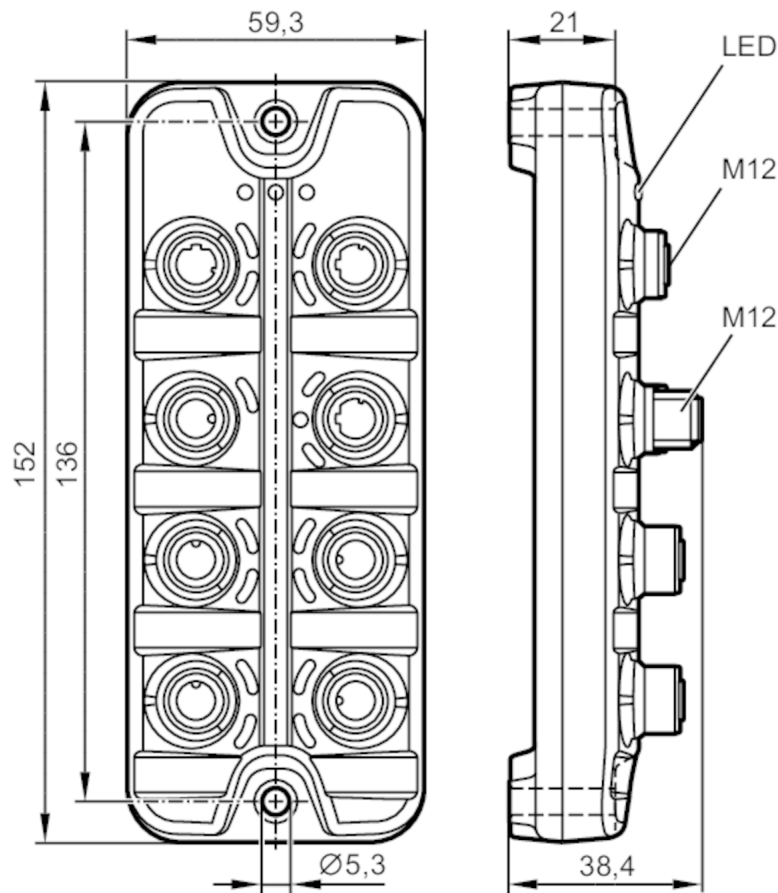


AL1331



IO-Link master with EtherCat interface

IO-Link Master DL EC 4P IP69K



Application	
Application	hygienic systems; I/O modules for field applications
Daisy-chain function	fieldbus interface
Electrical data	
Operating voltage [V]	20...28 DC; (US; to SELV/PELV)
Current consumption [mA]	300...3900; (US)
Protection class	III
Sensor supply US	
Max. current load total [A]	3.6
Inputs / outputs	
Total number of inputs and outputs	8; (configurable)
Number of inputs and outputs	Number of digital inputs: 8; Number of digital outputs: 4



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Inputs		
Number of digital inputs		8; (IO-Link Port Class A: 4 x 2)
Switching level high	[V]	11...28
Switching level low	[V]	0...5
Digital inputs protected against short circuits		yes
Outputs		
Number of digital outputs		4; (IO-Link Port Class A: 4 x 1)
Max. current load per output	[mA]	300
Short-circuit proof		yes
Interfaces		
Communication interface		Ethernet; IO-Link
Ethernet - EtherCAT		
Transmission standard		10Base-T; 100Base-TX
Transmission rate		10; 100
Protocol		EtherCAT
Factory settings		MAC address: see type label
Note on interfaces		AoE (ADS over EtherCAT)
		CoE (CANopen over EtherCAT)
Ethernet - Internet of Things		
Transmission standard		10Base-T; 100Base-TX
Transmission rate		10; 100
Protocol		MQTT JSON
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
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
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)
Degree of soiling		2
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]	95

AL1331



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Mechanical data	
Weight	[g] 283
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 - Ethernet

Connector: M12; sealing: EPDM



EtherCAT X21, X22

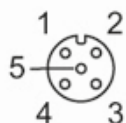
1	TX +
2	RX +
3	TX -
4	RX -
5	not used

IoT X23

1	TX +
2	RX +
3	TX -
4	RX -
5	not used

Electrical connection - Process connection

Connector: M12; sealing: EPDM





IO-Link master with EtherCat interface

IO-Link Master DL EC 4P IP69K

IO-Link Port Class A X01...X04

1	Sensor supply (US) L+
2	Digital input
3	Sensor supply (US) L-
4	C/Q IO-Link
5	not used

Electrical connection - voltage supply

Connector: M12



X31

1	+ 24 V DC (US)
2	not used
3	GND (US)
4	not used