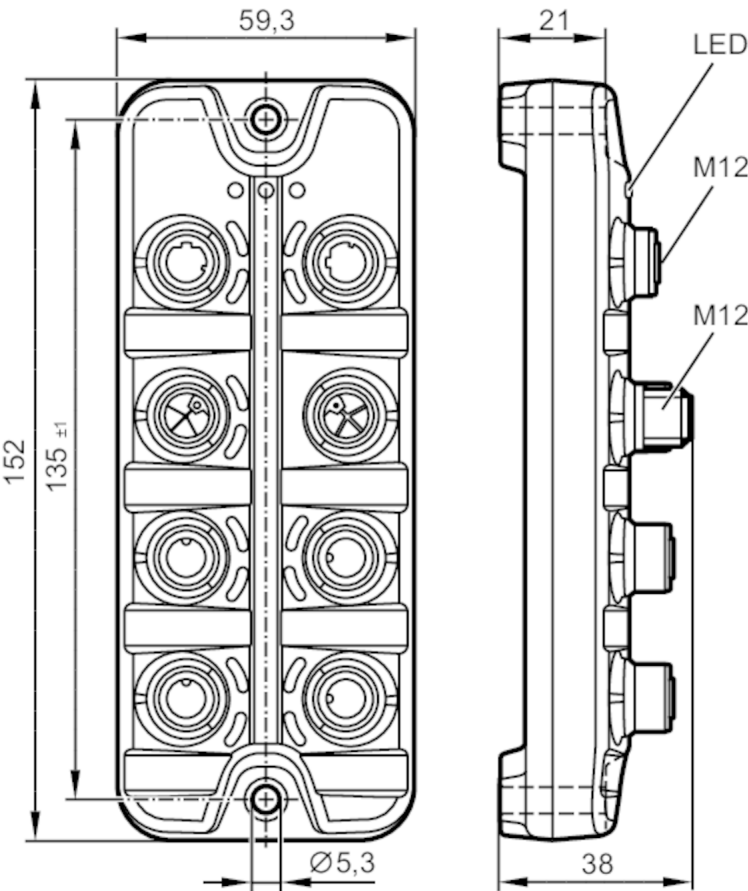


# AL1421



## 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               |      | voltage 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)                                   |



## IO-Link master with EtherNet/IP interface

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|                                                 |      |                                                                                       |                         |
|-------------------------------------------------|------|---------------------------------------------------------------------------------------|-------------------------|
| 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                                                                                    |                         |
| 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                                                                          |                         |



## 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                                                     |  |
| Material         | 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       | Further information is available in the manual. |  |
| Pack quantity | 1 pcs.                                          |  |

## Electrical connection

## Electrical connection - Ethernet

Connector: M12; coding: D; sealing: EPDM

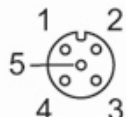


## IN / OUT XF1, XF2

|   |          |
|---|----------|
| 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-                  |



IO-Link master with EtherNet/IP interface

IO-Link Master PFL EIP 4P IP69K

Electrical connection - voltage 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 - 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              |