

# Series CX4 multi-serial module

Interface with:  
PROFIBUS, CANopen, EtherNet/IP, PROFINET, EtherCAT  
Can be integrated with I/O Modules



Series CX4 multi-serial module can interface with the most common fieldbus protocols, like Profibus-Dp, CANOpen, EtherCAT, EtherNet/IP, PROFINET. The possibility to enlarge with both Digital and Analog I/O modules, the acquisition of signals coming from Bridge, RTD or TC sensors, the resolution of up to 24 bit and the high number of manageable signals make it particularly suitable for different needs.

Connectable with PC through Micro-USB port, check and configuration of connected components by means of UVIX software. Configuration through Fieldbus. By means of a mechanical interface connection it is used in combination with the Series D valve islands. More detailed information and descriptions can be found at: <http://catalogue.camozzi.com>

- » Maximum flexibility in use
- » Easily changeable
- » Analog I/O modules
- » Digital I/O modules
- » Connection with electric modules: connector and terminal block (Push in)
- » Can be configured as NPN, PNP, Volt or mA
- » Maximum configuration: 128 In + 128 Out digital and 16 In +16 Out analog
- » Large range of communication protocols

## GENERAL DATA

|                            |                                                            |
|----------------------------|------------------------------------------------------------|
| Number of digital outputs  | 128                                                        |
| Number of analogic outputs | 16                                                         |
| Number of digital inputs   | 128                                                        |
| Number of analogic inputs  | 16                                                         |
| Maximum input absorption   | 1,5 A                                                      |
| Maximum output absorption  | 2,5 A                                                      |
| Supply voltage             | 24 V DC +/-10% logic supply<br>24 V DC +/-10% power supply |
| Protection                 | overload and reverse polarity                              |
| Protection class           | IP65 ( IP20 in case of module I/O with terminal block )    |
| Conform with standards     | EN-61131-2                                                 |
| Operating temperature      | 0-50°C                                                     |
| Material                   | Polymer                                                    |

## CODING EXAMPLE

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |          |          |             |          |          |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|----------|-------------|----------|----------|
| <b>CX</b>   | <b>4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>01</b> | <b>W</b> | <b>-</b> | <b>2A2Q</b> | <b>-</b> | <b>R</b> |
| <b>CX</b>   | SERIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |          |          |             |          |          |
| <b>4</b>    | VERSION<br>4 = CX4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |          |          |             |          |          |
| <b>01</b>   | PROTOCOL:<br>01 = PROFIBUS<br>03 = CANopen<br>04 = EtherNet/IP<br>05 = EtherCAT<br>06 = PROFINET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |          |          |             |          |          |
| <b>W</b>    | INTERFACE<br>0 = No interface<br>1 = WLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |          |          |             |          |          |
| <b>2A2Q</b> | INPUT/OUTPUT MODULES<br>0 = no module<br>A = 8 digital inputs M8<br>B = 16 digital inputs terminal block (Push-in) connection<br>C = 2 analog inputs (config. 0-10V, ±10V, 0-20mA, 4-20mA, ±20mA) M12<br>D = 2 analog inputs (config. 0-10V, ±10V, 0-20mA, 4-20mA, ±20mA) terminal block (Push-in) connection<br>E = 2 BRIDGE inputs M12<br>F = 2 BRIDGE inputs terminal block (Push-in) connection<br>G = 2 RTD inputs M12 (PT100, PT200, PT500, PT1000)<br>H = 2 RTD inputs terminal block (Push-in) connection (PT100, PT200, PT500, PT1000)<br>L = 2 TCM12 inputs (THERMOCOUPLES)<br>M = 2 TC inputs terminal block (Push-in) connection (THERMOCOUPLES)<br>Q = 8 digital outputs M8<br>R = 16 digital outputs terminal block (Push-in) connection<br>T = 2 Analog outputs (config. 0-10V,±10V,0-20mA, 4-20mA,±20mA), M12<br>U = 2 Analog outputs (config. 0-10V,±10V,0-20mA,4-20mA,±20mA), terminal block |           |          |          |             |          |          |
| <b>R</b>    | FIXING TYPE<br>= direct<br>R = DIN rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |          |          |             |          |          |

## Fieldbus protocols - Technical data

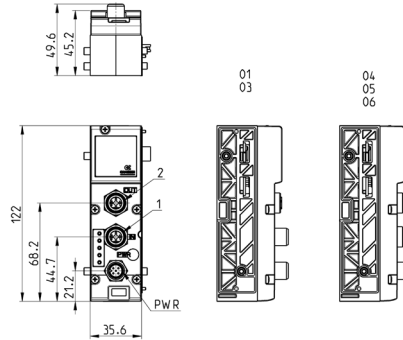
| Protocol           | Max nr of nodes defined by the protocol | Communication speed defined by the protocol    |
|--------------------|-----------------------------------------|------------------------------------------------|
| <b>PROFIBUS</b>    | 32/127                                  | 9,6 kBit/s per 1000 m<br>12 Mbit/s per < 100 m |
| <b>CANopen</b>     | 127                                     | 125 kBit/s 500 m<br>1 Mbit/s per 4 m           |
| <b>PROFINET</b>    | unlimited                               | 100 Mbit/s per 100 m                           |
| <b>EtherNet/IP</b> | unlimited                               | 100 Mbit/s per 100 m                           |
| <b>EtherCAT</b>    | unlimited                               | 100 Mbit/s per 100 m                           |

## Multi-serial modules



The supply includes 2 tie-rods.  
Closing terminal not included.

On this module there are three connectors, one for supply on which it is possible to separate logic supply from power supply and two connectors for the inlet and outlet of the protocol.  
A Micro-USB port enables to interface with a PC and by means of the UVIX configuration software it is possible to monitor and configure both the Multi-serial Module and the I/O Modules. Connectable on the left side.  
These can be configured as PNP or NPN for the Digital Inputs, while for the Analog Inputs, both voltage and current is possible.  
The configuration of the Multi-serial Module and the components connected to it is also possible through different communication protocols.  
In the event of malfunction or breakage, even without power supply, a NFC function enables to download the configuration data, by means of a special App, on an external device to transmit them to a new Multi-serial Module.



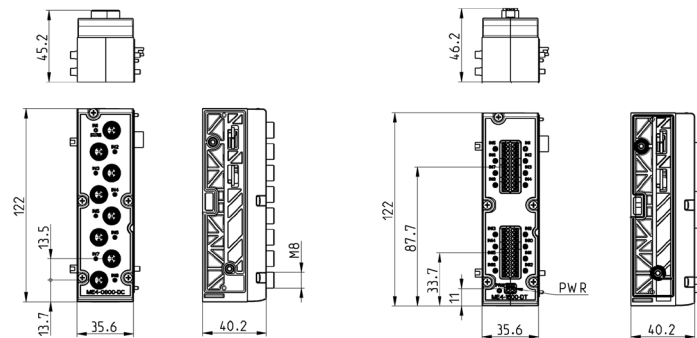
| Mod. | Fieldbus Protocol | 1       | 2       | Bus-IN connector   | Bus-OUT connector  |
|------|-------------------|---------|---------|--------------------|--------------------|
| 01   | PROFIBUS          | Bus-OUT | Bus-IN  | M12 B 5-pin male   | M12 B 5-pin female |
| 03   | CANopen           | Bus-OUT | Bus-IN  | M12 A 4-pin male   | M12 A 4-pin female |
| 04   | EtherNet/IP       | Bus-IN  | Bus-OUT | M12 D 4-pin female | M12 D 4-pin female |
| 05   | EtherCAT          | Bus-IN  | Bus-OUT | M12 D 4-pin female | M12 D 4-pin female |
| 06   | PROFINET          | Bus-IN  | Bus-OUT | M12 D 4-pin female | M12 D 5-pin female |

## Digital Input module Mod. ME4-0800-DC and ME4-1600-DT



The supply includes 2 tie-rods.  
Closing terminal not included.

The Digital input module can be connected at the left of the Multi-serial module and can be placed in any order with other, both digital and analog Input/Output modules.  
The module integrates diagnostic functions and is available in versions with:  
- Eight M8 3-pin connectors.  
- Terminal block (Push-in) for the connection of 16 inputs  
In the terminal block version, power supply is normally provided by the valve island directly.  
In case of loads exceeding 800mA, power supply is provided by an external power supply to be connected to a 2-pin terminal block connector (PWR)



| Mod.        | Coding reference | Number of digital inputs | Connection               | Number of connectors | Dimensions    | Signalling             | Sensor supply | Overvoltage protection                                          | Absorption | Type of Protection signal | Protection class | Operating temperature | Weight |
|-------------|------------------|--------------------------|--------------------------|----------------------|---------------|------------------------|---------------|-----------------------------------------------------------------|------------|---------------------------|------------------|-----------------------|--------|
| ME4-0800-DC | A                | 8                        | M8 3 pin female          | 8                    | 122 x 35.6 mm | 8 yellow led 1 red led | 24 V DC       | 400 mA for 4 sensors                                            | 10 mA      | PNP                       | IP65             | 0 ÷ 50°C              | 110 g  |
| ME4-1600-DT | B                | 16                       | Terminal block (push-in) | 2 (+1)               | 122 x 35.6 mm | 8 yellow led 1 red led | 24 V DC       | Internal: 800 mA for 16 sensors<br>External: 2 A for 16 sensors | 10 mA      | PNP                       | IP20             | 0 ÷ 50°C              | 110 g  |