



FdxCompact TRIAC-8-C

8 channel analogue output module

- Screwless installation with click-on DIN-rail communication bus and power connectors
- Push-in spring connectors for cables
- Individually detachable terminal blocks per channel



Connect and control

The 8 channel Triac module is used to send control signals to Triac field equipment. Its 8 individually configurable channels can send out control signals between 0 and 100%, and each have parametrisable safeguard values in case of a rupture in communication from a serial Modbus master FX-controller.

Technical features

Dimensions & Weight

134mm x 78mm (x 19 mm thick), 90gr

Recommended power supply

< 25 mA @ 24VDC (+/- 10%)

Output current maximum 500 mA / channel

Operating temperature 0 to +40°C

Communication Modbus RTU (RS485) at speeds up to 57600 bps

Power and communication: Power and the communication bus are connected to the TRIAC-8-C module by clicking it onto the connector, which in its turn clicks onto the DIN rail. The FdxCompact controllers provide both natively, or you can use the connectors from the Fdx-Terminal-C set. The middle connector is internally connected to the 0 VDC IN.

Modbus address: The address of the TRIAC-8-C module can be set from 1 to 63 by changing the position of dip-switches 1-6. Each dip-switch represents a binary value, as indicated on the module (ST1...ST32).

DIP 1 (32)	DIP 2 (16)	DIP 3 (8)	DIP 4 (4)	DIP 5 (2)	DIP 6 (1)	Modbus address
0	0	0	0	0	1	1
0	0	0	0	1	0	2
0	0	0	0	1	1	3
...
1	0	1	0	1	0	42
...
1	1	1	1	1	1	63

Modbus communication: Use no parity, 8 data bits and 1 stop bit, and the TRIAC-8-C module will auto-detect the communication speed of the bus (9600, 19200, 38400 or 57600 bps).

Modbus loop termination: On the last module, the Modbus loop must be closed by connecting a 120 Ω resistor between the A- and the B-side of the RS-485 loop.

Use the terminal that is delivered with your FdxCompact controller, or from the Fdx-Terminal-C set.

Outputs: Use TRIAC outputs to generate Triac time-based

control signals. All outputs can be individually set to close for a percentage of the configurable control signal pulse time, with steps of 0.1% (In the AO point programming on an FX-controller, this is represented with a value from 0.0 to 100.0%).

The default control signal pulse time is 1.0 second.

The maximum load per output is 500 mA.

LEDs: The on-time of the LEDs on the module's label show the output value; from always off (0%) to always on (100%); the on-time of a blinking LED corresponds to the output value, or the time the circuit is closed.

Connecting outputs: The outgoing 24VAC signal comes from the Vx connectors (channel output). While the channel's output is active, the Tx connector will be connected to the 24VAC G0 level. The module itself is powered using 24VDC, so 24VAC has to be connected from an external power supply to one of the AC/G0 connectors.

Default value without communication: Each channel can be configured to preserve its last output value, or to change to a programmable value in case of a rupture in the communication with the serial Modbus master FX-controller of more than 120 seconds.

This behaviour is programmed in the AO point programming on an FX-controller.

AC and G0 connectors: Connect an external power supply to one of the AC/G0 connectors to provide the 24VAC to all the Vx/Tx connectors, and to all other AC/G0 connectors.

Power consumption: The module is to be powered with 24 VDC and consumes 5 mA in stand-by.

Each channel can use up to 3 mA when the output is active. It is therefore recommended to use a power supply providing at least 40 mA.

Firmware compatibility: The module is supported by firmware for FX-controllers from version 12 upwards. This firmware is compatible with the FX-2030, FX-2030A and the FX-3000-C.

