



## FdxCompact DO-8-C

8 channel digital 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 digital output module has 8 changeover relays, capable of taking on a maximum load of 2A at 24 VAC, or 6A at 12 VDC.

Each channel has a LED indicating its current status. Control loops with a load up to 1 A at 30 volts from each channel and swiftly command any device 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%) + 10 mA**

**/ active relay**

Maximum switching capacity

**1 A @ 30 V**

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 DO-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 DO-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 DO-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.

**Relays:** The 8 changeover type relays each have a maximum switching capacity of 1 A at 30 V. The consumption of the relays itself is about 10 mA / active relay.

**LEDs:** Each channel has a green LED, lighting up when the relay is activated.

**Connection:** Each channel has 2 common connectors (xCOM), 1 normally closed connector (xNC) and 1 normally open connector (xNO). Relays can be combined in the DO point programming on an FX-controller to work as tristate points.

**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 30 seconds.

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

**Power consumption:** The module is to be powered with 24 VDC and consumes 8 mA in stand-by.

Each channel can use up to 9 mA when the output is active. It is therefore recommended to use a power supply providing at least 90 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.

