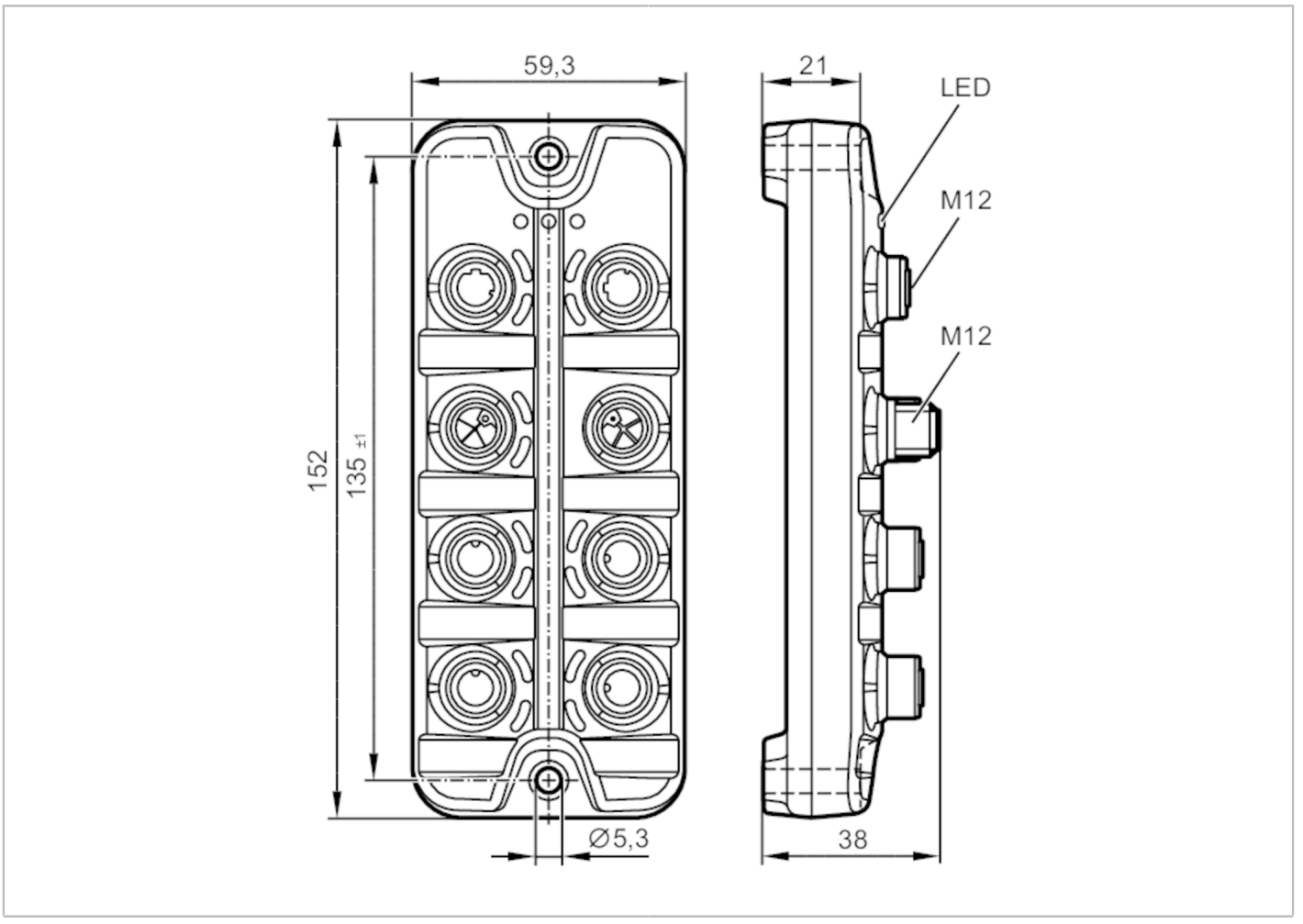
# AL1421

## IO-Link master with EtherNet/IP interface

IO-Link Master PFL EIP 4P IP69K




| | | |
|---|---|---|
| **Application** | | |
| Application | | hygienic systems; I/O modules for field applications |
| Daisy-chain function | | power supply; fieldbus interface |
| **Electrical data** | | |
| Operating voltage | [V] | 20...28 DC;  (US ; to SELV/PELV) |
| Current consumption | [mA] | 300...3900;  (US) |
| Protection class | | III |
| Additional voltage supply | [V] | 20...30 DC;  (UA) |
| Actuator supply UA | | |
| Max. current load total | [A] | 8 |
| Current rating per port | [A] | 2;  (adjustable: 0...2; Factory setting: 2) |
| Sensor supply US | | |
| Max. current load total | [A] | 3.6 |
| Current rating per port | [A] | 2;  (adjustable: 0...2; Factory setting: 0,45) |
| **Inputs / outputs** | | |
| Total number of inputs and outputs | | 12;  (configurable) |

# AL1421

## IO-Link master with EtherNet/IP interface

IO-Link Master PFL EIP 4P IP69K

| | | | |
|---|---|---|---|
| Number of inputs and outputs | | Number of digital inputs: 4; Number of digital outputs: 8 | |
| **Inputs** | | | |
| Number of digital inputs | | 4; (IO-Link Port Class B: 4 x 1) | |
| Switching level high | [V] | 11...30 | |
| Switching level low | [V] | 0...5 | |
| Digital inputs protected against short circuits | | yes | |
| **Outputs** | | | |
| Number of digital outputs | | 8; (IO-Link Port Class B: 4 x 2) | |
| Short-circuit proof | | yes | |
| Actuator supply UA | | | |
| Max. current load per output | [mA] | 2000 | |
| Sensor supply US | | | |
| Max. current load per output | [mA] | 2000 | |
| **Interfaces** | | | |
| Communication interface | | Ethernet; IO-Link | |
| 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 | |
| IO-Link Master | | | |
| Transmission type | | COM1 (4,8 kBaud); COM2 (38,4 kBaud); COM3 (230,4 kBaud) | |
| IO-Link revision | | 1.1 | |
| Number of ports class B | | 4 | |
| **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 | |
| Pollution degree | | 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 | |

# AL1421

## IO-Link master with EtherNet/IP interface

IO-Link Master PFL EIP 4P IP69K

| | | | |
|---|---|---|---|
| Shock resistance | | DIN EN 60068-2-27 | |
| Vibration resistance | | DIN EN 60068-2-64 2009-04 | |
| | | DIN EN 60068-2-6 2008-10 | |
| MTTF | [years] | 60 | |

### Mechanical data

| | | |
|---|---|---|
| Weight | [g] | 351.8 |
| Materials | | housing: PA grey; socket: stainless steel (1.4404 / 316L) |
| Sealing material | | EPDM |

### Accessories

| | |
|---|---|
| Items supplied | Protective cap: 1 x M12, stainless steel, E12542 |

### Remarks

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

### Electrical connection

### Electrical connection - Ethernet

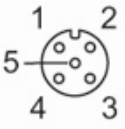
Connector: M12; coding: D; Sealing: EPDM




| 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




| IO-Link Port Class B X1...X4 | |
|---|---|
| 1 | Sensor supply (US) L + |
| 2 | actuator supply / digital output (UA) L+ |
| 3 | Sensor supply (US) L- |
| 4 | C/Q IO-Link |
| 5 | actuator supply (UA) L- |

# AL1421

## IO-Link master with EtherNet/IP interface

**IO-Link Master PFL EIP 4P IP69K**

### Electrical connection - power supply IN

Connector:  M12; coding: L




| 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 - power 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 |