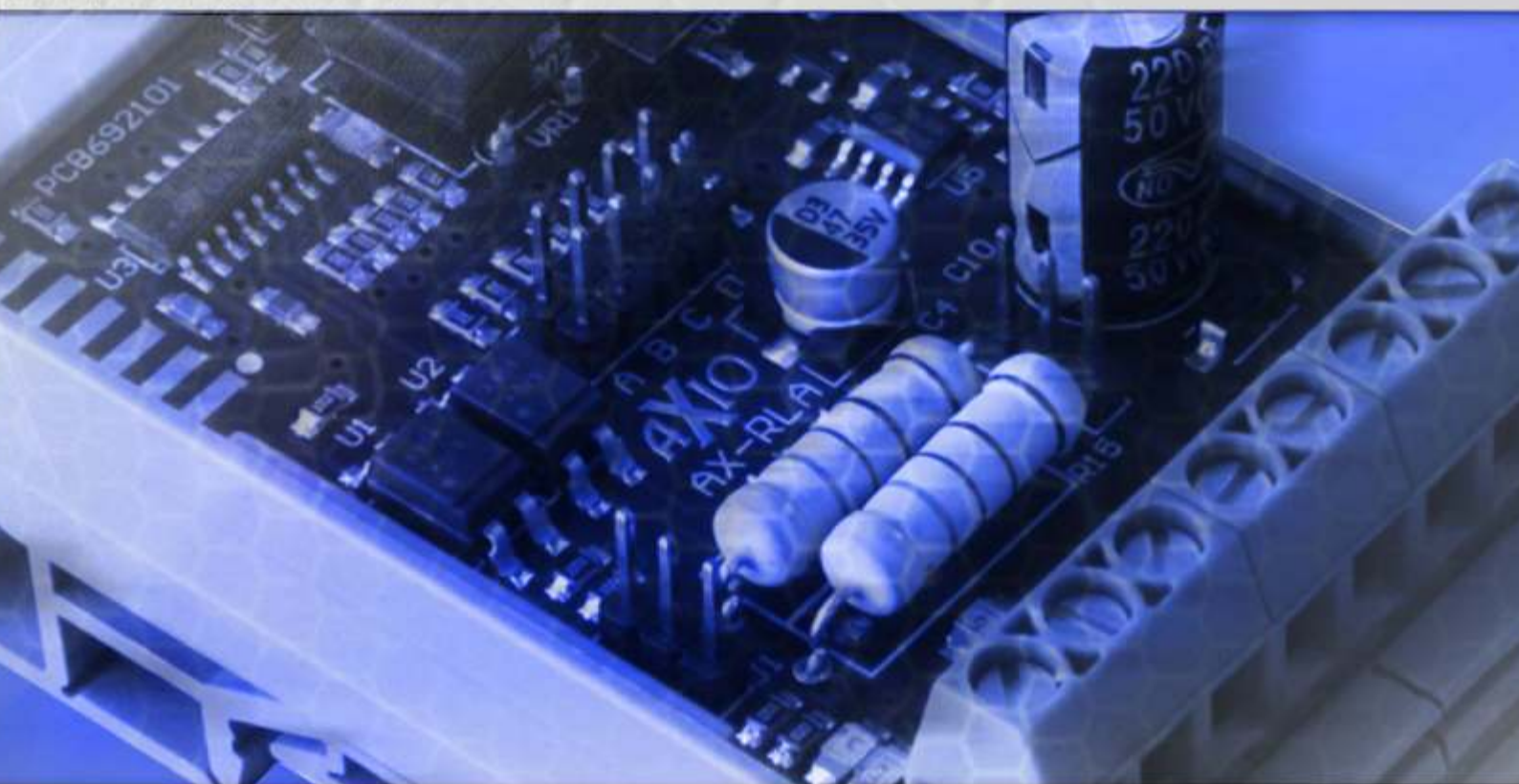


# AXIO

BMS PERIPHERALS



SHORTFORM CATALOGUE 2014

# COMPANY INFORMATION

## About Annicom

Annicom started its UK business more than 30 years ago as an OEM electronic designer, manufacturer and panel builder. Since then it has grown into one of the most well respected British creators and developers of Industrial Controls and a leading OEM manufacturer of prestigious electronic brands worldwide. Its range of products includes the renowned Duct Heater Power Controllers and Relative Humidity Transmitters.

Recent developments include an innovative, magnet-free, sound system for MRI scanners as well as bespoke designs for key clients as far afield as the Middle East, South Africa and Outer Mongolia! Our products can be seen in such locations as top hotels in Dubai; state of the art offices in London and even the Sultan's Palace in Abu Dhabi.

Playing a key role in Annicom's extensive growth and product mix is AXIO -Annicom Cross Platform IO Products - Annicom's own brand of BMS Peripherals launched in 2002. Since then the range has gone from strength to strength with products including Relative Humidity Transmitters, Temperature Sensors, Advanced Relay Modules and Multiplexers. In total the AXIO range features over 900 high quality products including a selection of cost effective models appealing to a wide range of customers across a number of industries.

In addition to AXIO, Annicom is also a trusted distributor of world famous brands such as GE.

### Key Features of Annicom

- \* High Quality
- \* Innovation
- \* Bespoke Tailoring (In-house design of hardware and software)
- \* In-house Manufacturing
- \* Made in Britain

### Key Features of the AXIO brand

- \* Three Year Warranty
- \* Vast Product Range
- \* Global Sales
- \* Competitively Priced
- \* Compatible with most BMS Systems

### For Our Customers

- \* Quality Products without Compromise
- \* Outstanding Technical Support
- \* Individual Customer Care
- \* Product & Application Training

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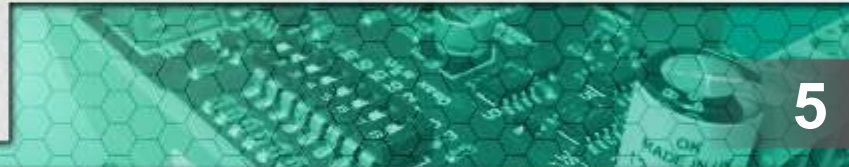
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## Relay Modules

### Relay Modules - Single



#### AX-RM1

A range of single 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:	Note: Price guide only - prices subject to fluctuations	List Price
AX-RM1-12DC	12Vdc sensitive coil 10A@250Vac (res)	£3.25
AX-RM1-24AC	24Vac coil 12A@250Vac (res)	£3.70
AX-RM1-24DC	24Vdc coil 12A@250Vac (res)	£3.65
AX-RM1-230AC	230Vac coil 12A@250Vac (res)	£5.00

#### Features:

- . Can convert a BMS output to digital VFC
- . Large range of coil options
- . Contact rating 12A @ 230Vac resistive (10A on 12Vdc)
- . Complete with DIN rail base

#### Specifications:

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

### Relay Modules - Single Relay - 2, 3 or 4-pole



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

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

Order Codes:	Note: Price guide only - prices subject to fluctuations	List Price
AX-RM1-2-24AC	2 x 8A@250Vac (res) 24Vac coil	£4.50
AX-RM1-3-24AC	3 x 10A@250Vac (res) 24Vac coil	£5.25
AX-RM1-4-24AC	4 x 6A@250Vac (res) 24Vac coil	£5.50
AX-RM1-2-230AC	2 x 8A@250Vac (res) 230Vac coil	£6.00
AX-RM1-3-230AC	3 x 10A@250Vac (res) 230Vac coil	£7.00
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

#### Specifications:

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

### Relay Module Single - Adjustable Threshold



#### AX-RM1AB

An adjustable Single Relay Module which accepts a 0-10Vdc signal and provides a relay output with adjustable switching threshold. The switch on and off points are independently variable. The unit comes complete with a buffered 0-10V output.

Order Codes:		List Price
AX-RM1AB	Adjustable switching point relay module c/w buffered 0-10V o/p	£15.50

#### Features:

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

#### Specifications:

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

### Relay Modules - Single - Fixed Switchpoint



#### AX-RM1F

A Single Relay Module with a fixed switchpoint accepts a 0-10Vdc signal and provides a manual override of the output from a BMS controller. Requires very low drive current from analogue signal.

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

#### Specifications:

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



## Relay Modules

### Relay Modules - Two Stage Relay Modules



#### AX-RM2T

Dual Relay Modules with link-selectable operating mode and adjustable timer. The unit can be used as a raise/lower or pump changeover module or for cascade or binary control of two heating or cooling stages. The module can also be configured as a single/dual stage timer delay on module.

Order Codes:		List Price
AX-RM2T	Dual relay module with timer 0 to 30 secs	£14.00
AX-RM2T2	Dual relay module with timer 0 to 240 secs	£15.00
AX-RM2S	Dual relay sequencing module with timer 0 to 30 secs	£18.00

#### Features:

- . Multiple operating modes
- . LED Indication of output status
- . DIN rail mount
- . Manual override jumpers to aid commissioning

#### Specifications:

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

### Two Stage Solid State Relay Switching Modules



#### AX-RM2T-SSR

The AX-RM2T-SSR converts a 0-10Vdc input signal into a two stage Triac output pair. The modules can be configured with or without stage delays. Applications include noiseless switching control and situations with a high inrush current.

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

#### Specifications:

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

### Fan Speed Three Relay Modules



#### AX-FRM3

These units comprise a bank of three relays designed primarily for use between 3 digital or low current outputs from a thermostat and giving three relay outputs to the fans in a fan coil unit. There are 24 and 230Vac coil versions. The output contacts are interlocked.

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-FRM3-24E	Enclosure mounted	£20.00
AX-FRM3-230E	Enclosure mounted	£21.00

#### Features:

- . 24 x 230Vac input (with common neutral)
- . 3 x SPCO relay output
- . Different coil voltages available on request

#### Specifications:

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

### Fan Speed Three Relay and Transformer Module



#### AX-FRM3-TX25/30

These units comprise a bank of three relays designed primarily for use between 3 digital or low current outputs from a thermostat and giving three relay outputs to the fan in a fan coil unit. The module also incorporates a 230 to 24Vac transformer to give 2 x 24Vac outputs.

Order Codes:		List Price
AX-FRM3-TX25	Fan speed relay module and 25VA Tx	£33.00
AX-FRM3-TX30	Fan speed relay module and 30VA Tx	£35.00

#### Features:

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

#### Specifications:

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

# RELAY MODULES

## Relay Modules

### Three Stage Multi-Mode Relay Module



#### AX-RM3M/RL3R

A Triple Relay module with 7 switch-selectable operating modes and time delay. The module can be used to control three-stage loads, as a fan/heat/cool switch. The module includes a time delay and the signal can be reversed.

Order Codes:		List Price
AX-RM3M	Three-stage multimode 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

#### Specifications:

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

### Four Stage Multi-Mode Relay Module



#### AX-RM4M/ RM4AB

Two versatile relay output modules with multiple operating modes. One unit can be configured for up to 9 modes of operation to control four independent loads from a single 0-10 or 2-10Vdc signal. The signal can be reversed. The AX-RM4AB is also available with 4 adjustable switchpoints.

Order Codes:		List Price
AX-RM4M	Four-stage multimode 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
- . Can control four independent loads from a single analogue signal

#### Specifications:

Input Signal:	0-10 or 2-10Vdc (2mA max)
Output Contacts:	4 x SPCO
Contact Ratings:	12A @ 250Vac (res)
Power Supply:	24Vac/dc +/- 10%
Modes of Operation:	9 (RM4AB - 1 mode)
Time Delay:	0 to 60 seconds (RM4M only)
Ambient Range:	0 to 50°C
Manual Override:	ON/OFF/AUTO

### Six Stage Multi-Mode Relay Module



#### AX-RM6M

For cascade control of 6 stages of heating or cooling from a single 0-10 or 2-10Vdc signal. Up to 9 different modes of operation are available and the signal can also be reversed. Can be connected to the AX-RM4M to provide 10 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)

#### Specifications:

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

### Override Relay Module



#### AX-ORM4C

Four relays each one activated by a digital output. The unit offers the facility to override any of the relays using the on-board jumpers. The board is powered, allowing minimal current draw on the controller outputs. Link selection allows 1 input to operate up to 4 outputs.

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

#### Specifications:

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



## Multiplexers - Digital & Analogue

### Digital Input Multiplexing Module - 4 or 6 inputs



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

Calculates a single analogue value based on the status of the four 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.

Order Codes:		List Price
AX-DIM4-MI	Four channel digital input multiplexer	£18.00
AX-DIM6-MI-V	Six channel multiplexer, voltage output	£33.00
AX-DIM6-MI-I	Six channel multiplexer, current output	£33.00

#### Features:

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

#### Specifications:

Power Supply:	24Vac/dc +/- 15% (40mA max @ 24Vdc)
Input:	DIM4 4 x Volt free or 4 x 24Vac/dc or combination
	DIM6 6 x Volt free or 24Vac/dc or combination
Output:	Voltage 0-10Vdc max load 10mA
	Current 0 to 20Ma (max load resistance 470Ω)

### Digital Input Multiplexing Module Resistance Output



#### AX-DIM5R

The module multiplexes 5 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.

Order Codes:		List Price
AX-DIM5R	Five channel multiplexer, resistance output	£33.00

#### Features:

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

#### Specifications:

Power Supply:	24Vac/dc +/- 15% (40mA max @ 24Vdc)
Input:	5 x Volt free or 4 x 24Vdc or combination
Output tolerance:	+/-2Ω of nominal maximum
Offset:	22.1Ω
Output:	Rp off 779.9 to 1557.9Ω
	Rp on 752.4 to 1455.3Ω

### Analogue Input Multiplexing Module - 4 Inputs



#### AX-VMUX

This module multiplexes 4 0-10V input signals over 2 analogue lines, doubling the number of analogue lines available. Additional AX-VMUX can be cascaded using one additional analogue line each.

Order Codes:		List Price
AX-VMUX	Four channel analogue input multiplexer	£27.00

#### Features:

- . Can be powered from 24Vac/dc
- . Can connect directly to AX-VDEMUX
- . 4 x 0-10V inputs

#### Specifications:

Power Supply:	24Vac/dc +/- 15% (40mA max @ 24Vdc)
Input:	4 x 0-10Vdc max load 1mA
Output:	0-10Vdc max load 5mA
Selection:	1-4Vdc max load 5mA (Input or Output)

### Analogue DeMultiplexing Module - 4 Outputs



#### AX-VDEMUX

The AX-VDEMUX module demultiplexes 4 switched 0-10V signals multiplexed over two analogue lines, doubling the number of analogue lines available. Additional AX-VDEMUX can be cascaded using one additional analogue line each.

Order Codes:		List Price
AX-VDEMUX	Four channel analogue demultiplexer	£27.00

#### Features:

- . Can be powered from 24Vac/dc
- . Can connect directly to AX-VMUX
- . 4 x 0-10V outputs from one input

#### Specifications:

Power Supply:	24Vac/dc +/- 15% (40mA max @ 24Vdc)
Input:	1 x 0-10Vdc max load 1mA
Output:	4 x 0-10Vdc max load 5mA
Selection:	1-4Vdc max load 5mA (Input or Output)

## Raise/Lower & Conversion Modules

### Analogue to Raise/Lower Modules



#### AX-ARL

These modules are designed to convert a 0-10Vdc input signal to drive a raise/lower volt free relay or triac output. The modules can be configured for 2 fully adjustable ranges and one fixed time. The module includes an automatic 24 hour reset. There is also a version with solid state Triac outputs.

Order Codes:		List Price
AX-ARL	Raise/Lower control module	£18.00
AX-ARL-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

#### Specifications:

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	Variable 2
	ARL	90-300 secs	210 secs
	ARL2	10-30 secs	90 secs
			60-120 secs

### Raise/Lower to Analogue Module



#### AX-RLA/RL230ACT

The AX-RLA modules accept a raise/lower input signal and provides a 0-10Vdc output. Additional features include LED status indication and the option of 24Vac output to the valve actuator to reduce 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

#### Specifications:

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	

### Signal Conversion Modules



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

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 modules	£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
- Converts voltage signal to current signal (AX-VI)

#### Specifications:

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

### Dual Analogue Output Module



#### AX-DAOM

The AX-DAOM Dual module converts one analogue 0-10Vdc input signal to two 0-10Vdc proportional output signals with an adjustable deadband.

Order Codes:		List Price
AX-DAOM	Analogue dual output module	£28.00

#### Features:

- Adjustable deadband around 5V
- Can be powered from 24Vac/dc
- LED Status indication

#### Specifications:

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



## I.O. Modules

### Pulse Width to Analogue Converter Module



#### AX-PTA/MPTA

These modules are designed to convert and/or isolate a PWM or pulse signal from the analogue output. Opto-electronic isolation built in (MPTA only).

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:

- . Fully isolated input
- . 24Vac/dc powered
- . Opto-electronically isolated
- . 0-10Vdc output at max load 10mA

#### Specifications:

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

### Water Meter Pulse to Analogue Module



#### AX-WMPAC

The AX-WMPAC converts a water meter reed switch pulse to a 0-10Vdc signal. The module has 4 litre/pulse and 8 maximum flow settings to enable it to accurately output the flow rate.

Order Codes:		List Price
AX-WMPAC	Water meter pulse to analogue converter - DIN rail	£38.00
AX-WMPAC-E	Water meter pulse to analogue converter with Enclosure	£80.00

#### Features:

- . 24Vac or dc powered
- . 8 Selectable maximum flow settings
- . 4 Selectable litre/pulse settings

#### Specifications:

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 80m3/hr	
Ambient Range:	0 to 50°C	

### Resistance Input Modules



#### AX-RIM

The AX-RIM provides a 0-10Vdc output based on a resistance input of either 0-135Ω or 0-1kΩ.

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

#### Specifications:

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

### Resistance Output Modules



#### AX-ROM

The AX-ROM converts an analogue input to a resistance signal output of either 0-135Ω or 0-1kΩ. (Other resistance values also available).

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

#### Specifications:

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	

## Rescaling, Limiting & Splitter Modules

### Dual Voltage Rescaling Module



#### AX-DVRM

The DVRM module accepts 2 0-10V inputs and rescales them as set before being output as 2 rescaled 0-10V signals.

#### Features:

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

Order Codes:		List Price
AX-DVRM	Dual voltage rescaling module	£29.00

#### Specifications:

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

### Analogue Limiting Module



#### AX-ALM

The ALM module accepts 3 0-10V input signals which are then limited to within the set range before being output as limited 0-10V signals.

#### Features:

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

Order Codes:		List Price
AX-ALM	Analogue limiting module	£29.00

#### Specifications:

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

### Voltage Splitter & Reference Module



#### AX-VSR

The VSR module takes a 0-10V input and outputs 3 x buffered 0-10V 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.

#### Features:

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

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

#### Specifications:

Power Supply:	24Vac/dc +/- 10% (40mA max @ 24Vdc)
Input:	0-10Vdc
Output:	3 x buffered 0-10Vdc @ 5mA max load

### Current Splitter Module



#### AX-CSM-x

This module will accept a single analogue input and split that signal into 2, 3 or 4, 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.

#### Features:

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

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

#### Specifications:

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



## Phase Cut Modules & Analogue to Pneumatic

### Phase Cut Modules



#### AX-PCM

A range of modules which convert a 0-10Vdc signal to 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)
- . Dual channel version available

#### Specifications:

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

### Phase Cut Amplifier Module



#### AX-MPCA

An amplifier module which can be used to boost the output of one channel of a AX-PCM2-30i to drive loads up to 60VA.

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

#### Specifications:

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 Cable

### Minimum, Maximum and Averaging Module



#### AX-AMMM

The AX-AMMM accepts up to 5 0-10V signals and provides 4 0-10V outputs representing the average, maximum, minimum and middle value of the inputs.

Order Codes:		List Price
AX-AMMM	4 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

#### Specifications:

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

### Analogue to Pneumatic Modules



#### AX-EPC

The AX-EPC range is an analogue to pneumatic converter 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

#### Specifications:

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

## Solid State Relays and Power Regulators

### Single Phase Solid State Relays - DIN Rail Mount



#### AX-SSR1-xx-xx

A range of 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:	For 230Vac change -24 to -230 (at additional costs)	List Price
AX-SSR1-20-DC	4-38Vdc input 4.8kW (20A) output	£39.00
AX-SSR1-20-24	24Vac input 4.8kW (20A) output	£39.00
AX-SSR1-25-DC	4-38Vdc input 6kW (25A) output	£48.00
AX-SSR1-25-24	24Vac input 6kW (25A) output	£48.00

#### Features:

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

#### Specifications:

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

### Three Phase Solid State Relays - DIN Rail Mount



#### AX-SSR3-xx

A range of 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	Three Phase 6kW Solid State Relays	£54.00
AX-SSR3-12	Three Phase 12kW Solid State Relays	£69.00

#### Features:

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

#### Specifications:

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

### Single Phase Power Regulators



#### AX-MPR1-x

A range of 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 2.0kW power regulator	£45.00
AX-MPR1-4	Single phase 4.0kW power regulator	£70.00
AX-MPR1-6	Single phase 6.0kW power regulator	£95.00
AX-MPR1-9	Single phase 9.0kW power regulator	£130.00
AX-MPR1-12	Single phase 12kW power regulator	£225.00

#### Features:

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

#### Specifications:

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

### Single Phase Power Regulators - Raise/Lower Input



#### AX-MPR1-xx-RL

A range of 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 4kW raise lower power regulator	£60.00
AX-MPR1-4-RL	Single phase 6kW 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

#### Specifications:

Power Supply:	24Vac/dc +/- 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



## Power Regulators

### Three Phase Power Regulators - DIN Rail Mount

#### AX-MPR3-xx

A range of 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

#### Specifications:

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

### Three Phase Power Regulators - Panel Mount

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

Three Phase Power Regulators in rugged 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

#### Specifications:

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

### Three Phase Power Regulators - Panel Mount

#### AX-PPR3-72 & -105

Three Phase Power Regulators in a tough enclosure suitable for loads up to 105kW. All heat is dissipated without the need for additional fans or heatsinks.



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
- . Alarm output
- . Integrated heatsink for optimum heat dissipation

#### Specifications:

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

### Three Phase Power Regulators - Panel Mount

#### AX-PPR3-150-180-280-400

Three Phase Power Regulators in a tough 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	£1150.00
AX-PPR3-xxx	Three phase power regulator specify load	£P.O.A

#### Features:

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

#### Specifications:

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		

## Proportional & Window Controllers

### DIN Rail Mounted P I Temperature Controller



#### AX-PI

The AX-PI Compact Temperature Controller takes 1 or 2 thermistor inputs and provides either 1 or 2 0-10(2-10)Vdc outputs with a PI algorithm to the difference between the setpoint and the measured temperature. The controller has an adjustable deadband and an LCD and 3 push buttons to aid setup.

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-R10V	DIN rail PI controller 0-10V remote setpoint	£55.00
AX-POT	Remote setpoint 1-11kΩ	£15.00

#### 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

#### Specifications:

Power Supply:	24Vac/dc +/- 15%
Power Consumption:	2VA approx
Input Signal:	1 or 2 thermistor temperature
Output Signal:	2 x 0-10(2-10)Vdc @ 3mA
Control Range:	-5 to 95°C adjustable

### DIN Rail Mounted P I Controller



#### AX-PI-A

The AX-PI-A Compact Controller takes a 0-10V sensor input and provides either 1 or 2 0-10(2-10)Vdc outputs with a PI algorithm to the difference between the setpoint and the measured condition. The output signal can be used to control damper motors, valve actuators, relay modules or thyristor power controllers among others. The controller has an adjustable deadband and an LCD.

Order Codes:		List Price
AX-PI-A	DIN rail PI controller 0-10V I/P	£60.00
AX-POT	Remote setpoint 1-11kΩ	£15.00

#### Features:

- . Suitable for RH, AQ, Co2 control
- . LCD display and setup buttons
- . Adjustable proportional and integral band
- . 1 x analogue input, setback and remote setpoint inputs

#### Specifications:

Power Supply:	24Vac/dc +/- 15%
Power Consumption:	2VA approx
Input Signal:	0-10Vdc
Output Signal:	2 x 0-10(2-10)Vdc @ 3mA

### Proportional Controllers



#### AX-xC-Px

The Ax-xC-Px series of Proportional Temperature Controllers provides a 0-10Vdc output proportional to the difference between the setpoint and the measured temperature. The output signal can be used to control damper motor, valve actuator, relay module or a thyristor power controller among others.

Order Codes:		List Price
AX-VSR	Room proportional controller 1 x 0-10V o/p	£29.00
AX-RC-P1	Room proportional controller 2 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

#### Specifications:

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

### Window Actuator Controller



#### AX-WAC

The AX-WAC is a 3 channel window controller providing timed forward/reverse outputs to open and close 2 wire DC window actuators. Each output can be driven from a separate 0-10V input or can be combined. Any cycle time from 5 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

#### Specifications:

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



## Fan Coil & Free Cooling Controllers

### Room Digital Fan Coil Controllers



#### AX-E07xx

AX-EX07xx Thermostats and Controllers are stand-alone, microprocessor 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 2 and 4-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
- . Three speed fan switch
- . Backlight

#### Specifications:

Operating Voltage:	24Vac 50/60Hz (+/- 10%)
Setpoint Range:	10 to 30°C
Output: On/Off:	1 or 2 x SPDT relay 1A @ 240Vac
Output: Raise/Lower:	2 x 1A @ 230Vac
Output: Analogue:	0-10Vdc
Fan Speed:	2A @ 240Vac

### Room Digital Fan Coil Controllers



#### AX-E05Kxx

AX-EX05Kxx Controllers are stand-alone, microprocessor based controllers with a large LCD displays. 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 2 or 4-pipe FCU.

Order Codes:	Specify Voltage	List Price
AX-E05KF	Heating or Cooling Raise/Lower Controller	£24.00
AX-E05KU	Heating & Cooling Raise/Lower & Modulating Controller	£25.00
AX-E05KP	Heating or Cooling Modulating Controller	£26.00

#### Features:

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

#### Specifications:

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

### Damper P I Controller for Free Cooling

#### AX-CDFC

The AX-CDFC Temperature Controller controls the free cooling air supply over set-point range of 15 to 25°C when outside air is below the free cooling temperature, 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.



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

#### Features:

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

#### Specifications:

Power Supply:	24Vac +/- 15%
Power Consumption:	2VA approx
Input Signal:	thermistor temperature 10K3A1 & 10K4A1
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

## Wireless & Fan Speed Controllers

### Alarm Monitoring & Control System - Wireless - GPRS

#### AX-AMCS-TWCT-22

The AX-AMCS is a remote equipment monitor and control system which sends an Email/SMS message in case of alarm conditions. The unit takes advantage of the GSM network and the supported GPRS service using an embedded feature-rich web server interface via which the parameters can be configured. The inputs can be used for monitoring of both analogue and digital sensors and remote devices.



Order Codes:		List Price
AX-AMCS-TWCT-22	Alarm Monitoring & Control System Wireless - GPRS	£240.00

#### Features:

- . Dual band frequency for worldwide use (not USA)
- . Alarm message service over SMS
- . Simple configuration through web browser
- . 4 x DI, 2 x AI, 4 x DO
- . 4 x LED's for inputs, 4 x LED's for outputs
- . Turn the outputs on/off via SMS
- . DIN rail mount

#### Specifications:

Power Supply:	12-24Vac/dc +/- 10%
Max Supply Current:	200mA
Power Consumption:	5W max
Digital Inputs:	4
Digital Input Range:	0-10Vdc @60kN. 0-20mA @480kN
Relay Outputs:	4
Switching Contacts:	SPDT Relays 7A @ 240Vac resistive 10A @ 24V. Total current 20A
Wireless Modem:	Dual band GSM 900/1800 MHz
Interfaces:	RS232 @ 115200baud 8 bits RJ45 GPRS class 10 (16-24Kbps up, 32-48Kbps down)
Alarm Message Service:	Via SMS, E-Mail
Protocols:	HTTP & SMTP
Configurations:	Via internal WEB server interface

## Fan Control

### Single Phase Motor Regulators

#### AX-FC-x

The AX-FC-x is a miniature plug and play Triac Motor regulator for step-less speed regulation of single phase AC motors. Loads can be controlled in both 2 or 3 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

#### Specifications:

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



## Electronic Thermostats

### Single Stage Electronic Thermostats - DIN Rail



#### AX-ET-1-xxx

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 via a potentiometer on the PCB or from a remote location. Includes digital display of setpoint.

Order Codes:		List Price
AX-ET1L-230	Compact single-stage 230Vac thermostat	£41.00
AX-ET1L-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
- . Four 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)

#### Specifications:

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.)

### Basic Single Stage Electronic Thermostats - DIN Rail



#### AX-ET-1-24-R

A simple electronic Thermostat that monitors the temperature of air/liquid and gives a heating or cooling output in response to temperature change. The setpoint is adjustable via a potentiometer on the PCB.

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

#### Specifications:

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.)

### Multi Stage Electronic Thermostats - DIN Rail



#### AX-ET-x-xxx

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 3 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	£102.00
AX-ET-POT	Remote setpoint	£15.00
AX-ETx-ENC	IP65 Enclosure	Add £13.00

#### Features:

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

#### Specifications:

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

## Room Thermostats

### Intelligent Room Temperature Control

#### AX-Autostat II

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.



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

#### Features:

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

#### Specifications:

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

### Intelligent Room Temperature Control

#### AX-Autostat III/IV

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. The new Autosat III has a window contact to turn off heating if a window is opened and the Autostat IV has a concealed setpoint.



Order Codes:		List Price
AX-Autostat III	Single gang Room Intelligent Thermostat c/w exposed setpoint and window contacts	£75.00
AX-Autostat IV	Single gang Room Intelligent Thermostat c/w concealed setpoint	£75.00

#### Features:

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

#### Specifications:

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



## Temperature Sensors

### Space Temperature Sensors

#### AX-TE-Rxx

House in a flame-retardant ABS enclosure. Available with a range of passive thermistor sensing elements or active 4-20mA or 0-10Vdc output.



#### Features:

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

Order Codes:		List Price
AX-TE-RT	10K3A1 Trend, Trane, Priva	£4.00
AX-TE-R3K	3K3A1 Alerton	£4.50
AX-TE-RA	10K4A1 York & Andover	£4.50
AX-TE-RH	20K6A1 Honeywell	£6.00
AX-TE-RD	30K6A1 Drayton	£6.00
AX-TE-R50K	50K6A1 Priva	£6.00
AX-TE-RNIK	Ni1000a/TCR Siemens	£10.00
AX-TE-R100	PT100a Serek	£6.25
AX-TE-R1K	PT1000a Cylon	£6.00
AX-TE-R2.2K	2.2K Johnsons	£6.25
AX-TE-RSAT	SAT1 Satchwell	£8.00
AX-TE-RTAC	1K87A1 TAC	£5.00
- SP	1-11K Ohm Setpoint	Add £8.00
AX-TE-RTXI	4-20mA active output	£45.00
AX-TE-RTXV	0-10Vdc active output	£45.00

#### Specifications:

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 (Refer to data sheet for TXI/TXV)
Colour:	Off white

### Duct Temperature Sensors

#### AX-TE-Dxx

This range incorporates either a high quality thermistor element or an active linear output. The sensor housing offers IP65 protection.



#### Features:

- . IP65 flame-retardant housing
- . Cross-axial flow tip for maximum accuracy
- . Large range of sensor options

Order Codes:		List Price
AX-TE-DT	10K3A1 Trend, Trane, Priva	£8.50
AX-TE-D3K	3K3A1 Alerton	£9.50
AX-TE-DA	10K4A1 York & Andover	£9.50
AX-TE-DH	20K6A1 Honeywell	£10.00
AX-TE-DD	30K6A1 Drayton	£12.75
AX-TE-DNIK	Ni1000a/TCR Siemens	£12.00
AX-TE-D100	PT100a Serek	£14.50
AX-TE-D1K	PT1000a Cylon	£12.60
AX-TE-D2.2K	2.2K Johnsons	£12.20
AX-TE-DSAT	SAT1 Satchwell	£16.50
AX-TE-DTAC	1K87A1 TAC	£12.00
AX-TE-DTXI	4-20mA active output	£48.50
AX-TE-DTXV	0-10Vdc active output	£48.50

#### Specifications:

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

Contact the sales office for - AX-TE-AVF (Flexible Duct Averaging Sensors). AX-TE-AVC (Copper Duct Averaging Sensors)

## Temperature Sensors

### Immersion Temperature Sensors



#### AX-TE-Ixx

The sensing element of this range of Immersion Temperature Sensors is housed in a 6mm diameter probe, which is fitted to an IP65 flame-retardant ABS enclosure. The probe is available in 2 lengths. The sensor types include a range of passive elements or active 4-20mA or 0-10Vdc outputs. The units must be used with an appropriate pocket.

#### Features:

- . IP65 flame-retardant housing
- . No direct contact with media
- . Large range of sensor options
- . High temperature stainless steel probe available at extra cost

Order Codes:		List Price
AX-TE-IT	10K3A1 Trend, Trane, Priva	£9.50
AX-TE-ISK	3K3A1 Alerton	£9.50
AX-TE-IA	10K4A1 York & Andover	£9.50
AX-TE-IH	20K6A1 Honeywell	£10.00
AX-TE-ID	30K6A1 Drayton	£12.75
AX-TE-INIK	Ni1000a/TCR Siemens	£12.00
AX-TE-I100	PT100a Serek	£14.50
AX-TE-I1K	PT1000a Cylon	£12.60
AX-TE-I2.2K	2.2K Johnsons	£12.20
AX-TE-ISAT	SAT1 Satchwell	£16.95
AX-TE-ITAC	1K87A1 TAC	£12.00
AX-TE-ITXI	4-20mA active output	£48.50
AX-TE-ITXV	0-10Vdc active output	£48.50
AX-TE-IBP	Brass Pocket 150mm	£8.50
AX-TE-IBP-65	Brass Pocket 65mm	£8.50
AX-TE-ISP	Stainless Steel Pocket	£14.50

#### Specifications:

Housing:	ABS
Probe:	Stainless steel
Dimensions: housing	55 x 90mm dia
Probe	150 x 6mm dia
Small probe	65 x 7mm dia
Protection:	IP65
Ambient Range:	-10 to +80°C
Weight:	165g (Refer to date sheet for TXI, TXV)

Note: High temperature versions suitable for temperatures 0 to 400°C. Contact the sales office for prices and details.  
Special Length Probes and Pockets: Available at additional cost

### Outside Air Temperature Sensors



#### AX-TE-Oxx

The sensing element of this range of Outside Air Temperature Sensors is housed in a button which is fitted to an IP65 flame-retardant ABS enclosure. The sensor types include a range of passive elements or active 4-20mA or 0-10Vdc outputs. For best results units should be mounted in a sheltered position on a north facing wall.

#### Features:

- . IP65 flame-retardant housing
- . External sensing point for rapid response

Order Codes:		List Price
AX-TE-OT	10K3A1 Trend, Trane, Priva	£8.00
AX-TE-O3K	3K3A1 Alerton	£8.50
AX-TE-OA	10K4A1 York & Andover	£8.50
AX-TE-OH	20K6A1 Honeywell	£10.00
AX-TE-OD	30K6A1 Drayton	£10.00
AX-TE-ONIK	Ni1000a/TCR Siemens	£12.00
AX-TE-O100	PT100a Serek	£12.50
AX-TE-O1K	PT1000a Cylon	£13.50
AX-TE-O2.2K	2.2k Johnsons	£13.00
AX-TE-OSAT	SAT1 Satchwell	£17.00
AX-TE-OTAC	1K87A1 TAC	£11.25
AX-TE-OTXI	4-20mA active output	£48.50
AX-TE-OTXV	0-10Vdc active output	£48.50

#### Specifications:

Housing:	ABS (Flame retardant)
Dimensions:	55 x 90mm dia
Protection:	IP65
Ambient Range:	-10 to +60°C
Weight:	130g (refer to a data sheet for TXI, TXV)



## Temperature Sensors

### Flying Lead Temperature Sensors



#### AX-TE-Fxx

Temperature Sensors come complete with 2m of screened cable. Sensors are available with a range of passive thermistor sensing elements or an active 4-20mA output. IP68 available on some versions.

#### Features:

- . Low cost solution complete with cable
- . Low profile cap
- . Large range of sensor options

Order Codes:			List Price
AX-TE-FT	10K3A1	Trend, Trane, Priva	£3.00
AX-TE-FT-5m	As above with 5m cable length		£6.25
AX-TE-F3K	3K3A1	Alerton	£4.25
AX-TE-F3K-5m	As above with 5m cable length		£7.10
AX-TE-FA	10K4A1	York & Andover	£3.85
AX-TE-FA-5m	As above with 5m cable length		£5.55
AX-TE-FH	20K6A1	Honeywell	£5.00
AX-TE-F50K	50K6A1	Priva	£7.00
AX-TE-FNIK	Ni1000a/TCR	Siemens	£8.00
AX-TE-F100	PT100a	Serek	£8.50
AX-TE-F1K	PT1000a	Cylon	£8.50
AX-TE-FSAT	SAT1	Satchwell	£9.00
AX-TE-FTAC	1K87A1	TAC	£7.00
AX-TE-FTXI	4-20mA active output		£45.00
-SS	Stainless Steel Cap		Add £1.25
-W	Waterproof IP68		Add £1.25

#### Specifications:

Cable Length:	2m
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 TXI)

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

### Strap-on Temperature Sensors



#### AX-TE-Sxx

Temperature Sensors which can be mounted onto a pipe using a pipe strap. The sensors are available with a range of passive thermistor or an active 4-20mA output.

#### Features:

- . Solution complete with pipe strap
- . Large range of sensor options
- . Bent Stainless lug

Order Codes:			List Price
AX-TE-ST	10K3A1	Trend, Trane, Priva	£10.60
AX-TE-S3K	3K3A1	Alerton	£10.60
AX-TE-SA	10K4A1	York & Andover	£10.60
AX-TE-SH	20K6A1	Honeywell	£13.00
AX-TE-SD	30K6A1	Drayton	£14.50
AX-TE-SNIK	Ni1000a/TCR	Siemens	£16.25
AX-TE-S100	PT100a	Serek	£13.00
AX-TE-S1K	PT1000a	Cylon	£13.00
AX-TE-S2.2K	2.2K	Johnsons	£13.00
AX-TE-SSAT	SAT1	Satchwell	£19.00
AX-TE-STAC	1K87A1	TAC	£13.00
AX-TE-STXI	4-20mA	active output	£48.50

#### Specifications:

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

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

## Temperature Sensors

### Thimble & Button Temperature Sensors



#### AX-TE-Tx

Temperature Sensors mounted in a thimble or enclosure for surface mounting. The sensors are available with a range of passive thermistors. There is also a smaller button option.

#### Features:

- Complete with cable & fixing clip
- Small stainless steel button available for 10K3A1 or 10K4A1
- Plastic thimble as standard, other types available

Order Codes:		List Price
<b>Thimble Sensors</b>		
AX-TE-TT	10K3A1 Trend, 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 Snatchwell	£16.00
AX-TE-TTAC	1K87A1 TAC	£17.00
AX-TE-TTXI	4-20mA active output	£48.50
/AL	Aluminium Thimble	£10.00
/SS	Stainless Thimble	£22.00
/BR	Brass Thimble	£12.00
<b>Button Sensors</b>		
AX-TE-BT-S	Stainless steel button with 10K3A1 element	£11.00
AX-TE-BT-B	Brass button with 10K3A1 element	£11.00
AX-TE-BT-C	Chrome button with 10K3A1 element	£13.00

#### Specifications:

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

**Note:** Other small NTC thermistor elements may also be fitted. Ask sales office for prices. These can be fitted to a single gang plate at additional cost.

### Black Bulb Temperature Sensors

#### AX-TE-RBN

The AX-TE-RBN range of Black Bulb Temperature Sensors is 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:		List Price
AX-TE-RBN-T	10K3A1 Trend, Trane, Priva	£14.00
AX-TE-RBN-3K	3K3A1 Alerton	£14.00
AX-TE-RBN-A	10K4A1 York & Andover	£14.00
AX-TE-RBN-H	20K6A1 Honeywell	£15.00
AX-TE-RBN-D	30K6A1 Drayton	£15.00
AX-TE-RBN-N1K	Ni1000a/TCR Seimens	£17.00
AX-TE-RBN-100	PT100a Serek	£16.00
AX-TE-RBN-1K	PT1000a Cylon	£16.00
AX-TE-RBN-SAT	SAT1 Snatchwell	£19.00
AX-TE-RBN-TAC	1K87A1 TAC	£15.00

#### Specifications:

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

## Relative Humidity

### Room RH & T Transmitters

#### AX-RHT-S3

Space mounted RH & T Transmitters offer a cost effective solution for high accuracy RH and temperature measurement (optional direct resistive temperature output).



Order Codes:		List Price
AX-RHT-S3	Room RH & T transmitters 3% acc analogue o/p	£60.00
AX-RHT-S3-x	Room RH & T transmitter 3% acc analogue o/p x = Thermistor (specify Thermistor)	£65.00

#### Features:

- . Standard 3% RH accuracy
- . High stability and reliability
- . Selectable 0-5/10Vdc or 4-20mA output

#### Specifications:

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:	3% (between 5 & 95%RH)	
Stability:	+/-1% RH at 50% in 5 years	
Ambient Range:	0 to 50°C	

Note: Wet bulb, Dewpoint and Enthalpy sensors also available

### Duct RH & T Transmitters

#### AX-RHT-D3

Duct mounted RH & T Transmitters offer a cost effective solution for RH and temperature measurement. Optional direct resistive temperature output. 0-5/10Vdc or 4-20mA output.



Order Codes:		List Price
AX-RHT-D3	Duct RH & T transmitters 3% acc analogue o/p	£70.00
AX-RHT-D3-x	Duct RH & T transmitter 3% acc analogue o/p x = Thermistor (specify Thermistor)	£75.00

#### Features:

- . Standard 3% RH accuracy
- . High stability & reliability
- . 0-10Vdc or 4-20mA output options

#### Specifications:

Power Supply:	Voltage	24Vac/dc +/- 15%
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:	3% (between 5 & 95%RH)	
Stability:	+/-1% RH at 50% in 5 years	
Ambient Range:	0 to 50°C	

Note: Wet bulb, Dewpoint and Enthalpy sensors also available



## Relative Humidity

### Outside RH & T Transmitters

#### AX-RHT-03

Wall mounted RH & T Transmitters offer a cost effective solution for RH and temperature measurement. Optional direct resistive temperature output. 0-5/10Vdc or a 4-20mA output.

#### Features:

- . Standard 3% RH accuracy
- . High stability and reliability
- . 0-10Vdc or 4-20mA output options

#### Specifications:

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:	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-03	Outside RH & T transmitters 3% acc analogue o/p	£75.00
AX-RHT-03-x	Outside RH & T transmitter 3% acc analogue o/p x = Thermistor (specify Thermistor)	£80.00

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

### Thimble RH & T Transmitters

#### AX-RHT-T3

Thimble mounted RH & T Transmitters offer a cost effective solution for RH and temperature measurement. 0-5/10Vdc or 4-20mA output. Multiple material and finish options available for the thimble.

#### Features:

- . Standard 3% RH accuracy
- . High stability & accuracy
- . White ABS Thimble as standard
- . Brass, Aluminium or Stainless Steel Thimble options
- . 0-10Vdc or 4-20mA output options

#### Specifications:

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



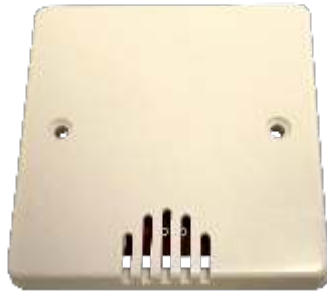
Order Codes:	N.B. Minimum quantities apply for the colour variants	List Price
AX-RHT-T3	Thimble RH & T transmitters 3% acc analogue o/p	£80.00
AX-RHT-T3-x	Thimble RH & T transmitter 3% acc analogue o/p x = Thermistor (specify Thermistor)	£85.00
AX-RHT-T3-SS	Stainless Steel Thimble	£102.00
AX-RHT-T3-BR	Brass Thimble	£92.00
AX-RHT-T3-AL	Aluminium Thimble	£90.00
AX-RHT-T3-RAL	RAL Colour for ABS - specify RAL	£P.O.A
AX-RHT-T3-PAN	Pantone colour for ABS - specify PAN	£P.O.A

## Relative Humidity

### Relative Humidity Sensor with Resistive Outputs

#### AX-RH-RES-2xxQ

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.



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

#### Features:

- . Fits into standard single back box
- . 230Vac & 24Vac options
- . Resistive Output

#### Specifications:

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	

### Humidistats

#### AX-RH-HxC

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



Order Codes:	N.B. Minimum quantities apply for the colour variants	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	£P.O.A
AX-RH-HBC112-C	Duct Humidistat, dual stage, concealed stage	£P.O.A

#### Features:

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

#### Specifications:

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

## Alarm Integrators & Annunciators

### Alarm Integration Module

#### AX-MA-xx

A range of 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

#### Specifications:

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

### Alarm Annunciators

#### AX-AA-x

The AX-AA range of Alarm Annunciators is used in conjunction with VFC signals to provide low cost audible and visual alarms. The alarm threshold and time delay is adjustable. 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 (disable) & mute button

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

#### Specifications:

Power Supply:	24Vac/dc +/- 15%	
Input:	VFC	
Alarm Delay:	5 to 30 secs	
Relay Output:	SPCO	
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



## LCD and LED Displays

### LCD Displays

#### AX-LCD-X

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



Order Codes:	Prices for the front panel meters depend on engraving, quantity 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 c/w 2 x 11mm LCD displays	£POA
AX-LCD-3	Hospital Display unit 3 x LCD displays and 2 x LED indicators	£POA

#### Features:

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

#### Specifications:

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

### LED Displays

#### AX-LED-57-x

A range of clear LED displays with 57mm digit height mounted in a ventilated wall mounted enclosure. The units are engraved according to requirements. The RH and Pressure versions require a 0-10Vdc I/P and the temperature version can have a thermistor built in.



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

#### Features:

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

#### Specifications:

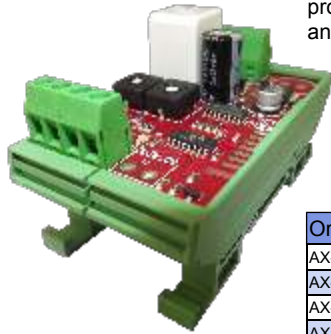
Power Supply:		24 ac/dc
Dimensions:		218(W) x 108(H) x 45(D) mm
Temperature Range:		0 to 40°C (as standard)
Pressure Range:		0 to 999 Pa
RH Range:		0 to 100% RH
LED Size:		3 x digit 7 segment 57mm height
Display Resolution:		0.2°C or 1 Pa
LED Colour:		Red (Green option)
Enclosure		White ABS Plastic
Ambient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

## Water Leak & Emergency Products

### Water Leak Detection

#### AX-WLD2-xx

The AX-WLD2-xx range of Two Zone Water Leak Detection products is designed for DIN rail mounting wherever localised water leak detection is required. The cable excitation used is an isolated AC signal which ensures the cable used will not be subject to oxidation or erosion over time. A relay output provides an alarm signal to a BMS controller or a remote alarm annunciator.



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
AX-CBS1-NO	Condensation sensor - normally open	£56.00
AX-CBS1-NC	Condensation sensor - normally closed	£56.00

#### Features:

- . Cable, Rain or Point sensors
- . Two sensor inputs
- . LED Indication of each zone and relay on
- . AC detector excitation for reliability
- . Audible alarm option

#### Specifications:

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	

### Plant Extension Timer

#### AX-PET

The AX-PET is an electronic Timer Switch which 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. The unit has a red LED screen and a push button to change the extension time.



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

#### Features:

- . 24Vac or 230Vac operation
- . LED Display
- . Flush or surface mounting

#### Specifications:

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 2,3,4,5,6,7,8,9 Hours
Ambient Range:	0 to 50°C
Protection:	IP20
Dimensions:	85mm x 85mm x 14mm

## Air Pressure

### Air Differential Pressure Switches

#### AX-ADPS

A range of Air Differential Pressure Switches for flow proving and filter status monitoring applications. The switching setpoint is adjusted by means of a calibrated knob mounted under the main cover.



#### Features:

- . Cost effective solution
- . Mains rated switch contacts
- . Supplied complete with duct fixing kit
- . IP65 enclosure option

Order Codes:		List Price
AX-ADPS-80	Range 20Pa to 200Pa (10Pa differential)	£12.00
AX-ADPS-83	Range 50Pa to 500Pa (10Pa differential)	£12.00
AX-ADPS-84	Range 30Pa to 400Pa (15Pa differential)	£12.00
AX-ADPS-85	Range 200Pa to 1000Pa (100Pa differential)	£12.00
AX-ADPS-86	Range 500Pa to 2500Pa (150Pa differential)	£18.00
AX-ADPS-87	Range 1000Pa to 4000Pa (250Pa differential)	£20.00
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-84-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
AX-ADPS-86-IP65	Air DP switch mounted in an IP65 housing	£41.00
AX-ADPS-87-IP65	Air DP switch mounted in an IP65 housing	£43.00
AX-ADPS-DFK	Duct Fixing Kit (1 is supplied with all switches)	£1.35

#### Specifications:

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

### Multi Range Air Differential Pressure Sensor

#### AX-ADPT-PTH

A Multi Range Air Differential Pressure Transmitter with 8 jumper selectable ranges which can be used for positive, negative or differential pressure monitoring applications. The unit has jumper selectable 0-10Vdc or 4-20mA output.



#### Features:

- . Compact size
- . Multi range
- . 0-10Vdc or 4-20mA o/p
- . LED Indication
- . Supplied complete with duct fixing kit

Order Codes:		List Price
AX-ADPT-PTH	Multi Range Air Differential Pressure Transmitter	£92.00

#### Specifications:

Power Supply:	24Vac/dc or 13.5 to 28Vdc
Pressure Ranges:	-50 to +50Pa, 0 to 100Pa, 0 to 150Pa, 0 to 300Pa, 0 to 500Pa, 0 to 1000Pa, 0 to 1600Pa, 0 to 2500Pa
Output:	4(0)-20mA or 0(2)-10Vdc
Pressure Connections:	6mm I/D push on tubing
Cable Entry:	M16 Gland
Protection:	IP54
Ambient Range:	-20 to 40°C
Weight:	87g



## Air & Liquid Pressure

### Static Pressure Transmitters



#### AX-LSPTD

A range of Pressure Transmitters designed for the HVAC industry. Units are available with either a 0-10Vdc or 4-20mA output. The units are suitable for air, gas and liquids.

#### Features:

- . Robust stainless steel construction
- . Male 1/4" BSP connection
- . Complete with DIN plug connector

Order Codes:	Current Output 4-20mA - 2 wire	List Price
AX-LSPTSD-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-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

#### Specifications:

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

**Note:** Large Pressure Ranges available. Contact the sales office for details.

### Millibar Static Pressure Transmitters



#### AX-LSPT-mB

A range of highly accurate Pressure Transmitters designed for sensing ranges below 1 bar. Units are available with either a 0-10Vdc or 4-20mA output. These units are suitable for air, gas and liquids.

#### Features:

- . Robust stainless steel construction
- . Male 1/2" BSP connection
- . Complete with DIN plug connector

Order Codes:	Current Output 4-20mA	List Price
AX-LSPT-I-25mB	Range 0 to 25 mbar	£315.00
AX-LSPT-I-40mB	Range 0 to 40 mbar	£315.00
AX-LSPT-I-60mB	Range 0 to 60 mbar	£280.00
AX-LSPT-I-100mB	Range 0 to 100 mbar	£155.00
AX-LSPT-I-160mB	Range 0 to 160 mbar	£155.00
AX-LSPT-I-250mB	Range 0 to 250 mbar	£155.00
AX-LSPT-I-400mB	Range 0 to 400 mbar	£155.00
AX-LSPT-I-600mB	Range 0 to 600 mbar	£155.00

Order Codes:	Voltage output 0-10Vdc	List Price
AX-LSPT-V-25mB	Range 0 to 25 mbar	£320.00
AX-LSPT-V-40mB	Range 0 to 40 mbar	£320.00
AX-LSPT-V-60mB	Range 0 to 60 mbar	£290.00
AX-LSPT-V-100mB	Range 0 to 100 mbar	£155.00
AX-LSPT-V-160mB	Range 0 to 160 mbar	£155.00
AX-LSPT-V-250mB	Range 0 to 250 mbar	£155.00
AX-LSPT-V-400mB	Range 0 to 400 mbar	£155.00
AX-LSPT-V-600mB	Range 0 to 600 mbar	£155.00

#### Specifications:

Power Supply:	Current Output	14-40Vdc
	Voltage Output	11-40Vdc
Operating Temperature:	Ambient	-25 to +85°C
	Fluid	-25 to +100°C

## Liquid Pressure Switches

### Liquid Static Pressure Switches

#### AX-LSPS1381-x

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.



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 reset 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

#### Features:

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

#### Specifications:

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 42 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 (Ind)	
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	

### Liquid Static Pressure Switches

#### AX-LSPS-PS

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



Order Codes:		List Price
AX-LSPS-PS1-1	Liquid Pressure Switch -0.75 to 3 bar	£32.00
AX-LSPS-PS1-3	Liquid Pressure Switch -0.5 to 7 bar	£32.00

#### Features:

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

#### Specifications:

	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	

## Liquid Differential Pressure Switches

### Liquid Differential Pressure Switches

#### AX-LDPS1382/1482

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



#### Features:

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

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

#### Specifications:

	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 1A @ 30Vdc inductive	
Media Temperature:	-10 to +85°C	
Protection:	IP65	

### Liquid Differential Pressure Switch

#### AX-LDPS-FD113

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.



#### Features:

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

Order Codes:		List Price
AX-LDPS-FD113	Range 0.3 to 4.5 bar	£44.00

#### Specifications:

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

**Note:** There are price reductions on orders for boxes of 20 on this product. Ask the sales office for details.



## Pressure Products

### Liquid Differential Pressure Transmitters

#### AX-LDPT482-xx

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

#### Features:

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



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

#### Specifications:

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	

### Room Differential Pressure Monitors

#### AX-RDPM-xx

AX-RDPM Room Differential Pressure Monitors are used to measure differential pressure in the range of +/- 30 to 250 Pa. They feature an LCD to display the pressure values and have an optional alarm output with variable trip point, a remote buzzer output with silence switch and a flashing alarm LED.

#### Features:

- . 1/8" BSP female connections
- . LCD Indication



Order Codes:		List Price
AX-RDPM05	Pressure Monitor +/- 250 Pa	£395.00
AX-RDPM06	Pressure Monitor +/- 125 Pa	£395.00
AX-RDPM07	Pressure Monitor +/- 60 Pa	£395.00
AX-RDPM08	Pressure Monitor +/- 30 Pa	£395.00
-LC	LCD display	£10.00
-A	Alarm functions, silence switch, buzzer out, relay out & setpoint control	£10.00
-SP	Stainless pick up port	£22.00
-AE	Executive pick up port	£22.00

#### Specifications:

Power Supply:	15 to 27Vac or 20 to 35Vdc	
Thermal Effects:	<+/- 3.5% over compensated range	
Accuracy:	+/- 1% F.O. (+/- 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	

## Power Supplies

### DIN Rail Mounted 230Vac to 24Vac Transformers



#### AX-TX-Dx

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

Order Codes:		List Price
AX-TX-D1.8	DIN Rail Transformer 1.8VA	£12.00
AX-TX-D6	DIN Rail Transformer 6VA	£20.00
AX-TX-D25	DIN Rail Transformer 25VA	£28.00

#### Features:

- . Terminal connectors
- . Rating from 1.8VA to 25VA
- . DIN rail mounted encapsulated transformer

#### Specifications:

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

### 230Vac to 24Vac Transformers



#### AX-TX-xx

A range of Panel Mounted 230Vac to 24Vac Transformers suitable for a wide range of applications.

Order Codes:		List Price
AX-TX-25	230Vac to 24Vac Transformer 25VA	£24.00
AX-TX-50	230Vac to 24Vac Transformer 50VA	£27.00
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

#### Features:

- . Spade earth connector
- . Welded earth terminal
- . Rating from 25VA to 200VA

#### Specifications:

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:	U.K

### Power Supply - 24Vac to 24Vdc



#### AX-PS-24-24

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

Order Codes:		List Price
AX-PS-24-24-1C	24Vdc 1A Power Supply, common 0V	£20.00
AX-PS-24-24-1F	24Vdc 1A Power Supply, floating 0V	£20.00

#### Features:

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

#### Specifications:

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

### Power Supply - 230Vac to 24Vdc



#### AX-PS-230-24

A DIN rail or enclosure mounted 240Vac to 24Vdc Power Supply suitable for a wide range of applications including providing dc power to Axio IO Modules.

Order Codes:		List Price
AX-PS-230-24	24Vdc 1.0A Power Supply - DIN	£36.00
AX-PS-230-24E	24Vdc 1.0A Power Supply - Mounted in a ventilated metal enclosure	£56.00

#### Features:

- . Integrated short-circuit protection
- . LED Status indication

#### Specifications:

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

## kWh Meters

### kWh Meter - DIN

#### AX-KWH-Ri3

The AX-KWH-Ri3 kWh Meter is a compact DIN rail mounted design. These are CT operated for both single and three phase supply. The units give both a pulse output and modbus to the BMS.

#### Features:

- . Three line LCD display
- . Single or 3 phase
- . Pulse and Modbus output to BMS
- . CT operated
- . DIN rail mounting



Order Codes:		List Price
AX-KWH-Ri3	Ri3 DIN rail kWh Meter c/w pulse & modbus o/p	£115.00

#### Specifications:

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

### kWh Meters - Panel

#### AX-KWH-Cx

The AX-KWH-Cx range of kWh Meters is a compact panel mounted design. These are CT operated for both single and three phase supply. The units give a pulse output to the BMS (modbus options).

#### Features:

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



Order Codes:		List Price
AX-KWH-Ci1-P	Ci1 Panel kWh Meter c/w pulse o/p	£88.00
AX-KWH-Ci1-MOD	Ci1 Panel kWh Meter c/w 485 o/p	£115.00
AX-KWH-Ci3-P	Ci3 Panel kWh Meter c/w pulse o/p	£90.00
AX-KWH-Ci3-MOD	Ci3 Panel kWh Meter c/w 485 o/p	£120.00

#### Specifications:

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

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



# GAS & SMOKE DETECTION

## Gas Leak, Smoke & Gas Sensors

### Smoke Detectors

#### AX-GS-SD-xxx

Approved Smoke Detectors are designed for use in ducts and give a relay output to fans or BMS.



#### Features:

- . 24Vac/dc or 240Vac operation
- . Photoelectric or ionisation sensor
- . Two sets of 5A alarm outputs

#### Specifications:

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	£13.90

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

### Gas Leak Detection System

#### AX-GLD-P82

The AX-GLD-P82 Gas Leak Detection range is suitable for use in boiler rooms and other commercial applications to provide safety and shut down facilities in the event of gas leakage. The units come complete with output relays to operate auxiliary devices such as gas solenoid valves or sirens.



#### Features:

- . Up to 4 channels
- . Adjustable sensitivity
- . Relay output for gas valves or alarms
- . Audio and visual alarms

#### Specifications:

Order Codes:		List Price
AX-GLD-P82	Four channel gas leak alarm control unit - DIN	£380.00
AX-GS-S81	LNG Sensor (methane)	£95.00
AX-GS-S82	LPG Sensor (propane)	£95.00
AX-GS-S83	Carbon Monoxide Sensor	£110.00

Power Supply:	12Vdc +/- 10% or 230Vac
Power Consumption:	280mA typical (max 920mA inrush)
Relay Type:	SPDT
Relay Contact Rating:	2 x 8A @ 250Vac (res) (1A ind)
Audible Alarm:	Approx 60db
Ambient Range:	-10 to +50°C

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## Carbon Dioxide Sensors

### Carbon Dioxide, Temperature & RH Sensors



#### AX-GS-CD-T81

These Combined Carbon Dioxide Temperature and RH Sensors are easy to install and maintain. The units can output the 3 parameters as either linear 4-20mA or 0-10V signals with option of thermistor temperature output. The units have a lifetime calibration interval.

Order Codes:		List Price
AX-GS-CD-T81-E	Space CO2 Sensor & Thermistor temp o/p	£175.00
AX-GS-CD-T81-ED	Space CO2 Sensor & Temperature temp o/p + LCD	£183.00
AX-GS-CD-T81-EH	Space RH, Temp & CO2 sensor analogue o/p	£202.00
AX-GS-CD-T81-EHD	Space RH, Temp & CO2 sensor analogue o/p + LCD	£212.00
-B	Bacnet MS/TP Version	Add £15.00
-BAC	Bacnet enabled - MSTP/IP	Add £25.00

#### Features:

- . Optional LCD with PPM indication
- . ABC self-calibration logic
- . Optional RH and analogue temperature outputs
- . Attractive high quality enclosure
- . Scaleable to different ranges

#### Specifications:

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 Based Capacitive
RH Accuracy:	+/- 2.5% RH

### Duct Carbon Dioxide Sensors



#### AX-GS-CD-Dxx

These Duct Carbon Dioxide and Temperature Sensors are easy to install and maintain. The units can output the CO2 as a 0-10V signal with the option of thermistor temperature output. The units have a lifetime calibration interval.

Order Codes:		List Price
AX-GS-CD-D8041	Duct CO2 sensor 0-10V o/p. Probe 10.46mm	£178.00
AX-GS-CD-D8041-T	Duct CO2 sensor o/p. Probe 10.46mm - Thermistor	£188.00
AX-GS-CD-D8042	Duct CO2 sensor 0-10V o/p. Probe 20.32mm	£183.00
AX-GS-CD-D8042-T	Duct CO2 sensor 0-10V o/p. Probe 20.32mm - Thermistor	£193.00

#### Features:

- . ABC self-calibration logic
- . Two probe lengths available
- . Ships with mounting screws
- . Thermistor output available

#### Specifications:

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

### Carbon Dioxide Sensors



#### AX-GS-CD-T51-E

The AX-GS-CD-T51-E range is a cost effective wall mounted CO2 and optional temperature sensor. The unit has the option of a multi-coloured LED indicator of CO2 thresholds to display air quality in enclosed spaces (i.e. school classrooms, offices, gymnasiums, theatres etc.). The unit comes complete with "Automatic Background Calibration" software to reduce drift to better than +/-20ppm/year

Order Codes:		List Price
AX-GS-CD-T51-EV	Room CO2 sensor 1 x 0-10Vdc	£145.00
AX-GS-CD-T51-EVT	Room CO2 & Temperature sensor 1 x 0-10Vdc	£153.00
AX-GS-CD-T51-EI	Room CO2 sensor 1 x 4-20mA	£145.00
AX-GS-CD-T51-EIT	Room CO2 & Temperature sensor 1 x 4-20mA	£153.00
AX-GS-CD-T51-EL	Room CO2 & Temperature sensor 2 x AO & LED	£155.00

#### Features:

- . ABC self-calibration logic
- . L version features 5 LED indication
- . Ships with mounting screws
- . Thermistor output available

#### Specifications:

Power Supply:	18 to 30Vac or 18 to 42Vdc
Nominal Measurement Range:	0-2000ppm
Output:	4-20mA or 0-5/10Vdc
	Thermistor temperature option
LED (option):	6 LED indication of level
Calibration Interval:	Not required
Ambient Range:	0 to 50°C, 0-95% RH

## Carbon Dioxide Sensors

### Carbon Dioxide Switches



#### AX-GS-CD-ST8013

The AX-GS-CD-ST8013 is a cost effective wall mounted CO2 switch for ventilation control. The unit incorporates an intuitive Visual Level Indicator display for CO2 thresholds to maintain air quality in enclosed spaces (i.e. school classrooms, offices, gymnasiums, theatres etc.).

Order Codes:		List Price
AX-GS-CD-T8013	Room Carbon Dioxide Switch	£170.00

#### Features:

- . High accuracy and stability
- . Intuitive 6 LED display
- . 15 year recommended calibration interval

#### Specifications:

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

## Air Quality & Carbon Monoxide Sensors

### Carbon Monoxide Sensors



#### AX-GS-CM-xxx

Carbon Monoxide Sensors designed for use in car parks and other non-ventilated areas. The units are of rugged construction and offer an analogue output of the gas concentration.

Order Codes:		List Price
AX-GS-CM-V	Wall mounted Carbon Monoxide Sensor	£95.00
AX-GS-CM-VR	Wall mounted Carbon Monoxide Sensor c/w relay	£110.00

#### Features:

- . High accuracy and stability
- . 3 year recommended calibration interval
- . Optional relay with wide selection of ppm level switchpoint

#### Specifications:

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

### Air Quality Sensors



#### AX-GS-AQ-x

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.

Order Codes:		List Price
AX-GS-AQ300AE	Room AQ Sensor stepped o/p	£132.00
AX-GS-AQ300AE-R	Room AQ Sensor stepped and relay o/p	£180.00
AX-GS-AQ300AE-A	Room AQ Sensor analogue o/p	£148.00
AX-GS-AQ300AE-AR	Room AQ Sensor analogue and relay o/p	£195.00
AX-GS-AQ300D	Duct AQ Sensor stepped o/p	£148.00
AX-GS-AQ300D-R	Duct AQ Sensor stepped and relay o/p	£215.00
AX-GS-AQ300D-A	Duct AQ Sensor analogue o/p	£160.00
AX-GS-AQ300D-AR	Duct AQ Sensor analogue and relay o/p	£225.00

#### Features:

- . High accuracy and stability
- . 2 year recommended calibration interval
- . Combines all pollutants to give a mixed gas concentration
- . Stepped, analogue and relay outputs

#### Specifications:

Power Supply:	20 to 30Vac/dc
Sensor Type:	Tin dioxide film
Output (standard):	Stepped 0-10Vdc (4 steps)
Output (optional):	Linear analogue 4-20mA or 0-10Vdc
Output (optional):	Relay 5A @ 250Vac (res)



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