AX-FRM3+1-TX

Fan Speed Relay Module + Additional Relay with 230Vac/24Vac Transformer

AXIO

Product overview

The FRM3+1-TX range of Fan Speed Relay Modules provide high capacity, interlocked fan speed switching relays with an additional relay for 24Vac Thermostats. Features include an onboard power supply and relays that can switch up to 12 Amps at 250Vac. The FRM3+1-TX range reduces cabling requirement and eliminates the need for external power supplies when retrofitting modern thermostat solutions.

The unit can be used to change fan speeds on fan motors with multi-tapped windings and also transformer speed controlled motors. The 'break before make' design of the relay contact configuration and common switching point ensure that only one set of contacts is active at any one time, thus preventing short circuits. The three fan relays are powered by the transformer and switched with volt-free contacts. Two pairs of 24Vac outputs are also provided.

Features

- Switch up to 250Vac at 12A with low powered relays
- Interlocked fan relays allow only one output on at a time
- Enclosure option available
- 230Vac to 24Vac transformer - 25 or 30VA option

Product specifications

Inputs:	Power	230Vac 50/60Hz ±15%
	Digital for 24Vac relays	3 off volt-free contacts with a common, 1 isolated pair
Outputs:	Fan Speed	Common and three volt-free, interlocked relay outputs
	Additional relay	Normally open contact
Output Supply:		Two pairs of 24Vac terminals. 25VA or 30VA max. Options
Typical Load Regulation:		25%
Contact Rating:	All relays	12A @ 250Vac resistive (max. 5A inductive)
Fusing:	230Vac Input	20mm slow blow, 6A (includes fan supply)
	24Vac Output	20mm slow blow, 1.6A
Terminals:		Two part plug-in terminals for 0.5-1.5mm² cable
Ambient Temperature:		-10 to +50˚C 0-95% RH (non condensing)
Enclosure:	…TX-25	135mm x 83mm x 58mm / 650 grams. IP55 flame retardant ABS
	…TX-25-E	164mm x 119mm x 77mm / 1450 grams. Zintec
	…TX-30	135mm x 83mm x 58mm / 680 grams. IP55 flame retardant ABS
	…TX-30-E	164mm x 119mm x 77mm / 1465 grams. Zintec
Country of Origin:		United Kingdom

Order codes   For 3-Fan speed relay modules with additional relay and transformer

AX-FRM3+1-TX25	3 x Fan relays, 1 independent relay, 230 to 24Vac transformer 25VA - DIN rail mount
AX-FRM3+1-TX25E	3 x Fan relays, 1 independent relay, 230 to 24Vac transformer 25VA - Enclosed
AX-FRM3+1-TX30	3 x Fan relays, 1 independent relay, 230 to 24Vac atransformer 30VA - DIN rail mount
AX-FRM3+1-TX30E	3 x Fan relays, 1 independent relay, 230 to 24Vac transformer 30VA - Enclosed

## Installation

DIN Rail Version

The module is designed to be housed within a control panel and should only be installed by a suitably qualified technician. The module can be clipped to standard "top hat" profile DIN rail by locating the top lip of the carrier on the rail and snapping it into place.

Enclosure Version

The module is housed within a ventilated enclosure for fitting to a fan coil unit and should only be installed by a suitably qualified technician. The earth stud must be connected to a suitable earth supply, with a cable sized to the local regulations in force.

When connecting the wiring to the units, care must be taken not to over tighten the terminals. Cables should be connected as follows:

Connections
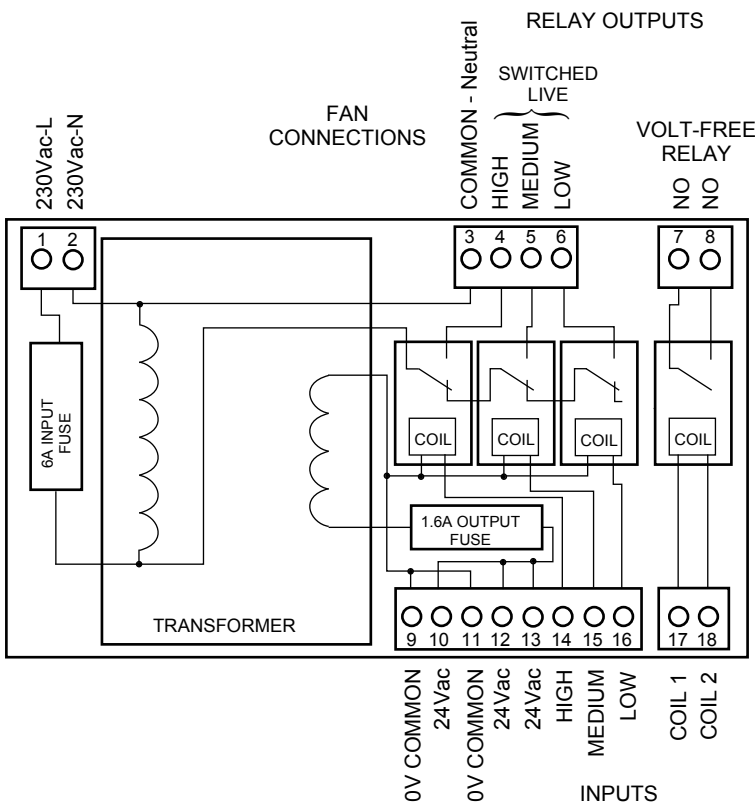
The Fan relay outputs have a common connection terminal to the Neutral supply. The switched output terminals are all switched from the fused Live supply - refer to the connection diagram opposite.

The Fan relay coil connections all share the '0V Common' connection of the transformer.

Wiring to the input terminals is the same for all modules. If more than one fan speed is selected simultaneously, the highest fan speed will have precedence.

When connecting a fan motor with multi-tapped windings, the neutral supply to the motor should be connected to the "N" terminal and the corresponding fan speed wiring connected to each of the speed terminals.

Example connections