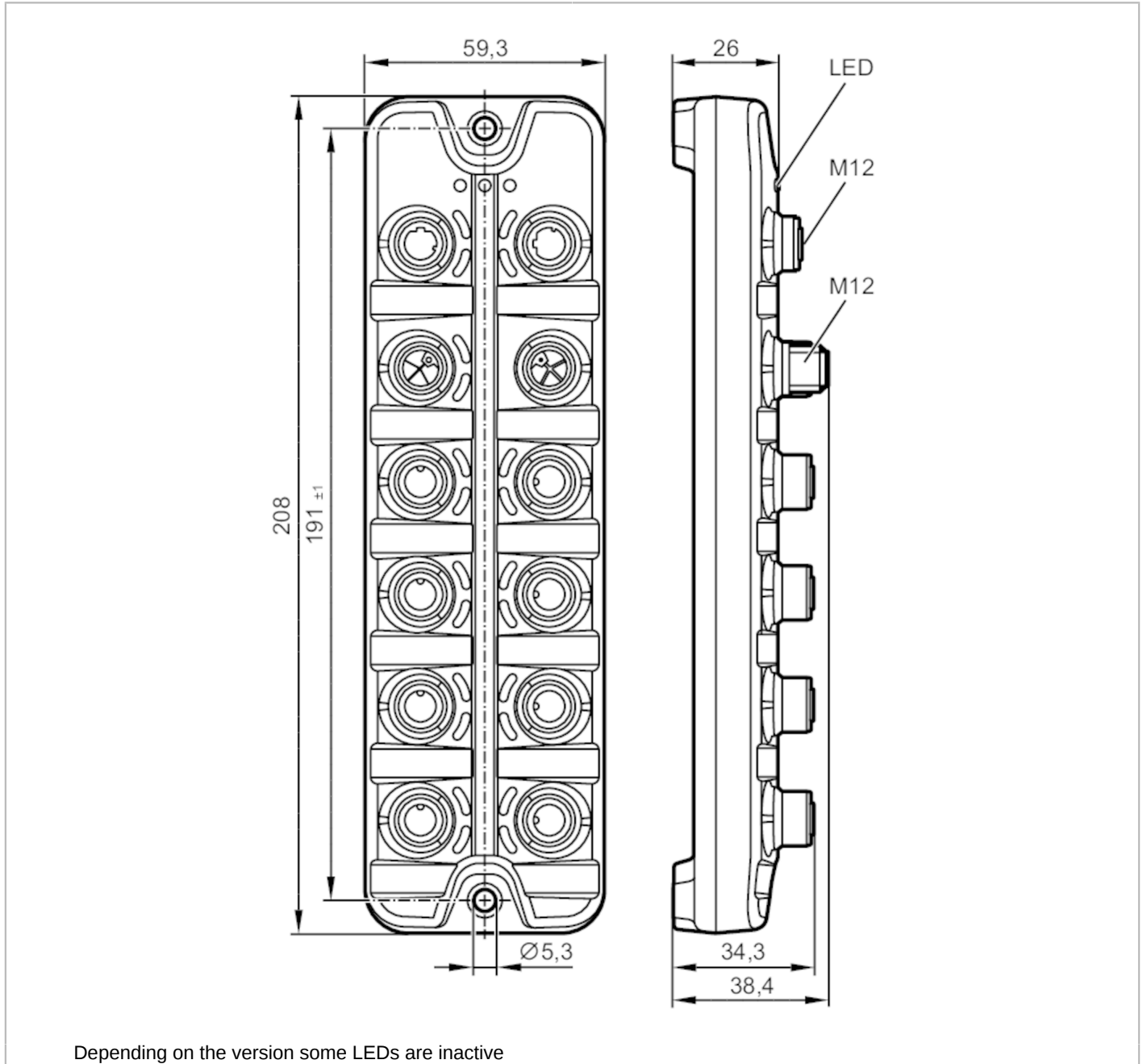


AL4143



Ethernet module with Modbus TCP interface

ETH Module PFL MB 16DI IP69K



Depending on the version some LEDs are inactive



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



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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 - Modbus TCP | | |
| Transmission standard | 10Base-T; 100Base-TX | |
| Transmission rate | 10 MBit/s; 100 MBit/s | |
| Protocol | Modbus TCP | |
| 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 | |
| Operating conditions | | |
| Ambient temperature [°C] | -25...60 | |
| Storage temperature [°C] | -25...85 | |
| Max. relative air humidity [%] | 90 | |
| Protection | IP 65; IP 66; IP 67; IP 69K; (operation with stainless steel protective caps: IP 69K) | |
| Protection rating (NEMA 250) | 6P | |
| Degree of soiling | 2 | |
| Chemical media | ISO 16750-5 | 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 | |
| Mechanical data | | |
| Weight [g] | 438.1 | |
| Material | housing: PA grey; Socket: stainless steel (1.4404 / 316L) | |
| Sealing material | EPDM | |

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| Accessories | |
|----------------|--|
| Items supplied | Protective cap: 1 x M12, stainless steel, E12542 |
| Remarks | |
| Remarks | Further information is available in the manual. |
| Pack quantity | 1 pcs. |

Electrical connection - Ethernet

Connector: M12; coding: D; sealing: EPDM

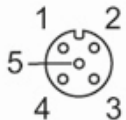


IN / OUT XF1, XF2

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

Electrical connection - Process connection

Connector: M12; coding: A; sealing: EPDM



Digital Input X1...X8

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

Electrical connection - voltage supply IN

Connector: M12; coding: L



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Ethernet module with Modbus TCP interface

ETH Module PFL MB 16DI IP69K

XD1

| | |
|---|----------------------|
| 1 | + 24 V DC (US) brown |
| 2 | GND (UA) white |
| 3 | GND (US) blue |
| 4 | + 24 V DC (UA) black |
| 5 | FE grey |

Electrical connection - voltage supply OUT

Connector: M12; coding: L; sealing: EPDM



XD2

| | |
|---|----------------------|
| 1 | + 24 V DC (US) brown |
| 2 | GND (UA) white |
| 3 | GND (US) blue |
| 4 | + 24 V DC (UA) black |
| 5 | FE grey |