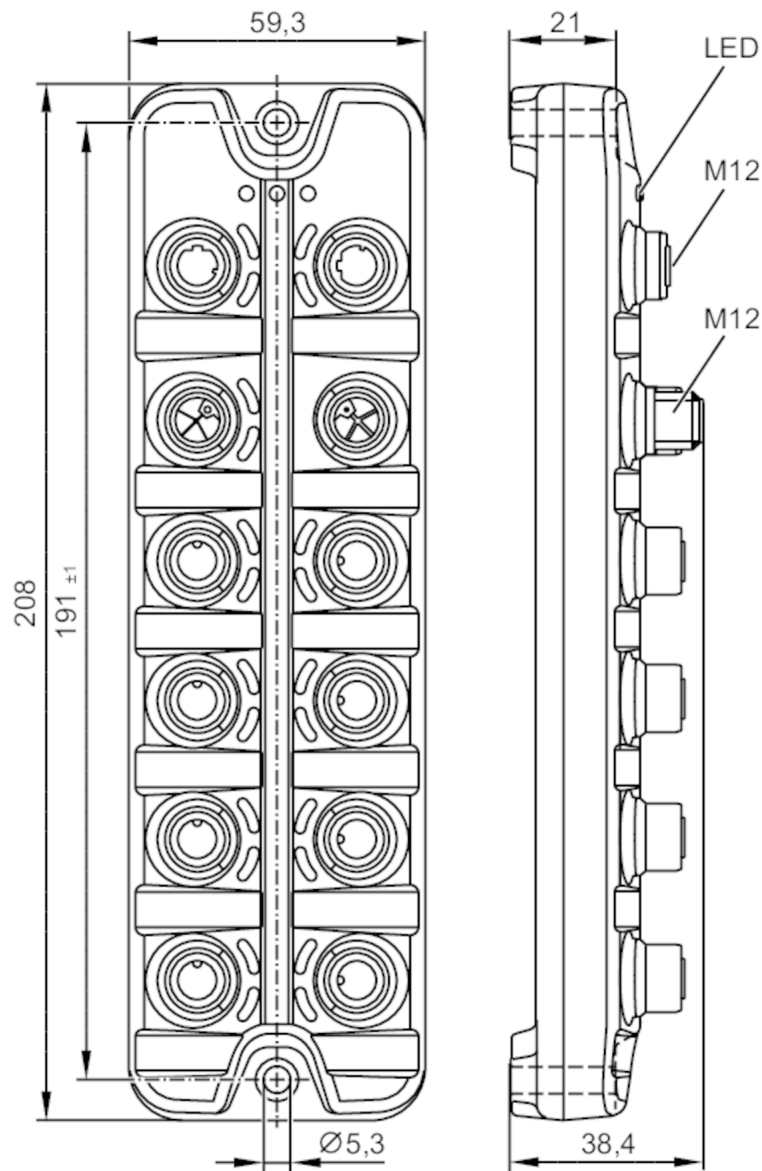


# AL4343



## Ethernet module with Modbus TCP interface

ETH Module PFL MB 8DO 8DI 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 PELV) |
| Current consumption       | [mA] | 300...3900                 |
| Protection class          |      | III                        |
| Additional voltage supply | [V]  | 20...28 DC; (UA)           |

### Actuator supply UA

|                         |     |   |
|-------------------------|-----|---|
| Max. current load total | [A] | 8 |
|-------------------------|-----|---|



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|                                                 |                                                                                       |                                                                                         |  |
|-------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--|
| Current rating per port                         | [A]                                                                                   | 3.6                                                                                     |  |
| Sensor supply US                                |                                                                                       |                                                                                         |  |
| Max. current load total                         | [A]                                                                                   | 3.6                                                                                     |  |
| Current rating per port                         | [A]                                                                                   | 3.6                                                                                     |  |
| Inputs / outputs                                |                                                                                       |                                                                                         |  |
| Number of inputs and outputs                    | Number of digital inputs: 8; Number of digital outputs: 8                             |                                                                                         |  |
| Inputs                                          |                                                                                       |                                                                                         |  |
| Number of digital inputs                        | 8; (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                                                                                   |                                                                                         |  |
| Outputs                                         |                                                                                       |                                                                                         |  |
| Number of digital outputs                       | 8                                                                                     |                                                                                         |  |
| Short-circuit proof                             | yes                                                                                   |                                                                                         |  |
| Actuator supply UA                              |                                                                                       |                                                                                         |  |
| Max. current load per output                    | [mA]                                                                                  | 3600                                                                                    |  |
| Software / programming                          |                                                                                       |                                                                                         |  |
| Parameter setting options                       | Counter function                                                                      |                                                                                         |  |
| Functions and parameters                        | Function                                                                              | CTU (Up Counter), CTD (Down Counter), CTUD (Up-Down Counter), CTDIR (Direction Counter) |  |
|                                                 | switching function (SSC)                                                              | single point, two point, window, latch                                                  |  |
|                                                 | number                                                                                | 4 (1 counter for each input 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                           |                                                                                       |                                                                                         |  |
| Protocol                                        | Modbus TCP                                                                            |                                                                                         |  |
| Ethernet – Modbus TCP                           |                                                                                       |                                                                                         |  |
| Transmission standard                           | 10Base-T; 100Base-TX                                                                  |                                                                                         |  |
| Transmission rate                               | 10 MBit/s; 100 MBit/s                                                                 |                                                                                         |  |
| 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                                                                                     |                                                                                         |  |

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|                |                 |                         |
|----------------|-----------------|-------------------------|
| 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]  | 437.5                                                     |
| Housing          |      | rectangular                                               |
| Type of mounting |      | Backplane mounting                                        |
| Dimensions       | [mm] | 208 x 59.3 x 38.4                                         |
| 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.                                                                                                   |
|               | Using the device within a system with requirements for functional safety is possible by deactivating the actuator voltage UA without interaction. |
|               | For further information on functional safety, please refer to the operating instructions supplement under "Downloads".                            |
| 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: | n.c. |

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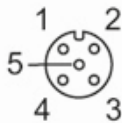


## Ethernet module with Modbus TCP interface

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### Electrical connection - IO-Link

Connector: M12; coding: A; sealing: EPDM



#### Digital Output X1...X4

- |    |               |
|----|---------------|
| 1: | n.c.          |
| 2: | OUT2 DO2 (UA) |
| 3: | L - (UA)      |
| 4: | OUT1 DO1 (UA) |
| 5: | FE            |

#### Digital Input X5...X8

- |    |          |
|----|----------|
| 1: | L + (US) |
| 2: | IN2 DI2  |
| 3: | L - (US) |
| 4: | IN1 DI1  |
| 5: | FE       |

### Electrical connection - voltage supply IN

Connector: M12; coding: L



#### XD1

- |    |          |
|----|----------|
| 1: | L + (US) |
| 2: | L - (UA) |
| 3: | L - (US) |
| 4: | L + (UA) |
| 5: | FE       |

### Electrical connection - voltage supply OUT

Connector: M12; coding: L; sealing: EPDM



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## Ethernet module with Modbus TCP interface

ETH Module PFL MB 8DO 8DI IP69K

| XD2 |          |
|-----|----------|
| 1:  | L + (US) |
| 2:  | L - (UA) |
| 3:  | L - (US) |
| 4:  | L + (UA) |
| 5:  | FE       |