

The Electronic Brand of



TECHNICAL DATASHEET

MX-8DO

8 digital outputs for moduleX™ I/O cluster



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TECHNICAL FEATURES

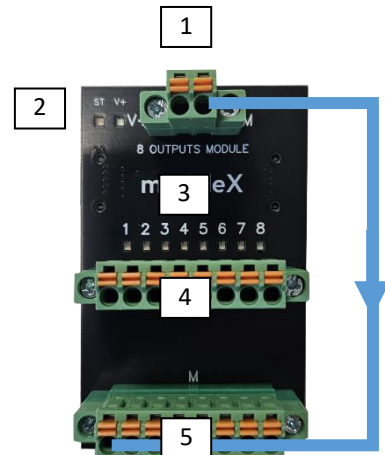
Dimensions	45 x 72 x 40 mm
Weight	35 g
IP protection grade	IP20
Operating temperature	0 to +50°
Operating humidity	Max 95%, no condensation
Logic power supply	5 VDC 0.03A max via xbus
Auxiliary power supply¹	24 VDC +/- 10% 6A max. Galvanically isolated.
Communication protocol	Xbus
Connection	Pluggable push-in terminal block with screw lock. AWG(mm2): 24-16(0.2-1.5)
Configuration	Automatic configuration through xbus
Boot up time	Logic: 100msec, Aux power: 10msec
Max output current	0.7A per channel, short circuit proof
Short circuit current	1.7A max.
Load type	ohmic, inductive, lamp load

Note:

1. Auxiliary power supply needed for digital outputs drive

Components overview

1. Power supply connector
2. Leds: status, auxiliary power supply
3. Leds digital outputs feedback
4. Digital output terminal block
5. Voltage distribution aux. power - negative



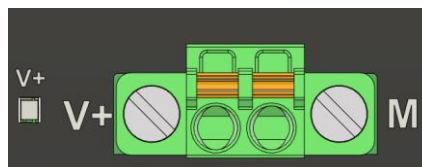
MOUNTING

The device is designed for mounting in a DIN rail enclosure with a height of 72mm. Different installations are not allowed. The module is typically delivered as part of an I/O cluster, already housed in a DIN enclosure.

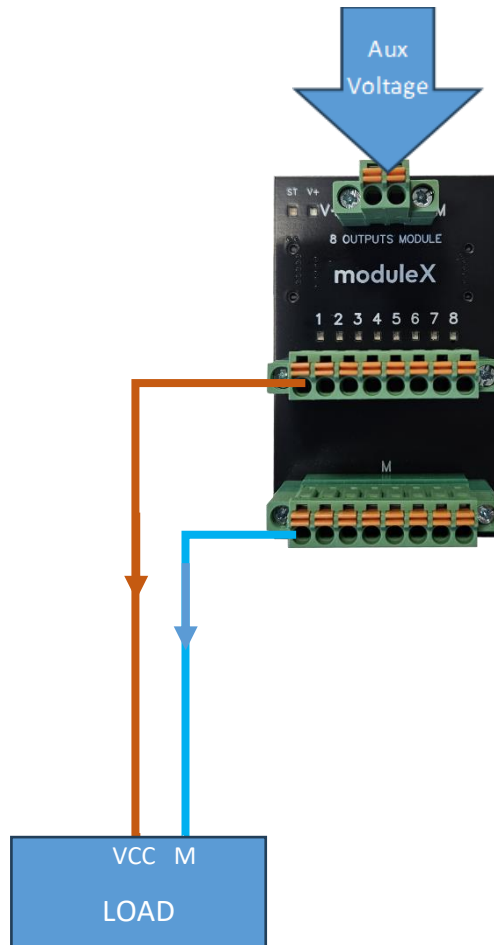
POWER SUPPLY

It is recommended to power the device at 24 VDC +/- 10%, the maximum consumption is 6 amps that depends on connected loads. The device is protected against reverse polarity, short circuit, overload. The V+ led indicates the presence of auxiliary power.

The secondary power supply is used to drive the connected loads, each MX-8DO module can be powered with different voltage domain.



CONFIGURATION EXAMPLE



LED CODES

The 'ST' status LED serves to indicate the board's status, with the capability to illuminate in three distinct colors:

- **Green:** The module is in operating mode, 3Hz blink indicate the data exchange on xbus
- **Yellow:** The module is in 'init' mode, awaiting initialization from the main module.
- **Red:** The board reports the error code by flashing the led at a frequency of 5 Hz, the number of flashes corresponds to an error.

Error codes

In case of malfunction, the board reports the error code by flashing the "ST" LED in red. The LED flashes at a frequency of 5 Hz, and the number of flashes corresponds to an error. The signaling sequence is repeated twice to allow the user for proper detection. Below is the error table.

Error ID	Description	Module type	
1	Devices scan bad CRC	Scan request has invalid CRC	
2	No space in I/O cluster	There is no more space into process buffer. There are more than 16 modules into I/O cluster	Remove extra modules
3	Bad setup frame	Invalid setup frame data	
4	Run data bad CRC	Operating frame has invalid CRC	Check connection between modules

REVISION

REVISION		
N.	Description	Date
0	First release	08/02/2024

This document serves as a technical datasheet; please refer to the comprehensive moduleX™ solution manual for additional details and information.