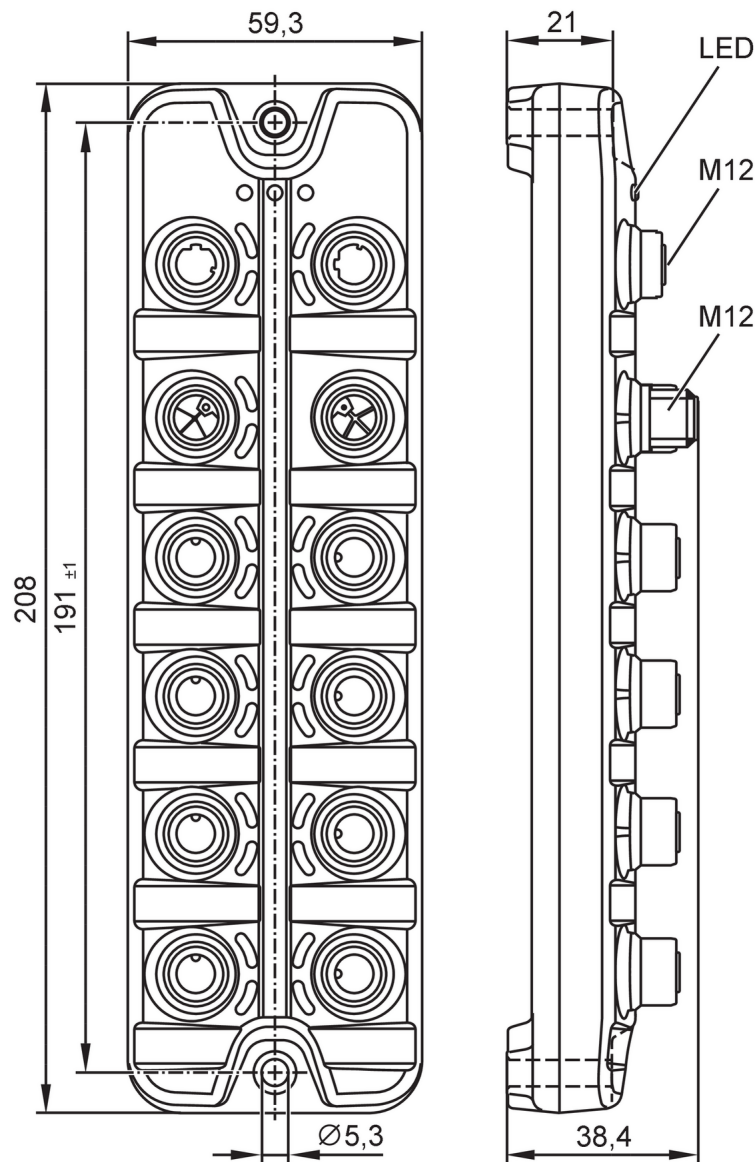


AL4133



Ethernet module with EtherCAT interface

ETH Module PFL EC 16DI IP69K



Depending on the version some LEDs are inactive



Application	
Application	hygienic systems; 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] 200...3900; (US)
Protection class	III
Sensor supply US	
Max. current load total	[A] 3.6
Inputs / outputs	
Number of inputs and outputs	Number of digital inputs: 16



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Inputs		
Number of digital inputs	16; (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	
Software / programming		
Parameter setting options	Counter function	
Functions and parameters	Function	CTU (Up Counter), CTD (Down Counter), CTUD (Up-Down Counter), CTDIR (Direction Counter)
	number	8 (1 counter for each 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 - EtherCAT		
Transmission standard	100Base-TX	
Transmission rate	100 MBit/s	
Protocol	EtherCAT	
Factory settings	MAC address: see type label	
Note on interfaces	AoE (ADS over EtherCAT)	
	CoE (CANopen over EtherCAT)	
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	
Pollution degree	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	
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]	66	
Mechanical data		
Weight [g]	432.7	
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)	



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Sealing material	EPDM
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Accessories

Items supplied	Protective cap: 1 x M12, stainless steel, E12542
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Remarks

Remarks	Further information is available in the manual.
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Pack quantity	1 pcs.
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Electrical connection - Ethernet

Connector: M12; coding: D; Contacts: 4; sealing: EPDM

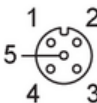


IN / OUT XF1, XF2

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

Electrical connection - inputs / outputs

Connector: M12; coding: A; Contacts: 5; sealing: EPDM



Digital Input X1...X8

1	Sensor supply (US) L +
2	Digital input 2
3	Sensor supply (US) L-
4	Digital input 1
5	functional earth

Electrical connection - voltage supply IN

Connector: M12; coding: L; Contacts: 5



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; Contacts: 5; sealing: EPDM



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Ethernet module with EtherCAT interface

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