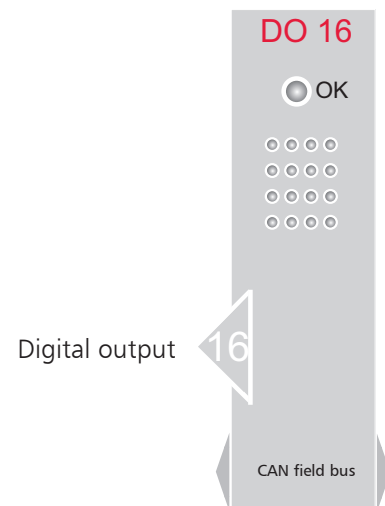


Digital Output Interface

flexotemp®

DO 16



Features

- Module for 16 digital outputs (function configurable)
- CANopen norm slave based on DS-401
- Applicable with flexotemp® MCU and flexotemp® PCU, in I/O nodes by flexotemp® CANBC
- Model ME-Bus (connectable)
- Status-LED
- Control LED's for digital outputs
- Compact design

Function

- Application of digital outputs as control outputs, alarms or outputs in Soft-PLC
- For heating/cooling outputs output of proportional control signal
- Complete functional integration in flexotemp® PCU and flexotemp® MCU
- Supply voltage 24 VDC for digital outputs

Benefits

- Easy, peripheral configuration of flexotemp® control system with remote I/O's
- Peripheral signal processing
- Easy expandability and integration in own applications
- Compact housing
- Little for installation

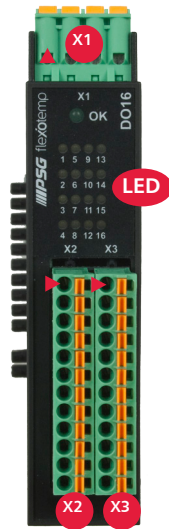
Ordering designations

| | Order number |
|------------------|--------------|
| flexotemp® DO 16 | RR 2200/DO16 |

Technical Data

| | | |
|-------------------------------------|--|--|
| Digital outputs (DO) | | Number: 16, configurable by flexotempMANAGER |
| | Type | Logic output, directly coupled, internal freewheeling diode, short circuit proof |
| | Rated output voltage | 10...30 VDC |
| | Rated output current | Per output 500 mA at $T_A=25^\circ\text{C}$ |
| Connection data outputs | | Conductor cross section solid, stranded min/max 0.2 mm ² /1.5 mm ² ; Conductor cross section stranded with ferrule without plastic sleeve min/max 0.25 mm ² /1.5 mm ² ; Conductor cross section stranded with ferrule with plastic sleeve min/max 0.25 mm ² /0.75 mm ² ; |
| Protection equipment | | Reversed polarity of power supply: diode, over voltage of power supply: varistor |
| Data interfaces | | |
| | CAN | Field bus for I/O - and bus coupler modules |
| | Address range | CANopen norm slave based on DS401, address range 1...127 automatically |
| | Transfer rate | 250 KByte fixed |
| | Max. tolerable bus length (m) | 250 |
| | Device internal terminating resistor | Automatic |
| | Protocol | CANopen |
| Power supply | | |
| | Rated voltage / max. power consumption | Electronics: 18...30 VDC / < 2W (internal by system bus) |
| | Fuse protection | Electronics: external by PCU and/or CANBC Outputs: 8 A M |
| | Supply | Outputs: external mains supply 24 V |
| | Connection data | Conductor cross section solid, stranded min/max 0.2 mm ² /1.5 mm ² ; |
| Ambient temperature limit | | Operation: 0...55 °C, transport, storage: -20...60 °C, operation limit: 0...60 °C |
| Atmospheric humidity limit | | Operation: 0...90 % relative atmospheric humidity, no condensation Transport, storage: 0...95 % relative atmospheric humidity, no condensation |
| Mounting | | Installation on DIN rail (DIN 50022); horizontal installation position; see installation |
| Dimensions (H x W x D in mm) | | 99 x 22.5 x 114.5 |
| Housing | | Phoenix ME 22.5 Bus 10/2 |
| Weight | | 0.15 kg |
| Electrical security | | Class 3, safety extra-low voltage; complies with EN 61010 |
| Protection type | | Housing and terminal IP 20 |
| Standards | | Complies with EN 61326-1 |
| CE marking | | The device complies with the European Directives for electromagnetic compatibility (complies with EN 61326-1). |
| General | | |
| | LED displays | Refer to status display of LED's |
| | Data backup | Data backup of all parameters in EEPROM (power failure save) |
| | Software update | By CAN interface |

Connection overview



| | |
|------------|--|
| X1 | Power supply |
| X2 | Digital outputs D1...D8 |
| X3 | Digital outputs D9...D16 |
| LED OK | Operation display |
| LED 1...16 | Signalizes the status of the digital outputs |

Pin assignment

X2 Digital outputs

12-pole spring-force terminal

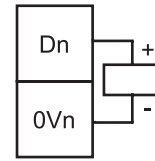
| Pin | X2 | Function and/or signal |
|-----|-----|---------------------------|
| 1 | U1 | +24 VDC auxiliary voltage |
| 2 | 0V1 | Ground auxiliary voltage |
| 3 | nc | <without function> |
| 4 | nc | <without function> |
| 5 | D1 | Digital output 1 |
| 6 | D2 | Digital output 2 |
| 7 | D3 | Digital output 3 |
| 8 | D4 | Digital output 4 |
| 9 | D5 | Digital output 5 |
| 10 | D6 | Digital output 6 |
| 11 | D7 | Digital output 7 |
| 12 | D8 | Digital output 8 |

X3 Digital outputs

12-pole spring-force terminal

| Pin | X3 | Function and/or signal |
|-----|-----|---------------------------|
| 1 | U2 | +24 VDC auxiliary voltage |
| 2 | 0V2 | Ground auxiliary voltage |
| 3 | nc | <without function> |
| 4 | nc | <without function> |
| 5 | D9 | Digital output 9 |
| 6 | D10 | Digital output 10 |
| 7 | D11 | Digital output 11 |
| 8 | D12 | Digital output 12 |
| 9 | D13 | Digital output 13 |
| 10 | D14 | Digital output 14 |
| 11 | D15 | Digital output 15 |
| 12 | D16 | Digital output 16 |

Digital output 1...16



X1 Power supply

Digital Outputs

4-pole spring-force terminal

| Pin | X1 | Function / Signal |
|-----|-----|------------------------|
| 1 | U1 | Power supply *) |
| 2 | U2 | Power supply *) |
| 3 | 0V1 | Ground Power supply |
| 4 | 0V2 | Ground Power supply |

*) External fuse protection necessary

Notice: X1/U1/U2, X2/U1, X3/U2 are internal bridged.

Status display of LED's

| LED-OK (green) | |
|------------------|----------------------|
| flashing (1 Hz) | Boot mode |
| flashing (2 Hz) | Pre operational mode |
| Continuous light | Operational mode |

Installation

