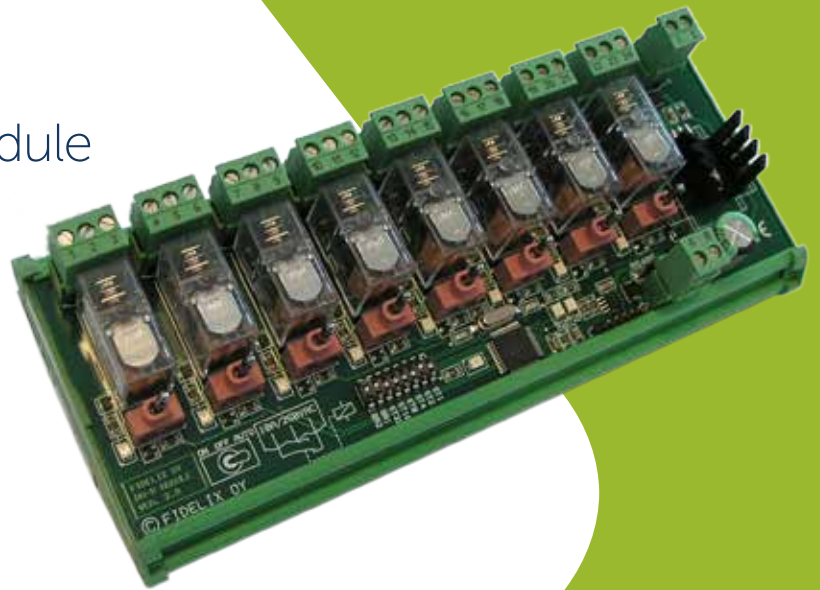




## FX-DO-8

8 channel digital output module

- 8 relays
- DIN-rail mounting
- Individually detachable connectors
- Manual override switches



### Connect and control

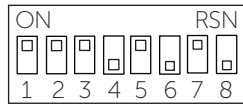
Each of the 8 channels of the digital output module with 8 changeover type relays, can be set to send programmed values, or manually switched, overwriting this programmed value. Should there be an unforeseen interruption in the communication towards the module, each relay can preserve its current state or switch to a pre-programmed status. Each relay has an LED, indicating its current status. Use the DO-8 module to control devices up to 250 Volts.

### Technical features

Size (with DIN-rail clamps):	205mm x 90mm (x 65mm height)
Operating voltage:	20-26VDC
Operating temperature:	0 to +50°C
Maximum load:	6 A / 250 VAC

**Modbus address:** The address of the DO-8 module is set by changing the position of dip-switches 3-8. Each dip-switch represents a binary value, as indicated on the module: dip-switch 3 (ST32) = 32, dip-switch 4 (ST16) = 16, dip-switch 5 (ST8) = 8, dip-switch 6 (ST4) = 4, dip-switch 7 (ST2) = 2, dip-switch 8 (ST1) = 1.

**Example:** To set the Modbus address of the module to 42, set dip-switches 3, 5 and 7 to ON, and dip-switches 4, 6 and 8 to OFF.  
(dip-switch 3 = 32, dip-switch 5 = 8, dip-switch 7 = 2. 32+8+2 = 42)



**Modbus speed:** The DO-8 module communicates, using the Modbus RTU protocol over a serial RS485 connection with 8 databits, no parity and 1 stop bit. To set the Modbus speed at which the module sends and receives data, set dip-switch 1 and 2 as indicated in the table on the right.

Communication speed	Dip-switch 1 (BR2)	Dip-switch 2 (BR1)
9 600 bps	OFF	OFF
19 200 bps	OFF	ON
38 400 bps	ON	OFF
57 600 bps	ON	ON

On the last module in the Modbus loop, the loop must be closed by connecting a 120 Ω resistor between the A and the B side of the RS-485 loop. This can be done using the modules own terminating resistance by closing the built-in jumper next to the Modbus connectors.

**Relays:** The 8 changeover type relays, each have a manual switch, to override any programmed output. The maximum allowed throughput is 6A at 250 VAC. The consumption of the relays itself is ca. 26 mA / active relay. Each relay can preserve its output value or change to a programmable value in case of a rupture in the communication with the outstation.

Each relay has a LED indication, lighting up when the linked DO-point is on.

Connect a normally open circuit to connectors 2 and 3 (5 and 6, 8 and 9, ... , 23 and 24), or connect a normally closed circuit to connectors 1 and 3 (4 and 6, 7 and 9, ... , 22 and 24). Relays can be combined in the software to work as a tristate controller.

