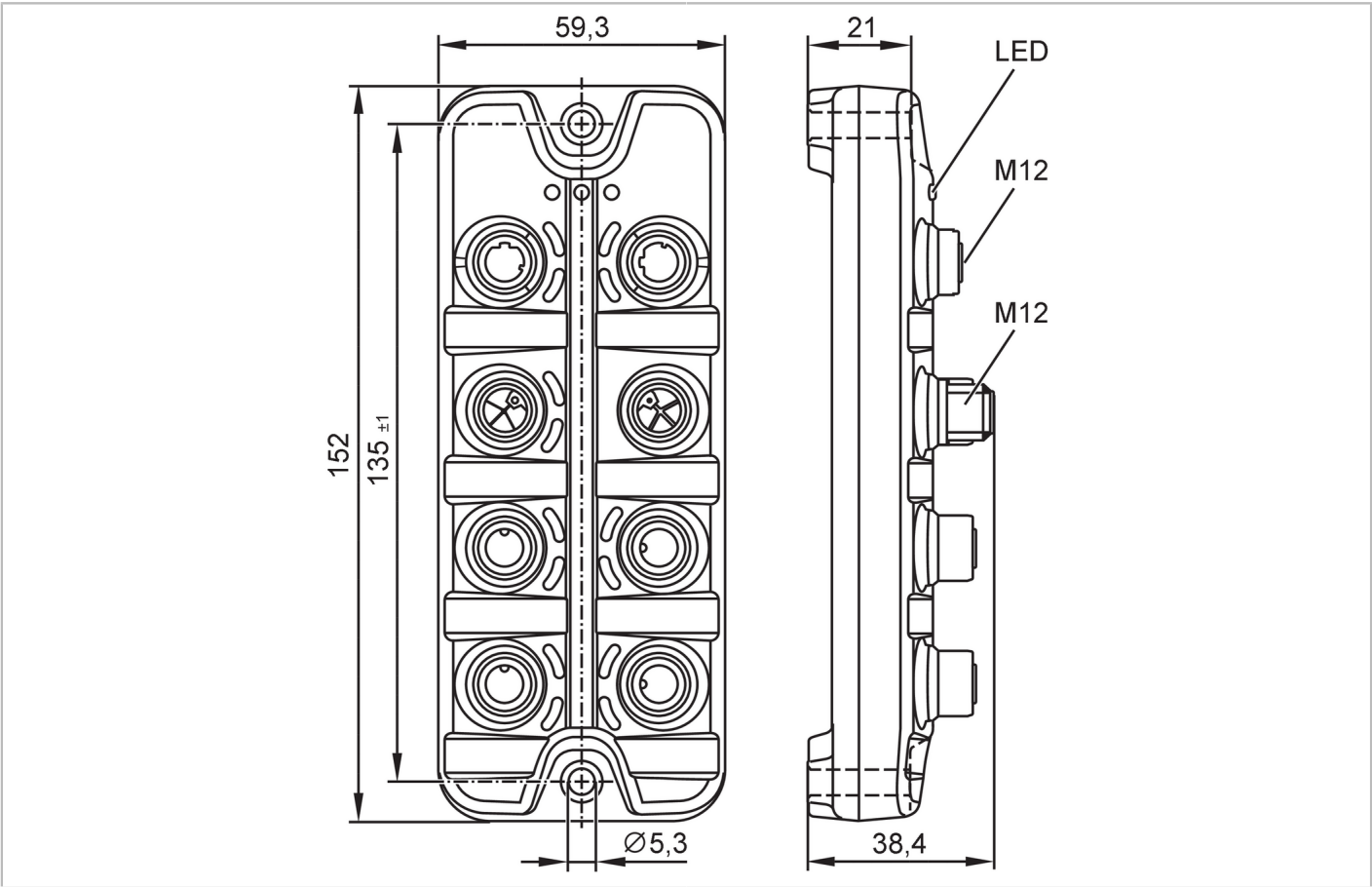


# AL1400



## IO-Link master with Profinet interface

IO-Link Master PFL PN 4P IP67



| Application                        |      |                                                           |
|------------------------------------|------|-----------------------------------------------------------|
| Application                        |      | I/O modules for field applications                        |
| Daisy-chain function               |      | voltage supply; fieldbus interface                        |
| Electrical data                    |      |                                                           |
| Operating voltage                  | [V]  | 20...30 DC; (US ; to 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 |      | 8; (configurable)                                         |
| Number of inputs and outputs       |      | Number of digital inputs: 4; Number of digital outputs: 8 |



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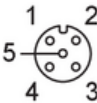
IO-Link Master PFL PN 4P IP67

| 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 - PROFINET                             |                 |                                                         |
| Transmission standard                           |                 | 100Base-TX                                              |
| Transmission rate                               |                 | 100 MBit/s                                              |
| Protocol                                        |                 | PROFINET                                                |
| Factory settings                                |                 | IP address: 0.0.0.0                                     |
|                                                 |                 | subnet mask: 0.0.0.0                                    |
|                                                 |                 | gateway IP address: 0.0.0.0                             |
|                                                 |                 | MAC address: see type label                             |
|                                                 |                 | IO-Link Integration Edition 2                           |
| Note on interfaces                              |                 | CC-C (Conformance Class C) (IRT-Switch)                 |
|                                                 |                 | S2 redundancy                                           |
|                                                 |                 | Netload Class III                                       |
|                                                 |                 | CiR (Configuration in Run)                              |
|                                                 |                 | SNMP (Simple Network Management Protocol)               |
|                                                 |                 | MRP (Media Redundancy Protocol)                         |
|                                                 |                 | 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                                     |
| 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                                                      |



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| 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                 |                                                 |
| MTTF                                                                                | [years]                                  | 60                                              |
| Mechanical data                                                                     |                                          |                                                 |
| Weight                                                                              | [g]                                      | 308.1                                           |
| Housing                                                                             |                                          | rectangular                                     |
| Type of mounting                                                                    |                                          | Backplane mounting                              |
| Dimensions                                                                          | [mm]                                     | 152 x 59.3 x 38.4                               |
| Material                                                                            |                                          | housing: PA orange; Socket: brass nickel-plated |
| Sealing material                                                                    |                                          | FKM                                             |
| Remarks                                                                             |                                          |                                                 |
| Remarks                                                                             |                                          | Further information is available in the manual. |
| Pack quantity                                                                       |                                          | 1 pcs.                                          |
| Electrical connection                                                               |                                          |                                                 |
| Electrical connection - Ethernet                                                    |                                          |                                                 |
| Connector: 2 x M12; coding: D; Contacts: 4; sealing: FKM                            |                                          |                                                 |
|  |                                          |                                                 |
| IN / OUT XF1, XF2                                                                   |                                          |                                                 |
| 1                                                                                   | TX +                                     |                                                 |
| 2                                                                                   | RX +                                     |                                                 |
| 3                                                                                   | TX -                                     |                                                 |
| 4                                                                                   | RX -                                     |                                                 |
| 5                                                                                   | not used                                 |                                                 |
| Electrical connection - IO-Link                                                     |                                          |                                                 |
| Connector: 4 x M12; coding: A; Contacts: 5; sealing: FKM                            |                                          |                                                 |
|  |                                          |                                                 |
| 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-                  |                                                 |
| Electrical connection - voltage supply IN                                           |                                          |                                                 |
| Connector: 1 x M12; coding: L; Contacts: 5                                          |                                          |                                                 |
|  |                                          |                                                 |



IO-Link master with Profinet interface

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| 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: 1 x M12; coding: L; Contacts: 5; sealing: FKM



| XD2 |                      |
|-----|----------------------|
| 1   | + 24 V DC (US) brown |
| 2   | GND (UA) white       |
| 3   | GND (US) blue        |
| 4   | + 24 V DC (UA) black |
| 5   | FE grey              |