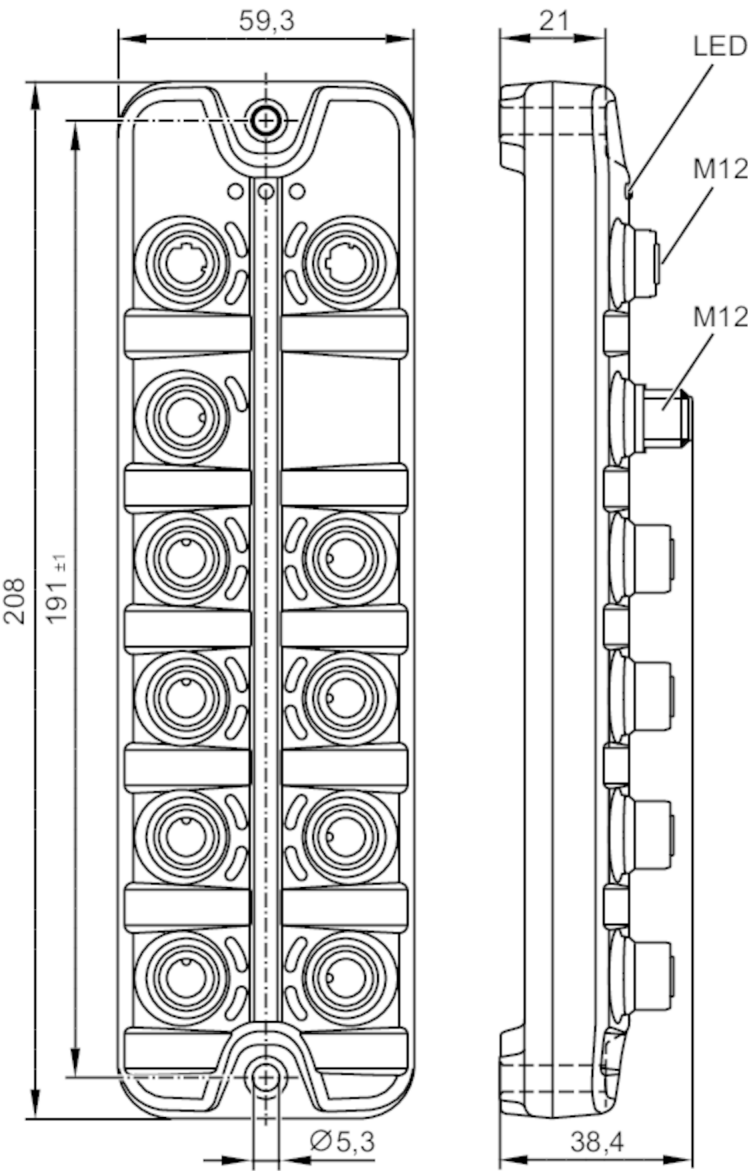


# AL4022



## Ethernet module with EtherNet/IP interface

ETH Module SL EIP 16DI IP67



| Application                 |      |                                       |
|-----------------------------|------|---------------------------------------|
| Application                 |      | I/O modules for field applications    |
| Daisy-chain function        |      | fieldbus interface                    |
| Electrical data             |      |                                       |
| Operating voltage           | [V]  | 20...30 DC; (US ; to SELV/PELV)       |
| Current consumption         | [mA] | 200...3900; (cULus: 200 ... 3500; US) |
| Protection class            |      | III                                   |
| Max. current load total     | [A]  | 3.6                                   |
| Overall current rating (UL) | [A]  | 3.2                                   |



## Ethernet module with EtherNet/IP interface

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| Inputs / outputs                                |                                       |                                                                                         |
|-------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------------------------|
| Number of inputs and outputs                    | Number of digital inputs: 16          |                                                                                         |
| Inputs                                          |                                       |                                                                                         |
| Number of digital inputs                        | 16; (type 2 according to IEC 61131-2) |                                                                                         |
| Switching level high [V]                        | 11...30                               |                                                                                         |
| Switching level low [V]                         | 0...5                                 |                                                                                         |
| Digital inputs protected against short circuits | yes                                   |                                                                                         |
| Software / programming                          |                                       |                                                                                         |
| Parameter setting options                       | counter function                      |                                                                                         |
| Functions and parameters                        | function                              | CTU (Up Counter), CTD (Down Counter), CTUD (Up-Down Counter), CTDIR (Direction Counter) |
|                                                 | number                                | 8 (1 counter for each port)                                                             |
|                                                 | count frequency                       | 4500 Hz                                                                                 |
|                                                 | main counter                          | 32 Bit (0...4.294.967.295)                                                              |
|                                                 | batch counter                         | 16 Bit (0...65.535)                                                                     |
| Interfaces                                      |                                       |                                                                                         |
| Communication interface                         | Ethernet                              |                                                                                         |
| Ethernet - EtherNet/IP                          |                                       |                                                                                         |
| Transmission standard                           | 10Base-T; 100Base-TX                  |                                                                                         |
| Transmission rate                               | 10 MBit/s; 100 MBit/s                 |                                                                                         |
| Protocol                                        | EtherNet/IP                           |                                                                                         |
| Factory settings                                | IP address: 192.168.1.250             |                                                                                         |
|                                                 | subnet mask: 255.255.255.0            |                                                                                         |
|                                                 | gateway IP address: 0.0.0.0           |                                                                                         |
|                                                 | MAC address: see type label           |                                                                                         |
| Note on interfaces                              | DHCP, BOOTP, static                   |                                                                                         |
|                                                 | DLR (Device Level Ring)               |                                                                                         |
|                                                 | Supported network topologies: line    |                                                                                         |
|                                                 | ring                                  |                                                                                         |
| Operating conditions                            |                                       |                                                                                         |
| Ambient temperature [°C]                        | -25...60                              |                                                                                         |
| Storage temperature [°C]                        | -25...85                              |                                                                                         |
| Max. relative air humidity [%]                  | 90                                    |                                                                                         |
| Protection                                      | IP 65; IP 66; IP 67                   |                                                                                         |
| Protection rating (NEMA 250)                    | 6P                                    |                                                                                         |
| Pollution degree                                | 2                                     |                                                                                         |
| Chemical media                                  | ISO 16750-5                           | AA, BA, BD, HLP, CC, DB, DC, DD, CA                                                     |
|                                                 | NEMA 250 5.13.1                       | AA                                                                                      |
| Tests / approvals                               |                                       |                                                                                         |
| EMC                                             | EN 61000-6-2                          |                                                                                         |
|                                                 | EN 61000-6-4                          |                                                                                         |
| Shock resistance                                | DIN EN 60068-2-27                     |                                                                                         |
| Vibration resistance                            | DIN EN 60068-2-64 2009-04             |                                                                                         |
|                                                 | DIN EN 60068-2-6 2008-10              |                                                                                         |



Ethernet module with EtherNet/IP interface

ETH Module SL EIP 16DI IP67

|      |         |     |
|------|---------|-----|
| MTTF | [years] | 130 |
|------|---------|-----|

Mechanical data

|                  |                                                 |       |
|------------------|-------------------------------------------------|-------|
| Weight           | [g]                                             | 405.1 |
| Materials        | housing: PA orange; socket: brass nickel-plated |       |
| Sealing material | FKM                                             |       |

Remarks

|               |                                                                |  |
|---------------|----------------------------------------------------------------|--|
| Remarks       | For further information please see the operating instructions. |  |
| Pack quantity | 1 pcs.                                                         |  |

Electrical connection - Ethernet

Connector: M12; coding: D; Sealing: FKM

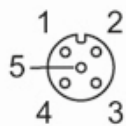


IN / OUT X21, X22

|   |          |
|---|----------|
| 1 | TX +     |
| 2 | RX +     |
| 3 | TX -     |
| 4 | RX -     |
| 5 | not used |

Electrical connection - Process connection

Connector: M12; coding: A; Sealing: FKM



Digital Input X01...X08

|   |                       |
|---|-----------------------|
| 1 | Sensor supply (US) L+ |
| 2 | digital input 2       |
| 3 | Sensor supply (US) L- |
| 4 | digital input 1       |
| 5 | functional earth      |

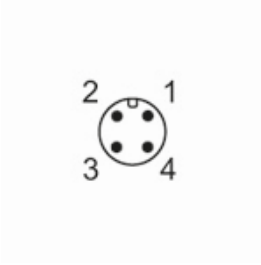


Ethernet module with EtherNet/IP interface

ETH Module SL EIP 16DI IP67

Electrical connection - power supply

Connector: M12; coding: A



| X31 |                |
|-----|----------------|
| 1   | + 24 V DC (US) |
| 2   | not used       |
| 3   | GND (US)       |
| 4   | not used       |