185.00
AX-LDPT482V-4	Range 0 to 4 bar	£185.00
AX-LDPT482V-7	Range 0 to 7 bar	£185.00
AX-LDPT482V-10	Range 0 to 10 bar	£185.00
AX-LDPT482V-16	Range 0 to 16 bar	£185.00

Order Codes	Current Output	List Price
AX-LDPT482I-160	Range 0 to 160 mbar	£185.00
AX-LDPT482I-400	Range 0 to 400 mbar	£185.00
AX-LDPT482I-1	Range 0 to 1 bar	£185.00
AX-LDPT482I-2	Range 0 to 2 bar	£185.00
AX-LDPT482I-4	Range 0 to 4 bar	£185.00
AX-LDPT482I-7	Range 0 to 7 bar	£185.00
AX-LDPT482I-10	Range 0 to 10 bar	£185.00
AX-LDPT482I-16	Range 0 to 16 bar	£185.00

#### FEATURES

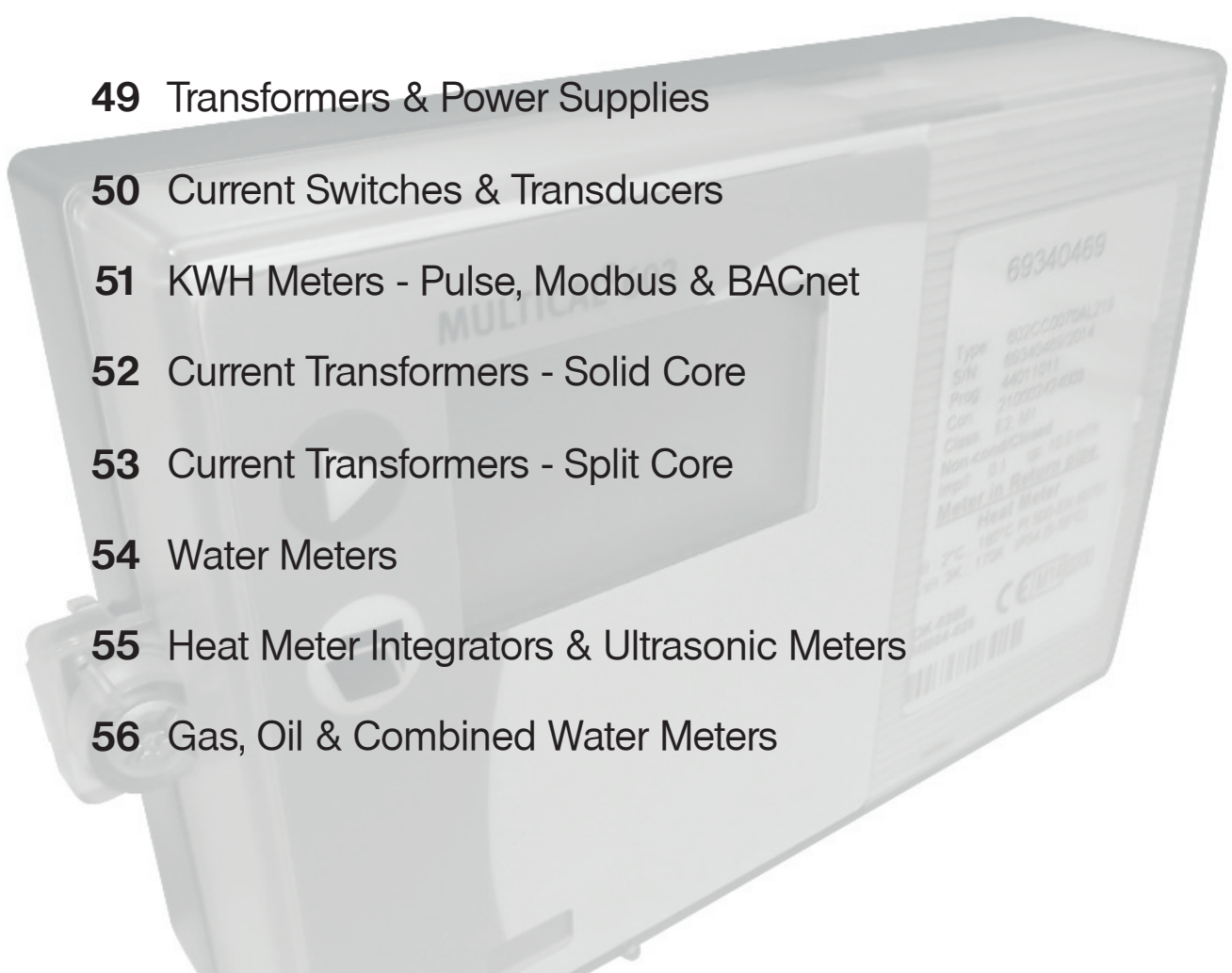
- 1/8" BSP female connections
- Complete with 1m of cable

#### SPECIFICATION

Power Supply:	Current Output	12-24Vdc
	Voltage Output	24Vac/dc ±15%
Output:	4-20mA - 2 wire, 0-10Vdc - 3 wire	
Protection:	IP65	
Operating Temperature:	-20 to +80°C	

All made in the UK, or by class-leading manufacturers, Annicom is proud to provide a wide range of Transformers, Power Supplies, Current Transformers, Switches and Sensors in addition to metering for power, water, gas and oil.

This year we proudly introduce our very compact 60VA transformers, DIN Rail mounted with a very low profile. As well as host of new metering devices, including BACnet and Modbus enabled KWH meters.

- 
- 49** Transformers & Power Supplies
  - 50** Current Switches & Transducers
  - 51** KWH Meters - Pulse, Modbus & BACnet
  - 52** Current Transformers - Solid Core
  - 53** Current Transformers - Split Core
  - 54** Water Meters
  - 55** Heat Meter Integrators & Ultrasonic Meters
  - 56** Gas, Oil & Combined Water Meters

## D I D Y O U K N O W ?

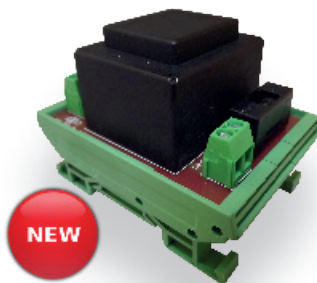
Annicom's kWh meters include Bacnet and Modbus output options, with a huge range of Current Transformers available.

## TRANSFORMERS & POWER SUPPLIES

### AX-TX-Dx

### 230VAC TO 24VAC TRANSFORMERS - DIN RAIL MOUNT WITH FUSES

Encapsulated and DIN rail mounted 230Vac to 24Vac Transformers suitable for a wide range of applications. The input and output are both fused.



#### FEATURES

- Terminal connectors
- Rating from 6VA to 60VA
- DIN rail mounted encapsulated transformer

#### SPECIFICATION

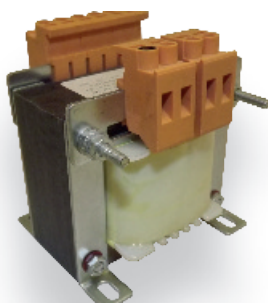
Input:	220/240Vac ±5%
Output:	24Vac ±10%
Electrical Connections:	Terminals for 0.5mm <sup>2</sup> to 2.5mm <sup>2</sup> cable
Ambient Range:	-10 to +50°C, 0-95% RH
Compliance:	EN 60742 / VDE 0551

Order Codes		List Price
AX-TX-D6	DIN Rail Transformer 6VA	£20.00
AX-TX-D25	DIN Rail Transformer 25VA	£28.00
AX-TX-D30	DIN Rail Transformer 30VA	£31.00
AX-TX-D60	DIN Rail Transformer 60VA	£75.00

### AX-TX-x

### 230VAC TO 24VAC TRANSFORMERS - PANEL MOUNT WITH TERMINALS

A range of Panel Mounted Control Transformers suitable for a wide range of applications.



#### FEATURES

- Spade earth connector
- Welded earth terminal
- Rating from 100VA to 500VA

#### SPECIFICATION

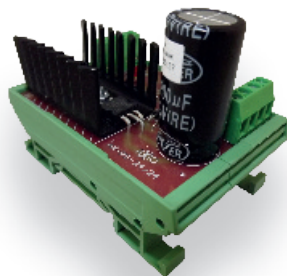
Input:	220/240Vac ±5%
Output:	24Vac ±10%
Electrical Connections:	Terminals for 0.5 to 2.5mm <sup>2</sup> cable
Ambient Range:	-10 to +50°C, 0-95% RH
Compliance:	EN 60742 / VDE 0551
Isolated to:	T40/B
Country of Origin:	United Kingdom

Order Codes		List Price
AX-TX-100	230Vac to 24Vac Transformer 100VA	£36.00
AX-TX-150	230Vac to 24Vac Transformer 150VA	£45.00
AX-TX-200	230Vac to 24Vac Transformer 200VA	£55.00
AX-TX-250	230Vac to 24Vac Transformer 250VA	£49.50
AX-TX-300	230Vac to 24Vac Transformer 300VA	£60.00
AX-TX-500	230Vac to 24Vac Transformer 500VA	£71.00

### AX-PS-24-24 /230-24

### POWER SUPPLY & CONVERTER - 230VAC/24VAC TO 24VDC

DIN rail mounted 230Vac/24Vac to 24Vdc Power Supplies suitable for a wide range of applications. Variants are available with different secondary side grounding.



#### FEATURES

- Regulated 24Vdc output at 1A
- Integrated short-circuit protection
- LED Status indication

#### SPECIFICATION

Input:	24Vac ±15% / 230Vac ±10%
Input Fuse:	630mA @ 250Vac
Output:	24Vdc ±10%
Output Fuse:	1A
Ambient Range:	0 to 50°C

Order Codes		List Price
AX-PS-24-24-1C	24Vac to 24Vdc 1A Power Supply, common 0V	£20.00
AX-PS-24-24-1F	24Vac to 24Vdc 1A Power Supply, floating 0V	£20.00
AX-PS-230-24	230Vac to 24Vdc Power Supply - DIN	£36.00
AX-PS-230-24E	230Vac to 24Vdc Power Supply - Metal Enclosure	£56.00

### AX-PS-DR-x

### SWITCH MODE POWER SUPPLY - UNIVERSAL TO 12VDC / 24VDC - DIN RAIL

Switch mode power supply for cost effective regulated power to panels and other applications where devices need either 24Vdc or 12Vdc power supplies.

The unit accepts 86Vac to 264Vac and outputs either 24Vdc or 12Vdc at 2 Amps to 4.7 Amps depending on the unit selected.

Features include short circuit overload, over voltage and over temperature protection, with LED power indication.



#### FEATURES

- Regulated 12/24Vdc output at 2A to 4.7A
- Short circuit, overload, over-voltage and over temperature protection
- LED power indication

#### SPECIFICATION

Input Voltage:	85 to 264Vac or 120 to 370Vdc
Input Frequency Range:	47 to 63Hz
Input Current:	1.5A @ 115Vac or 0.75A @ 230Vac
Input Inrush Current Max:	30A @ 115Vac or 60A @ 230Vac
Output Voltage:	12 or 24Vdc
Output Voltage Range:	10.8 to 13.2Vdc    21.6 to 26.4Vdc
Output Current:	12Vdc = 0 to 3.5A    24Vdc = 0 to 2A
Output Power:	12Vdc = 42W    24Vdc = 48W
Terminals:	Rising clamp for 0.5-2.5mm <sup>2</sup> cable
LED Indication:	On when power on
Ambient Range:	-10 to +50°C @ 20 to 90% RH
Safety Standards:	UL508, TUV EN60950-1 Approved
EMC Conduction & Radiation:	EN55011, EN55022, EN61000-3-2, -3
Dimensions / Weight:	93mm(L)x 78mm(W)x 67mm(H) 310g

Order Codes		List Price
AX-PS-DR-45-12	Universal Input to 12Vdc psu 3.5A	£31.00
AX-PS-DR-45-24	Universal input to 24Vdc psu 2A	£31.00
AX-PS-DR-60-12	Universal input to 12Vdc psu 4.7A	£33.00
AX-PS-DR-60-24	Universal input to 24Vdc psu 2.6A	£33.00

PRICE DROP

### AX-CSG-x

### CURRENT SWITCHES - ADJUSTABLE & FIXED SWITCHPOINTS

A wide-range of high-quality UL approved Current Switches normally used for status monitoring of plant and equipment. A solid state switch operates when the current level exceeds the threshold value.

Various Setpoint and output versions make the CSG range of current switches flexible and very competitive.



Order Codes	Solid Core	List Price
AX-CSG-GNG-100	Mini, Fixed Setpoint, Mosfet Output	£15.00
AX-CSG-GNG-200	Standard, Fixed Setpoint, Mosfet Output	£19.00
AX-CSG-610-75	Mini, Adjustable Setpoint, Mosfet Output	£27.00
AX-CSG-610-200	Standard, Adjustable Setpoint, Mosfet Output	£34.00
AX-CS-325-NS	Standard, Adj. Setpoint, Triac Output, No Snubber	£67.85
AX-CS-325	Standard, Adjustable Setpoint, Triac Output	£70.00

	Split Core	
AX-SCG-GNG-200	Standard, Fixed Setpoint, Mosfet Output	£45.00
AX-SCG-610-200	Standard, Adjustable Setpoint, Mosfet Output	£62.00

#### FEATURES

- Solid or split core versions
- Suitable to monitor supplies up to 200A
- Fixed or adjustable Setpoint versions

#### SPECIFICATION

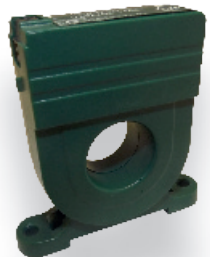
	Switch Voltage	Current Range	Setpoint
AX-CSG-GNG-100	30Vac/dc	0.5 to 100A	0.5A
AX-CSG-610-75	30Vac/dc	0.75 to 75A	0.75 to 75A
AX-CSG-GNG-200	30Vac/dc	0.5 to 200A	0.75A
AX-CSG-610-200	30Vac/dc	1 to 200A	1 to 200A
AX-CS-325-NS	250Vac	1 to 200A	1 to 200A
AX-SCG-525	250Vac	1.6 to 200A	1.6 to 200A
Input Frequency:	10-400Hz		
Hysteresis:	<2% FS		
Input Frequency:	10-400Hz		
Output:	GNG/610	Mosfet	
	325-NS	Triac	
Mounting:	Mini	Mounting holes 41.7mm x 5mm	
	Standard	DIN rail	
Conductor Hole:	Mini	11.4mm dia	
	Solid Core	20mm dia	
	Split Core	19 x 24mm	

### AX-CSG / SCG

### CURRENT TRANSDUCERS / TRANSMITTERS - MULTIPLE OUTPUTS / RANGES

Current Transducers for advanced equipment power analysis and load trending measurement. Preset slide switches provide easy field set-up of sensed current range.

The 675 version features 20 to 400Mhz output range specifically for controlling Variable Frequency (Inverter) Drives and the new R1 and R2 variants maximise flexibility by offering several ranges on one unit.



PRICE DROP

Order Codes	Solid Core	List Price
AX-CSG-651-R1	0-10Vdc Out - 10A/20A/50A Range	£24.00
AX-CSG-651-R2	0-10Vdc Out - 50A/100A/150A Range	£26.00
AX-CSG-651-200	0-10Vdc Out - 200A Range	£26.00
AX-CSG-652-R1	4-20mA Out - 10A/20A/50A Range	£26.00
AX-CSG-652-R2	4-20mA Out - 50A/100A/150A Range	£28.00
AX-CSG-652-200	4-20mA Out - 200A Range	£28.00
AX-CSG-675-2	4-20mA Out - 20 to 400Hz for VFDs - 2A	£57.00
AX-CSG-675-5	4-20mA Out - 20 to 400Hz for VFDs - 5A	£57.00
AX-CSG-675-R1	4-20mA Out - 20 to 400Hz for VFDs - 10A/20A/50A	£57.00
AX-CSG-675-R2	4-20mA Out - 20 to 400Hz for VFDs - 50A/100A/200A	£57.00
AX-CSG-675-200	4-20mA Out - 20 to 400Hz for VFDs - 200A Range	£57.00

Order Codes	Split Core	List Price
AX-SCG-651-R1	0-10Vdc Out - 10A/20A/50A Range	£56.00
AX-SCG-651-R2	0-10Vdc Out - 50A/100A/150A Range	£56.00
AX-SCG-651-200	0-10Vdc Out - 200A Range	£56.00
AX-SCG-652-R1	4-20mA Out - 10A/20A/50A Range	£57.00
AX-SCG-652-R2	4-20mA Out - 50A/100A/150A Range	£57.00
AX-SCG-652-200	4-20mA Out - 200A Range	£57.00
AX-SCG-675-2	4-20mA Out - 20 to 400Hz for VFDs - 2A	£79.00
AX-SCG-675-5	4-20mA Out - 20 to 400Hz for VFDs - 5A	£79.00
AX-SCG-675-R1	4-20mA Out - 20 to 400Hz for VFDs - 10A/20A/50A	£79.00
AX-SCG-675-R2	4-20mA Out - 20 to 400Hz for VFDs - 50A/100A/200A	£79.00
AX-SCG-675-200	4-20mA Out - 20 to 400Hz for VFDs - 200A	£79.00

#### FEATURES

- Solid or split core versions
- Suitable to monitor supplies up to 200A
- Output types 0-10Vdc, or 4-20mA
- R1 / 2 multi-range versions
- 675 Version Suitable for controlling VFDs

#### SPECIFICATION

Power Supply:	0-5/10Vdc	Self-powered induction
	4-20mA	15 to 42Vdc
Frequency:	650 range	40-100Hz
	675 range	20-400Hz
Accuracy:	±1% Full Scale	
Output Types:	0-10Vdc, or 4-20mA	
Mounting:	Mini	Mount Holes 41.7mm x 5mm
	Standard	DIN rail
Frequency:	Mini	11.4mm dia
	Solid Core	20mm dia
	Split Core	19 x 24mm
Input Ranges:	-2	0-2A Mini (675 only)
	-5	0-5A Mini (675 only)
	R1	10/20/50A Mini
	R2	50/100/150A Full
	-200	0-200A Full

NEW

## KWH METERS - PULSE, MODBUS & BACNET

### AX-KWH-Ri3

#### KWH METER - DIN RAIL MOUNT, PULSE & MODBUS OUTPUTS



The AX-KWH-Ri3 kWh Meter is a compact DIN rail mounted design. Backlit LCD and user programmable CT ratios, all accessible via an intuitive user interface.

The unit offers an extensive range of functions, with Modbus and Pulsed Outputs on board, three line display and the ability to meter both Single and Three phase supplies.

#### FEATURES

- Three line LCD display
- Single or Three phase
- Pulse and Modbus output to BMS
- CT operated
- DIN rail mounting

#### SPECIFICATION

Power Supply:	100 to 289Vac L-N
	175 to 500Vac L-L
Frequency Range:	45 to 66Hz
Input Current:	5Amps
Max Current:	6Amps
LCD Display:	3 line LCD
CT Range:	1 to 9999A
Pulse Output:	1 per 0.1kWh
Pulse Rating:	Solid state relay 50mA @ 250Vac
RS485 Output:	Modbus 2 - wire half duplex or Johnson Controls Metasys - selectable
Baud Rate:	2400, 4800, 9600, 19200, 38400
Dimensions:	72 x 90mm as per DIN 43880
Protection:	IP52 (case IP30)
Ambient Temp. Range:	-10 to +45°C, 0-95% RH

Order Codes		List Price
AX-KWH-Ri3	Ri3 DIN rail kWh Meter - Pulse & Modbus o/p	£125.00

### AX-KWH-Cx

#### KWH METER - PANEL MOUNT, PULSE & MODBUS OUTPUT OPTIONS



The AX-KWH-Cx range of kWh Meters is a compact panel mounted design. Backlit LCD and user programmable CT ratios, all accessible via an intuitive user interface. The units give a pulse output to the BMS (modbus options).

#### FEATURES

- Single & three line display variants
- Single or 3 phase
- Pulse output to BMS (modbus option)
- CT operated
- Panel mounting

#### SPECIFICATION

Power Supply:	100 to 289Vac L-N
	175 to 500Vac L-L
Frequency Range:	45 to 66Hz
Input Current:	5Amps
Max Current:	6Amps
LCD Display:	Ci1 - 1 line LCD
	Ci3 - 3 line LCD
CT Range:	1 to 9999A
Pulse Output: -P	1 per 0.1kWh
Pulse Rating:	Solid state relay 50mA @ 250Vac (2 max)
RS485 Output: -MOD	Modbus 2 - wire half duplex or Johnson Controls Metasys - selectable
Baud Rate:	2400, 4800, 9600, 19200, 38400
Dimensions:	96 x 96 x 64.1mm
Protection:	IP52 (case IP30)
Ambient Temp Range:	-10 to +45°C, 0-95% RH

Order Codes		List Price
AX-KWH-Ci1-P	Ci1 Panel kWh Meter - Pulse o/p	£92.00
AX-KWH-Ci1-MOD	Ci1 Panel kWh Meter - 485 o/p	£102.00
AX-KWH-Ci3-P	Ci3 Panel kWh Meter - Pulse o/p	£112.00
AX-KWH-Ci3-MOD	Ci3 Panel kWh Meter - 485 o/p	£120.00

**Note:** 2 pulse output variants available at extra cost (PUL-02) Or 1 x pulse & 1 x 485 at extra cost (PUL-485)

### AX-KWH-1630-x

#### KWH METER - PANEL MOUNT, BACnet, PULSE & MODBUS OUTPUT OPTIONS



NEW

A multi-function digital metering system providing a high accuracy display and communication of all major electrical and power quality parameters. The unit is a DIN 96 panel mounted enclosure and offers simple programming and display of up to 35 electrical measurement parameters via a simple menu driven user interface on the front panel.

BACnet, Modbus and Multiple pulse options are available.

#### FEATURES

- 35 electrical measurement parameters
- Pulse output to BMS
- Simple menu driven
- Optional communication outputs
- DIN 96 mounting

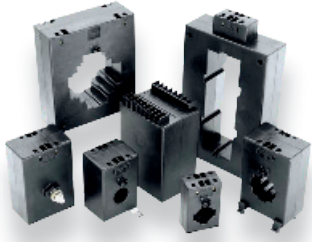
#### SPECIFICATION

Input Voltage: (nominal)	57.7 to 277V L-N
	100 to 480V L-L
Frequency Range:	45 to 66Hz
AC Supply Burden:	6VA
Measurement Accuracy:	0.2%
Nominal Input Current:	5A
Output:	Standard Pulse (solid state relays)
	Optional Modbus-RS 485
	Bacnet IP
Pulse Duration:	60, 100 or 200 milliseconds
Contact Rating:	50mA max @ 250Vac max
No. Of Pulse o/p:	1 as standard (2 optional extra)
Ambient Range:	10 to 50°C

Order Codes		List Price
AX-KWH-1630-P	KWH Panel Meter - 1 Pulse Output	£195.00
AX-KWH-1630-2P	KWH Panel Meter - 2 Pulse Output	£205.00
AX-KWH-1630-485	KWH Panel Meter - Modbus RS485	£215.00
AX-KWH-1630-Bac	KWH Panel Meter - Bacnet/IP	£410.00
AX-KWH-1630-P-485	KWH Panel Meter - 1 Pulse & Modbus RS485	£220.00

### AX-CT-EM

### CURRENT TRANSFORMERS - SOLID CORE



Designed to meet EN 60044 and accuracy up to class 0.5, the AX-CT-EM range of Solid Core Current Transformers are designed to suit any application.

Combined with our our range of AX-KWH Kilowatt Hour Meters, these current transformers offer a high-quality, cost effective method of monitoring energy usage.

The units are designed to slide or screw onto buzz-bars, featuring a proprietary aperture design to facilitate easy installation.

Should you need advice when selecting the correct Current Transformer, our Sales Team will be happy to help.

**Please Note:** A huge range of aperture sizes and case sizes are available, and not all variants are listed. Please consult the Datasheet or contact the Sales Office for more information.

#### FEATURES

- Designed to meet EN60044
- Accuracy Class up to 0.5
- 5A secondary
- Suitable to monitor loads up to 4000A
- Wide range of aperture sizes

#### SPECIFICATION

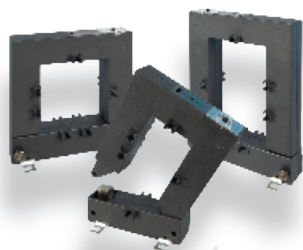
Overload:	1.2 x Rated current (continuous)
Protection Enclosure:	IP40
Frequency:	50/60Hz
Max Operating Voltage:	660Vac
Secondary Current:	5A (1A option)
Ambient Range:	-20 to +85°C, 0-95% RH
Compliance:	BS7626: 1993
	IEC185: 1990
	BS2757 class Y (insulation)

Order Codes	List Price	Amperages		Case Size (mm)			Aperture	
		Primary	Secondary	Width	Depth	Height	Dimensions	Diameter
<b>1A to 40A Primary - 5A Secondary</b>								
AX-CT-EMA5Y-1/5	£21.50	1A	5A	77	50	116	M8 STUD	
AX-CT-EMA5Y-5/5	£21.50	5A	5A	77	50	116	M8 STUD	
AX-CT-EMA5Y-10/5	£21.50	10A	5A	77	50	116	M8 STUD	
AX-CT-EMA5Y-15/5	£21.50	15A	5A	77	50	116	M8 STUD	
AX-CT-EMA5Y-20/5	£21.50	20A	5A	77	50	116	M8 STUD	
AX-CT-EMA5Y-30/5	£21.50	30A	5A	77	50	116	M8 STUD	
AX-CT-EMA5Y-40/5	£21.50	40A	5A	77	50	116	M8 STUD	
<b>50A to 300A Primary - 5A Secondary</b>								
AX-CT-EM53Q-50/5	£10.00	50A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-60/5	£10.00	60A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-75/5	£10.00	75A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-80/5	£10.00	80A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-100/5	£10.00	100A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-125/5	£10.00	125A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-150/5	£10.00	150A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-160/5	£10.00	160A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-200/5	£10.00	200A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-250/5	£10.00	250A	5A	45	30	65	20mm x 6mm	21mm
AX-CT-EM53Q-300/5	£10.00	300A	5A	45	30	65	20mm x 6mm	21mm
<b>400A to 1600A Primary - 5A Secondary</b>								
AX-CT-EM93L-400/5	£15.25	400A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-500/5	£15.25	500A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-600/5	£15.25	600A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-750/5	£15.25	750A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-800/5	£15.25	800A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-1000/5	£15.25	1000A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-1250/5	£15.25	1250A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-1500/5	£15.25	1500A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
AX-CT-EM93L-1600/5	£15.25	1600A	5A	90	30	31	50mm x 10mm, 40mm x 32mm	32mm
<b>2000A to 4000A Primary - 5A Secondary</b>								
AX-CT-EMB5Z-2000/5	£23.00	2000A	5A	134	50	156	104mm x 35mm	35mm
AX-CT-EMB5Z-2500/5	£23.00	2500A	5A	134	50	156	104mm x 35mm	35mm
AX-CT-EMB5Z-3000/5	£23.00	3000A	5A	134	50	156	104mm x 35mm	35mm
AX-CT-EMB5Z-4000/5	£23.00	4000A	5A	134	50	156	104mm x 35mm	35mm

## CURRENT TRANSFORMERS - SPLIT CORE

AX-CT-SC-x

CURRENT TRANSFORMERS - SPLIT CORE



Designed to offer accuracy up to class 0.5, the AX-CT-EM range of Solid Core Current Transformers suit any application with a range of up to 6000 Amps.

The split-core design is for retrofitting purposes. They can be clipped onto buzz-bars and cables without any need for removal or decommissioning. The new 'mini' versions provide a smaller case and aperture where space is at a premium.

Perfect for use with our range of AX-KWH Kilowatt hour meters these Split-Core Current Transformers are exceptionally cost effective with a high level of quality.

Applications include : Switchgear, Distribution systems, Generator Sets, Control

**Please Note:** A huge range of aperture sizes and case sizes are available, and not all variants are listed. Please consult the Datasheet or contact the Sales Office for more information.

### FEATURES

- 5A secondary
- Suitable to monitor loads up to 6000A
- High quality comprehensive measurements
- Available in a wide range of transformer ratings
- Accuracy up to Class 0.5
- Foot or Busbar mounted
- Cost effective
- Long product life

### SPECIFICATION

Overload:	1.2 x rated current (continuous)
Protection Enclosure:	IP40
Frequency:	50/60Hz
Max. Operating Voltage:	660Vac
Ambient Range:	-20 to +70°C, 0-95% RH
Compliance:	BS7626: 1993
	IEC185: 1990
	BS2757 class Y (insulation)

Mini Split Core							
Order Codes	List Price	Amperages		Case Size (mm)			Aperture
		Primary	Secondary	Width	Depth	Height	Dimensions
AX-CT-MSC2-100/5	£33.00	100A	5A	44.5	61.5	72.7	18mm
AX-CT-MSC2-150/5	£33.00	150A	5A	44.4	61.5	72.7	18mm
AX-CT-MSC2-200/5	£33.00	200A	5A	44.5	61.5	72.7	18mm
AX-CT-MSC2-250/5	£33.00	250A	5A	44.5	61.5	72.7	18mm
AX-CT-MSC2-300/5	£35.00	300A	5A	44.5	62.2	71.7	28mm
AX-CT-MSC2-400/5	£35.00	400A	5A	44.5	62.2	71.7	28mm
AX-CT-MSC2-500/5	£35.00	500A	5A	44.5	62.2	71.7	28mm

Full Size Split Core							
Order Codes	List Price	Amperages		Case Size (mm)			Aperture
		Primary	Secondary	Width	Depth	Height	Dimensions
AX-CT-SC1-100/5	£31.00	100A	5A	89	40	111	20mm x 30mm
AX-CT-SC1-150/5	£35.00	150A	5A	89	40	111	20mm x 30mm
AX-CT-SC1-200/5	£35.00	200A	5A	89	40	111	20mm x 30mm
AX-CT-SC1-250/5	£35.00	250A	5A	89	40	111	20mm x 30mm
AX-CT-SC1-300/5	£35.00	300A	5A	89	40	111	20mm x 30mm
AX-CT-SC1-400/5	£35.00	400A	5A	89	40	111	20mm x 30mm
AX-CT-SC2-500/5	£37.00	500A	5A	114	32	145	50mm x 80mm
AX-CT-SC2-600/5	£37.00	600A	5A	114	32	145	50mm x 80mm
AX-CT-SC2-750/5	£39.00	750A	5A	114	32	145	50mm x 80mm
AX-CT-SC2-800/5	£39.00	800A	5A	114	32	145	50mm x 80mm
AX-CT-SC4-1000/5	£53.00	1000A	5A	114	32	185	80mm x 120mm
AX-CT-SC4-1200/5	£53.00	1200A	5A	114	32	185	80mm x 120mm
AX-CT-SC4-1250/5	£53.00	1250A	5A	114	32	185	80mm x 120mm
AX-CT-SC4-1500/5	£53.00	1500A	5A	114	32	185	80mm x 120mm
AX-CT-SC5-2000/5	£122.00	2000A	5A	184	52	245	80mm x 160mm
AX-CT-SC5-2500/5	£125.00	2500A	5A	184	52	245	80mm x 160mm
AX-CT-SC5-3000/5	£145.00	3000A	5A	184	52	245	80mm x 160mm
AX-CT-SC5-4000/5	£155.00	4000A	5A	184	52	245	80mm x 160mm
AX-CT-SC5-5000/5	£167.00	5000A	5A	184	52	245	80mm x 160mm
AX-CT-SC5-6000/5	£177.00	5000A	5A	184	52	245	80mm x 160mm

### AX-WM-x

### COLD WATER METERS - SCREWED & FLANGED - PULSE OUTPUT

A comprehensive range of cost effective Cold Water Meters for measuring energy consumption (for billing purposes) or to calculate flow to input to the BMS.



**Note:** Please see Datasheet for recommended litre/pulse  
A range of WRAS approved water meters are also available

#### FEATURES

- Multijet screwed and turbine flanged meters
- Pulse output to BMS or an integrator
- Suitable for water up to 40°C (also drinking water)
- Several pulse/litre options available 1, 10, 100, 1000 etc.
- Suitable for sub-metering

Order Codes	Multijet Cold Water Screwed Meters	List Price
AX-WM-MJ-D15	1/2" Screwed Cold Water Meter c/w pulse o/p	£52.00
AX-WM-MJ-D20	3/4" Screwed Cold Water Meter c/w pulse o/p	£64.00
AX-WM-MJ-D25	1" Screwed Cold Water Meter c/w pulse o/p	£124.00
AX-WM-MJ-D30	1 1/4" Screwed Cold Water Meter c/w pulse o/p	£139.00
AX-WM-MJ-D40	1 x 1/2" Screwed Cold Water Meter c/w pulse o/p	£230.00
AX-WM-MJ-D50	2" Screwed Cold Water Meter c/w pulse o/p	£325.00

#### METER SIZING

To size water meters correctly the following information is required:

- Pipe size
- Maximum flow rate (Qmax)
- Nominal flow rate (Qn)
- Maximum water temperature
- Water pressure (static and pump head)

Order Codes	Turbine Cold Water Flanged Meters	List Price
AX-WM-WO-D50	2" Flanged Cold Water Meter c/w pulse o/p	£410.00
AX-WM-WO-D65	2 1/2" Flanged Cold Water Meter c/w pulse o/p	£455.00
AX-WM-WO-D80	3" Flanged Cold Water Meter c/w pulse o/p	£495.00
AX-WM-WO-D100	4" Flanged Cold Water Meter c/w pulse o/p	£565.00
AX-WM-WO-D125	5" Flanged Cold Water Meter c/w pulse o/p	£735.00
AX-WM-WO-D150	6" Flanged Cold Water Meter c/w pulse o/p	£960.00
AX-WM-WO-D200	8" Flanged Cold Water Meter c/w pulse o/p	£1120.00
AX-WM-WO-D250	10" Flanged Cold Water Meter c/w pulse o/p	£1725.00
AX-WM-WO-D300	12" Flanged Cold Water Meter c/w pulse o/p	£2895.00
AX-WM-WO-D400	16" Flanged Cold Water Meter c/w pulse o/p	£POA
AX-WM-WO-D500	20" Flanged Cold Water Meter c/w pulse o/p	£POA

### AX-WM-xxH

### HOT WATER METERS - SCREWED & FLANGED - PULSE OUTPUT

A comprehensive range of cost effective Hot Water Meters for measuring energy consumption (for billing purposes) or to calculate flow to input to the BMS.



**Note:** Please see Datasheet for recommended litre/pulse

#### FEATURES

- Multijet screwed and turbine flanged meters
- Pulse output to BMS or an integrator
- Suitable for water to 90°C
- Several pulse/litre options available per meter
- Nominal flow rate (Qn) (See Datasheet for relevant options)
- Suitable for sub-metering

Order Codes	Multijet Hot Water Screwed Meters	List Price
AX-WM-MJH-D15	1/2" Screwed Hot Water Meter c/w pulse o/p	£52.00
AX-WM-MJH-D20	3/4" Screwed Hot Water Meter c/w pulse o/p	£64.00
AX-WM-MJH-D25	1" Screwed Hot Water Meter c/w pulse o/p	£143.00
AX-WM-MJH-D30	1 1/4" Screwed Hot Water Meter c/w pulse o/p	£153.00
AX-WM-MJH-D40	1 1/2" Screwed Hot Water Meter c/w pulse o/p	£259.00
AX-WM-MJH-D50	2" Screwed Hot Water Meter c/w pulse o/p	£365.00

#### METER SIZING

To size water meters correctly the following information is required:

- Pipe size
- Maximum flow rate (Qmax)
- Nominal flow rate (Qn)
- Maximum water temperature
- Water pressure (static and pump head)

Order Codes	Turbine Hot Water Flanged Meters	List Price
AX-WM-WOH-D50	2" Flanged Hot Water Meter c/w pulse o/p	£510.00
AX-WM-WOH-D65	2 1/2" Flanged Hot Water Meter c/w pulse o/p	£535.00
AX-WM-WOH-D80	3" Flanged Hot Water Meter c/w pulse o/p	£565.00
AX-WM-WOH-D100	4" Flanged Hot Water Meter c/w pulse o/p	£630.00
AX-WM-WOH-D150	6" Flanged Hot Water Meter c/w pulse o/p	£1050.00
AX-WM-WOH-D200	8" Flanged Hot Water Meter c/w pulse o/p	£1125.00



## HEAT METER INTEGRATORS & ULTRASONIC WATER METERS

### AX-WM-HM67C-x

### HEAT METER INTEGRATORS

These integrators are designed to measure and record energy in installations where water is the main heat transfer medium. The normal application is to provide accurate energy consumption data for sub-metering or billing purposes.



**Note:** If you want the D-cell lithium battery option change the -7-B code to 2-B

Order Codes	All include 2 x sensors & 3m cable	List Price
AX-WM-HM67C-6-00-7-B	Multical 601 230Vac, Pulse o/p to BMS	£285.00
AX-WM-HM67C-6-10-7-B	Multical 601 230Vac, Pulse o/p to BMS 2 x pulse I/p	£298.00
AX-WM-HM67C-6-20-7-B	Multical 601 230Vac, M-Bus o/p	£334.00
AX-WM-HM67C-6-24-7-B	Multical 601 230Vac, LON-FTT-10 o/p	£428.00
AX-WM-HM67C-6-00-8-B	Multical 601 24Vac, Pulse o/p to BMS	£285.00
AX-WM-HM67C-6-10-8-B	Multical 601 24Vac, Pulse o/p to BMS 2 x pulse I/p	£298.00
AX-WM-HM67C-6-20-8-B	Multical 601 24Vac, M-Bus o/p	£334.00
AX-WM-HM67C-6-24-8-B	Multical 601 24Vac, LON-FTT-10 o/p	£428.00
AX-WM-HM67C-65-57-324	65mm x R1/2 stainless steel pocket for 5.8mm diameter probe	Each £6.00
AX-WM-HM67C-65-57-327	90mm x R1/2 stainless steel pocket for 5.8mm diameter probe	Each £6.00
AX-WM-HM67C-65-57-314	150mm x R1/2 stainless steel pocket for 5.8mm diameter probe	Each £31.00

### FEATURES

- Battery back-up
- The integrator will accept two other pulse inputs from electricity, oil or gas meters and output the information over a network such as M-bus
- Data logging for 15 years
- Measures heating or cooling
- A variety of output cards (e.g. M-bus, LON, analogue, radio)
- **M.I.D Approved**

### SPECIFICATION

Temperature Range:	Heating	10 to 160°C
	Cooling	2 to 30°C
	Ambient	0 to 55°C

### AX-WM-U

### ULTRASONIC WATER METERS

The AX-MW-U are highly-accurate Ultrasonic Water Meters designed for heating/cooling measurement in all water based systems. The WM-U range are designed for maintenance free long-term reliability, and are perfect for installation in multiple-occupancy residence, and small to medium businesses and industry. MID-approval means that they are eligible for the RHI Scheme, with many monitoring and output options available.



### FEATURES

- High-Reliability - No moving parts
- Hassle-Free Installation
- Combined integrator and meter
- Multiple output options
- Multiple power supply options
- Multiple sensor length options
- Up to 16 years battery life
- Wireless communication available
- **M.I.D Approved**

### Part Number Examples

**Size & QP Rating:** 130mm (3/4" Screwed), 2.5QP

**Output:** M-Bus + 2 Pulse Outputs (VA, VB)

**Power Supply:** Mains 230Vac

**Sensor Cable Length:** 3m PT500

### AX-WM-U7-M1M-2

Order Codes	Size & QP Rating (M <sup>3</sup> /hour)	List Price
AX-WM-U3-XXX-X	Ultrasonic Meter - 1.5 QP - 110mm - 1/2" Screwed	£412.21
AX-WM-U7-XXX-X	Ultrasonic Meter - 2.5 QP - 130mm - 3/4" Screwed	£414.83
AX-WM-U9-XXX-X	Ultrasonic Meter - 3.5 QP - 260mm - 1" Screwed	£684.38
AX-WM-UA-XXX-X	Ultrasonic Meter - 6 QP - 260mm - 1" Screwed	£768.81
AX-WM-UC-XXX-X	Ultrasonic Meter 10 QP - 300mm - 1 1/2" Screwed	£877.07
AX-WM-UE-XXX-X	Ultrasonic Meter 15 QP - 270mm - DN50 Flanged	£1125.41
Outputs/Communications		
AX-WM-UE-D1	Data + 2 Pulse Inputs (VA, VB)	Add £28.00
D2	Data + 2 Pulse Outputs (CE, CV)	Add £28.00
AX-WM-UE-M1	M-Bus + 2 Pulse Inputs (VA, VB)	Add £52.00
M2	M-Bus + 2 Pulse Outputs (CE, CV)	Add £52.00
AX-WM-UE-W1	Wireless M-Bus, EU 868 Mhz, Mode C1	Add £83.25
Power Supply		
AX-WM-UE-D1B	Data + 2 Pulse Inputs (VA, VB)	Add £0.00
M	Data + 2 Pulse Outputs (CE, CV)	Add £0.00
AX-WM-UE-M1L	M-Bus + 2 Pulse Inputs (VA, VB)	Add £0.00
Sensor Cable Length		
AX-WM-UE-D1B1	1.5m PT500	Add £0.00
2	3m PT500	Add £6.75
AX-WM-UE-D1B3	5m PT500	Add £42.68
4	10m PT500	Add £54.56

### SPECIFICATION

Power Supply:	230Vac	+15/-30%, 50/60Hz
	24Vac	±50%, 50/60Hz
	Battery	3.6Vdc ±0.2Vdc
Media Temp:	Heat Meters	15-130°C
	Cooling Meters	2-50°C
Environment:	Meets EN 1434 class A (MID class E1)	
Press. Step:	PN16 (with thread)	
	PN25 (with flanges)	
Weight:	1.8kg - 12kg	
Connection Cables:	ø3.5 - 6mm	
Supply Cable:	ø5 - 10mm	
Protection Class:	Calculator	IP54
	Flow Sensor	IP65
	LCD Display: 7 (8) digits with a digital height of 7.6mm	
Energy Units:	MWh, kWh, Gcal	
Data Logger:	460 days, 36 months, 15 years, 50 info codes	
Supply Voltage:	36Vdc ±0.1Vdc	
Ambient Temp:	5-55°C, non condensing, closed location	

### AX-WM-HM

### COMBINED WATER METER & INTEGRATOR

Our new AX-WM-HM Mechanical Heat Meter comes complete with a fully electronic calculator, pocket and sensor leads. With a 10 year battery life & suitable for temperatures up to 90°C, the unit is available in 15mm & 20mm line sizes and features pulse and M-Bus outputs as standard.



#### FEATURES

- Fully Electronic Calculator and Display
- Electronic sensor control for recording flow rate
- Lithium Battery 10 year lifetime
- Reading Date for billing
- Single line 8 digit display for easy meter reading
- Sealed IP54 electronic housing
- Brass body
- Water Temperature up to 90°C
- Unit ships with couples and return sensor pocket as standard
- Optional Ball Valve for direct sensor connection if required
- Pulse and MBUS output as standard in one unit
- **M.I.D Approved**

#### SPECIFICATION

Order Codes	All complete with pulse output	List Price
AX-WM-HM15	1/2" Connection - Mbus & Pulsed Output	£160.00
AX-WM-HM20	3/4" Connection - Mbus & Pulsed Output	£180.00

Nominal Flow Rate:	HM15: 1.5 m <sup>3</sup> /h	HM20: 2.5 m <sup>3</sup> /h
Maximum Flow Rate:	HM15: 3 m <sup>3</sup> /h	HM20: 5 m <sup>3</sup> /h
Temperature Range:	5°C to 90°C	
Dynamic Range:	Class C	
Meter Connection:	HM15: G3/4B"	HM20: G1B"
Coupling Connection:	HM15: G1/2B"	HM20: G3/4B"

### AX-GM-G

### GAS METER - DIAPHRAGM WITH PULSE OUTPUT

The AX-GM-Gxx is a range of cost effective Diaphragm Gas Meters which give a pulse output of the gas flow to the BMS.



#### FEATURES

- Pulse output to BMS or an integrator
- Oven catalysed epoxy coated

#### SPECIFICATION

Order Codes	All complete with pulse output	List Price
AX-GM-G4P	20mm Diaphragm Gas Meter	£122.00
AX-GM-G6P	25mm Diaphragm Gas Meter	£270.00
AX-GM-G10P	30mm Diaphragm Gas Meter	£495.00
AX-GM-G16P	50mm Diaphragm Gas Meter	£760.00
AX-GM-G25P	50mm Diaphragm Gas Meter	£1095.00
AX-GM-G40P	DN65 Diaphragm Gas Meter	£2750.00
AX-GM-G65P	DN80 Diaphragm Gas Meter	£4150.00
AX-GM-G100P	DN100 Diaphragm Gas Meter	£6250.00

Switching Element:	Reed switch with dry contact	
Nominal Pressure:	0.5 bar	
Ambient Range:	10 to 50°C	
Protection:	IP65	
Flow Rates:		
AX-GM-G4P	6m <sup>3</sup> /hr	
AX-GM-G6P	10m <sup>3</sup> /hr	
AX-GM-G10P	16m <sup>3</sup> /hr	
AX-GM-G16P	25m <sup>3</sup> /hr	
AX-GM-G25P	40m <sup>3</sup> /hr	
AX-GM-G40P	65m <sup>3</sup> /hr	
AX-GM-G65P	100m <sup>3</sup> /hr	
AX-GM-G100P	160m <sup>3</sup> /hr	

### AX-OM-VZO

### OIL METERS - PULSE OUTPUT WITH MECHANICAL ROLLER COUNTER

The AX-OM-VZO is a range of cost effective Oil Meters which give a pulse output of the flow to the BMS or an energy monitoring system. The units include a mechanical roller counter which displays the volume in litres.



#### FEATURES

- Screwed and Flanged meters
- Pulse output to BMS or an integrator
- Suitable for oil to 180°C
- Mechanical roller counter, displays volume in litres

#### SPECIFICATION

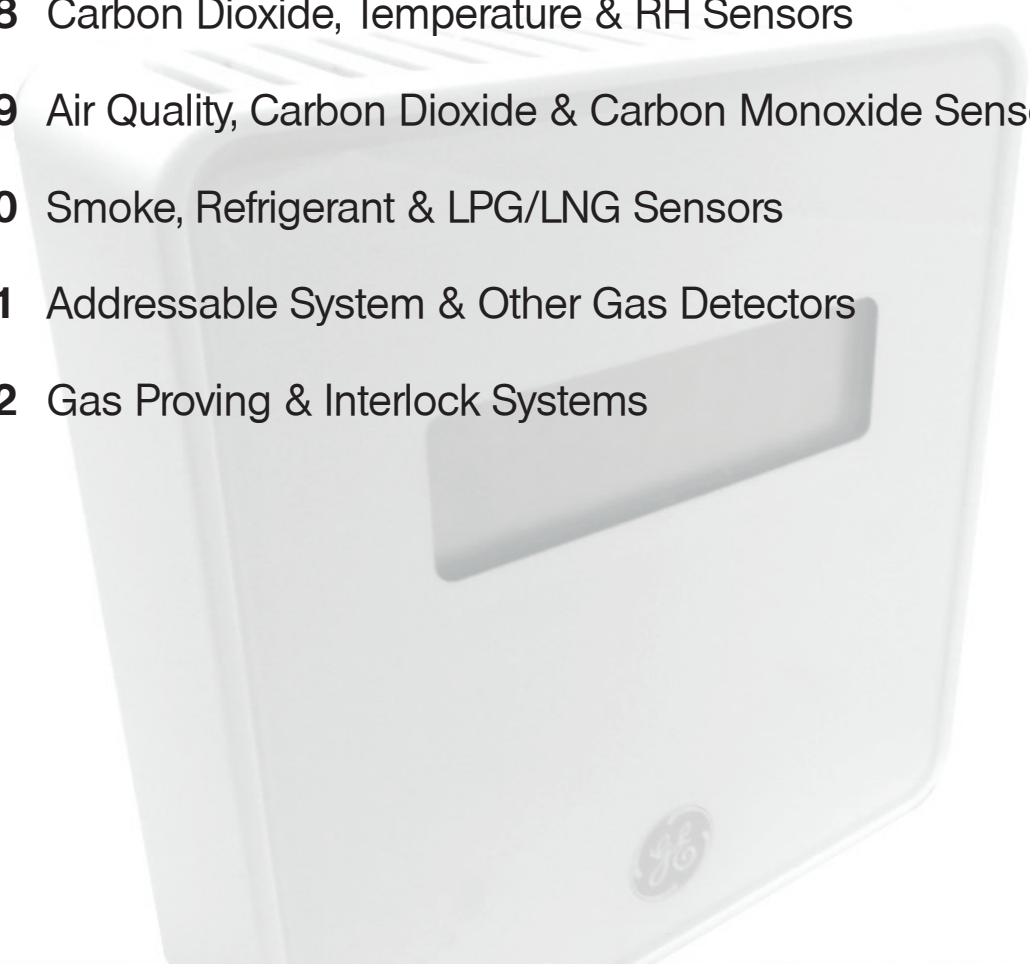
Order Codes		List Price
AX-OM-VZO-4P	1/8" Threaded Oil Meter c/w pulse output	£490.00
AX-OM-VZO-8P	1/4" Threaded Oil Meter c/w pulse output	£575.00
AX-OM-VZO-15P	1/2" Oil Meter c/w pulse output	£1200.00
AX-OM-VZO-20P	3/4" Oil Meter c/w pulse output	£1365.00
AX-OM-VZO-25P	1" Oil Meter c/w pulse output	£1600.00
AX-OM-VZO-40P	1 1/2" Oil Meter c/w pulse output	£2750.00

Switched Element:	Reed switch with dry contact	
Switching Voltage:	Max 48Vac/dc	
Switching Current:	Max 50mA	
Static Current:	Open contact	
Switching Power:	Max 3VA	
Nominal Pressure:	Screwed	16 bar
	Flanged	25 bar (40 available)
Ambient Range:	Screwed	-10 to +60°C
	Flanged	-10 to +130°C (option 180°C)
Protection:	IP65	
Flow Rates:		
AX-OM-VZO-4P	1 to 50 L/hr	
AX-OM-VZO-8P	4 to 200 L/hr	
AX-OM-VZO-15P	10 to 600 L/hr	
AX-OM-VZO-20P	30 to 1500 L/hr	
AX-OM-VZO-25P	75 to 3000 L/hr	
AX-OM-VZO-40P	225 to 9000 L/hr	

# G A S & S M O K E D E T E C T I O N

Annicom introduces the new T51 range of highly competitive CO2 sensors from Telaire. We also offer BACnet or Modbus variants, with LCD or LED Displays and RH&T Outputs available.

And with the new range of TC3 advanced gas sensors, with standalone or our new addressable Gas Detection System, we can now offer a sensing solution regardless of medium, concentration or application.

- 
- 58** Carbon Dioxide, Temperature & RH Sensors
  - 59** Air Quality, Carbon Dioxide & Carbon Monoxide Sensors
  - 60** Smoke, Refrigerant & LPG/LNG Sensors
  - 61** Addressable System & Other Gas Detectors
  - 62** Gas Proving & Interlock Systems

## D I D Y O U K N O W ?

Annicom has a new compact Carbon Monoxide Sensor with a replaceable sensing element to reduce service costs and downtime.

### AX-GS-CD-T81-x

### CARBON DIOXIDE TRANSMITTER - LCD, RH&T, BACNET & MODBUS OPTIONS



The AX-GS-CD-T81 is our premium range of CO2 sensors, with a wide range of options including Relative Humidity, Temperature and BACNet and now ModBus Communications. The standard 0 to 2,000ppm output range can be customised for a proportional output, or a wider range, available on request.

Jumper selectable Outputs, a thermistor output for temperature, wide ranging options and customisable output range make the T81 a flexible, complete solution for sensing the Air Quality in an occupied space. Optional LCD version completes this premium sensing solution.

Order Codes		List Price
AX-GS-CD-T81-E	CO2 Analogue + Thermistor (please Specify)	£175.00
AX-GS-CD-T81-ED	CO2 & Thermistor Output & LCD	£183.00
AX-GS-CD-T81-EH	RH & T & CO2 Analogue Output	£202.00
AX-GS-CD-T81-EHD	RH & T & CO2 Analogue Out + LCD	£212.00
-B	Bacnet MSTP/IP Communication	+ £17.00
-M	Modbus RTU Communication	+ £17.00

#### FEATURES

- Optional LCD with PPM indication
- ABC self-calibration logic
- Optional RH and analogue temperature outputs
- Attractive high quality enclosure
- Scaleable to different ranges

#### SPECIFICATION

Power Supply:	18 to 30Vac/dc
Output: T81	3 x 0-10Vdc or 4-20mA
	Thermistor Temperature option
CO2 Sensor Type:	Non-dispersive Infra-red
Range:	0-2000ppm standard
Calibration Interval:	Lifetime
Temperature Range:	0-50°C
RH Sensor Type:	Thermoset Polymer - Capacitive
RH Accuracy:	±2.5% RH

### AX-GS-CD-T51-x

### CARBON DIOXIDE TRANSMITTER - COST EFFECTIVE WITH LED OPTION



A range of attractive, cost effective wall mounted CO2 sensors with optional temperature output. Features include ABS self-calibration logic, and terminals mounted to the back plate for easier commissioning.

The unit also has the option of a multi-LED indicator of CO2 thresholds to display air quality in enclosed spaces (school classrooms, offices, gymnasiums, theatres etc.).

The unit comes complete with "Automatic Background Calibration" software to reduce drift to better than ±20ppm/year. Passive temperature output available.

Order Codes		List Price
AX-GS-CD-T51-EV	Room CO2 - 1 x 0-10Vdc	£125.00
AX-GS-CD-T51-EVT	Room CO2 - 1 x 0-10Vdc + Thermistor	£135.00
AX-GS-CD-T51-EI	Room CO2 - 1 x 4-20mA	£125.00
AX-GS-CD-T51-EIT	Room CO2 - 1 x 4-20mA + Thermistor	£135.00
AX-GS-CD-T51-EL	Room CO2 & Temperature - 2 x 0-10Vdc & LED	£145.00

#### FEATURES

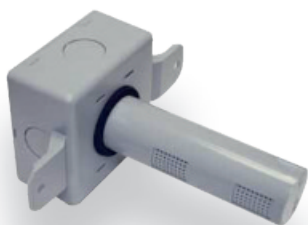
- ABC self-calibration logic
- L version features 5 LED indication and analogue temperature output
- Ships with mounting screws
- Thermistor output available

#### SPECIFICATION

Power Supply:	18 to 30Vac or 18 to 42Vdc
Nominal Measurement Range:	0-2000ppm
Output:	4-20mA or 0-5/10Vdc
	Thermistor option
LED (option):	6 LED indication of level
Calibration Interval:	Not required
Ambient Range:	0 to 50°C, 0-95% RH

### AX-GS-CD-Dx

### DUCT CARBON DIOXIDE TRANSMITTER - 0-10Vdc OUTPUT, THERMISTOR OPTION



These Duct Carbon Dioxide and Temperature Sensors offer easy installation and maintenance. The units output CO2 as a 0-10V signal with the option of thermistor temperature output. The units have a lifetime calibration interval.

The AX-GS-CD-D8041 Carbon Dioxide Duct mounted Transmitter uses NDIR single beam infra-red technology to monitor the CO2 levels and give a 0-10V output of CO2 levels. The unit is designed to be mounted in the return air ducts. There is a Thermistor option output of the temperature.

Order Codes		List Price
AX-GS-CD-D8041	Duct Mount - 0-10V - 10.46cm Probe	£155.00
AX-GS-CD-D8041-T	Duct Mount - 0-10V - 10.46cm Probe + Thermistor	£165.00
AX-GS-CD-D8042	Duct Mount - 0-10V - 20.32cm Probe	£175.00
AX-GS-CD-D8042-T	Duct Mount - 0-10V - 20.32cm Probe + Thermistor	£185.00

PRICE DROP

#### FEATURES

- ABC self-calibration logic
- 2 probe lengths available
- Ships with mounting screws
- Thermistor output available

#### SPECIFICATION

Power Supply:	18 to 30Vac/dc
Output:	1 x 0-10Vdc
	1 x Thermistor Temperature option
CO2 Sensor Type:	Non-dispersive Infra-red
Range:	0-2000ppm standard
Calibration Interval:	Lifetime
Temperature Range:	0-50°C
RH Sensor Type:	Thermoset Polymer Based Capacitive
RH Accuracy:	± 2.5% RH

# GAS & SMOKE DETECTION

## CARBON DIOXIDE SWITCHES, AIR QUALITY & CARBON MONOXIDE SENSORS

### AX-GS-CD-T51S

### CARBON DIOXIDE SWITCH - 230VAC WITH VFC & LED DISPLAY

The AX-GS-CD-T51S features the same attractive housing and key features as the T51-E CO<sub>2</sub> Sensor. The T51S offers an adjustable switched output for CO<sub>2</sub> applications where more advanced control is not required.

The unit incorporates an intuitive Visual Level Indicator display for CO<sub>2</sub> thresholds to maintain air quality in enclosed spaces (i.e. school classrooms, offices, gymnasiums, theatres etc.) The mounting style and 230Vac supply make this unit an excellent option for classroom installation.

Due to the keen pricing of the unit, it is perfect for display-only applications, where control is not required.



#### FEATURES

- High accuracy and stability
- Intuitive 6 LED display
- 15 year recommended calibration interval

#### SPECIFICATION

Power Supply:	85Vac to 265Vac
Nominal Measurement Range:	600-2000ppm
Consumption:	< 1.5W
Output:	SPDT 8A resistive @ 230Vac
Calibration Interval:	Not required
Ambient Range:	0 to 50°C, 0-95% RH

Order Codes		List Price
AX-GS-CD-T51S	Room Carbon Dioxide Switch	£135.00

### AX-GS-CM-x

### CARBON MONOXIDE TRANSMITTERS WITH 0-10Vdc OUTPUT & RELAY OPTION

A high quality, tamper-proof CO transmitter for use in car parks and other non-ventilated areas. Rugged construction, UK manufacture and design, and a 3-year warranty make the AX-GS-CM range a compelling option for many applications.

The unit provides a linear output signal for CO levels from 0-300ppm. The output voltage is configurable for either 0-5Vdc, 2-10Vdc or 0-10Vdc. An optional relay with jumper selectable trip points is available. The transmitter electronics are housed in the lid of the enclosure and are connected using plug-in connectors, this enables cost effective easy replacement using our three year exchange option.



#### FEATURES

- High accuracy and stability
- 3 year recommended calibration interval
- Optional relay with wide selection of ppm level switchpoint

#### SPECIFICATION

Power Supply:	24Vac/dc @ 100mA max ±10%
Long Term Stability:	< 5% signal loss/year
Accuracy:	±10% of FSD
Monitoring Range:	0 to 300ppm
Sensor Type:	Electrochemical
Output:	0-5/10Vdc (optional relay)
Relay Output (option):	SPCO 5A @ 250Vac (res)
Ambient Range:	0 to 50°C

Order Codes		List Price
AX-GS-CM-V	Wall mount Carbon Monoxide Sensor	£95.00
AX-GS-CM-VR	Wall mount Carbon Monoxide Sensor with relay output	£110.00

### AX-GS-AQ-x

### AIR QUALITY TRANSMITTERS - MULTIPLE OPTIONS

Air Quality Sensors are designed to help optimise the quantity of fresh air introduced into a building for ventilation purposes. The sensors are sensitive to a range of odours.

Our new Air Quality Sensors feature optional exposed LCD and 3-colour LED for easy to interpret indication of air quality. Space and Outside versions are available, the AQ4300 includes a heater where condensation or extreme temperatures a concern.



#### FEATURES

- High accuracy and stability
- 2 year recommended calibration interval
- Combines all pollutants to give a mixed gas concentration
- Stepped, analogue and relay outputs
- Optional Exposed LCD
- Output equivalent of 0-2000ppm CO<sub>2</sub>

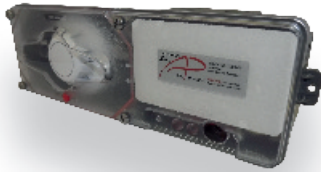
#### SPECIFICATION

Power Supply:	20 to 30Vac/dc
Sensor Type:	Tin dioxide film
Output (standard):	Linear analogue 0-5Vdc or 0-10Vdc
Output (optional):	Relay 5A @ 250Vac (res)

Order Codes		List Price
AX-GS-AQ4100	Space 0-5/10Vdc - Concealed LCD	£195.00
AX-GS-AQ4101	Space 0-5/10Vdc - LCD + 3-Colour LED	£205.00
AX-GS-AQ4300	Outside 0-5/10Vdc - LCD + 3-Colour LED + Heater	£410.00
AX-GS-AQ4400	Outside 0-5/10Vdc Output - Concealed LCD, No Heater	£350.00
-T	Thermistor Output (please specify)	+ £6.00

### AX-GS-SDx

### DUCT SMOKE DETECTORS & ACCESSORIES - IONISATION & PHOTOELECTRIC



The GS-SD2000 Duct Smoke Detector has the option of either a Photoelectric sensor or an Ionisation sensor for high temperature applications. The sensors sample air currents passing through a duct using a range of sampling tubes and has 2 alarm relay outputs to switch on fans, blowers and send an alarm to the BMS or alarm panel.

The new FT sampling tube packs ship as three times 2-foot lengths that can be joined, and cut to size for extremely flexible installation.



AX-GS-SD-FT  
Modular Sampling Tubes

NEW

Order Codes		List Price
AX-GS-SD2000-N	Duct Smoke Detector with ionisation sensor	£120.00
AX-GS-SD2000-P	Duct Smoke Detector with photoelectric sensor	£120.00
AX-GS-SD-STN1	Sampling tube 30 to 60cm	£8.00
AX-GS-SD-STN2.5	Sampling tube 60 to 120mm	£9.00
AX-GS-SD-STN5	Sampling tube 120 x 240mm	£11.00
AX-GS-SD-STN10	Sampling tube 240 x 360mm	£16.00
AX-GS-SD-FT	Sampling Tube - Modular (3x 2ft, can be cut)	£13.90

#### FEATURES

- 24Vac/dc or 240Vac operation
- Photoelectric or ionisation sensor
- Two sets of 5A alarm outputs

#### SPECIFICATION

Power Supply:	24Vac/dc, 120Vac, 240Vac
Sensor: -N	4 wire Ionisation
Sensor: -P	4 wire Photoelectric
Output:	2 x SPCO relay
Contact Rating: Alarm	2 x 5A @ 250Vac (res)
Contact Rating: Trouble	1 x 5A @ 250Vac (res)
Ambient Range: -N	0 to 70°C
Ambient Range: -P	0 to 60°C
Protection:	IP54

### AX-GS-F134A

### FREON 134A REFRIGERANT GAS SENSOR - WALL MOUNT



NEW

Freon gas detector with microprocessor control. This conducts both self diagnostics and automatically calibrates the sensor when ambient conditions vary, thus avoiding false alarms. Manufactured to meet relevant European Normatives and proposals for explosive and toxic gases.

Order Codes		List Price
AX-GS-F134A	Freon 134a Refrigerant Sensor	£225.00

#### FEATURES

- IP55 Enclosure
- Sintered Head
- Semiconductor Sensor Technology
- Sensor Active Indicator
- Auto Calibration
- Suitable for Freon R134A
- Main Alarm Relay Output

#### SPECIFICATION

Power Supply:	12-24V DC +/- 10% from detector
Power Consumption:	120mA @ 13.8V
Sensor Type:	Semi-Conductor
External protection rating:	IP55
Main alarm relay:	300ppm
Ambient Range:	-5 to +50°C, 0-95% RH

### AX-GS-P1x

### SPACE GAS SENSORS - LNG (METHANE) AND LPG (PROPANE)



The GS-P10 range of stand alone Gas Sensors are designed to detect the presence of gas leaks and give both audible and visual warning and a relay output. The units are designed for use with normally-open gas solenoid valves, with manual reset .

Order Codes		List Price
AX-GS-P11A	LNG (methane) Sensor	£125.00
AX-GS-P12A	LPG (propane) Sensor	£125.00

#### FEATURES

- Stand alone wall mounted
- 5 year recommended calibration interval
- 3 indicator LED's for power on, fault and alarm
- ABC self-calibration logic
- 2 probe lengths available
- Ships with mounting screws
- Thermistor output available

#### SPECIFICATION

Power Supply:	230Vac 50Hz
Power Consumption:	4VA
Sensor Type:	Semi-Conductor
Alarm Threshold Range:	<20% LEL (fixed)
Relay Contact:	SPDT - 6A @ 240Vac (res) (2Aind)
Audible Alarm:	85dB Piezo
Ambient Range:	-5 to +40°C, 0-95% RH

# GAS & SMOKE DETECTION

## ADDRESSABLE GAS DETECTION SYSTEM & OTHER GAS DETECTORS

### AX-GS-Tx

### ADDRESSABLE GAS DETECTION SYSTEM - MODBUS OUTPUT

A complete gas detection system with an impressive array of sensors and features, with a Modbus RS485 Port as standard for connecting to BMS and other networks.

The new AX-GS-TC-6 range of controllers feature either 8 or 32 Addressable Gas Detector inputs, allowing you to monitor a vast array of rooms and gasses, with one control unit. The units feature either 2 or 3 SPCO relay outputs, and 1 or 3 4-20mA Linear Outputs, which are user configurable. Both units feature Audio and Visual Alarms and a number of status indication LEDs. The more advanced AX-GS-TC640 includes a dedicated interlock to fire systems and an Emergency Stop Input, which is also system configurable.

#### CONTROLLER FEATURES

- 110/230Vac and 24Vdc Versions
- Modbus RS485 Output
- Audio and Visual Alarm
- 8 or 32 Addresses Versions
- 2x or 3x SPCO
- 3x or 1x 4-20mA Versions
- 640 Version Features Emergency Stop Input
- 640 Version Features Dedicated Interlock

#### SENSOR FEATURES

- Standard 2 gang pattress mount
- Industry standard 4-20mA output
- Dado mount or wall mount
- Pre-calibrated
- In-service calibration possible
- Replaceable sensor

#### SPECIFICATION

Power Supply:	110/230Vac 50/60Hz or 24Vdc
Power Consumption:	25 Watts
No. Of Sensors:	625 = 8 sensors, 640 = 32 sensors
Relay Output:	4A @ 250Vac
Communication Port:	ModBus RS485
Audible Alarm:	Approx 80db @ 100mm
Ambient Range:	-5°C to 55°C, 5-95% RH Non-Condensing
Display:	2 Line 8 Digit LCD with Backlight
LED Indication:	Blue = Power On Yellow = Fault Red = Gas Alarm
Mounting:	Wall Mount (Panel Mount Available)
Dimensions	201mm x 141mm x 84mm
Weight:	840 grams
Protection:	IP54

Order Codes	Control Units - ModBus	List Price
AX-GS-T625-230	230Vac - 8 Channels 3x 4-20ma, 2x SPCO Relay	£380.00
AX-GS-T625-24	24Vdc - 8 Channels 3x 4-20ma, 2x SPCO Relay	£380.00
AX-GS-T640-230	230Vac - 32 Channels 1x 4-20ma, 3x SPCO Relay	£705.00
AX-GS-T640-24	24Vdc - 32 Channels 1x 4-20ma, 3x SPCO Relay	£705.00
Addressable Gas Sensors		
AX-GS-TC-3A-EPHC	Flammable Gas External Detector, 0-100% LEL	£185.00
AX-GS-TC-3A-PHC	Flammable Gas Internal Detectors, 0-100% LEL	£181.00
AX-GS-TC-32-CO	Carbon Monoxide Gas Detector, 1-100ppm	£310.00
AX-GS-TC-3A-O2	Oxygen Gas Detector, 0-30% Vol	£435.00
AX-GS-TC-3A-NO	Nitric Oxide Gas Detector, 0-200ppm	£490.00
AX-GS-TC-3A-NO2	Nitrogen Dioxide Gas Detector, 0-20ppm	£515.00
AX-GS-TC-3A-NH3	Ammonia Gas Detector, 0-100ppm	£945.00
AX-GS-TC-3A-CL2	Chlorine Gas Detector, 0-20ppm	£570.00
AX-GS-TC-3A-H2	Hydrogen Gas Detector, 0-100ppm	£595.00
AX-GS-TC-3A-H2S	Hydrogen Sulphide Gas Detector, 0-20ppm	£370.00
AX-5139001	Duct Sampling Kit	£155.00

### AX-GS-TC3-x

### STANDALONE GAS SENSORS - 4-20MA OUTPUT

The AXIO AX-GS-TC3- range of Gas Detectors provide accurate measurement of the background atmosphere to measure for a specific hazardous target gas. Clean lines and easy integration into existing or newly planned control systems make the AX-GS-TC3- the safety engineer's device of choice. Using the latest microprocessor technology and software, the AX-GS-TC3- is a reliable long term monitoring solution. AX-GS-TC3- is supplied pre-calibrated and ready to use.

#### FEATURES

- Standard 2 gang pattress mount
- Industry standard 4-20mA output
- Dado mount or wall mount
- Pre-calibrated
- In-service calibration possible
- Replaceable sensor

#### SPECIFICATION

Power Supply:	18-28Vdc (Loop Powered)
Output:	4-20mA linear output for calibrated gas and range
Construction:	ABS
General Accuracy:	±2% of range
Sealing:	IP54
Weight:	840g
Ambient Range:	-5 to 55°C, 5-95% RH Non-Condensing

Order Codes		List Price
AX-GS-TC3-CO	Carbon Monoxide Gas Detector, 0-100ppm	£240.00
AX-GS-TC3-O2	Oxygen Gas Detector, 0-30% Volume	£370.00
AX-GS-TC3-NO	Nitric Oxide Gas Detector, 0-200ppm	£325.00
AX-GS-TC3-NO2	Nitrogen Dioxide Gas Detector, 0-20ppm	£325.00
AX-GS-TC3-NH3	Ammonia Gas Detector, 0-100ppm	£675.00
AX-GS-TC3-CL2	Chlorine Gas Detector, 0-20ppm	£325.00
AX-GS-TC3-H2	Hydrogen Gas Detector, 0-1000ppm	£355.00
AX-GS-TC3-H2S	Hydrogen Sulphide Gas Detector, 0-50ppm	£245.00
AX-5139001	Duct Sampling Kit	£155.00



NEW

NEW



NEW

### AX-GP-1

### GAS PROVING & INTERLOCK - AIRFLOW & CURRENT VERSIONS

The Axio AX-GP-1 series is an elegant, economical solution to gas interlock and proving. It meets the requirements of BS 6173, and is extremely easy to install. The AX-GP-1 is intuitively designed and clearly labelled, the unit features comprehensive fan, fire and emergency stop status indication and is provided as a kit with all requisite peripherals.



#### FEATURES

- Comprehensive fan, fire & emergency stop status indication
- Audible signal for failure & system ready
- On board emergency stop button
- Additional emergency stop buttons can be connected
- Fire alarm interlock
- Wipe clean fascia
- All connections on front panel
- 24 Hour Support Line

#### INTERLOCKS PROVIDED

- 2 x Air Pressure Current Switch Interlocks
- 2 x Remote Emergency Stop Terminals
- 1 x Fire Alarm Interlock Terminal
- Onboard Emergency Stop Doubles as On/Off Button

#### SPECIFICATION

Power Supply:	230Vac - 5amp (50hz) supply
Gas Valve Output:	230V - 3A
Enclosure:	IP65 120mm x 190mm x 70mm
Gas Pressure Proving:	GS-1P only
Extract / Supply Fan Interlocks:	100S & CS

Order Codes		List Price
AX-GP-1A	1 Series Interlock - Airflow Version	£275.00
AX-GP-1C	1 Series Interlock - Current Version	£395.00
AX-GP-1P	1 Series - Proving Version	£475.00

### AX-GP-GI

### GAS PROVING & INTERLOCK, GAS DETECTION + MULTIPLE INTERLOCKS

The Axio AX-GP-GI is a microprocessor based interlock system with all the benefits of our well-established 1 series. The system has the power to supply up to two, 0-10V sensor heads (CO<sub>2</sub>, Methane, LPG, O<sub>2</sub> etc) and has the ability to interpret these signals into a relay switched output facilitating the emergency control of services via noxious gas detectors.



#### FEATURES

- Microprocessor controlled gas interlock system BS6173 compliant
- Supplied complete with air pressure switches; software deals with any APS flutter issues
- Wipe clean fascia
- On board emergency stop button that doubles as system On/Off switch
- Easy-to-read LED user display
- Fire alarm interlocks to facilitate connection to the buildings system and an Ansuls or other fire suppression system
- Auxiliary interlocks to connect gas detection equipment

#### INTERLOCKS PROVIDED

- 2 x Fan interlocks (Air or Current)
- 2 x Emergency Stop
- 2 x Fire alarm / Ansuls
- 2 x Auxiliary Interlock (Air or Current)

#### SPECIFICATION

Power Supply:	230Vac - 5amp (50hz) supply
Gas Valve Output:	230V - 3A
Enclosure:	IP65 270mm x 190mm x 90mm
Gas Pressure Proving:	GIP only
Gas Detection Supply:	24Vdc - 1A

Order Codes		List Price
AX-GP-GI	Gas Interlock Version	£385.00
AX-GP-GIP	Gas Proving Version	£595.00



# AIR VELOCITY, FLOW & LIQUID LEVEL

Annicom proudly introduce its UK made 316 Stainless Steel Air Velocity Probes featuring a pre-punched gasket for very easy installation.

We now offer several Air Velocity Transmitters and our own competitive Wind Speed and Direction Sensors with 2 x Analogue Outputs, and LED indication for easy commissioning. We source our Ultrasonic and Capacitance Level Sensors from the EU to complement our extensive range of float level sensors, and we're very excited to offer our new Hydrostatic Level Transmitters, and our Ultrasonic Pump Control System.

- 
- 64** Air Velocity
  - 65** Wind Speed & Direction & Liquid Flow
  - 66** Liquid Level - Switches
  - 67** Liquid Level - Hydrostatic & Capacitance
  - 68** Liquid Level - Ultrasonic Sensors & Systems

## D I D Y O U K N O W ?

Annicom's new range of British made Stainless Steel Air Velocity probes ship with fixing screws, flanges and pre-punched gaskets for fast and secure installation.

### AX-AV-SP-ESF

### AIR VELOCITY & TEMPERATURE TRANSMITTER - SINGLE POINT



A Single Point Air Velocity and Temperature Transmitter for use in ductwork, with both 0-10Vdc and 4-20mA output on board for airflow and 0-10Vdc output of the temperature.

With the included flange, Temperature Output and Jumper Selectable ranges, the AX-AV-SP-ESF is an impressive, cost effective unit for Air Velocity measurement.

#### FEATURES

- Includes adjustable duct flange
- Jumper Selectable Outputs
- Jumper Selectable Ranges
- Active Temperature Output
- 5% Accuracy as standard

#### SPECIFICATION

Accuracy:	±5% F.S.D
Output: Air Flow	4-20mA & 0-10Vdc
Output: Temperature	0-10Vdc
Ranges: (jumper selectable)	0 to 8 or 0 to 16m/sec

Order Codes		List Price
AX-AV-SP-ESF-35-2	4-20mA & 0-10Vdc, 5% Accuracy, 0-8/16m/sec	£110.00



### AX-AV-SPx

### SINGLE POINT AIR VELOCITY TRANSMITTER - CUSTOM & LOW RANGES



Offering a very low range of 0-4m/sec, and the facilities for custom ranges, the AX-AV-SP range offers a choice of either a 0-10Vdc or 4-20mA output, and two available accuracies.

The output is damped in order to provide a stable control signal.

#### FEATURES

- 5% or 8% low cost version
- 24Vac or dc supply
- Damped output for stable control signal
- Custom Ranges Available

#### SPECIFICATION

Accuracy:	AX-AV-SP	±5% F.S.D
	AX-AV-SPH	±8% F.S.D
Output:	AX-AV-SP4-I	4-20mA
	AX-AV-SP4-V	0-10Vdc
	AX-AV-SPH	0-10Vdc
Supply:	AX-AV-SP	24Vdc ±15%
	AX-AV-SPH	21 to 26Vac or 24Vdc ±15%

Order Codes		List Price
AX-AV-SPH4	0-4m/sec : 0-10Vdc Output : 8% Accuracy	£92.00
AX-AV-SP4-I	0-4m/sec : 4-20mA Output : 5% Accuracy	£125.00
AX-AV-SP4-V	0-4m/sec : 0-10Vdc Output : 5% Accuracy	£125.00
AX-AV-SPxx	Custom range, Custom Output. 5% Accuracy	£145.00

### AX-AV-EP-x

### AIR VELOCITY PROBES - ABS PLASTIC



ABS Air Velocity Probes for use in ductwork. The probes can be connected to the relevant AX-ADPT air velocity transmitter to output velocity pressure to the BMS which can then accurately work out air velocity in m/s.

#### FEATURES

- Includes duct flange plates for flat ducts
- Gasket seals the probe to the duct
- Designed to operate with AX-ADPT range of Air Velocity Transmitters

#### SPECIFICATION

Materials:	ABS
Mounting:	Integral flange with gasket
Connections:	ABS to suit 6mm ID PVC tube
Ambient Range:	0 to 50°C

Order Codes		List Price
AX-AV-EP-200	Twin Probe 195mm	£15.00
AX-AV-EP-250	Twin Probe 252mm	£17.00
AX-AV-EP-300	Twin Probe 317mm	£30.50
AX-AV-EP-350	Twin Probe 375mm	£36.00
AX-AV-EP-450	Twin Probe 435mm	£37.00
AX-AV-EP-500	Twin Probe 492mm	£44.00
AX-AV-EP-550	Twin Probe 550mm	£55.00

### AX-AV-MPP-x

### AIR VELOCITY PROBES - MULTIPOINT - STAINLESS STEEL



NEW

Stainless Steel Multipoint Air Velocity Probes for use in ductwork. The two probes can be connected to the relevant AX-ADPT air velocity transmitter to output velocity pressure to the BMS which can then accurately work out air velocity in m/s. The units ship with pre-punched double gasket seals the probe to the duct without interfering with the fixings

#### FEATURES

- Includes duct flange plates for flat duct
- Push-on connectors to suit 6mm ID tube
- Each set contains two probes, mounting flanges & pre-punched gaskets

#### SPECIFICATION

Materials:	316 Stainless steel
Connectors:	Stainless steel to suit 6mm ID PVC tube
Duct Flange:	Stainless Steel 52mm diam
Dimensions:	26mm diam

Order Codes		Min Duct	Max Duct	List Price
AX-AV-MPP-400	2 x Multipoint Probes 400mm	248 mm	300 mm	£52.00
AX-AV-MPP-500	2 x Multipoint Probes 500mm	336 mm	400 mm	£55.00
AX-AV-MPP-600	2 x Multipoint Probes 600mm	424 mm	500 mm	£58.00
AX-AV-MPP-700	2 x Multipoint Probes 700mm	512 mm	600 mm	£62.00
AX-AV-MPP-800	2 x Multipoint Probes 800mm	599 mm	700 mm	£72.00
AX-AV-MPP-1000	2 x Multipoint Probes 1000mm	775 mm	900 mm	£85.00
AX-AV-MPP-1250	2 x Multipoint Probes 1250mm	995 mm	1150 mm	£95.00
AX-AV-MPP-1500	2 x Multipoint Probes 1500mm	1215 mm	1400 mm	£110.00
AX-AV-MPP-1750	2 x Multipoint Probes 1750mm	1434 mm	1650 mm	£120.00
AX-AV-MPP-2000	2 x Multipoint Probes 2000mm	1653 mm	1900 mm	£130.00
AX-AV-MPP-2150	2 x Multipoint Probes 2150mm	1875 mm	2150 mm	£120.00
AX-PVCT-Cx	PVC Tubing for AX-AV-MPP - Price Per Metre			£1.00

Note: Other PVC tube colours available. See Page 45

# AIR VELOCITY, FLOW & LIQUID LEVEL

## WIND SPEED & DIRECTION & LIQUID FLOW

### AX-EWSS

#### WIND SPEED SWITCH - SINGLE POLE DOUBLE THROW

The AX-EWSS Wind Speed Switch is designed to activate an external device at a user defined wind speed. Consists of sensor, control box and 25 metre sensor cable.



Order Codes		List Price
AX-EWSS	Switch, Control box & 25m Cable	£375.00

#### FEATURES

- SPDT relay output

#### SPECIFICATION

Supply Voltage:	3m flying lead cable
Wind Speed Range:	0-50m/sec
Output:	SPDT Relay
Output Rating:	5A
Ambient Range:	-20 to +60°C
Protection:	IP65

### AX-WSD-x

#### WIND SPEED & DIRECTION SENSORS - 0-10VDC & 4-20MA

The AXIO Wind Speed and Direction Sensors give an analogue output of both the wind speed and direction. The units are manufactured from anodised aluminium alloy, UPVC and stainless steel.

The AX-WSD-V Control unit features LED indication for easy commissioning. The units ship with 25 metres of cable, and all parts required for commissioning, including a compass.



Order Codes		List Price
AX-WSD-V	0-10VDC Output - LED indication Control Box	£425.00
AX-EWSD-20	4-20mA Output - Standard Control Box	£465.00
AX-WSD-2m-MAST	2m Aluminium mast for elevating sensor	£132.00

#### FEATURES

- Analogue output of both wind speed and direction
- Control box features visual indication
- Ships with 25m of 4-core cable
- Ships with Compass for easy setup

#### SPECIFICATION

Electrical Connection:	25m cable
Range: Wind speed	0-50m/s
Range: Wind direction	10 to 360 degrees
Output:	0-5, 0-10Vdc or 4-20mA
Accuracy:	±5 degree and 0.5m/s typical
Resolution:	Better than 0.5m/s and < 1 degree

### AX-WS-x

#### WEATHER STATION - FULLY CUSTOMISABLE

AXIO Weather Stations offer a full-spectrum of weather sensing technologies, for multiple applications, systems and environments.

There are options for a wide range of different sensor technologies and outputs. Each unit is built to order, and is made to the highest quality possible.

**AXIO Weather Stations are custom-assembled to your requirements, please contact the sales office for a quotation.**



#### FEATURES

- Wind speed and direction
- Barometric pressure
- Rain gauges
- Sunlight
- Relative Humidity - Wet and dry bulb
- Outside temperature
- Radiation screens
- Ultrasonic Anemometers

### AX-LFS

#### LIQUID FLOW SWITCHES - STAINLESS STEEL PADDLE OPTION

This series of Paddle Switches is designed to monitor liquid flow in pipes and provide a switched output upon detection of either a specific flow rate or flow failure. The units screw directly into a 1 inch BSPT boss and have adjustable paddle lengths.



Order Codes		List Price
AX-LFS	Liquid Flow Switch	£43.00
AX-LFS-S	Liquid Flow Switch - stainless steel	£165.00

#### FEATURES

- Adjustable switching point
- Rated at 15A @ 230Vac
- Suitable for a wide range of media

#### SPECIFICATION

Switch Rating:	15 @ 230Vac (res) (8A ind)
Protection:	IP54
Materials:	Paddle Stainless Steel
	Rod Brass (LFS-S - Stainless Steel)
	Enclosure Thermoplastic
Operating Temperature:	-20 to ±110°C
Paddle Lengths:	1, 2, 3 and 6 inches
Weight:	670g

### AX-FL-NLN-x

### LIQUID LEVEL FLOAT SWITCHES - SINGLE LEVEL



This cost effective range of Float Level Switches is suitable for single level applications. The units comprise a float, which is suspended from a weighted cable.

The AX-FL-NLN provides the perfect cost effective solution for single switch applications in water tanks, sumps etc.

#### FEATURES

- Easy installation
- Comes complete with counterweight
- Standard 5m cable length (10 & 20m options)
- Clean water as standard (waste water at additional cost)

#### SPECIFICATION

Order Codes		List Price
AX-FL-NLN-105	Float Level Switch & 5m Cable	£19.00
AX-FL-NLN-110	Float Level Switch & 10m Cable	£25.00
AX-FL-NLN-120	Float Level Switch & 20m Cable	£40.00

Switch Rating:	16(10)A @ 250Vac (res)
Standard Cable Length:	5m (10m & 20m options)
Min Specific Gravity:	0.7
Ambient Range:	0 to 50°C

### AX-LS-FL-x

### ADVANCED LIQUID LEVEL FLOAT SWITCHES - MULTI-LEVEL



High-quality Float Level Switches for single level or multiple level applications. The units comprise a float, which is suspended from a weighted cable. Features include options for high-low level alarm, pump filling, emptying and versions suitable for oil tanks.

#### FEATURES

- Easy installation
- Alarm, filling, emptying and combined variant
- Standard 5m cable length
- Suitable for a wide range of liquids including oil

Order Codes		List Price
AX-LS-FL-1L	Low Level Alarm	£70.00
AX-LS-FL-1H	High Level Alarm	£70.00
AX-LS-FL-2L	Filling Pump Control	£125.00
AX-LS-FL-2H	Emptying Pump Control	£125.00
AX-LS-FH-2LH	High and Low Level Alarm	£130.00
AX-LS-FL-3L	Fill Pump Control, Low Level Alarm or dual fill Pump Control	£175.00
AX-LS-FL-3H	Empty Pump Control, High Level Alarm / Dual Empty Pump Control	£175.00
AX-LS-FL-4L	Filling Pump Control , High and Low Level Alarm	£230.00
AX-LS-FL-4H	Emptying Pump Control, High and Low Level Alarm	£230.00
AX-LS-FL-4L5E	Dual Pump Filling Control and Low Level Alarm	£255.00
AX-LS-FL-4H5E	Dual Pump Emptying Control and High Level Alarm	£255.00
AX-LS-FL-2LHEN	High and Low Level Alarm for oil tanks	£285.00

#### SPECIFICATION

Switch Rating:	6A @ 240Vac (res) (max 24Vac/dc for flammable liquids)
Standard Cable Length:	5m
Switching Level Difference:	Minimum: 250mm, Maximum: 1200mm
Ambient Range:	0 to 55°C

### AX-LS-xFS

### LEVEL SWITCHES - TOP & SIDE MOUNT



Top Mount and Side Mount Level Switches designed for high and low level detection in tanks and vessels. The units have both internal and external fitting versions and can be manufactured in nylon, polypropylene or stainless steel.

#### FEATURES

- High quality, cost effective solution
- Internal and External mounting options
- Available in Nylon, Polypropylene and Stainless Steel options
- Suitable for a wide range of liquids
- NO and NC contacts available on some units

PRICE DROP

Order Codes		List Price
AX-LS-MFS-23F	Top Mount Switch - polypropylene NC	£17.00
AX-LS-MFS-25J	Top Mount Switch - polypropylene NO	£17.00
AX-LS-MFS9-N1-2	Side Level Switch - polypropylene internal	£24.00
AX-LS-MFS9-N2-2	Side Level Switch - nylon internal mount	£25.00
AX-LS-MFS10-N1-2	Side Level Switch - polypropylene external	£24.00
AX-LS-MFS10-N2-2	Side Level Switch - nylon external mount	£25.00
AX-LS-RFS-2-2	Top Mount Switch - stainless steel internal	£45.00
AX-LS-RFS-4-2	Side Level Switch - stainless steel external	£60.00

#### SPECIFICATION

SEE DATA SHEET

# AIR VELOCITY, FLOW & LIQUID LEVEL

## LIQUID LEVEL TRANSMITTERS - HYDROSTATIC & CAPACITANCE

### AX-HL-x

### HYDROSTATIC LEVEL TRANSMITTERS - CLEAN & WASTE WATER



Designed to measure the level of clean or contaminated water, the AX-HL range of Hydrostatic Level Sensors offers an excellent alternative to Ultrasonic equivalents. Installation is incredibly fast and easy with the provided cable clamp and terminal holding the wire in place.

The sensor sits at the bottom of the tank and measures the sum of the hydrostatic pressure of the liquid column above it versus atmospheric pressure. Variants include 4-20mA and 0-10Vdc versions, with Intrinsically Safe options available. An optional temperature output completes an impressive array of features.

A breathing capillary tube and filtered terminal block allow atmospheric pressure to be fed to the unit whilst preventing moisture damage to the electronics.

Options are available for up to 200 metres (bore holes, reservoirs etc) and are quoted on a per project basis, please call the sales office for more information.

#### FEATURES

- Incredibly easy installation & very fast setup
- Cost-effective vs Ultrasonic Solutions
- Temperature Compensated
- Tank Heights up to 200m Available

#### SPECIFICATION

Measuring / Cable Range:	1m to 200m
Linearity:	+/- 0.45%
Process Temperature:	-10°C to +60°C
Power Supply 4-20mA / 0-10Vdc:	12 to 30Vdc / 18 to 30Vdc
Outputs:	2-wire 4-20mA & HART 3-wire 0-10Vdc
Intrinsically Safe Class (option):	ATEX II 1 G Exia B T6
Waterproof Rating:	IP68
Process Connection:	Cable Mount Wedge Clamp
Electromagnetic Compatibility:	EN61326 Class B
Probe Dimensions Clean :	173mm x 22mm diameter
Probe Dimensions (Waste):	210mm x 22mm diameter

Order Codes	Full Description	List Price	Water Type	Tank Height	Cable Length	Output
AX-HL-C1-5I	Hydrostatic Level Sensor with 5 metre Polyurethane Cable, 2-Wire	£330.00	Clean	0-1m	5m	4-20mA & Hart
AX-HL-C2-5I	Hydrostatic Level Sensor with 5 metre Polyurethane Cable, 2-Wire	£330.00	Clean	0-2m	5m	4-20mA & Hart
AX-HL-C5-10I	Hydrostatic Level Sensor with 10 metre Polyurethane Cable, 2-Wire	£350.00	Clean	0-5m	10m	4-20mA & Hart
AX-HL-C10-15I	Hydrostatic Level Sensor with 15 metre Polyurethane Cable, 2-Wire	£370.00	Clean	0-10m	15m	4-20mA & Hart
AX-HL-C1-5V	Hydrostatic Level Sensor with 5 metre Polyurethane Cable, 3-Wire	£330.00	Clean	0-1m	5m	0-10Vdc
AX-HL-C2-5V	Hydrostatic Level Sensor with 5 metre Polyurethane Cable, 3-Wire	£330.00	Clean	0-2m	5m	0-10Vdc
AX-HL-C5-10V	Hydrostatic Level Sensor with 10 metre Polyurethane Cable, 3-Wire	£350.00	Clean	0-5m	10m	0-10Vdc
AX-HL-C10-15V	Hydrostatic Level Sensor with 15 metre Polyurethane Cable, 3-Wire	£370.00	Clean	0-10m	15m	0-10Vdc
-xx	Specify Custom Cable Length, Price per Meter	+ £3.95	Clean	-	-	-
-A	Intrinsically Safe Version	+ £48.00	Clean	-	-	-
-T	4-20mA Temperature Output, 4-20mA (I) versions	£49.00	Clean	-	-	-
AX-HL-W1-5I	Hydrostatic Level Sensor with 5 metre FEP Cable, 2-Wire	£380.00	Waste	0-1m	5m	4-20mA & Hart
AX-HL-W2-5I	Hydrostatic Level Sensor with 5 metre FEP Cable, 2-Wire	£380.00	Waste	0-2m	5m	4-20mA & Hart
AX-HL-W5-10I	Hydrostatic Level Sensor with 10 metre FEP Cable, 2-Wire	£415.00	Waste	0-5m	10m	4-20mA & Hart
AX-HL-W10-15I	Hydrostatic Level Sensor with 15 metre FEP Cable, 2-Wire	£455.00	Waste	0-10m	15m	4-20mA & Hart
AX-HL-W1-5V	Hydrostatic Level Sensor with 5 metre FEP Cable, 3-Wire	£380.00	Waste	0-1m	5m	0-10Vdc
AX-HL-W2-5V	Hydrostatic Level Sensor with 5 metre FEP Cable, 3-Wire	£380.00	Waste	0-2m	5m	0-10Vdc
AX-HL-W5-10V	Hydrostatic Level Sensor with 10 metre FEP Cable, 3-Wire	£415.00	Waste	0-5m	10m	0-10Vdc
AX-HL-W10-15V	Hydrostatic Level Sensor with 15 metre FEP Cable, 3-Wire	£455.00	Waste	0-10m	15m	0-10Vdc
-xx	Specify Custom Cable Length, Price per Meter	+ £7.65	Waste	-	-	-
-A	Intrinsically Safe Version	+ £48.00	Waste	-	-	-
-T	4-20mA Temperature Output, 4-20mA (I) versions	£49.00	Waste	-	-	-

### AX-CAP-x

### CAPACITANCE LEVEL TRANSMITTERS - CONDUCTING & NON-CONDUCTING LIQUIDS



Capacitance Level Sensors designed for level measurement in tanks or sumps which provide a 4-20mA output to the BMS system or alarm. There are two ranges; the CTR/CBR range for use in conducting liquids such as water, and the CTP/CBP range for use with non conducting liquids, such as oil.

#### FEATURES

- Easy range adjustment on site
- Unaffected by vacuum or pressure
- Zero and span adjustment in head
- Suitable for a wide range of media



Order Codes	Conducting liquids - No display	List Price
AX-CAP-CTR310-2	Capacitance level sensor 1.0m probe	£480.00
AX-CAP-CTR315-2	Capacitance level sensor 1.5m probe	£515.00
AX-CAP-CTR320-2	Capacitance level sensor 2.0m probe	£540.00
AX-CAP-CTR325-2	Capacitance level sensor 2.5m probe	£560.00
AX-CAP-CTR330-2	Capacitance level sensor 3.0m probe	£595.00
Order Codes	Non-conducting liquids - No Display	List Price
AX-CAP-CTP310-2	Capacitance level sensor 1.0m probe	£455.00
AX-CAP-CTP315-2	Capacitance level sensor 1.5m probe	£475.00
AX-CAP-CTP320-2	Capacitance level sensor 2.0m probe	£505.00
AX-CAP-CTP325-2	Capacitance level sensor 2.5m probe	£520.00
AX-CAP-CTP330-2	Capacitance level sensor 3.0m probe	£550.00
-LCD	Display & programming unit	+ £75
-EX	Intrinsically safe version	+ 49
-Hart	Hart Re-transmission	+ £100

#### SPECIFICATION

Power Supply:	12Vdc to 36Vdc
Ranges:	0.5m min to max 3m
Power Consumption:	Max 800mW
Accuracy:	0.02% of measuring range
Output:	4-20mA loop powered
Process Connection:	1" B.S.P
Electrode Type:	Conducting Fully insulated rod or cable Non Conducting Semi insulated rod or cable
Display: Optional	LCD under top
Max Pressure:	40bar @ 25°C
Process Temperature:	-30 to +130°C
Ambient Temp. Range:	-25 to +70°C

### AX-UL-PSW-x

### ULTRASONIC PUMP CONTROL SYSTEM



**AX-UL-PSW**  
Sensor Head

An Ultrasonic Pump Control System providing fully automatic level control of small tanks, sumps, wetwells or sewage shafts. Each unit ships complete with an IP68 protected ultrasonic level transmitter which performs continuous level measurement and delivers 4-20mA level data to the main unit; the PSW user programmable controller.

The controller provides a relay output to the single phase pump acting in the tank, sumpwell etc The current controlled switch operates in differential level mode as default, with programmable high and low levels. The unit can incorporate a timer, enabling automatic pump cycling and jamming prevention in case of long idle periods. An optional AX-LS-NL float switch provides dry run or overflow protection, for applications where safety is a high priority.

The system can be turned on or off by a single pole miniature circuit breaker for standard operation, or a Motor Protection Switch for very advanced circuit protection (including lightning strikes).

Custom cable lengths can be ordered with the unit, please include a line for custom cable, price per metre can be found below.

Float switches are available for both clean and waste water, making this control solution flexible, effective and cost effective.

Order Codes		List Price
AX-UL-PSW-101	Sensor, Control Unit, 3m Cable & Miniature Circuit Breaker	£435.00
AX-UL-PSW-102	Sensor, Control Unit, 3m Cable & Motor Protection Switch	£535.00
AX-UL-PSW-111	Sensor, Control Unit, Timer, 3m Cable & Miniature Circuit Breaker	£465.00
AX-UL-PSW-112	Sensor, Control Unit, Timer, 3m Cable & Motor Protection Switch	£555.00
-Cxx	Custom Cable Length, Price Per Meter (Add to Part Number)	£2.95
AX-LS-NLN105	Float Level Switch - Clean Water - 5m PVC Cable	£19.00
AX-LS-NLN-110	Float Level Switch - Clean Water - 10m PVC Cable	£25.00
AX-LS-NWN-105	Float Level Switch - Waste Water - 5m Neoprene Cable	£115.00
AX-LS-NWN-110	Float Level Switch - Waste Water - 10m Neoprene Cable	£138.00

#### FEATURES

- Provides Full Automatic Pump Control
- Highly Accurate Ultrasonic Level Measurement
- Maintenance Free
- Programmable Pump Cycling
- 0.3m to 3m Measurement Range
- Optional Dry Run or OverFill Protection
- Custom Cable Lengths Available
- Suitable for Clean and Waste Water
- Optional Timer enables

#### SPECIFICATION

Measuring Range:	0.3m to 3m
Electromagnetic Compatibility:	EN61326 Class B
<b>Ultrasonic Level Transmitter</b>	
Weatherproof Rating:	LCD under top
Materials:	Polypropylene
Mounting:	1" BSP
Process Temperature:	025°C to +60°C
Power Supply:	24Vdc
Output:	4-20mA
Cable Length:	3m Shielded PVC
<b>Control Unit</b>	
Power Supply:	230Vac +/- 10%
Functions:	Automatic Pump Control,
(optional Timer)	Timed Pump Cycling
	Programmable Pump On / Off
(optional Timer)	Timer, 10 seconds to 100 days
(optional float switch)	Overflow Protection
(optional float switch)	Fail Safe Indication
Miniature Circuit Breaker:	CLS 4-C10 / 2 10A Bipolar
Mounting:	Wall Mount
Electrical Connection:	4x Cable Glands - Max 4mm <sup>2</sup> wire
Ambient Temperature:	-25°C to +45°C
Weatherproof Rating:	IP65

### AX-UL-SEP / SGP / STP

### ULTRASONIC LEVEL TRANSMITTERS



**Note:** Variants available to suit any application. Please contact the Sales Office for more information.

Ultrasonic Level Sensors offer an extremely flexible, and comprehensive method of monitoring liquid levels in tanks and sumps.

The AX-UL-S range of Ultrasonic Level Sensors offers a range of options, including Intrinsically Safe and Diesel Suitability, and the -LCD Programming device makes commissioning simple. The units are of a very high quality and relay versions are available.

Other features include a broad operating range, Simple 2" BSPT fitting and IP67 dust and water ingress protection.

#### FEATURES

- 13-36Vdc Supply
- Very Accurate Monitoring
- Optional programming LCD acts as a display
- One LCD can program multiple units
- Easy Commissioning
- Very High Quality
- Intrinsically Safe and Diesel Versions Available

#### SPECIFICATION

Power Supply:	12 to 36Vdc
Max Current:	0.72W
Accuracy:	0.2% of measurement range
Display: Option	LCD under top
Temperature Range:	-20 to +90°C
Max Static Pressure:	-0.25 to 3 bar @ 20°C
Gland Thread:	2" BSPT (for NPT change 0 in code to N)
Ranges:	Sxx-380 0.25 to 6m
	Sxx-370 0.35 to 8m
Output:	SEP/STV 4-20mA loop powered
	STP 4-20mA 4 wire + 2 relay
Protection:	IP67

Order Codes		List Price
AX-UL-SEP-370-2	0.35 to 8m - no display - 4-20mA Loop Powered	£685.00
AX-UL-SEP-380-2	0.25 to 6m - no display - 4-20mA Loop Powered	£625.00
AX-UL-STV-370-2	0.35 to 8m - no display - 4-20mA Suitable for Diesel	£795.00
AX-UL-STV-380-2	0.25 to 6m - no display - 4-20mA Suitable for Diesel	£705.00
AX-UL-STP-370-4	0.35 to 8m - with display - 4-wire 4-20mA & 2x Relay	£820.00
AX-UL-STP-380-4	0.25 to 6m - with display - 4-wire 4-20mA & 2x Relay	£750.00
-LCD	Standalone SAP200 Programming display unit	£65.00
-R	Relay output (already 2 x in STP)	£40.00
-H	Hart Re-transmission	£105.00
-EX	Intrinsically Safe Version	£95.00

PRICE DROP

# OCCUPANCY & LIGHTING

Annicom offers ranges of extremely competitively priced PIR and Microwave Occupancy Sensors with light level, with the option of switched live or volt free outputs alongside light level transmitters to feed the BMS.



**70** PIR Occupancy & Combined Light Level

**71** Microwave & Light Level

## D I D Y O U K N O W ?

Annicom's Microwave Occupancy Sensors have a range of up to 30 metres and can take the place of four traditional PIR Sensors.

### AX-OCF-x

### PIR OCCUPANCY SENSORS WITH LUX LEVEL OPTION

The AX-OCF range of occupancy sensors are passive infra-red sensors for monitoring occupation through body heat. Detection of occupation will activate the internal relay, giving a switched output.

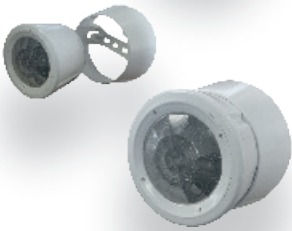
The units include a light level control to disable lighting if enough natural light is present. There are 230Vac and 24Vac/dc variants, with options for both VFC and Switched Live outputs, making the OCF range both versatile, competitive whilst maintaining very high quality levels.

#### FEATURES

- Cost effective solution
- Flush, surface or wall mounted
- Adjustable Timer
- Optional switched live or volt free outputs



**AX-OCF-F**  
Flush Mount Occupancy Sensor



**AX-OCF-S**  
Surface Mount Occupancy



**AX-OCF-W**  
Wall Mount Occupancy

Order Codes		List Price
AX-OCF-230-F	Switched live output, 230Vac, flush mount	£45.00
AX-OCF-230-S	Switched live output, 230Vac, surface mount	£45.00
AX-OCF-230-W	Switched live output, 230Vac, wall mount	£33.00
AX-OCF-230-W-IP65	Switched live output, 230Vac, wall mount - IP65	£37.00
AX-OCF-230-F-VFC	VFC output, 230Vac, flush mount	£47.00
AX-OCF-230-S-VFC	VFC output, 230Vac, surface mount	£47.00
AX-OCF-24-F-VFC	VFC output, 24Vac, flush mount	£47.00
AX-OCF-24-S-VFC	VFC output, 24Vac, surface mount	£47.00

#### SPECIFICATION

Power Supply:	-24	24Vac/dc ±20%
	-240	96 to 253Vac 50/60Hz
Field of View:	Flush & Surface	360 degrees
	Wall	110 degrees
Coverage:	Flush & Surface	8m diameter at 2.8m height
	Wall	Up to 10m
Occupancy Sensor Type:	Passive Infra-Red Detector	
Light Level Sensor:	Light dependent resistor	
Light Level Measurement:	0-2000 Lux	
Output:	Switched Live	
	-VFC	Volt Free Contact
Relay:	SPST - NO	
Contact Rating:	10A @ 240Vac (res)	
Timer:	10 secs to 12mins	
Ambient Range:	-10 to +50°C	

### AX-OC-24-x

### PIR OCCUPANCY SENSORS - WALL MOUNT - VFC

Wall Mounted Occupancy Sensors for fitting into a standard, single-gang patress. There are 24Vac and 230Vac versions, both with a Volt Free Contact Output.

#### FEATURES

- Cost effective solution
- Flush or surface mounted
- Adjustable timer
- Switched live outputs



Order Codes		List Price
AX-OC-24-W-VFC	Wall / Single Gang - 24Vac Supply, VFC Switch	£48.00
AX-OC-230-W-VFC	Wall / Single Gang - 230Vac Supply, VFC Switch	£49.00

#### SPECIFICATION

Power Supply:	230Vac 50Hz ±10% / 24Vac ±15%	
Light Level Sensor:	Light dependent resistor	
Occupancy Sensor Type:	Passive Infra-Red Detector	
Field of View:	180°	
Coverage:	7m diameter at 2.8m height (max)	
Output:	Switched Live	
Timer:	10 secs to 30 mins	
Ambient Range:	-10 to +35°C	



# OCCUPANCY & LIGHTING

## MICROWAVE & LIGHT LEVEL SENSORS

### AX-OC-MWS-x

### MICROWAVE OCCUPANCY DETECTORS



**AX-OC-MWS-1**  
Wall Mounted



**AX-OC-MWS-3**  
Ceiling Mounted

Microwave Occupancy Sensors provide several benefits over traditional Passive Infrared type detectors. Most notably, they can offer detection ranges of up to 30 metres (replacing up to four PIR Sensors) and are not affected by moving heat sources, such as radiators.

Microwave Occupancy Detectors are designed to provide automatic control of lighting, heating or ventilation loads. The MWS detects movement using a highly sensitive microwave detector. This works by emitting low power microwave signals and measuring the reflections as the signals bounce off moving objects. All the units are programmed by one of two hand-held programmer. The MWS-3 ceiling mount unit can be angled to adjust the sensing area.

#### FEATURES

- Wall, ceiling or surface mounting
- Volt free contact or switched live output
- Handheld IR Programmer
- Compact housing

#### SPECIFICATION

Power Supply:	220-240Vac 50Hz	
Sensor Type:	MWS-1	Microwave
	MWS-3	Microwave
		Light Level
Mounting:	MWS-1	Wall
	MWS-3	Ceiling
Output:	Switched live or VFC	
Range:	Up to 30m	
Contact Rating:	-VFC 10A @ 240Vac (res)	
Delay Timer:	Adjustable 15 seconds to 30 minutes	
Electrical Connections:	4mm <sup>2</sup>	
Materials:	Flame retardant ABS	
Conformity:	EMC: -89/336/EEC	
	LVD: -73/23/EEC	
Ambient Range:	-10 to +35°C	

Order Codes		List Price
AX-OC-MWS-1	Wall mount - 230Vac - 230Vac	£135.00
AX-OC-MWS-1L	Wall mount - 24Vac powered & switched	£145.00
AX-OC-MWS-1VF	Wall mount - 230Vac - VFC	£145.00
AX-OC-MWS-3	Ceiling mount - 230Vac - 230Vac	£140.00
AX-OC-MWS-3L	Ceiling mount - 24Vac powered & switched	£150.00
AX-OC-MWS-3VF	Ceiling mount - 230Vac - VFC	£150.00
AX-OC-MWS-UHL	Handheld programmer with LCD display	£185.00
AX-OC-MWS-UHS	Handheld programmer - on/off & lux control	£28.00

### AX-LL-O

### LIGHT LEVEL TRANSMITTERS



Light Level Transmitters in an IP65 housing, available in wall, and flush mounts. Features include Jumper Selectable Lux Ranges (0-2000, 0-6000 and 0-10,000), an IP65 enclosure as standard, and ±5% accuracy across the range.

#### FEATURES

- Cost effective solution
- IP65 enclosure
- All analogue 0-10Vdc output

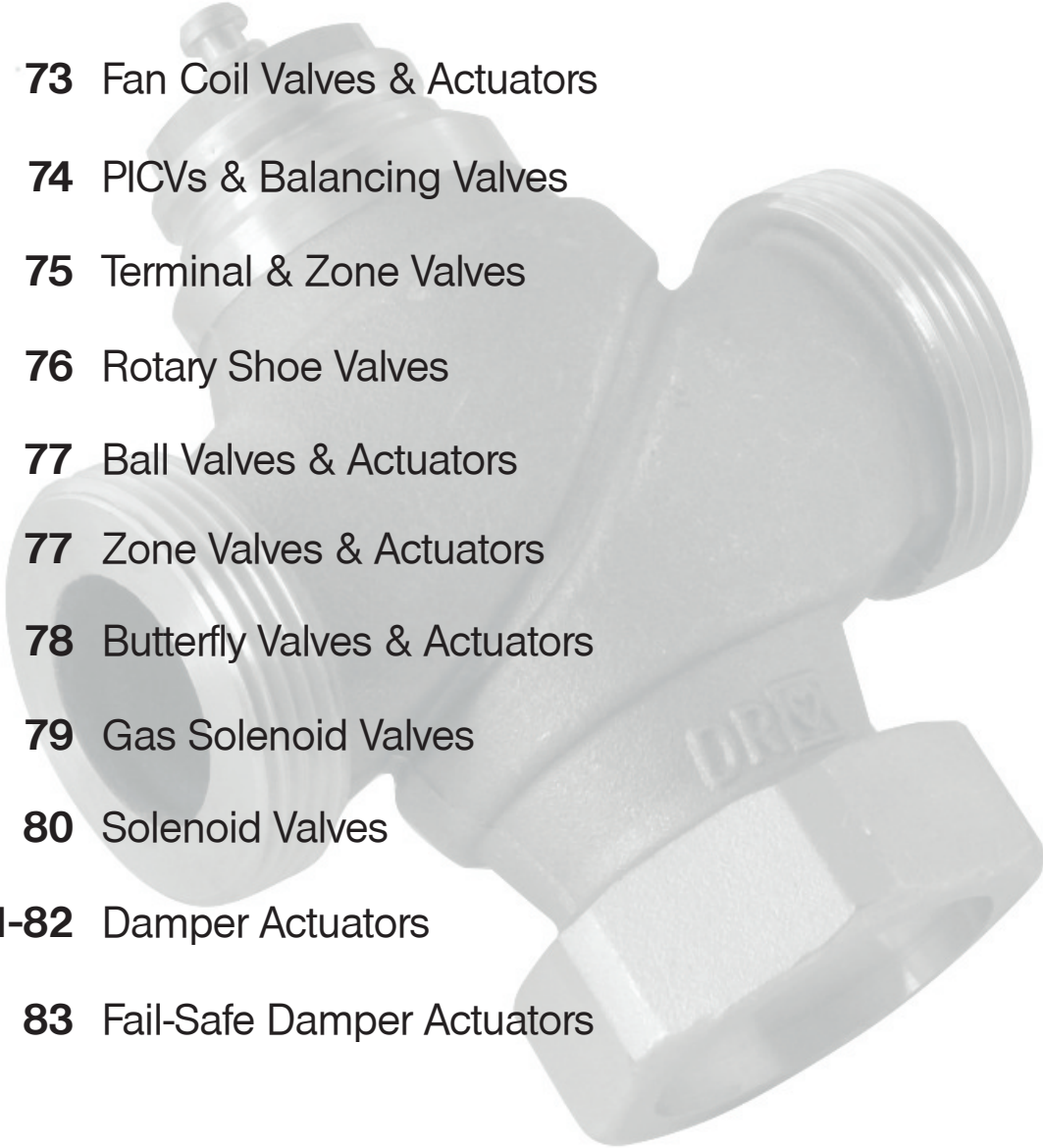
#### SPECIFICATION

Power Supply:	24Vac/dc ±15%	
Light Level Sensor:	Light dependent resistor	
Light Level Measurement:	0-10000 Lux (3x range selectable)	
Output:	0-10Vdc	
Accuracy:	±5% across range	
Ambient Range:	0 to 50°C	

Order Codes		List Price
AX-LL-O	IP65 wall mount 0-2000, 6000 & 10,000 Lux, 0-10Vdc	£48.00
AX-LL-O-20	IP65 wall mount, 0-20,000 Lux, 0-10Vdc	£115.00

# VALVES & ACTUATORS

Annicom has a comprehensive range of Fan Coil, PICV, Balancing, Terminal, Zone, Butterfly, Rotary Shoe, Solenoid and Gas Solenoid Valves and Actuators combined with two ranges of Damper Actuators suitable for many applications.

- 
- 73** Fan Coil Valves & Actuators
  - 74** PICVs & Balancing Valves
  - 75** Terminal & Zone Valves
  - 76** Rotary Shoe Valves
  - 77** Ball Valves & Actuators
  - 77** Zone Valves & Actuators
  - 78** Butterfly Valves & Actuators
  - 79** Gas Solenoid Valves
  - 80** Solenoid Valves
  - 81-82** Damper Actuators
  - 83** Fail-Safe Damper Actuators

## D I D Y O U K N O W ?

Pressure Independent Control Valves offer incredibly easy commissioning versus traditional Balancing Valves.

# VALVES & ACTUATORS

## FAN COIL VALVES & ACTUATORS

### AX-VF-xUL

### FAN COIL VALVES



High-quality two, three and four port Fan Coil Valves designed for control of hot and chilled water flow in fan-coil units, reheaters and recoolers. No additional linkages for actuators are required.

Compression connection versions are suitable for 10/15mm copper pipe and ship complete with a nut and olive for direct connection.

The flat faced versions offer a wider range of port sizes and much higher Kvs rating, compression fittings sold separately.

#### FEATURES

- PN16 bronze/brass valves
- Suitable for floating, proportional or thermal actuators
- 2, 3 and 4 port versions
- 15mm copper pipe version ships with nut and olive
- Iron Pipe Versions Available with High Kvs

Copper Pipe up to 15mm - Compression Connection (ships with nut + olive)

Order Codes	Port	DN	Kvs	List Price
AX-VF-VUL10F630	2	10mm	0.40	£20.50
AX-VF-VUL10F620	2	10mm	0.63	£20.50
AX-VF-VUL10F610	2	10mm	1.00	£20.50
AX-VF-VUL10F600	2	10mm	1.60	£20.50
AX-VF-BUL10F630	4	10mm	0.40	£42.50
AX-VF-BUL10F620	4	10mm	0.63	£42.50
AX-VF-BUL10F610	4	10mm	1.00	£42.50
AX-VF-BUL10F600	4	10mm	1.60	£42.50

Iron Pipe / High Kvs - Flat Face Connection - No Fitting

Order Codes	Port	DN	Kvs	List Price
AX-VF-VUL10F340	2	10mm	0.16	£17.20
AX-VF-VUL10F330	2	10mm	0.40	£17.20
AX-VF-VUL10F320	2	10mm	0.63	£17.20
AX-VF-VUL10F310	2	10mm	1.00	£17.20
AX-VF-VUL10F300	2	10mm	1.60	£17.20
AX-VF-VUL15F310	2	15mm	2.50	£20.50
AX-VF-VUL15F300	2	15mm	3.50	£20.50
AX-VF-VUL20F300	2	20mm	4.50	£27.25
AX-VF-BUL10F340	3	10mm	0.16	£37.70
AX-VF-BUL10F330	3	10mm	0.40	£37.70
AX-VF-BUL10F320	3	10mm	0.63	£37.70
AX-VF-BUL10F310	3	10mm	1.00	£37.70
AX-VF-BUL10F300	3	10mm	1.60	£37.70
AX-VF-BUL15F310	3	15mm	2.50	£42.50
AX-VF-BUL15F300	3	15mm	3.50	£42.50
AX-VF-BUL20F300	3	20mm	4.50	£52.00
AX-VF-BUL10F440	4	10mm	0.16	£41.70
AX-VF-BUL10F430	4	10mm	0.40	£41.70
AX-VF-BUL10F420	4	10mm	0.63	£41.70
AX-VF-BUL10F410	4	10mm	1.00	£41.70
AX-VF-BUL10F400	4	10mm	1.60	£41.70
AX-VF-BUL15F410	4	15mm	2.50	£48.40
AX-VF-BUL15F400	4	15mm	3.50	£48.40
AX-VF-BUL20F400	4	20mm	4.50	£55.50

Fittings for Iron Pipe / Flat Face Connection

Order Codes	Description	List Price
<b>Compression Fittings</b>		
378145010-SP	DN10 flat face (1/2B)	£5.20
378145015	For Pipes DN15 flat seal	£7.10
378145020	For Pipes DN20 flat seal	£18.90
<b>Threaded Sleeves</b>		
378133010	For B/V. L015	£3.50
378133015	For B/V.L015	£4.40
378133020	For B/V.L020	£6.50

Select suitable fittings if necessary

#### SPECIFICATION

Materials:	10mm	Nickel Plated cast Brass
	15/20mm	Gunmetal
Operation:	2-Port	Stem up open port A to AB
	Mixing	Step up open A to AB
	Diverting	Step up open AB to A
Stroke Length:	4mm	
Flow Type:	Equal percentage A-AB	
	Linear for bypass B-AB	
Liquid Temperature:	2 to 110°C	
Max Static Pressure:	PN16 (16bar)	
Leakage:	< 0.0001% of Kvs	

### AX-VM-x

### FAN COIL VALVE ACTUATORS



A range of high-quality Actuators suitable for the AX-VF-xx range of Fan Coil Valves. The AX-VM-S & AX-VM-M are gear train actuators and the AX-VM-T are Thermal Actuators designed for on/off control.

#### FEATURES

- Low power consumption
- 230Vac or 24Vac
- Easy installation
- Come complete with 1m cable

#### SPECIFICATION

Control Modes:	AX-VM-T211	Thermal
	AX-VM-M217F	Floating Point
	AX-VM-M217SF	Proportional 0/2-10Vdc
		24Vac 50/60Hz (±10%)
		230Vac
Power Consumption:	Gear Train	0.7A (1.4W initial consumption)
	Thermal	3W (17W initial consumption)
Stem Force:	115Nm	
Connecting Cable:	1m flying lead	
Ambient Range:	0 to 55°C	

Order Codes		List Price
AX-VM-T211F110	Thermal Actuator 115N & 1m cable 230Vac	£25.00
AX-VM-T211F210	Thermal Actuator 110N & 1m cable 230Vac	£25.00
AX-VM-T211F112	Thermal Actuator 115N & 1m cable 24Vac	£25.00
AX-VM-T211F212	Thermal Actuator 110N & 1m cable 24Vac	£25.00
AX-VM-T215F12	Modulating Actuator 115N & 1m cable 24Vac	£25.00
AX-VM-S215F22	Modulating Actuator 110N & 1m cable 24Vac	£55.00
AX-VM-M217F200	Raise/Lower Actuator 115N & 1m cable 230Vac	£89.00
AX-VM-M217F202	Raise/Lower Actuator 115N & 1m cable 24Vac	£71.00
AX-VM-M217SF40	Modulating Actuator 120N & 1m cable 24Vac	£92.00

### AX-34980x

### BALANCING VALVES - ENTERPRISE RANGE

Direct reading Balancing Valves with integrated flow meter. These valves are used to facilitate rapid commissioning of terminal units, negating the requirement for flow metering devices.

#### FEATURES

- Multi-turn valve for accurate flow regulation
- Clear visual flow rate indication
- Different pipe connection options
- Can be installed in any orientation



Order Codes	DN	Size	Flow (1/min)	Kvs	List Price
AX-3498000	15mm	15mm Comp	1 to 8	1.7	£20.50
AX-3498010	15mm	1/2" F Iron BSP	1 to 8	1.7	£21.00
AX-3498013	20mm	15/22mm Comp	1 to 8	1.7	£32.00
AX-3498025	20mm	15mm Comp	2 to 16	2.0	£33.00
AX-3498030	20mm	22mm Comp	2 to 16	2.0	£33.00
AX-3498020	20mm	3/4" F Iron BSP	2 to 16	2.0	£29.00

#### SPECIFICATION

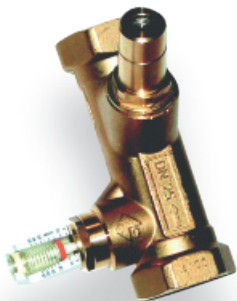
Max Operating Temperature:	100°C at 7 bar
Min Operating Temperature:	-10°C at 10 bar
Max Operating Pressure:	70°C at 10 bar
Flow Meter Accuracy:	±10%

### AXI-3498x

### FAN COIL VALVES - STANDARD RANGE

#### FEATURES

- Low noise transmission
- Clear visual flow rate indication
- Tamperproof locking facility
- Multi-turn valve for accurate flow regulation
- Can be installed in any orientation



Order Codes	DN	Size	Flow (1/min)	Kvs	List Price
AXI-3498285	20mm	15/22mm Comp	0.5 to 7	1.5	£48.00
AXI-3498290	20mm	15/22mm Comp	2 to 16	3.0	£43.00
AXI-3498295	20mm	15/22mm Comp	4 to 36	3.5	£43.00
AXI-3498355	25mm	1" F Iron BSP	5 to 50	5.5	£78.00
AXI-3498360	32mm	1 1/4" F Iron BSP	10 to 80	9.0	£93.00
AXI-3498365	40mm	1 1/2" F Iron BSP	15 to 120	14.0	£98.00
AXI-3498370	50mm	2" F Iron BSP	25 to 200	18.0	£115.00

#### SPECIFICATION

Max Operating Temperature:	100°C at 7 bar
Min Operating Temperature:	-20°C at 10 bar
Max Operating Pressure:	70°C at 10 bar
Flow Meter Accuracy:	±10%

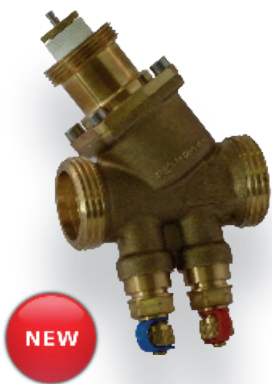
### AX-VDL

### PRESSURE INDEPENDENT CONTROL VALVES

A range of low cost multi-function 2-Port valves and actuators used for the accurate flow control of air-conditioning, cooling and heating equipment, such as fan-coil units, chilled beams, central underfloor heating systems, air recirculation and plant sections.

#### FEATURES

- Regulating Valve with 3 functions: control, preset maximum volume, automatic flow regulation
- Large range 30 to 1330 1/hr
- Easy to preset the maximum required volume flow
- With or without pressure measurement nipples



NEW

**Note:** Larger PICVs are available  
Contact Sales Office for more information.

#### 2 port PICV without pressure nipple

Order Codes	DN	Connection	Flow (1/hr)	List Price
AX-VDL010F210	10mm	G1/2B	30 to 200	£88.00
AX-VDL010F200	10mm	G1/2B	65 to 370	£90.50
AX-VDL015F220	15mm	G3/4B	30 to 200	£107.70
AX-VDL015F210	15mm	G3/4B	65 to 370	£109.50
AX-VDL015F200	15mm	G3/4B	100 to 575	£107.70
AX-VDL020F220	20mm	G1B	100 to 575	£122.50
AX-VDL020F210	20mm	G1B	160 to 990	£124.00
AX-VDL020F200	20mm	G1B	220 to 1330	£127.00

#### 2 port PICV with pressure nipple

Order Codes	DN	Connection	Flow (1/hr)	List Price
AX-VDL010F211	10mm	G1/2B	30 to 200	£106.00
AX-VDL010F201	10mm	G1/2B	65 to 370	£109.45
AX-VDL015F221	15mm	G3/4B	30 to 200	£118.80
AX-VDL015F211	15mm	G3/4B	65 to 370	£121.00
AX-VDL015F201	15mm	G3/4B	100 to 575	£118.80
AX-VDL020F221	20mm	G1B	100 to 575	£139.70
AX-VDL020F211	20mm	G1B	160 to 990	£139.70
AX-VDL020F201	20mm	G1B	220 to 1330	£141.90

#### Actuators to suit AX-VDL

Order Codes		List Price
AX-AXT211F110	Thermal Actuator & 1m cable 230Vac 115N	£22.75
AX-AXT211F112	Thermal Actuator & 1m cable 24Vac 115N	£22.75
AX-AXS215SF122	Modulating Actuator & 1m cable 24Vac 115N	£50.00
AX-AXM217SF402	Modulating Actuator & 1m cable 24Vac 120N	£84.00

#### SPECIFICATION

Valve Material:	Dezincification-resistant brass
Control Range:	30-1330 L/hr
Delta p Range:	14-400 kpa
Medium Range:	0-120°C

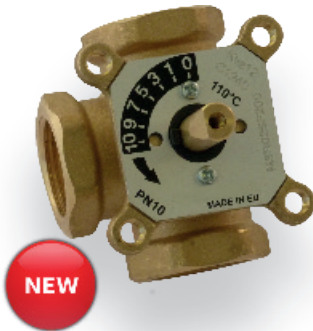
# VALVES & ACTUATORS

## ROTARY SHOE & ZONE VALVES

### AX-RSVM / DASM

### ROTARY SHOE VALVES & ACTUATORS - BRASS

Brass Rotary Shoe Valves for use in heating systems for mixing or diverting applications. The valves come complete with female BSP threaded connections.



#### FEATURES

- Good control characteristics
- Mixing or diverting applications
- Brass
- PN10

Order Codes		List Price
AX-RSVM3R15F200	3 Port 15mm BSP Screwed RSV Kvs 2.5	£74.80
AX-RSVM3R20F200	3 Port 20mm BSP Screwed RSV Kvs 6.0	£74.80
AX-RSVM3R25F200	3 Port 25mm BSP Screwed RSV Kvs 12.0	£76.45
AX-RSVM3R32F200	3 Port 32mm BSP Screwed RSV Kvs 18.0	£83.05
AX-RSVM3R40F200	3 Port 40mm BSP Screwed RSV Kvs 26.0	£157.30
AX-RSVM3R50F200	3 Port 50mm BSP Screwed RSV Kvs 40.0	£229.80
AX-RSVM4R20F200	4 Port 20mm BSP Screwed RSV Kvs 6.0	£74.80
AX-RSVM4R25F200	4 Port 25mm BSP Screwed RSV Kvs 12.0	£90.20
AX-RSVM4R32F200	4 Port 32mm BSP Screwed RSV Kvs 18.0	£95.70
AX-RSVM4R40F200	4 Port 40mm BSP Screwed RSV Kvs 26.0	£165.00
AX-RSVM4R50F200	4 Port 50mm BSP Screwed RSV Kvs 40.0	£237.60

AX-DASM105SF132	5nm 0-10V actuator 24Vac	c/w linkage kit	£126.50
AX-DASM115SF132	10nm 0-10V actuator 24Vac	c/w linkage kit	£150.70
AX-DASM124SF132	15nm 0-10V actuator 24Vac	c/w linkage kit	£228.80

#### SPECIFICATION

Flow Type:	Mixing or Diverting
Materials:	Brass
Fluid Temperature:	2 to +110°C
Max pressure Drop:	100kPa
Pressure Class:	PN10
Letby:	3 Port - 1%
	4 Port - 1.5%

### AX-RSVM / DASM

### ROTARY SHOE VALVES & ACTUATORS - IRON

Iron Rotary Shoe Valves for use in heating systems for mixing or diverting applications. The valves come complete with PN6 flanged connections from 50 to 150mm.



#### FEATURES

- Good control characteristics
- Mixing or diverting applications
- Iron
- PN10

Order Codes		List Price
AX-RSVMH32F20	3 Port 20mm BSP Screwed RSV Kvs 12.0	£137.50
AX-RSVMH32F25	3 Port 25mm BSP Screwed RSV Kvs 18.0	£145.20
AX-RSVMH32F32	3 Port 32mm BSP Screwed RSV Kvs 28.0	£178.20
AX-RSVMH32F40	3 Port 40mm BSP Screwed RSV Kvs 44.0	£187.00
AX-RSVMH32F50	3 Port 50mm BSP Screwed RSV Kvs 66.0	£242.00
AX-RSVMH32F65	3 Port 65mm Flanged RSV Kvs 100.0	£265.10
AX-RSVMH32F80	3 Port 80mm Flanged RSV Kvs 150.0	£357.50
AX-RSVMH32F100	3 Port 100mm Flanged RSV Kvs 225.0	£449.90
AX-RSVMH32F125	3 Port 125mm Flanged RSV Kvs 310.0	£589.60
AX-RSVMH32F150	3 Port 150mm Flanged RSV Kvs 420.0	£786.50
AX-RSVMH42F32	4 Port 32mm BSP Screwed RSV Kvs 28.0	£193.60
AX-RSVMH42F40	4 Port 40mm BSP Screwed RSV Kvs 44.0	£224.40
AX-RSVMH42F50	4 Port 50mm BSP Screwed RSV Kvs 66.0	£281.60

AX-DASM105SF132	5nm 0-10V Actuator 24Vac	c/w linkage kit	£126.50
AX-DASM115SF132	10nm 0-10V Actuator 24Vac	c/w linkage kit	£150.70
AX-DASM124SF132	15nm 0-10V Actuator 24Vac	c/w linkage kit	£228.80

#### SPECIFICATION

Flow Type:	Mixing or Diverting
Materials:	Iron (brass gate & spindle)
Fluid Temperature:	2 to +110°C
Max pressure Drop:	100kPa
Pressure Class:	PN6
Letby:	3 Port - 1%
	4 Port - 1.5%

### AX-ZV-x

### ZONE VALVES & ACTUATORS

Two and three port Zone Valves which are designed for on/off control of fluid flow in a variety of heating and cooling applications.



#### FEATURES

- Reliable synchronous motor
- Spring return mechanism as a failsafe
- 2 port and 3 port versions

Order Codes		List Price
AX-ZV-2-15-230	2 Port 1/2" BSP Zone Valve 230Vac	£41.00
AX-ZV-2-22-230	2 Port 3/4" BSP Zone Valve 230Vac	£44.00
AX-ZV-2-28-230	2 Port 1" BSP Zone Valve 230Vac	£46.00
AX-ZV-3-15-230	3 Port 1/2" BSP Zone Valve 230Vac	£43.50
AX-ZV-3-22-230	3 Port 3/4" BSP Zone Valve 230Vac	£45.00
AX-ZV-3-28-230	3 Port 1" BSP Zone Valve 230Vac	£47.50
AX-ZV-2-15-24	2 Port 1/2" BSP Zone Valve 24Vac	£43.00
AX-ZV-2-22-24	2 Port 3/4" BSP Zone Valve 24Vac	£46.00
AX-ZV-2-28-24	2 Port 1" BSP Zone Valve 24Vac	£48.00
AX-ZV-3-15-24	3 Port 1/2" BSP Zone Valve 24Vac	£45.50
AX-ZV-3-22-24	3 Port 3/4" BSP Zone Valve 24Vac	£47.00
AX-ZV-3-28-24	3 Port 1" BSP Zone Valve 24Vac	£49.50

#### SPECIFICATION

Power Supply:	230Vac and 24Vac
Power Consumption:	6W
Pressure Limit:	Static 10bar
	Differential 15mm 1.4bar
	Differential 22mm 0.7bar
	Differential 28mm 0.6bar
Operating Times:	Opening < 12secs max
	Closing < 15secs max
Liquid Temperature:	5 to 88°C
Ambient Range:	0 to 60°C

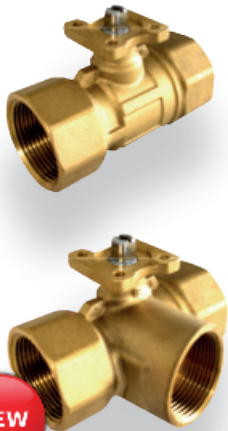
### AX-NCVBx

### BALL VALVES - 2 & 3 WAY

The AX-NCVB range of electrically automated characterized ball valves are designed specifically for the HVAC market. This characterized ball design provides very high rangeability and excellent equal percentage flow characteristics. The AX-NCVB range of valves are ideal for all automatic temperature control applications using hot or chilled water.

#### FEATURES

- Establishes a flow coefficient (Kvs) similar to globe valves, eliminating the need for pipe size correction tables when sizing valves
- Provides superior rangeability and equal percentage flow characteristics
- Facilitate the use of smaller, less expensive actuators
- Extends valve and actuator service life



**Note:** Larger sizes up to 80mm available. Contact the Sales Office for more information.

Order Codes	2-Way Ball Valves	List Price
AX-NCVB72015	15mm Screwed brass 2-Way Ball Valve	£60.00
AX-NCVB72020	20mm Screwed brass 2-Way Ball Valve	£76.00
AX-NCVB72025	25mm Screwed brass 2-Way Ball Valve	£77.00
AX-NCVB72032	32mm Screwed brass 2-Way Ball Valve	£108.00
AX-NCVB72040	40mm Screwed brass 2-Way Ball Valve	£125.00
AX-NCVB72050	50mm Screwed brass 2-Way Ball Valve	£187.00
Order Codes	3-Way Ball Valves	List Price
AX-NCVB73015	15mm Screwed brass 3-Way Ball Valve	£63.00
AX-NCVB73020	20mm Screwed brass 3-Way Ball Valve	£80.00
AX-NCVB73025	25mm Screwed brass 3-Way Ball Valve	£109.00
AX-NCVB73032	32mm Screwed brass 3-Way Ball Valve	£135.00
AX-NCVB73040	40mm Screwed brass 3-Way Ball Valve	£181.00
AX-NCVB73050	50mm Screwed brass 3-Way Ball Valve	£251.00

#### SPECIFICATION

Body Pressure:	260 psi (25 bar), meets or exceeds pressure and rating (EN 12360) temperature requirements of ANSI Class 250/FIanged Valve PN 6	
Size Range:	15 to 50mm (½" to 2")	
Temperature Range:	-30°C to 115°C at 360 psi for fluids	
Flow Characteristics:	Equal percentage / Bypass linear	
Materials:	Body	Brass
	Ball	Nickel Plated Brass (Stainless Steel optional)
	Stem	Brass (Stainless Steel optional)
	Insert	Glass-filled Polymer
	Stem Seal	EPDM O-rings
	Ball Seals	RTFE seats with EPDM O-rings
	Mounting Bracket	Glass-filled Polymer

### AX-NEBA

### BALL VALVE ACTUATORS

The AX-NEBA Rotary Valve Actuators are especially designed and produced for HVAC systems and fan coil applications. This wide range of Rotary Valve Actuators has been developed to operate and position 2 - 3 way Ball Valves of different sizes.

#### FEATURES

- 1m cable connection
- Torque 5, 8 AND 10Nm
- Selectable direction of rotation
- 1 Adjustable auxiliary switch (SPDT)



**Note:** Larger sizes up to 80mm available. Contact the Sales Office for more information.

Order Codes	Damper Actuators - Normal Electric	List Price
AX-NEBA24-05	5Nm - On/Off + Raise/Lower - 24V	£75.00
AX-NEBA24-05S1	5Nm - On/Off + Raise/Lower - 24V + Aux. Switch	£96.00
AX-NEBA230-05	5Nm - On/Off + Raise/Lower - 230V	£77.00
AX-NEBA230-05S1	5Nm - On/Off + Raise/Lower - 230V + Aux Switch	£101.00
AX-NEBM24.2-05	5Nm - 0-10Vdc - 24V	£105.00

Order Codes	Actuators - Spring Return	List Price
AX-NESA24-05	5Nm - On/Off + Raise/Lower - 24V	£116.00
AX-NESA24-05S1	5Nm - On/Off + Raise/Lower - 24V + Aux. Switch	£121.00
AX-NESA230-05	5Nm - On/Off + Raise/Lower - 230V	£116.00
AX-NESA230-05S1	5Nm - On/Off + Raise/Lower - 230V + Aux. Switch	£121.00

#### SPECIFICATION

Power Supply:	AC/DC	24V ±15%
	AC	230V ±10%
Torque:	5Nm, 8Nm, 10Nm	
Connection:	1m Cable	
Control:	2/3 point or modulating	

# VALVES & ACTUATORS

## BUTTERFLY VALVES & ACTUATORS

### AX-VB-x



### BUTTERFLY VALVES & ACTUATORS - HIGH QUALITY, QUIET OPERATION

A range of Flanged Wafer Butterfly Valves designed to control liquid flow in closed circuit heating or cooling systems, the units feature PN6, PN10 and PN16 flanged connections, and are manufactured to a very high quality.

The units feature three ranges of available actuators, specifically designed for the AX-VB Each range has on/off, Raise/Lower and modulating versions for maximum flexibility.

Order Codes	Butterfly Valves	List Price
AX-VB-025	Butterfly Valve DN25	£196.90
AX-VB-032	Butterfly Valve DN32	£213.40
AX-VB-040	Butterfly Valve DN40	£235.40
AX-VB-050	Butterfly Valve DN50	£265.10
AX-VB-065	Butterfly Valve DN65	£295.90
AX-VB-080	Butterfly Valve DN80	£335.50
AX-VB-100	Butterfly Valve DN100	£359.70
AX-VB-125	Butterfly Valve DN125	£438.90
AX-VB-150	Butterfly Valve DN150	£574.20
AX-VB-200	Butterfly Valve DN200	£849.20
AX-VB-2CF-PN6	2 counter flanges PN6	P.O.A
AX-VB-2CF-PN10	2 counter flanges PN10	P.O.A
AX-VB-2CF-PN16	2 counter flanges PN16	P.O.A



Order Codes	Actuators	List Price
<b>15nm</b>		
AX-AR30W23F001	On/Off, Raise/Lower Actuator 15nm 230Vac	£289.30
AX-AR30W23F020	On/Off, Raise/Lower Actuator 15nm 24Vac	£289.30
AX-AR30W23SF020	Modulating Actuator 15nm 24Vac	£519.20
<b>18nm</b>		
AX-ASF122F220	2/3 point Spring Return Actuator 18nm 230V	£346.40
AX-ASF123F222	2/3 point Spring Return Actuator 18nm 24V	£324.50
AX-ASF123SF122	Modulating Spring Return Actuator 16nm 24V	£319.00
<b>30nm</b>		
AX-A44W2F001	On/Off, Raise/Lower Actuator 30nm 230Vac	£768.90
AX-A44W2F020	On/Off, Raise/Lower Actuator 30nm 24Vac	£771.10
AX-A44W2SF001	Modulating Actuator 30nm 24Vac	£959.20
<b>Assembly Kits</b>		
AX-VB-0378108001	Assembly Kit DN25-65 for AR30	£34.10
AX-VB-0378109001	Assembly Kit DN80-100 for AR30	£40.70
AX-VB-0378110001	Assembly Kit DN25-65 for A44W	£36.30
AX-VB-0378111001	Assembly Kit DN80-125 for A44W	£38.50
AX-VB-0378112001	Assembly Kit DN150-200 for A44W	£38.50
AX-VB-0378113001	Assembly Kit DN25-200 for ASF122	£44.00

#### FEATURES

- 16bar shut off pressure
- Cast iron body
- Tight shut off
- PN6, PN10, PN16 flanged connection

#### SPECIFICATION

Flow Type:	Isolating or regulating					
Fluid Temperature:	0 to +110°C					
Pressure Class:	PN16					
Leakage Rate:	<0.0001% of Kvs					
Materials:	Body	Ductile iron				
	Wafer	Stainless Steel				
Code	Nominal	Kvs	Weight	Delta P Max		
	Width	m3/hr	Kgs	ASF	AR30	A44
AX-VB-025	DN25	36	1.00	10	10	10
AX-VB-032	DN32	40	1.15	10	10	10
AX-VB-040	DN40	50	2.75	10	10	16
AX-VB-050	DN50	85	3.05	10	10	16
AX-VB-065	DN65	215	4.05	7	7	16
AX-VB-080	DN80	420	4.30	4	4	10
AX-VB-100	DN100	800	4.85	2	2	10
AX-VB-125	DN125	1010	7.20			6
AX-VB-150	DN150	2100	9.50			5
AX-VB-200	DN200	4000	12.00			3

#### FEATURES

- Assembly kits for all actuators
- Manual Butterfly adjustment possible
- On/off, Raise/Lower and modulating versions
- Up to 30nm actuation

#### SPECIFICATION

Type:	AX-ASF	Spring return to 100mm
	AX-AR30	Non spring return to 100mm
	AX-A44W	Non spring return to 200mm
Torque:	AR30W	15nm
	A44W	30nm
	ASF	18nm (modulating 16nm)

### AX-405 / NEAA



### BUTTERFLY VALVES & ACTUATORS - COST-EFFECTIVE

A range of Wafer Type Butterfly Valves as used in heating and cooling water systems at a very competitive price point.

Order Codes	Butterfly Valves	List Price
AX-405-WEHT-50	50mm Wafer Type Butterfly Valves	£165.00
AX-405-WEHT-65	65mm Wafer Type Butterfly Valves	£180.00
AX-405-WEHT-80	80mm Wafer Type Butterfly Valves	£200.00
AX-405-WEHT-100	100mm Wafer Type Butterfly Valves	£240.00
AX-405-WEHT-125	125mm Wafer Type Butterfly Valves	£275.00
AX-405-WEHT-150	150mm Wafer Type Butterfly Valves	£315.00

Order Codes	Actuators for up to 100mm	List Price
AX-NEAA24-16	24Vac - 16nm - On/Off & Raise/Lower	£99.00
AX-NEAA230-16	230Vac - 16nm - On/Off & Raise/Lower	£99.00
AX-NEAA24-16S	24Vac - 16nm - On/Off & Raise/Lower + Aux Switch	£115.00
AX-NEAA230-16S	230Vac - 16nm - On/Off & Raise/Lower + Aux Switch	£115.00
AX-NEAM24-1-16	24Vac - 16nm - 0-10Vdc Modulating	£135.00
<b>Actuators for 125 to 150mm</b>		
AX-NEAA24-32	24Vac - 32nm - On/Off & Raise/Lower	£210.00
AX-NEAA230-32	230Vac - 32nm - On/Off & Raise/Lower	£210.00
AX-NEAA24-32S	24Vac - 32nm - On/Off & Raise/Lower + Aux Switch	£220.00
AX-NEAA230-32S	230Vac - 32nm - On/Off & Raise/Lower + Aux Switch	£220.00
AX-NEAM24-1-32	24Vac - 32nm - 0-10Vdc Modulating	£245.00

#### FEATURES

- 6Bar max working pressure
- Pn10, Pn16, ANSI 150 Flanged connection
- Cast iron body
- Tight shut off

#### SPECIFICATION

Leakage:	Tight shut off up to 100mm. For tight shut off for 125mm - 150mm use 32Nm motor	
Fluid Temperature:	-40 to +120°C	
Max Working Pressure:	6Bar	
Flanges to Suit:	Pn10, Pn16, ANSI 150	
Material:	Body	Nodular Iron GGG50
	Shaft	Stainless Steel (AISI420)
	Disc	Stainless Steel 1.4408 (AISI316)
	Seat	EPDM

### AX-VGS-GNC-x

### GAS SOLENOID VALVES - AUTO RESET

A range of two port, two position, Auto Reset Gas Solenoid Valves for use in emergency shut-off applications. The valves are normally closed units with Buna seal as standard.



Screwed Gas Solenoid Valves - Auto reset  
If 24Vac/dc coil is required, change 8 to 4 in the order code  
If 12Vac/dc coil is required, change 8 to 2 in the order code

Order Codes		List Price
AX-VGS-CPI	CPI For all Gas Solenoid Valves	£50.00
AX-VGS-GNC-815	1/2" BSP Gas Solenoid Valve, 230Vac coil	£94.00
AX-VGS-GNC-820	3/4" BSP Gas Solenoid Valve, 230Vac coil	£126.00
AX-VGS-GNC-825	1" BSP Gas Solenoid Valve, 230Vac coil	£141.00
AX-VGS-GNC-832	1 1/4" BSP Gas Solenoid Valve, 230Vac coil	£222.00
AX-VGS-GNC-840	1 1/2" BSP Gas Solenoid Valve, 230Vac coil	£230.00
AX-VGS-GNC-850	2" BSP Gas Solenoid Valve, 230Vac coil	£300.00

Flanged Gas Solenoid Valves - Auto reset  
If 24Vac/dc coil is required, change 8 to 4 in the order code  
If 12Vac/dc coil is required, change 8 to 2 in the order code

Order Codes		List Price
AX-VGS-GNC-865	2 1/2" Flanged Gas Solenoid Valve, 230Vac coil	£625.00
AX-VGS-GNC-880	3" Flanged Gas Solenoid Valve, 230Vac coil	£695.00
AX-VGS-GNC-8100	4" Flanged Gas Solenoid Valve, 230Vac coil	£1275.00
AX-VGS-GNC-8125	5" Flanged Gas Solenoid Valve, 230Vac coil	£2495.00
AX-VGS-GNC-8150	6" Flanged Gas Solenoid Valve, 230Vac coil	£2650.00

**Note:** Please contact the sales office for 24V or 12V versions.

#### FEATURES

- 230Vac as standard, other voltages available
- Buna seals as standard (others available)
- Includes connection

#### SPECIFICATION

Power Supply:	AX-GNC-8xx	230Vac @ 50Hz +10 -15%
	AX-GNC-4xx	24Vac/dc @ 50Hz ±10%
	AX-GNC-2xx	12Vac/dc @ 50Hz ±10%
Materials:	Body	Die cast Aluminium
	Seals	NBR (UNI 4916-74)
	Pressure Spring	AISI 302 Steel
	Plug	Chromium plated Fe 37 Steel
Connection:	15 to 50mm	DN (BSP) female threads
	65 to 150mm	Flanged PN 16
Reset:		Auto
Protection:		IP54
Operation:		Normally closed
Response Time:		< 1 sec
Electrical Connection:		PG11
Coil Temperature:		70°C approx
Ambient Temperature Range:		-15 to +60°C

### AX-VGS-GRC-x

### GAS SOLENOID VALVES - MANUAL RESET

A range of two port, two position, Manual Reset Gas Solenoid Valves for use in emergency shut-off applications. The valves are normally closed units with Buna seals as standard.



Screwed Gas Solenoid Valves - Manual reset  
If 24Vac/dc coil is required, change 8 to 4 in the order code  
If 12Vac/dc coil is required, change 8 to 2 in the order code

Order Codes		List Price
AX-VGS-GRC-820	3/4" BSP Gas Solenoid Valve, 230Vac coil	£126.00
AX-VGS-GRC-825	1" BSP Gas Solenoid Valve, 230Vac coil	£141.00
AX-VGS-GRC-832	1 1/4" BSP Gas Solenoid Valve, 230Vac coil	£222.00
AX-VGS-GRC-840	1 1/2" BSP Gas Solenoid Valve, 230Vac coil	£230.00
AX-VGS-GRC-850	2" BSP Gas Solenoid Valve, 230Vac coil	£300.00
AX-VGS-GRC-865	2 1/2" BSP Gas Solenoid Valve, 230Vac coil	£625.00
AX-VGS-GRC-880	3" BSP Gas Solenoid Valve, 230Vac coil	£695.00

Flanged Gas Solenoid Valves - Manual reset  
If 24Vac/dc coil is required, change 8 to 4 in the order code  
If 12Vac/dc coil is required, change 8 to 2 in the order code

Order Codes		List Price
AX-VGS-GRCF-865	2 1/2" Flanged Gas Solenoid Valve, 230Vac coil	£685.00
AX-VGS-GRCF-880	3" Flanged Gas Solenoid Valve, 230Vac coil	£740.00
AX-VGS-GRCF-8100	4" Flanged Gas Solenoid Valve, 230Vac coil	£1220.00

**Note:** Please contact the sales office for 24V or 12V versions.

#### FEATURES

- 230Vac as standard, other voltages available
- Buna seals as standard (others available)
- Includes connection

#### SPECIFICATION

Power Supply:	AX-GRC-8xx	230Vac @ 50Hz +10 -15%
	AX-GRC-4xx	24Vac/dc @ 50Hz ±10%
	AX-GRC-2xx	12Vac/dc @ 50Hz ±10%
Materials:	Body	Die cast Aluminium
	Seals	NBR (UNI 4916-74)
	Pressure Spring	AISI 302 Steel
	Plug	Chromium plated Fe 37 Steel
Connection:	15 to 50mm	DN (BSP) female threads
		Flanged PN 16
Reset:		Manual
Protection:		IP54
Operation:		Normally closed
Response Time:		< 1 sec
Electrical Connection:		PG11
Coil Temperature:		70°C approx
Ambient Temperature Range:		-15 to +60°C



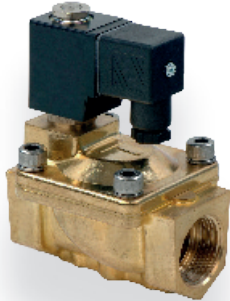
# VALVES & ACTUATORS

## GENERAL PURPOSE SOLENOID VALVES

### AX-VS-PU / NOPU

### SOLENOID VALVES - SCREWED - GENERAL PURPOSE

A range of two port, two position, servo assisted screwed Solenoid Valves for use in standard applications. The valves are available either as normally open or normally closed units with a Buna seal as standard.



**Note:** Includes the coil and MPM plug. Viton and EPDM seals available at additional cost.

#### FEATURES

- Buna seals as standard
- Includes MPM plug connection
- IP65 connection housing
- BSP Thread
- 24Vac as standard, other voltages available

Order Codes	Please Add -24Vac, -230Vac, or 24Vdc suffix	List Price
Normally Closed		
AX-VS-PU22503-V	3/8" Solenoid Valve, Buna seal, normally closed	£53.00
AX-VS-PU22504A-V	1/2" Solenoid Valve, Buna seal, normally closed	£54.00
AX-VS-PU22506A-V	3/4" Solenoid Valve, Buna seal, normally closed	£79.00
AX-VS-PU22508A-V	1" Solenoid Valve, Buna seal, normally closed	£95.00
AX-VS-PU22512A-V	1 1/4" Solenoid Valve, Buna seal, normally closed	£182.00
AX-VS-PU22514A-V	1 1/2" Solenoid Valve, Buna seal, normally closed	£183.00
AX-VS-PU22520A-V	2" Solenoid Valve, Buna seal, normally closed	£257.00
AX-VS-PU22524A-V	2 1/2" Solenoid Valve, Buna seal, normally closed	£1035.00
AX-VS-PU22528A-V	3" Solenoid valve, Buna seals, normally closed	£1075.00
Normally Open		
AX-VS-NOPU22503-V	3/8" Solenoid Valve, Buna seal, normally open	£83.00
AX-VS-NOPU22504A-V	1/2" Solenoid Valve, Buna seal, normally open	£84.00
AX-VS-NOPU22506A-V	3/4" Solenoid Valve, Buna seal, normally open	£109.00
AX-VS-NOPU22508A-V	1" Solenoid Valve, Buna seal, normally open	£125.00
AX-VS-NOPU22512A-V	1 1/4" Solenoid Valve, Buna seal, normally open	£212.00
AX-VS-NOPU22514A-V	1 1/2" Solenoid Valve, Buna seal, normally open	£213.00
AX-VS-NOPU22520A-V	2" Solenoid Valve, Buna seal, normally open	£287.00
AX-VS-NOPU22524A-V	2 1/2" Solenoid Valve, Buna seal, normally open	£1065.00
AX-VS-NOPU22528A-V	3" Solenoid valve, Buna seals, normally open	£1105.00

#### SPECIFICATION

Power Supply:	-24Vac	24Vac @ 50/60Hz ±10%
	-230Vac	230Vac @ 50/60Hz ±10%
Operation:	-24Vdc	24Vdc +10 - 5%
	PU	Normally closed
Seals:	NOPU	Normally open
	-A	Buna
	-V	VITON
Liquid Temperature:	-E	EPDM
	Buna	-10 to +80°C
	Viton	0 to 130°C
	EPDM	0 to 160°C
Power Consumption:		17VA max
Pressure Range:		0.5 to 15bar
Media:		Air, water, gas, light oil
Electrical Connection:		MPM DIN 43650A Connector
Ambient Range:		-20 to +60°C

### AX-VS-BFE / NOBFE

### SOLENOID VALVES - FLANGED - GENERAL PURPOSE

A range of two port, two position auto reset flanged Solenoid Valves for use in standard applications. The valves are available either as normally open or normally closed units with Buna seals as standard.



**Note:** Order Codes shown are all with Buna seals, FKM seals available at additional cost.

#### FEATURES

- 230Vac as standard, other voltages available
- Buna seals as standard (other options available)
- Includes MPM plug connection
- Flanged connection PN16 RF
- IP65 connection housing

Order Codes	Port (PN16)	Orifice (mm)	Flow (1/min)	Price
Normally Closed				
AX-VS-BFE-50B-230	2"	50	1250	£610.00
AX-VS-BFE-65B-230	2 1/2"	£65.00	1750	£770.00
AX-VS-BFE-80B-230	3"	80	2300	£909.00
AX-VS-BFE-100B-230	4"	100	4300	£1089.00
AX-VS-BFE-125B-230	5"	125	6500	£1533.00
AX-VS-BFE-150B-230	6"	150	9100	£2026.00
AX-VS-BFE-200B-230	8"	200	£16700.00	£4575.00
AX-VS-BFE-250B-230	10"	250	26500	£9145.00
AX-VS-BFE-300B-230	12"	300	36500	£11135.00
Normally Open				
AX-VS-NOBFE-50B-230	2"	50	£1250.00	£683.00
AX-VS-NOBFE-65B-230	2 1/2"	65	1750	£843.00
AX-VS-NOBFE-80B-230	3"	80	2300	£982.00
AX-VS-NOBFE-100B-230	4"	100	£4300.00	£1162.00
AX-VS-NOBFE-125B-230	5"	125	6500	£1606.00
AX-VS-NOBFE-150B-230	6"	150	9100	£2100.00
AX-VS-NOBFE-200B-230	8"	200	16700	£4645.00
AX-VS-NOBFE-250B-230	10"	250	26500	£9216.00
AX-VS-NOBFE-300B-230	12"	300	36500	£11206.00

#### SPECIFICATION

Power Supply:	-230	230Vac @ 50/60Hz ±10%
	-24	24Vac @ 50Hz ±10%
	-12	12/24Vdc ±10%
Operation:	BFE	Normally closed
	NOBFE	Normally open
Power Consumption:	AC	Inrush 43VA, holding 26VA
	DC	19W
Seals:	-B	Buna
	-F	FKM
Liquid Temperature:	Buna	-5 to +90°C
	FKM	0 to 100°C
Media:		Air, water, gas, light oil
Pressure Limit:		16bar
Ambient Range:		-10 to +60°C

### AX-NEAx

### DAMPER ACTUATORS - FLYING LEAD CONNECTION



Specifically designed and produced for applications in HVAC systems, the AX-NEA range of Damper Actuators are a particularly cost effective solution with a variety of options. These standard Damper Actuators have been developed to operate and position air dampers of different sizes.

#### FEATURES

- Flying lead connection
- Selectable direction of rotation
- Adjustable angle of rotation
- Raise / Lower or On/Off on the same unit

Order Codes	5Nm with flying lead	List Price
AX-NEAA24-05	On/Off & Raise/Lower - 24V	£57.00
AX-NEAA24-05S1	On/Off & Raise/Lower - 24V - Aux. Switch	£72.00
AX-NEAA230-05	On/Off & Raise/Lower - 230V	£57.00
AX-NEAA230-05S1	On/Off & Raise/Lower - 230V - Aux. Switch	£72.00
AX-NEAM24.2-05	0-10Vdc Damper Actuator 24V	£77.00

Order Codes	10Nm with flying lead	List Price
AX-NEAA24-10	On/Off & Raise/Lower - 24V	£78.00
AX-NEAA24-10S1	On/Off & Raise/Lower - 24V - Aux Switch	£96.00
AX-NEAA230-10	On/Off & Raise/Lower - 230V	£80.00
AX-NEAA230-10S1	On/Off & Raise/Lower - 230V - Aux. Switch	£96.00
AX-NEAM24.1-10	0-10Vdc Damper Actuator 24V	£103.00
AX-NEAM24.1-10S	0-10Vdc Damper Actuator 24V Aux. Switch	£130.00

Order Codes	20Nm with flying lead	List Price
AX-NEAA24-20	On/Off & Raise/Lower - 24V	£140.00
AX-NEAA24-20S1	On/Off & Raise/Lower - 24V - Aux Switch	£149.00
AX-NEAA230-20	On/Off & Raise/Lower - 230V	£140.00
AX-NEAA230-20S1	On/Off & Raise/Lower - 230V - Aux. Switch	£149.00
AX-NEAM24.2.20	0-10Vdc Damper Actuator 24V	£180.00
AX-NEAM24.2-20S	0-10Vdc Damper Actuator 24V Aux. Switch	£193.00

Order Codes	24Nm with flying lead	List Price
AX-NEAA24-24	On/Off & Raise/Lower - 24V	£124.00
AX-NEAA24-24S1	On/Off & Raise/Lower - 24V - Aux Switch	£143.00
AX-NEAA230-24	On/Off & Raise/Lower - 230V	£124.00
AX-NEAA230-24S1	On/Off & Raise/Lower - 230V - Aux. Switch	£143.00
AX-NEAM24.1.24	0-10Vdc Damper Actuator 24V	£163.00
AX-NEAM24.1-24S	0-10Vdc Damper Actuator 24V Aux. Switch	£182.00

#### SPECIFICATION

Power Supply:	AC/DC	24V
	AC	230V
Torque:	5Nm, 10Nm, 20Nm, 24Nm	
Connection:	1m Flying Lead Cable	
Potentiometer:	10kΩ	
Shaft Length:	40mm Minimum	
Control:	On/Off, Raise/Lower or 0-10Vdc	

### AX-NEAx

### DAMPER ACTUATORS - TERMINAL CONNECTION



Specifically designed and produced for applications in HVAC systems, the AX-NEA range of Damper Actuators are a particularly cost effective solution with a variety of options. These standard damper actuators have been developed to operate and position air dampers of different sizes.

#### FEATURES

- Terminal connection
- Selectable direction of rotation
- Adjustable angle of rotation
- Raise / Lower or On/Off on the same unit

Order Codes	8Nm with terminals	List Price
AX-NEAA24-08	On/Off & Raise/Lower - 24V	£88.00
AX-NEAA24-08S1	On/Off & Raise/Lower - 24V - Aux Switch	£98.00
AX-NEAA230-08	On/Off & Raise/Lower - 230V	£88.00
AX-NEAA230-08S1	On/Off & Raise/Lower - 230V - Aux. Switch	£98.00
AX-NEAM24.1-08	0-10Vdc Damper Actuator 24V	£102.00
AX-NEAM24.1-08S	0-10Vdc Damper Actuator 24V Aux. Switch	£120.00

Order Codes	16Nm with terminals	List Price
AX-NEAA24-16	On/Off & Raise/Lower - 24V	£90.50
AX-NEAA24-16S1	On/Off & Raise/Lower - 24V - Aux Switch	£101.00
AX-NEAA230-16	On/Off & Raise/Lower - 230V	£90.50
AX-NEAA230-16S1	On/Off & Raise/Lower - 230V - Aux. Switch	£101.00
AX-NEAM24.1-16	0-10Vdc Damper Actuator 24V	£120.00
AX-NEAM24.1-16S	0-10Vdc Damper Actuator 24V Aux. Switch	£140.00

Order Codes	32Nm with terminals	List Price
AX-NEAA24-32	On/Off & Raise/Lower - 24V	£191.00
AX-NEAA24-32S1	On/Off & Raise/Lower - 24V - Aux Switch	£225.00
AX-NEAA230-32	On/Off & Raise/Lower - 230V	£191.00
AX-NEAA230-32S1	On/Off & Raise/Lower - 230V - Aux. Switch	£225.00
AX-NEAM24.1-32	0-10Vdc Damper Actuator 24V	£224.00
AX-NEAM24.1-32S	0-10Vdc Damper Actuator 24V Aux. Switch	£247.00

#### SPECIFICATION

Power Supply:	AC/DC	24V
	AC	230V
Torque:	8Nm, 16Nm, 32Nm	
Connection:	Terminal	
Potentiometer:	1kΩ / 10kΩ	
Shaft Length:	50mm Minimum	
Control:	On/Off, Raise/Lower or 0-10Vdc	

# VALVES & ACTUATORS

## DAMPER ACTUATORS

### AX-DASMx

### DAMPER ACTUATORS - 5NM & 10NM - HIGH QUALITY, QUIET OPERATION



The AX-DASM range of Damper Actuators are Swiss-made and of a very high quality. Suitable for the actuation of air, shut-off and restrictor dampers and louvres, these Damper Actuators are for controllers with either an on/off or Raise/Lower output and offer very quiet operation. This range offers 5NM and 10NM versions.

#### FEATURES

- Constant running time, independent of load
- Very quiet operation >30db(A)
- On/off and Raise/Lower control in the same unit
- Fast running version available 30 secs
- 0-10Vdc proportional version available
- Automatic shutoff at endstop
- Simple manual positioning via red button
- Compact size

#### SPECIFICATION

Power Supply:	F122	24Vac/dc ±20%
	F100/120	230Vac ±15%
Output:	SF	24Vac/dc only ±20%
	105	5nm
Output Modes:	115	10nm
	F	On/Off or Raise/Lower
Running Time:	SF	Proportional 0 to 10Vdc
	F100	30secs ±5% for 90° rotation
Angle of Rotation:	F120/122	120secs ±5% for 90° rotation
	105SF	35/60/120secs switch selectable
	115SF	60/120secs switch selectable
Spindle Size:		Circular 8 to 16mm diameter
Protection:		IP54
Weight:		700gms approx
Country of Origin:		Switzerland

Order Codes	5Nm Damper Actuators	List Price
AX-DASM105F100	On/Off + Raise / Lower - 230Vac - 30 secs	£92.40
AX-DASM105F120	On/Off + Raise / Lower - 230Vac - 120 secs	£83.60
AX-DASM105F122	On/Off + Raise / Lower - 24Vac - 120 secs	£83.60
AX-DASM105SF132	0-10Vdc - 24Vac - 35/60/120 secs	£106.70

Order Codes	10Nm Damper Actuators	List Price
AX-DASM115F120	On/Off + Raise / Lower - 230Vac - 120 secs	£97.90
AX-DASM115F122	On/Off + Raise / Lower - 24Vac - 120 secs	£97.90
AX-DASM115SF132	0-10Vdc - 24Vac - 60/120 secs	£128.70

### AX-DASMx

### DAMPER ACTUATORS - 15NM, 18NM & 30NM - HIGH QUALITY, QUIET OPERATION



The AX-DASM range of Damper Actuators are Swiss-made and of a very high quality. Suitable for the actuation of air, shut-off and restrictor dampers and louvres, these Damper Actuators are for controllers with either an on/off or Raise/Lower output and offer very quiet operation. This range offers 15NM, 18NM and 30NM

#### FEATURES

- Constant running time, independent of load
- Very quiet operation >30db(A)
- On/off and Raise/Lower control in the same unit
- Fast running version available 30 secs
- 0-10Vdc proportional version available
- Automatic shutoff at endstop
- Simple manual positioning via red button
- Compact size

#### SPECIFICATION

Power Supply:	F122	24Vac/dc ±20%
	F120/130	230Vac ±15%
Output:	SF	24Vac/dc only ±20%
	124	18nm (124SF = 15nm)
Output Modes:	115	30nm
	F	On/Off or Raise/Lower
Running Time:	SF	Proportional 0 to 10Vdc
	F120/122	120secs ±5% for 90° rotation
Angle of Rotation:	SF122	60/120secs ±5% for 90° rotation
	F130/132	120/240secs switch selectable
Spindle Size:		Circular 12 to 20mm diameter
Protection:		IP54
Weight:		1600gms approx
Country of Origin:		Switzerland

Order Codes	15Nm Damper Actuators	List Price
AX-DASM124SF132	0-10Vdc - 24Vac - 60/120 secs	£190.00

Order Codes	18Nm Damper Actuators	List Price
AX-DASM124F120	On/Off + Raise / Lower - 230Vac - 120 secs	£136.40
AX-DASM124F122	On/Off + Raise / Lower - 24Vac - 120 secs	£136.40

Order Codes	30Nm Damper Actuators	List Price
AX-DASM134F130	On/Off + Raise / Lower - 230Vac - 120/240 secs	£201.30
AX-DASM134SF132	0-10Vdc - 24Vac - 120/240 secs	£223.30

### AX-FSAx

### FAIL-SAFE DAMPER ACTUATORS - 5NM & 10NM



The AX-FSA range of Damper Actuators with electronic fail-safe (EFS) function are designed and produced for extended functions in HVAC systems, fan coil and laboratory applications. Electronic fail-safe (EFS) is able to manage short voltage interruptions for a maximum of 4 seconds. In case of longer voltage interruption they will move the dampers or valves if necessary to a pre-defined emergency position (EPS).

#### FEATURES

- Flying lead connection
- Selectable direction of rotation by switch
- Adjustable angle of rotation (mechanical)
- Electronic fail-safe function

Order Codes	5Nm Fail-Safe with Flying Lead	List Price
AX-FSAA-24-05	2/3 Point Damper Actuator 24V	£107.00
AX-FSAA-230-05	2/3 Point Damper Actuator 230V	£114.00
AX-FSAM-24.2-05	Modulating Damper Actuator	£143.00

Order Codes	8Nm Fail-Safe with Flying Lead	List Price
AX-FSAA-24-08	2/3 Point Damper Actuator 24V	£133.00
AX-FSAA-24-08S	2/3 Point Damper Actuator 24V c/w axs	£153.00
AX-FSAA-230-08	2/3 Point Damper Actuator 230V	£142.00
AX-FSAA-230-08S	2/3 Point Damper Actuator 230V c/w axs	£163.00
AX-FSAM-24.2-08	Modulating Damper Actuator 24V	£171.00
AX-FSAM-24.2-08S	Modulating Damper Actuator 24V c/w axs	£193.00

#### SPECIFICATION

Power Supply:	AC	24V 50/60 Hz
	DC	24V
Torque:	5Nm & 8Nm	
Connection:	1m Flying Lead Cable	
Control:	2/3 Point or modulating	

### AX-FSAx

### FAIL-SAFE DAMPER ACTUATORS - 16NM & 24NM



The AX-FSA range of Damper Actuators with electronic fail-safe (EFS) function are designed and produced for extended functions in HVAC systems, fan coil and laboratory applications. Electronic fail-safe (EFS) is able to manage short voltage interruptions for a maximum of 4 seconds. In case of longer voltage interruption they will move the dampers or valves if necessary to a pre-defined emergency position (EPS).

#### FEATURES

- Terminal connection
- Selectable direction of rotation by switch
- Adjustable angle of rotation (mechanical)
- Electronic fail-safe function

Order Codes	16Nm Fail-Safe with Flying Lead	List Price
AX-FSAA-24-16	2/3 Point Damper Actuator 24V	£186.00
AX-FSAA-24-16S	2/3 Point Damper Actuator 24V c/w axs	£207.00
AX-FSAA-230-16	2/3 Point Damper Actuator 230V	£197.00
AX-FSAA-230-16S	2/3 Point Damper Actuator 230V c/w axs	£217.00
AX-FSAM-24.2-16	Modulating Damper Actuator 24V	£227.00
AX-FSAM-24.2-16S	Modulating Damper Actuator 24V c/w axs	£248.00

Order Codes	24Nm Fail-Safe with Flying Lead	List Price
AX-FSAA-24-24	2/3 Point Damper Actuator 24V	£233.00
AX-FSAA-24-24S	2/3 Point Damper Actuator 24V c/w axs	£254.00
AX-FSAA-230-24	2/3 Point Damper Actuator 230V	£154.00
AX-FSAA-230-24S	2/3 Point Damper Actuator 230V c/w axs	£264.00
AX-FSAM-24.2-24	Modulating Damper Actuator 24V	£283.00
AX-FSAM-24.2-24S	Modulating Damper Actuator 24V c/w axs	£304.00

#### SPECIFICATION

Power Supply:	AC	24V 50/60 Hz
	DC	24V
Torque:	16Nm & 24Nm	
Connection:	1m Flying Lead Cable	
Control:	2/3 Point or modulating	

# COMMISSIONING TOOLS & BESPOKE PRODUCTS

Annicom provide bespoke control, and user interface solutions for some of the most prestigious projects on the planet. From Al Rawda Palace, to the Dubai Mall, we provide premium, bespoke solutions for any application.

From proprietary electronics to any conceivable finish with custom engraving in any language, Annicom offers a completely bespoke service from start to finish. This year we are happy to introduce our popular AX-REF-VI commissioning tool to the Product Catalogue.

A photograph of a grey AX-REF-VI commissioning tool. The device has a central rotary knob with a white pointer. The dial is marked with two scales: an outer scale for voltage (0 to 10.0 V) and an inner scale for current (0 to 20.0 mA). Text on the device includes '24Vac IN', '24Vac OUT', 'AX-REF-VI', 'REFERENCE UNIT', 'MADE IN THE UK', 'OUTPUT 0-10V', and 'OUTPUT 0-20mA'. There are three screw terminals at the bottom.

**85** Commissioning Tools

**86** Hotel Controls

**87** Versatemp Spares & Custom Plates

**88** Bespoke Designs & OEM Products

## D I D Y O U K N O W ?

We can engrave our user interface products with any language, including Arabic, using our own CNC engraving machinery.

### AX-REF-VI

### ANALOGUE OUTPUT COMMISSIONING TOOL - 0-10VDC & 4-20MA



NEW

The Axio AX-REF-VI provides 0-10Vdc and 0-20mA outputs in a switch selectable range. The unit is powered by a 24Vac plug-top PSU, which is included with the unit. A 24Vac fused output is also provided from the unit.

The unit can be used to test valve actuators on the bench top, prior to installation, as well as powering and testing IO modules, Relay modules, and any other 24Vac device that utilises analogue input.

Order Codes	List Price
AX-REF-VI	£95.00

#### FEATURES

- 230Vac plug top supply included
- 24Vac fused output supplied
- 0-10Vdc output in 1V steps
- 0-20mA output in 2mA steps

#### SPECIFICATION

Operating Voltage:	230Vac 50Hz ±15%
Supply Voltage Output:	24Vac fused internally at 500mA
Voltage Output:	0-10Vdc (in 1V steps)
Current Output:	0-20mA (in 2mA steps)
Accuracy:	1% at Max. 2% across range

### PSYCLONE

### HANDHELD THERMO-HYGROMETER



NEW

The Psychclone is a highly durable and functional handheld thermo-hygrometer designed to measure relative humidity and temperature in a wide range of environments and applications. Measures RH, Dry and Wet Bulb Temperature, Dewpoint and Enthalpy.

Order Codes	List Price
Psychclone	£315.00
Surface Temp Sensor	£81.00

#### FEATURES

- Battery operated
- High accuracy
- Long lasting calibration
- Multiple automatic psychometric calculations

#### APPLICATIONS

- HVAC - Efficiency monitoring
- Environmental monitoring
- Disaster restoration
- Indoor air quality

#### SPECIFICATION

Power:	2 x AA 1.5V batteries
Probe Humidity Range:	1.0 to 99.0% RH non condensing
Humidity Precision:	±2% (10 to 9-0% RH @ 25°C)
Probe Temperature Range:	-20 to +85°C*
Temperature Accuracy:	±0.5°C (0 to 50°C)

### SURVEYMASTER

### DUAL FUNCTION MOISTURE METER



NEW

The SurveyMaster is a highly durable and functional handheld Dual-function Moisture Meter. The unit is designed to help building professionals such as contractors, surveyors, architects and builders accurately access building moisture levels during new build and refurbishing activities.

Order Codes	List Price
SurveyMaster	£315.00
Hammer Electrode	£187.00
EIFS probe	£60.00

#### FEATURES

- Battery operated
- High accuracy
- Search and measure operational modes
- Detects surface and sub surface moisture

#### SPECIFICATION

Power:	9V 6F22R battery	
Display 1:	Digital LCD	
Display 2:	60 LED (green - dry, yellow - risk, red - wet)	
Range:	Non-invasive	70 to 999 relative
	Invasive	7.9 to 99% WME
Depth of Moisture:	Non-invasive	19mm
	Invasive	12.7mm

### MMS2

### MOISTURE, HUMIDITY, WET & DRY BULB TEMPERATURE, DEWPOINT & ENTHALPY



NEW

The MMS2 is a highly durable and functional handheld multi-function tool designed to measure moisture, relative humidity and temperature in a wide range of environments and applications. Measures Moisture, RH, Dry and Wet Bulb Temperature, Dewpoint, Enthalpy and has datalogging facilities.

Order Codes	List Price
MMS2 combined with shortstick in pouch	£902.00
MMS2 combined with shortstick + accessories	£1127.00
Surface Temp Sensor	£81.00
Humidity Box & Extension Lead	£90.00
Humidity Sleeves 75 x 12 diameter pack 20	£48.00
Hammer Electrode	£187.00
EIFS probe	£60.00

#### FEATURES

- Battery operated
- High accuracy
- Search and measure operational modes
- Multiple automatic psychometric calculations

#### SPECIFICATION

Power:	9V 6F22R battery	
Display 1:	Digital LCD	
Display 2:	60 LED (green - dry, yellow - risk, red - wet)	
Range:	Non-invasive	70 to 999 relative
	Invasive	7.9 to 99% WME
Probe Humidity Range:	1.0 to 99.0% RH non condensing	
Humidity Precision:	±2% (10 to 90% RH @ 25°C)	

## HOTEL CONTROLS

### AX-DRC-1

### COMPACT HOTEL ROOM TEMPERATURE CONTROLLER



This Compact Hotel Room Controller is mounted on a brass or stainless steel single gang plate. The digital display gives a clear indication of temperature and Setpoint. The unit has an analogue output of heating or cooling and the Setpoint and has a Setback based on a key card access system.

#### FEATURES

- Energy-saving function
- Intuitive user interface
- Fits on a standard single gang patress
- Accurate temperature control

#### SPECIFICATION

Operating Voltage:	24Vac 50Hz
Standard Control Temperature:	15 to 30°C
Standard Setback Setting:	14°C
Output:	Htg/Clg 0-10Vdc
Setpoint:	0-10Vdc
Fan Speed Relays:	3 x 240Vac 5A (res)

Order Codes		List Price
AX-DRC-1	Compact Hotel Room Temperature Controller	£POA

### AX-DRC-2

### HOTEL ROOM CONTROLLER - TWO-PART TERMINAL UNIT CONTROLLER



This Room Digital Controller is a two part control system for terminal unit application. The digital display gives a clear indication of temperature and Setpoint. The unit is designed to fit on a two gang back box and has a separate relay unit.

#### FEATURES

- Energy-saving function
- Intuitive user interface
- Fits on a standard 2-gang patress
- Accurate temperature control

#### SPECIFICATION

Operating Voltage:	Control box	220/240Vac 50Hz
	User interface	24Vdc
Standard Control Temperature:	20 to 24°C	
Standard Setback Setting:	14°C	
Fan Speed Relays:	3 x 240Vac 5A (res)	

Order Codes		List Price
AX-DRC-2	Hotel Room Digital Temperature Controller	£POA

### AX-DRC-3

### DIGITAL HOTEL ROOM TEMPERATURE CONTROLLER



The Axio digital room controller is a temperature controller designed to blend with many hotel interiors. The two line LCD display gives the user a clear read-out of Temperature, Setpoint and Fan Speed and the intuitive controls make it usable without instruction making it ideal for use in applications such as hotel rooms. Plates can be engraved to suit any brand or chain.

The digital room controller features a set of volt free contacts allowing the unit to be remotely switched by a time programme or integrated into a building management system.

#### FEATURES

- On/Off Switch
- Temperature and Setpoint Adjustment
- Temperature and Setpoint Display
- Fan Speed Control and Display
- Can be customised in-house to limit ranges

#### SPECIFICATION

Operating Voltage:	Control box	220/240Vac 50Hz
	User interface	24Vdc
Standard Control Temperature:	20 to 24°C	
Standard Setback Setting:	14°C	
Fan Speed Relays:	3 x 240Vac 5A (res)	

Order Codes		List Price
AX-DRC-3	Hotel Room Digital Temperature Controller	£POA

### AX-DRC-4

### DIGITAL HOTEL ROOM CONTROLLER - TWO-PART TERMINAL UNIT CONTROLLER



This Room Digital Controller is a two part control system for terminal unit application. The digital display gives a clear indication of temperature and Setpoint.

#### FEATURES

- Energy-saving function
- Intuitive user interface
- Fits on a standard 2-gang patress
- Accurate temperature control

#### SPECIFICATION

Standard Control Temperature:	20 to 24°C	
Standard Setback Setting:	14°C	
Fan Speed Relays:	3 x 240Vac 5A (res)	

Order Codes		List Price
AX-DRC-4	Hotel Room Digital Temperature Controller	£POA

**Note:** All of the AX-DRC range can be tailored to meet your requirements. Prices depend on quantity, specification & design.

### ASS5 / ASS6 / MLD

### CLIVET VERSATEMP SERIES SPARES

Annicom designs and manufactures a number of Electronic Assemblies for Clivet Versatemp Units. These parts are available directly from Annicom. Telephone the technical support department for assistance in choosing the correct part.

Order Codes		List Price
ASS539601	Versatemp series 3 interface board	£88.00
ASS600906	Versatemp series 3 power board	£120.20
ASS606404	Versatemp series 3 controller	£155.50
ASS51830F	Versatemp series 4 power board	£185.50
ASS661701	Versatemp series 4 controller assembly	£188.50
ASS661802	Versatemp series 4A power board	£164.00
ASS644202	Versatemp series 4A wall mount control (white)	£182.00
ASS644102	Versatemp series 4A wall mount control (grey)	£182.00
ASS657301	Versatemp series 4A controller (grey bezel)	£127.60
MLD001001	Versatemp plastic moulding bezel only (grey)	£32.00

### CUSTOM PLATES

### SINGLE OR DOUBLE GANG, CUSTOM SIZES, FINISHES & ENGRAVING

Annicom's in-house design team is able to provide solutions to meet exact customer requirements. Our long-established manufacturing facility includes Surface Mounting, CNC Machining, and Computerised Engraving.

Products Include:

- *Temperature Sensors, Setpoint Adjustment & Displays*
- *Single & Double Gang Plates and Backboxes*
- *Custom size Plates & Backboxes*
- *Specialist finishes for Hospitals, Operating Theatres and Clean Rooms*
- *Custom Setpoint Controllers for Hotels & Palaces*
- *Many Metals, Finishes, Pantone and Ral Colours available*

Illustrated is a small selection from our design and manufacture portfolio.





Annicom's primary business is the design and manufacture of a wide range of Mechanical and Electronic Controls and Control Solutions. Our OEM service is used by many internationally respected HVAC, BMS and Industrial Manufacturing and Control Companies.

Some of the companies Annicom has fostered lasting support relationships with:

- **Siemens**
- **Honeywell**
- **Johnson Controls**
- **Carrier**
- **Trox**
- **Clivet**

Our application of forward thinking solutions, modern manufacturing techniques and stringent quality control means that Annicom is often the first choice for Bespoke Products and OEM solutions.

Latest Designs Include :

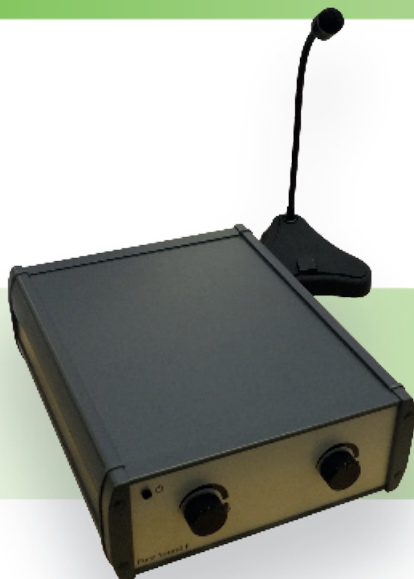
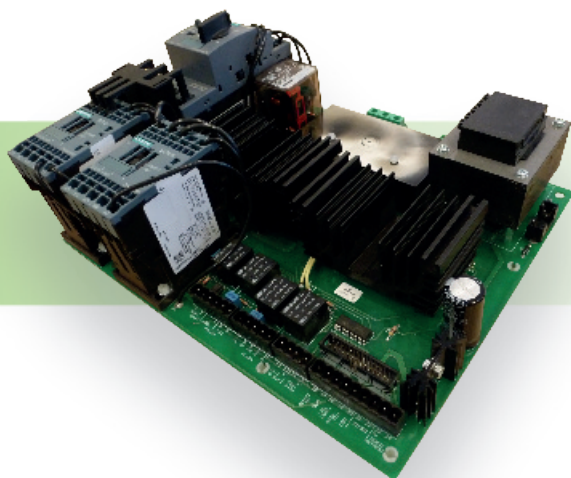
- **Custom Package Unit Controller**
- **MRI Audio Amplifier System**
- **Industrial Bed Pan Steriliser**
- **Hospital & Operating Theatre Display Units**
- **CO2 Cooldesk Controls**
- **Pressure Dependent Controls**
- **Relative Humidity Sensor with Proportional Resistive Output**
- **Autochangeover Pump and Fan Controls**
- **Pilot Valve for Bellows Systems**

Annicom is also able to offer modifications of both software and hardware to many of our existing products. We can design displays, controls and sensing devices specifically for your project, all branded in appropriate packaging.

For more information please contact the Sales Office.

### **C7 Temperature Control System**

The C7 is a high-accuracy temperature control system for Industrial, Chemical and Pharmaceutical applications. The feature-rich Display Interface allows for careful calibration and adjustment of many parameters.



### **MRI Audio Amplifier System**

This system allows headphones to be used whilst inside a Magnetic Resonance Imaging Chamber. The headset is completely MR safe. The amplifier provides ease of communication with patients whilst in the chamber, and their own choice of music to be heard to aid relaxation.

# TECHNICAL INFORMATION

## METRIC CONVERSION-S & USEFUL INFORMATION

### TEMPERATURE

Unit 1	Unit 2	Equation
°F	→ °C	(°F-32) x 0.5556
°C	→ Kelvin	°C + 273.15

### LENGTH

Unit 1	Unit 2	Multiply by
inch	→ millimetre	25.4
inch	→ centimetre	2.54
inch	→ metre	0.0254
foot	→ metre	0.3048
yard	→ metre	0.9144

### AREA

Unit 1	Unit 2	Multiply by
square foot	→ square metre	0.0929
square inch	→ square metre	0.00065
square yard	→ square metre	0.83613

### VOLUME

Unit 1	Unit 2	Multiply by
cubic inch	→ cubic metre	1.60E-05
cubic foot	→ cubic metre	0.028317
cubic yard	→ cubic metre	0.764555
gallon	→ litre	4.546
U.S. Gallon	→ litre	3.785412
fluid ounce	→ millilitre	29.57353

### MASS

Unit 1	Unit 2	Multiply by
pound	→ kilogram	0.45359
ounce	→ gramme	28.3495
ton	→ tonne	1.01605
U.S. Ton	→ tonne	0.907185

### PRESSURE

Unit 1	Unit 2	Multiply by
p.s.i	→ Pascal	6894.757
Pascal	→ Millibar	0.01
kPa	→ Bar	0.01
Inches WG	→ Pascal	249.089

### ENERGY & POWER

Unit 1	Unit 2	Multiply by
Btu	→ Joule	1055.056
Btu	→ Watt-hours	0.293071
Horsepower	→ Watt	745.6999

### VOLUMETRIC FLOW

Unit 1	Unit 2	Multiply by
cfm	→ m3/h	1.7
m3/h	→ 1/s	0.277778
g/m	→ 1/s	0.075768
US g/m	→ 1/s	0.063090

### OHMS LAW

Ohms Law defines the relationship between voltage (Volts), current (Amperes) and resistance (Ohms) in an electrical circuit. One Ohm is the resistance value through which one Volt will maintain a current of one Ampere.

Ohms Law is used for calculating an unknown value in a circuit from other known factors, as follows:

**V** = Voltage, **I** = Current, **R** = Resistance

To calculate <b>R</b> (Ohms):	$R = V/I$
To calculate <b>V</b> (Volts):	$V = I \times R$
To calculate <b>I</b> (Amperes):	$I = V/R$

These calculations can be particularly useful where a controller accepts only a voltage input, but there is a requirement to attach a sensor which provides a current output.

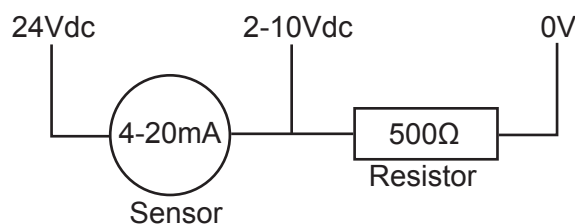
For example, a loop powered 4-20mA sensor running at 24Vdc could be powered up with a resistor as the load. As the current output of the sensor alters, so would the voltage drop across the resistor and providing the correct resistor value is selected a 2-10V output signal can be generated with relative ease.

In this example we would want to see 10V @ 20mA and would calculate the resistor value as follows:

$$R = V/I \rightarrow R = 10/0.02 \rightarrow R = 500\Omega$$

And to check the other end of the scale (4mA):

$$V = I \times R \rightarrow V = 0.004 \times 500 \rightarrow V = 2 \text{ Volts}$$



# TECHNICAL INFORMATION

## BMS TEMPERATURE RESISTANCE CHARTS

	<b>1.8KA1 TAC</b>	<b>2.2K3A1 Johnsons</b>	<b>3K3A1 Alerton</b>	<b>10K3A1 Trend Trane etc</b>	<b>10K4A1 Andover</b>	<b>20K6A1 Honeywell</b>	<b>30K6A1 Drayton</b>	<b>100K6A1 York</b>	
	<b>NTC</b>	<b>NTC</b>	<b>NTC</b>	<b>NTC</b>	<b>NTC</b>	<b>NTC</b>	<b>NTC</b>	<b>NTC</b>	
<b>°C</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>°C</b>
-30	22098	39789	53005	176683	135233	415479	622944	2077394	-30
-20	13107	21839	29092	96974	78931	221297	331876	1106485	-20
-15	10221	16416	21868	72895	61030	163875	245785	819378	-15
-10	8031	12453	16589	55298	47549	122473	183697	612366	-10
-5	6358	9529	12694	42314	37316	92336	138502	461683	-5
0	5070	7353	9795	32650	29490	70203	105305	351017	0
1	4848	6988	9309	31030	28157	66524	99787	332619	1
2	4639	6643	8850	29500	26891	63058	94588	315258	2
3	4439	6318	8416	28054	25689	59792	89689	298959	3
4	4250	6010	8006	26683	24547	56713	85069	283558	4
5	4070	5719	7619	25396	23462	53809	80713	269041	5
6	3897	5444	7252	24173	22430	51068	76604	255337	6
7	3735	5183	6905	23016	21450	48483	72726	242414	7
8	3579	4937	6577	21921	20517	46043	69064	230210	8
9	3430	4703	6266	20885	19631	43739	65608	218688	9
10	3289	4482	5971	19904	18787	41562	62347	207807	10
11	3154	4273	5692	18974	1798	39505	59257	197521	11
12	3026	4075	5428	18092	17219	37561	56346	187803	12
13	2903	3886	5177	17257	16490	35723	53585	178613	13
14	2786	3708	4940	16465	15797	33985	50978	169924	14
15	2674	3539	4714	15714	15136	32341	48511	161702	15
16	2568	3378	4500	15001	14507	30785	46178	153923	16
17	2467	3226	4297	14325	13906	29312	43969	146650	17
18	2370	3081	4105	13623	13334	27918	41877	139588	18
19	2276	2940	3916	13063	12788	26597	39895	132984	19
20	2188	2814	3748	12494	12268	25346	38019	126729	20
21	2104	2690	3583	11943	11771	24160	36240	120799	21
22	2022	2572	3426	11420	11297	23035	34554	115179	22
23	1945	2460	3277	10923	10845	21970	32955	109850	23
24	1871	2353	3135	10450	10413	20959	31438	104796	24
25	1801	2252	3000	10000	10000	20000	30000	100000	25
26	1733	2156	2871	9572	9506	19089	28635	95449	26
27	1668	2064	2749	9165	9229	18225	27339	91128	27
28	1607	1977	2633	8777	8869	17405	26108	87026	28
29	1547	1893	2522	8408	8525	16625	24939	83129	29
30	1490	1814	2417	8056	8197	15885	23828	79428	30
35	1240	1471	1959	6530	6754	12697	19046	63489	35
40	1037	1199	1598	5325	5594	10211	15317	51058	40
45	871	983.4	1310	4367	4656	8259	12390	41301	45
50	736	810.9	1080	3601	3893	6719	10079	33598	50
55	624	672.2	895.5	2985	3271	5495	8243	27479	55
60	532	560.1	746.2	2487	2760	4518	6777	22593	60
65	455	468.9	624.7	2082	2339	3733	5600	18669	65
70	391	394.5	525.5	1751	1990	3100	4650	15502	70
80	292	282.9	376.9	1256	1458	2167	3251	10837	80
90	221	206.3	274.8	916	1084	1542	2313	7710	90
100	170	152.8	203.6	678.6	817.2	1115	1672	5574	100
110		114.9	153.0	510.1	624.1	818.9	1228	4092	110
120		87.51	116.6	388.6	482.5	609.9	914	3047	120
130		67.52	89.95	300	377.2	460.4	690	2299	130
140		52.72	70.23	234.1	298.1	351.8	527	1756	140
150		41.61	55.44	184.8	238.0	272.0	407	1357	150

The values listed above are for guidance purposes only - please see the manufacturers' data for further information if required.

# TECHNICAL INFORMATION

## BMS TEMPERATURE RESISTANCE CHARTS

	<b>SAT1 Satchwell</b>	<b>SEI1 Siebe</b>	<b>STA1 Staefa</b>	<b>PT100a L &amp; S Serck</b>	<b>PT1000a Cylon Honeywell</b>	<b>Ni1000a Sauter</b>	<b>Ni1000/TCR Siemens</b>	
	<b>NTC</b>	<b>NTC</b>	<b>PTC</b>	<b>PTC</b>	<b>PTC</b>	<b>PTC</b>	<b>PTC</b>	
<b>°C</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>Ohms</b>	<b>°C</b>
-30	9465	10172	1934	88.22	882	842	871.6	-30
-20	9067	9654	2030	92.16	922	893	913.5	-20
-15	8196	9320	2078	94.12	941		934.7	-15
-10	8472	8933	2127	96.09	961	946	956.2	-10
-5	8093	8496	2176	98.04	980		977.9	-5
0	7661	8044	2226	100	1000	1000	1000.0	0
1	7569	7910	2236	100.39	1004		1004.4	1
2	7475	7807	2246	100.78	1008		1008.8	2
3	7379	7702	2256	101.17	1012		1013.3	3
4	7281	7696	2266	101.56	1015		1017.8	4
5	7182	7489	2276	101.95	1019		1022.2	5
6	7082	7381	2286	102.34	1023		1026.7	6
7	6980	7271	2296	102.73	1027		1031.2	7
8	6877	7161	2306	103.12	1031		1035.7	8
9	6772	7050	2316	103.51	1035		1040.2	9
10	6667	6938	2326	103.9	1039	1056	1044.7	10
11	6560	6825	2337	104.29	1043		1049.3	11
12	6453	6712	2347	104.68	1047		1053.8	12
13	6345	6598	2357	105.07	1051		1058.4	13
14	6236	6485	2367	105.46	1054		1063.0	14
15	6126	6370	2377	105.85	1058		1067.6	15
16	6016	6256	2388	106.24	1062		1072.1	16
17	5906	6141	2398	106.63	1066		1076.7	17
18	5795	6028	2408	107.02	1070		1081.3	18
19	5681	5913	2418	107.4	1074		1086.0	19
20	5573	5798	2429	107.79	1078	1112	1090.6	20
21	5469	5686	2439	108.18	1082		1095.3	21
22	5353	5573	2449	108.57	1086		1099.9	22
23	5243	5461	2460	108.96	1090		1104.6	23
24	5134	5349	2470	109.35	1094		1109.3	24
25	5025	5238	2480	109.73	1098		1113.9	25
26	4917	5128	2491	110.12	1102		1119.6	26
27	4809	5019	2501	110.51	1106		1123.4	27
28	4703	4910	2512	110.9	1110		1128.1	28
29	4597	4803	2522	111.28	1113		1132.8	29
30	4492	4696	2532	111.67	1117	1171	1137.6	30
35	3987	4185	2585	113.61	1136		1161.5	35
40	3518	3707	2638	115.54	1155	1230	1185.7	40
45	3089	3271	2692	117.47	1175		1210.2	45
50	2702	2875	2745	119.40	1194	1291	1234.9	50
55	2358	2521	2800	121.32	1213		1260.0	55
60	2056	2206	2855	123.24	1232	1353	1285.4	60
65	1792	1929	2910	125.16	1251		1311.1	65
70	1563	1685	2966	127.07	1271	1417	1337.1	70
80	1193	1287	3079	130.89	1309	1483	1390.1	80
90	921	986	3194	134.7	1347	1549	1444.4	90
100	722	760	3311	138.5	1385	1618	1500.0	100
110	575	690	3430	142.29	1423	1688	1556.9	110
120	466	462	3552	146.06	1461	1760	1615.3	120
130	386	365	3675	149.82	1498	1833	1675.1	130
140	324	290	3801	153.58	1536	1909	1736.4	140
150	278	233	3929	157.31	1573	1987	1799.1	150

The values listed above are for guidance purposes only - please see the manufacturers' data for further information if required.

# TECHNICAL INFORMATION

## TEMPERATURE SENSOR COMPATIBILITY CHART

ELEMENT	OUR CODE	BMS MANUFACTURER	ROOM	OUTSIDE	DUCT	* P/NO NOT KNOWN		
						IMMERSION	STRAP ON	FLYING LEAD
<b>NEGATIVE TEMPERATURE COEFFICIENTS - NTC</b>								
10K3A1	-T	AQUATROL	*	*	*	*	*	*
		CYLON (NEW)	*	*	*	*	*	*
		HONEYWELL	T8120B	T7416A		T7106A	T7044C	T7076D
				T7043E		T7043F		
		JOHNSONS	*	*	T6361V	*	*	*
					T636GV-1			
		SATCHWELL	DRT10Kx	DOT10K2	DDT10K1	DWT10K1	*	*
				DOS10K2		DST10K1		
		SEACHANGE	SEN/PTR/ROM	SEN/PR/OAT	SEN/PR/DCT	SEN/PR/IMM	SEN/PR/CLP	SEN/PR/FL
		TRANE	*	*	*	*	*	*
		TREND	TE-TS	TE-TO	TE-TD	TE-TI	TE-TC	*
10K4A1	-A	ANDOVER	TTS-S	*	TT-O	TT-I	TT-ST	*
		DELTA CONTROLS	*	*	*	*	*	*
		SIEBE	*	*	*	*	*	*
		YORK < 40°C	*	*	*	*	*	*
20K6A1	-H	HONEYWELL	T7460H	AF20	LF20	VF20T	VF20A	KFT20
			T7470A	DAF20		VF20NT	WPF20A	KFT20B
			DRF20-S	T416A-1022		VF20L/LN		DKF20
			RF20			WPF20		
			T4712			T7425A		
IK87A1	-TAC	TAC	*	*	*	*	*	*
2.2K3A1	-2.2K	AMBIFLEX	RTN3060	ETN3060	DTN3060	ITN3060	CTN3060	*
		JOHNSONS	TE-6344P	TE-6343P	TE-6341P/V	TE-6342P	*	*
					TE-634GV1			
3K3A1	-3K	ALERTON	MS1000 series	*	*	*	*	*
			TS1050					
30K6A1	-D	DRAYTON	A701	A702	*	A703	A704	*
50K6A1	-50K	AMBIFLEX	*	*	*	*	*	*
100K6A1	-100K	YORK > 40°C	*	*	*	*	*	*
SAT1	-SAT1	SATCHWELL	DRT, DU	DOT0002	DDT0001	DWT0001	*	DDU
			DUS, DUSF	DOS0002		DST0001		
SAT2	.NA	SATCHWELL	DR	*	DD	DW1202	*	*
						DWS1301		
SAT3	-NA	SATCHWELL	*	*	*	DW1204	*	*
						DWS1202		
SAT4	-NA	SATCHWELL	*	DO2202	*	*	*	*
STA1	-STA1	LANDIS & STAEFA	QAA2040	FW-T1	QAM2140	QAE2140	FA-T1	QAP2040
			FR-T1		FK-T1	FT-T1		FTK-T1
STA2	-NA	LANDIS & STAEFA	FR-T30	FO-T30	FK-T30	FT-T305	*	*
SIE	-SIE	SIEBE	*	*	*	*	*	*
		BARBER COLEMAN	*	*	*	*	*	*
<b>POSITIVE TEMPERATURE COEFFICIENTS - PTC</b>								
PT100a	-100	SAUTER	EGT430/F011	*	EGT466/F011	*	*	EGT456/F011
					EGT447/F011			
		SERCK	*	*	*	*	*	*
		LANDIS & STAEFA	QAA100	QAC210	FK-TP/200	QAE2110	*	QAP2010
			QAA2010		QAM2110			
PT1000a	-1K	HONEYWELL	T7412	T7416A1014	T7411	T7413	T7414	
		SAUTER	EGT430/F101	EGT401/F101	EGT446/F101	*	EGT411/F101	EGT456/F101
					EGT447/F101			
		SERCK	*	*	*	*	*	*
		SIEBE	TS5811	*	*	*	*	*
		CYLON	*	*	*	*	*	*
Ni1000a	-N1K	SAUTER	EGT330/F101	EGT301/F101	EGT346/F101	EGT346/F101	EGT311/F101	EGT354/F101
					EGT347/F101	EGT347/F101		EGT356/F101
					EGT348/F101	EGT348/F101		
Ni1000/ter	-N1Kk/ter	SIEMENS	QAA24/25/26/27	QAC22	QAM2120	QAE2120	QAD22	QAP21/22
LAN-1	-LAN1	LANDIS & STAEFA	QAA64				QAD26	QAZ21

# TECHNICAL INFORMATION

## AIR VELOCITY TO DIFFERENTIAL PRESSURE CHART

Use the chart to determine the required range of the Differential Pressure transmitter.

From the Left hand column (velocity in 1m/sec increments)  
and the top row (velocity in 0.1m/sec increments)  
read across and down to find the Differential range required in Pascals.

M/sec	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0	0	0.01	0.02	0.05	0.1	0.15	0.22	0.29	0.38	0.49
1	0.60	0.73	0.86	1.01	1.18	1.35	1.54	1.73	1.94	2.17
2	2.40	2.65	2.90	3.17	3.46	3.75	4.06	4.37	4.70	5.05
3	5.4	5.77	6.14	6.53	6.94	7.35	7.78	8.21	8.66	9.13
4	9.6	10.09	10.58	11.09	11.62	12.15	12.70	13.25	13.82	14.41
5	15.00	15.61	16.22	16.85	17.50	18.16	18.82	19.49	20.18	20.89
6	21.60	22.33	23.06	23.81	24.58	25.35	26.14	26.93	27.74	28.57
7	29.40	30.25	31.10	31.97	32.86	33.75	35.66	35.57	36.50	37.45
8	38.40	39.37	40.34	41.33	42.34	43.35	44.38	45.41	46.46	47.53
9	48.6	49.69	50.78	51.89	53.01	54.15	55.30	56.45	57.62	58.81
10	60.00	61.21	62.42	63.65	64.90	66.15	67.42	68.69	69.98	71.29
11	72.60	73.93	75.26	76.61	77.98	79.35	80.74	82.13	83.54	84.97
12	86.40	87.85	89.30	90.77	92.26	93.75	95.26	96.77	98.30	99.85
13	101.40	102.97	104.54	106.13	107.74	109.35	110.98	112.61	114.26	115.93
14	117.60	119.29	120.98	122.69	124.42	126.15	127.90	129.65	131.42	133.21
15	135.00	136.81	138.62	140.45	142.30	144.15	146.02	147.89	149.78	151.69
16	153.60	155.53	157.46	159.41	161.38	163.34	165.34	167.33	169.34	171.39
17	173.40	175.45	177.50	179.57	181.66	183.75	185.86	187.97	190.10	192.25
18	194.40	196.57	198.74	200.93	203.14	205.35	207.58	209.81	212.06	214.33
19	216.60	218.89	221.18	223.49	225.82	228.15	230.50	232.85	235.22	237.61
20	240.00	242.41	244.82	247.25	249.70	252.15	254.62	257.09	259.58	262.09
21	264.60	267.13	269.66	272.21	274.78	277.35	279.94	282.53	285.14	287.77
22	290.40	293.05	295.70	298.37	301.06	303.75	306.46	309.17	311.90	314.65
23	317.40	320.17	322.94	325.73	328.54	331.35	334.18	337.01	339.86	342.73
24	345.60	348.49	351.38	354.29	357.22	360.15	363.10	366.05	369.02	372.01
25	375.00	378.01	381.02	384.05	387.10	390.15	393.22	396.29	399.38	402.49
26	405.60	408.73	411.86	415.01	418.18	421.35	424.54	427.73	430.94	434.17
27	437.40	440.65	433.90	447.17	450.46	453.75	457.06	460.37	463.70	467.05
28	470.40	473.77	477.14	480.53	483.94	487.35	490.78	494.21	497.66	501.13
29	504.60	508.09	511.58	515.09	518.62	522.15	525.70	529.25	532.82	536.41
30	540.00	543.61	547.22	550.85	554.50	558.15	561.82	585.49	569.18	572.89
31	576.60	580.33	584.06	587.81	591.58	595.35	599.14	602.93	606.74	610.57
32	614.40	618.25	622.10	625.97	629.86	633.75	637.66	641.57	645.50	649.45
33	653.40	657.37	661.34	665.33	669.34	673.35	677.38	681.41	685.46	689.53
34	693.60	697.69	701.78	705.89	710.02	714.15	718.30	722.45	726.62	730.81
35	735.00	739.21	743.42	747.65	751.90	756.15	760.42	764.69	768.98	773.29
36	777.60	781.93	786.26	790.61	794.98	799.35	803.74	808.13	812.54	816.97
37	821.40	825.85	830.30	834.77	839.26	843.75	848.26	852.77	857.30	861.85
38	866.40	870.97	875.54	880.13	884.74	889.35	893.98	898.61	903.26	907.93
39	912.60	917.29	921.98	926.69	931.42	936.15	940.90	945.65	950.42	955.21
40	960	964.81	969.62	974.45	979.3	984.15	989.02	993.89	998.78	1003.69

To calculate Velocity from Differential Pressure:-

$$\text{Velocity} = \sqrt{\frac{2 \times \text{Differential Pressure}}{1.2}}$$

# FREIGHT & DELIVERY CHARGES

## DOMESTIC & INTERNATIONAL

ALL the prices in this catalogue are ex works Bordon

### Shipments in mainland UK

In mainland U.K. Annicom uses TNT for all its courier deliveries and has standard charges for next day delivery.

Next Day	Up to 15kgs	£9.50
	15 to 25kgs	£12.50
Before Midday	Up to 10kgs	£20.00
Before 9am	Up to 10kgs	£30.00
Saturday AM	Up to 10kgs	£25.00

Consignments over 20kgs will be priced individually on request

### Shipments to Eire , Northern Ireland, Hebrides, Shetland, Orkneys and the Isle of Man

Next Day	Up to 10kgs	£27.50
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### Shipments Overseas

If you do not specify your own shipper or Freight Forwarder on your order we will, as standard, use our overseas courier TNT for shipments up to 40kgs.

For shipments over 40kgs we use the most competitive Freight Forwarder from several quotations.

If you have your own courier/forwarder please send details, including telephone number and account number when placing your ordering.

Should you choose to nominate your own freight forwarder a nominal packaging charge may be applied to your own account to contribute towards the packaging material cost.

# ACCOUNT APPLICATION FORM

Please scan, complete and return to us via email or fax



Full Company Name: \_\_\_\_\_

Registered Number: \_\_\_\_\_ No of Years in Business: \_\_\_\_\_

VAT Number: \_\_\_\_\_

Trading Address: \_\_\_\_\_ Accounts Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Purchasing Contact: \_\_\_\_\_ Accounts Contact: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

## Bank Details:

Bank: \_\_\_\_\_ Sort Code: \_\_\_\_\_ Account No: \_\_\_\_\_

Address: \_\_\_\_\_ Contact: \_\_\_\_\_

\_\_\_\_\_ Tel: \_\_\_\_\_

\_\_\_\_\_ Post Code: \_\_\_\_\_

Requested credit limit per month: \_\_\_\_\_

Name: \_\_\_\_\_ Position: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Trade Reference: (Companies in direct competition with Annicom Limited will not be accepted)

Name: \_\_\_\_\_ Name: \_\_\_\_\_

Address: \_\_\_\_\_ Address: \_\_\_\_\_

\_\_\_\_\_

Contact: \_\_\_\_\_ Contact: \_\_\_\_\_

Fax: \_\_\_\_\_ Fax: \_\_\_\_\_

Please note that by requesting an account you accept Annicom's Terms & Conditions, found in this catalogue, and furthermore you accept that you may be subjected to a credit check.



# TERMS & CONDITIONS

## CONDITIONS OF SALE

The contractual terms between Annicom Limited (hereinafter referred to as the Company) and those purchasing goods from the Company are contained exclusively within these Conditions of Sale. These conditions and the Contract shall be subject to and construed in accordance with the Law of England.

### 1. Variation

In no circumstances will the Company be bound by any addition to or other variation of these terms whether oral or in writing or unless any such addition or variation is agreed in writing by the Company with express reference to these terms.

### 2. Acceptance of Orders

A) It shall be the responsibility of the Purchaser to determine the suitability of the goods for any application.

B) There is no guarantee as to the goods suitability for any specific purpose even if that purpose is known to the Company. In any dispute that may arise liability of the Company for breach of any warranty or obligation either expressed or implied is limited to the value of the goods supplied in any event.

C) All recommendations and advice given by the Company or the employees or agents of the Company are given without liability on the part of the Company.

D) Descriptive pictorial or written material issued or published by the Company from time to time relating to goods offered for sale shall not form part of any contract of sale.

E) The Company shall not be responsible for any loss or damage caused directly or indirectly by the goods or by any act of omission in connection therewith.

### 3. Execution of Orders

Execution of orders is contingent upon the availability of goods and the absence of any circumstances beyond the control of the Company which hinder or prevent such execution.

### 4. Returns or Orders

A) Goods properly delivered by Annicom will not be accepted for credit unless Annicom is advised beforehand and agree to accept them back. Such goods returned as not wanted or incorrectly ordered must be sent back carriage paid and will be subject to a 25% handling charge.

B) Written confirmations of telephone orders MUST be endorsed as such. In the event of an order being duplicated through failure to clearly endorse the confirmation, the customer will be liable for the full invoice value of the duplicate order. Such duplicated deliveries will only be accepted for credit subject to a 10% handling charge.

C) Except in special circumstances and by written agreement the Company will not accept cancellation of orders.

### 5. Delivery Delays

Whilst the Company undertakes that every effort will be made to ensure that goods are delivered promptly, no liability will be accepted for delay in dispatch or delivery of the goods.

### 6. Risk in Goods

The risk in all goods shall pass to the Purchaser on delivery of the goods to the Purchaser.

#### Damage or Shortage

Damage or shortage of goods discovered on delivery must be notified to the Company within seven days. Any claims for damage or shortages that are not notified within this time shall not be accepted by the Company.

### 7. Returned Goods

Goods will not be accepted for return without the prior agreement of the Company. Please contact Annicom prior to returning goods, you will be issued with a Returns Number that **must** be sent with the goods. Agreed returns must also be accompanied by details giving the reason for return and the date and number of the Company's invoice upon which such goods were charged.

### 8. Payment of Invoices

All accounts must be paid no later than thirty days from date of invoice. In the event of default the Company reserves the right to charge interest in accordance with The Late Payment of Commercial Debts (Interest) Act 1998, as amended by The Late Payment of Commercial Debts Regulations 2002, at the rate of eight % above current Bank of England Base Rate, at monthly intervals on the overdue portion of the account, plus any reasonable costs incurred in the retrieving the debt and to suspend or cancel the contract in the respect of any undelivered goods.

### 9. Reservation of Title

Notwithstanding delivery and passing of risk, legal and beneficial ownership of the goods shall remain in the Company until full payment for the goods has been made. Until ownership passes the Purchaser shall hold the goods as bailee for the Company and must keep the goods free from any charge lien or other encumbrance. If the purchaser purports to sell the goods before payment is made to the Company the proceeds of the sale shall belong to the Company until the Company has received payment in full. Where such goods are used, even with loss of identity, the legal ownership to the resultant product shall vest in the Company any proceeds of the sale in respect of goods unused or resultant products shall be received by the Purchaser as agents from the Company and there account.

### 10. Suspension and Termination

The Company shall be entitled to cancel or suspend performance of the contract if the Purchaser (A) shall fail to make payment due to the Company under contract or on any other account on the date and/or (B) shall have a receiver appointed, go into liquidation or bankruptcy, or cease to trade. Upon any such cancellation the Purchaser shall make available for collection by the Company any goods in the possession of the Purchaser for which payment has not been made.

### 11. Copyrights and Patents

Products offered for sale may be subject of patents or other legal protection. All software is copyright. The Company will take legal action against any infringements of such rights.

### 12. Warranties

All items manufactured by Annicom Limited are guaranteed for a period of 36 months from the date of dispatch. Any item found to be defective through faulty materials or workmanship will be replaced or the purchase price refunded (at our discretion). Other items supplied by a third party to Annicom and distributed by us, would be subject to the manufacturers guarantee.

### 13. Descriptions

A) All diagrams, illustrations and descriptions are approximate and for guidance only

B) In line with its policy of continuous improvement, Annicom reserve the right to make design or product alterations, or to discontinue any item as it sees fit without prior notification.

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**HEAD OFFICE**

ANNICOM LIMITED | UNIT 21 HIGHVIEW BUSINESS PARK | BORDON | HAMPSHIRE | GU35 0AX

**UK TELEPHONE**

+44 (0)1420 48 77 88

**ORDERS EMAIL**

orders@annicom.com

**ORDERS FAX**

+44 (0)1420 48 77 99

---

**UAE HEAD OFFICE**

ANNICOM INTERNATIONAL FZE | UNIT 12 WAREHOUSE 2 | PO BOX 38853 | RAS AL KHAIMA FTZ

**UAE WEBSITE**

www.annicominternational.com

**UAE TELEPHONE**

+971 7268 9393

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*A X I O   I S   P A R T   O F   T H E   A N N I C O M   G R O U P*