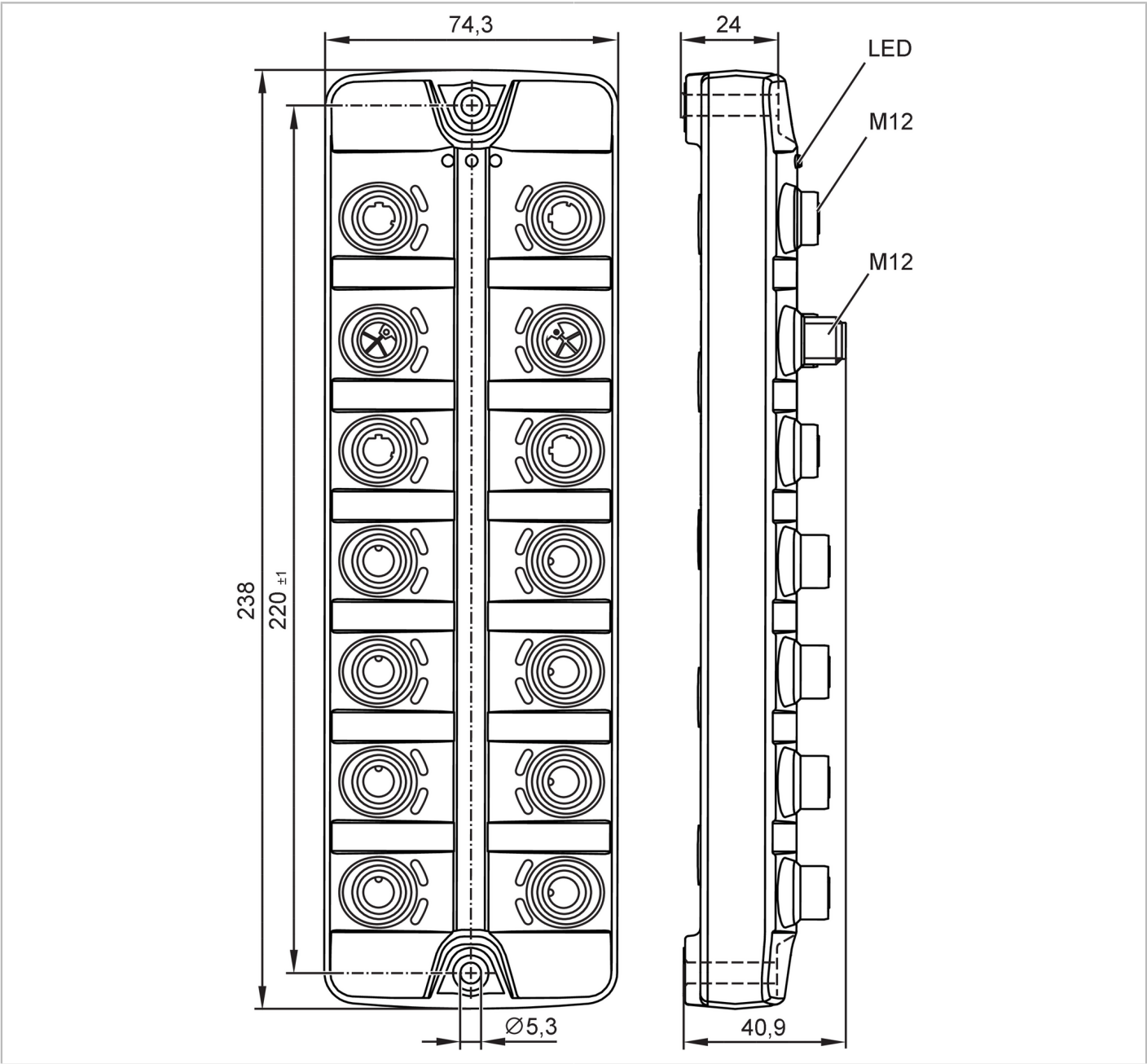


AL1590



IO-Link master with multiprotocol interface

IO-Link Master SOL MP 8P IP67



Application		
Application		I/O modules for field applications
Daisy-chain function		voltage supply; fieldbus interface; IoT 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]	4



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Current rating per port	[A]	4
Sensor supply US		
Max. current load total	[A]	3.6
Current rating per port	[A]	2
Inputs / outputs		
Total number of inputs and outputs		16; (configurable)
Number of inputs and outputs		Number of digital inputs: 12; Number of digital outputs: 12
Inputs		
Number of digital inputs		12; (IO-Link Port Class A: 4 x 2; IO-Link Port Class B: 4 x 1)
Switching level high	[V]	11...30
Switching level low	[V]	0...5
Outputs		
Number of digital outputs		12; (IO-Link Port Class A: 4 x 1; IO-Link Port Class B: 4 x 2)
Short-circuit proof		yes
Actuator supply UA		
Max. current load per output	[mA]	4000
Sensor supply US		
Max. current load per output	[mA]	350
Software / programming		
Parameter setting options		Node-RED
Operating system		Embedded Linux
Interfaces		
Communication interface		Ethernet; IO-Link
Factory settings		EtherNet/IP
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: 255.255.255.255
		gateway IP address: 0.0.0.0
		MAC address: see type label
		DHCP, BOOTP, static
Note on interfaces		DLR (Device Level Ring)
		Supported network topologies: line
		ring
Ethernet - PROFINET		
Transmission standard		100Base-TX
Transmission rate		100 MBit/s
Protocol		PROFINET



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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	
Note on interfaces	IO-Link Integration Edition 2	
	CC-C (Conformance Class C) (IRT-Switch)	
	Netload Class III	
	SNMP (Simple Network Management Protocol)	
	MRP (Media Redundancy Protocol)	
	Supported network topologies: line ring	
Ethernet - Internet of Things		
Transmission standard	10Base-T; 100Base-TX	
Transmission rate	10 MBit/s; 100 MBit/s	
Protocol	MQTT JSON; OPC UA	
Factory settings	IP address: 169.254.x.x	
	subnet mask: 255.255.0.0	
	gateway IP address: 0.0.0.0	
	MAC address: see type label	
Note on interfaces	Safety protocol: HTTPS, MQTTS, TLS	
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 A	4	
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
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]	38
Mechanical data		
Weight	[g]	650.3
Housing	rectangular	
Type of mounting	Backplane mounting	
Dimensions	[mm]	238 x 74.3 x 24



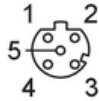
IO-Link master with multiprotocol interface

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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 - Ethernet

Connector: 2 x M12; coding: D; Contacts: 4; sealing: FKM

**IN/OUT XF1, XF2**

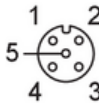
1:	DATA TX +
2:	DATA RX +
3:	DATA TX -
4:	DATA RX -
5:	n.c.

IN/OUT XI1, XI2

1:	DATA TX +
2:	DATA RX +
3:	DATA TX -
4:	DATA RX -
5:	n.c.

Electrical connection - IO-Link

Connector: 8 x M12; coding: A; Contacts: 4; sealing: FKM

**IO-Link Port Class B X1...X4**

1:	L+ (US; Sensor supply)
2:	L+ (UA; Actuator supply/ DO2)
3:	L- (US; Sensor supply)
4:	IO-Link/ DI1/ DO1
5:	L- (UA; Actuator supply)

IO-Link Port Class A X5...X7

1:	L+ (US; Sensor supply)
2:	DI2
3:	L- (US; Sensor supply)
4:	IO-Link/ DI1/ DO1
5:	n.c.

Port X8

1:	L+ (US; Sensor supply)
2:	DI2
3:	L- (US; Sensor supply)
4:	IO-Link/ DI1/ DO1
5:	Reserved Recovery-Pin

DI: digital input; DO: digital output; n.c.: not used

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IO-Link master with multiprotocol interface

IO-Link Master SOL MP 8P IP67

Electrical connection - voltage supply IN

Connector: 1 x M12; coding: L; Contacts: 5



XD1

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

Electrical connection - voltage supply OUT

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



XD2

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