

## Technical Features

MODEL TYPE	Module X - MX-8DI Module
Input Voltage	12-24Vdc +/- 15% (Polarity protection, galvanic isolation)
Input rated voltage	12-24Vdc
I max.	2A
Input current	3 mA
Size	45x72x40 mm
IP protection grade	IP20
Internal protocol	Xbus, up to 16 devices. 10 ms refresh rate
Connection	Pluggable push-in terminal block with screw lock. AWG (mm2): 24-16 (0.2-1.5)
"0" signal voltage	0 - 5 V
"1" signal voltage	11 - 30 V

## Register map

Digital Inputs - Input registers			
Register	Input	Module Index	Range (decimal)
0	1 (LSB) - 16 (MSB)	1 - 2	0 - 65535
1	17 (LSB) - 32 (MSB)	3 - 4	0 - 65535
2	33 (LSB) - 48 (MSB)	5 - 6	0 - 65535
3	49 (LSB) - 64 (MSB)	7 - 8	0 - 65535
4	65 (LSB) - 80 (MSB)	9 - 10	0 - 65535
5	81 (LSB) - 96 (MSB)	11 - 12	0 - 65535
6	97 (LSB) - 112 (MSB)	13 - 14	0 - 65535
7	113 (LSB) - 128 (MSB)	15 - 16	0 - 65535









Digital Inputs - Discrete coils			
Register	Input	Module Index	Range (decimal)
0	1	1	0 - 1
1	2	1	0 - 1
-	-	-	-
8	1	2	0 - 1
9	2	2	0 - 1
-	-	-	-
126	7	16	0 - 1
127	8	16	0 - 1

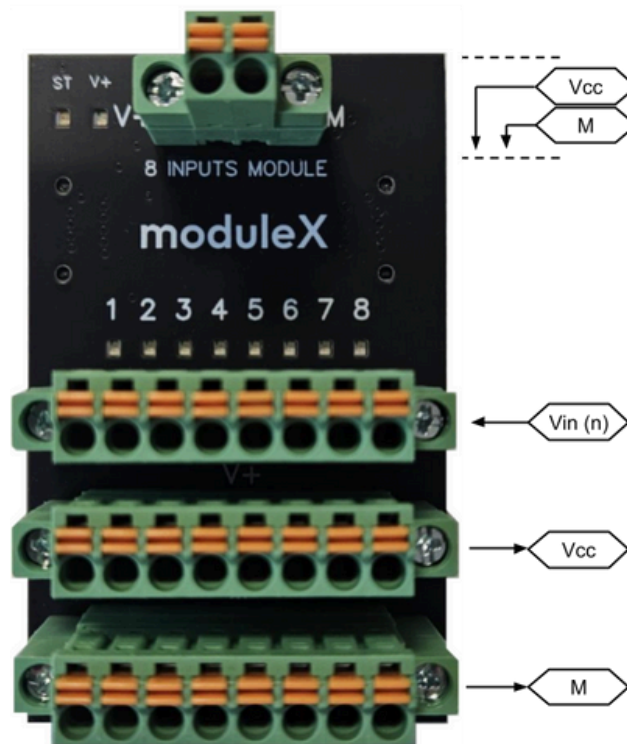
## Additional Information

The **digital inputs** are associated to both **input registers** **discrete coils**. Like digital outputs, each register corresponds to a pair of modules (16 bit registers) and single inputs correspond to single coils. Starting from register 0, the LSB corresponds to output 1 from module 1, while the MSB corresponds to output 8 from module 2.

With a maximum of 16 MX-8DI, up to 8 16-bit registers / 128 coils can be used within a board.

## Symbology

	Indicates that the equipment is suitable for direct current only; to identify relevant terminals
	Indicates that the equipment is suitable for alternating current only; to identify relevant terminals
	To identify the control by which a pulse is started.
	To identify an earth (ground) terminal in cases where neither the symbol 5018 nor 5019 is explicitly required.
	To identify the switch by means of which the signal lamp(s) is (are) switched on or off.
	CE marking indicates that a product complies with applicable European Union regulations
	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
	To indicate hazards arising from dangerous voltages



## LED codes

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

LED color	Current mode
Green	The module is in operating mode, 3Hz blink indicates Xbus data
Yellow	The module is in init mode, awaiting initialization from the master
Red	The board has an error, check table below

## 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 signalling sequence is repeated twice in order to allow the user for proper detection.

Error ID	Description
1	Device scan bad CRC
2	No space in I/O cluster. More than 16 modules are connected
3	Bad setup frame. Invalid setup frame data
4	Run data bad CRC. Operating frame has invalid CRC

## Technical Support

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