Technical data sheet
IO-Link master
Part no.: 50144900
MD 798i-11-82/L5-2222

For Illustration purposes only

Contents

Technical data

Basic data

Series	MD 700i
Type	IO-Link master
Suitable for	IO-Link sensors

Electrical data

Inputs

Switching element	Transistor, PNP

Performance data

Sensor/actuator supply	$V_{aux}1$: Supply from V1, max. 4A per X0 and X4, max. 2A per X1 … X3 and X5 … X7
	$V_{aux}2$: Supply from V2 (Class B), max. 4A per X4 and X5, max. 2A per X6 and X7
Current consumption, max.	11,000 mA

Inputs

Number of digital switching inputs	4 Piece(s)

Outputs

Number of digital switching outputs	4 Piece(s)
Number of digital switching outputs for each sensor connection	1 Piece(s)
Switching element	Transistor, PNP

Supply circuit

Galvanic isolation between supply and control circuit	Yes (from voltage group V1 and V2, dielectric strength up to 500 VDC)

Interface

Type	Automatic protocol detection
	EtherNet IP
	IO-Link
	Modbus TCP
	PROFINET

IO-Link

COM mode	COM1
	COM2
	COM3
Port type	A & B
Specification	V1.1
SIO-mode support	Yes

EtherNet IP

Quick Connect (QC)	< 150 ms

PROFINET

Function	Configuration / process data
Conformance class	B
Protocol	PROFINET RT
Switch functionality	Integrated
Transmission speed	10 Mbit/s
	100 Mbit/s
Version	2.35
MinCycleTime	1 ms
Fast Start-Up (FSU)	< 150 ms

Connection

Number of connections	12 Piece(s)
Sensor connections	8 Piece(s)
Connections for voltage supply	2 Piece(s)
Number of interface connections	2 Piece(s)

Connection 1

Function	Data interface
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Connection 2

Function	Data interface
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Connection 3

Function	Connection to device
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Connection 4

Function	Connection to device
Type of connection	Connector, applicable for the connections X4 / X5 / X6 / X7
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Connection 5

Function	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	L-coded

Connection 6

Function	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	L-coded

Technical data

Mechanical data

Dimension (W x H x L)	60.4 mm x 39 mm x 230.4 mm
Housing material	Halogen-free
	Plastic
Net weight	567 g

Environmental data

Ambient temperature, operation	-40 ... 70 °C
Ambient temperature, storage	-40 ... 85 °C

Certifications

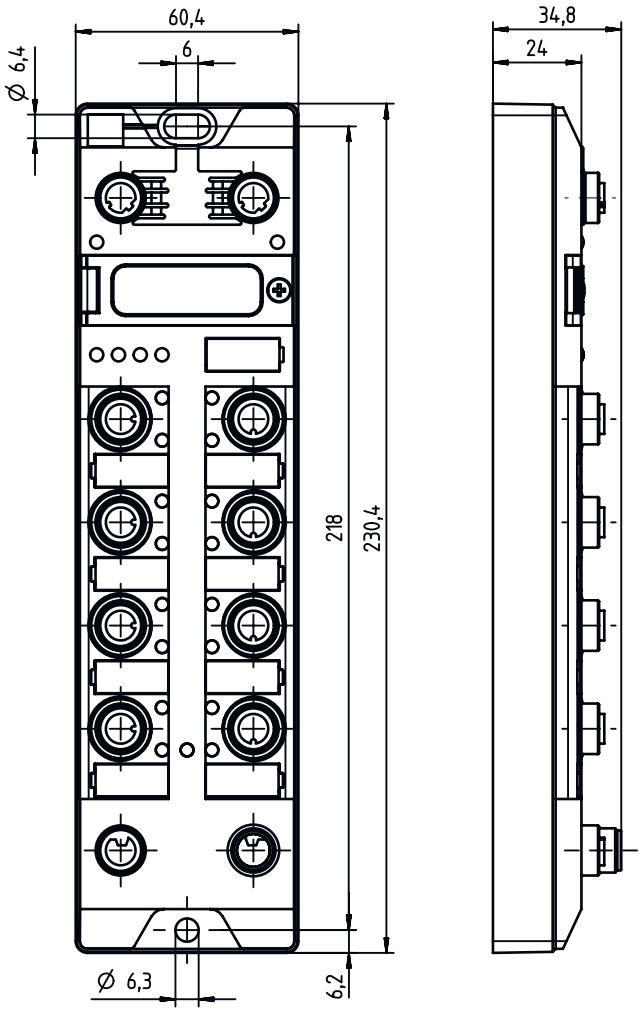
Degree of protection	IP 65
	IP 67
	IP 69K
Certifications	c UL US

Classification

Customs tariff number	85176200
ECLASS 5.1.4	19030117
ECLASS 8.0	19170106
ECLASS 9.0	19170106
ECLASS 10.0	19170490
ECLASS 11.0	19170490
ECLASS 12.0	19170490
ECLASS 13.0	19170490
ECLASS 14.0	19170490
ETIM 5.0	EC002585
ETIM 6.0	EC002585
ETIM 7.0	EC003558
ETIM 8.0	EC000734
ETIM 9.0	EC000734

Dimensioned drawings

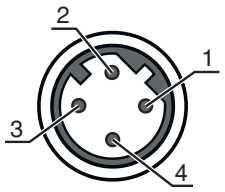
All dimensions in millimeters



Electrical connection

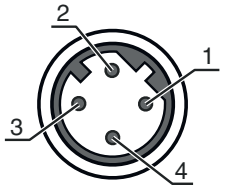
Connection 1	XF1
Function	Data interface
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Pin	Pin assignment
1	Tx+
2	Rx+
3	Tx-
4	Rx-



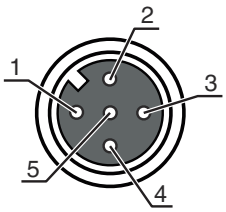
Connection 2	XF2
Function	Data interface
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Pin	Pin assignment
1	Rx+
2	Tx+
3	Rx-
4	Tx-



Connection 3	X0 / X1 / X2 / X3
Function	Connection to device
Type of connection	Connector
Type of connection	applicable for the connections X0 / X1 / X2 / X3
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

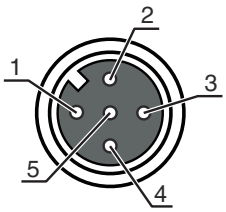
Pin	Pin assignment
1	$V_{aux}1$
2	DXP
3	GND
4	C/Q
5	n.c.



Electrical connection

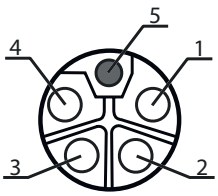
Connection 4	X4 / X5 / X6 / X7
Function	Connection to device
Type of connection	Connector
Type of connection	applicable for the connections X4 / X5 / X6 / X7
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	$V_{aux}1$
2	Switchable class B supply (Vaux2)
3	GND (V1)
4	C/Q
5	GND (V2)



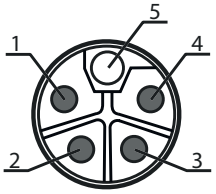
Connection 5	XD1
Function	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	L-coded

Pin	Pin assignment
1	+24 V
2	GND
3	GND
4	+24 V
5	FE



Connection 6	XD2
Function	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	L-coded

Pin	Pin assignment
1	+24 V
2	GND
3	GND
4	+24 V
5	FE



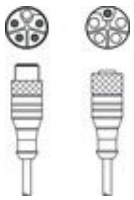
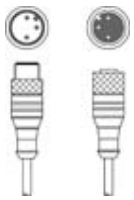
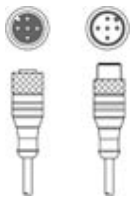
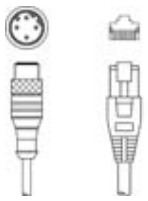
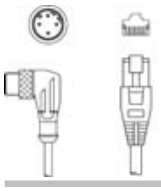
Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50141463	KD PL-M12-5A-P0-050	Connection cable	Connection 1: Connector, M12, Axial, Female, L-coded, 5 -pin Connector, LED: No Shielded: No Cable length: 5.000 mm Sheathing material: PUR
	50143054	KD PL-M12-5A-P0-100	Connection cable	Connection 1: Connector, M12, Axial, Female, L-coded, 5 -pin Connector, LED: No Shielded: Yes Cable length: 10.000 mm Sheathing material: PUR
	50143055	KD PL-M12-5A-P0-150	Connection cable	Connection 1: Connector, M12, Axial, Female, L-coded, 5 -pin Connector, LED: No Shielded: Yes Cable length: 15.000 mm Sheathing material: PUR
	50143056	KD PL-M12-5A-P0-250-2.5	Connection cable	Connection 1: Connector, M12, Axial, Female, L-coded, 5 -pin Connector, LED: No Shielded: No Cable length: 25.000 mm Sheathing material: PUR
	50130645	KD U-M12-3A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, 3 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PUR
	50130685	KD U-M12-3W-P1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, 3 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PUR
	50133841	KD U-M12-5A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PUR
	50132537	KD U-M12-5W-P1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PUR

Accessories

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50141462	KDS PL-M12-5A-M12-5A-P0-020	Interconnection cable	Connection 1: Connector, M12, Axial, Male, L-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, L-coded, 5 -pin Shielded: No Cable length: 2,000 mm Sheathing material: PUR
	50130736	KDS U-M12-3A-M12-3A-P1-050	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 3 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 3 -pin Shielded: No Cable length: 5,000 mm Sheathing material: PUR
	50130749	KDS U-M12-3W-M12-3A-P1-050	Interconnection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 3 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 3 -pin Shielded: No Cable length: 5,000 mm Sheathing material: PUR
	50133298	KDS U-M12-5A-M12-5A-V1-050	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	50135081	KSS ET-M12-4A-RJ45-A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50136183	KSS ET-M12-4W-RJ45-A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Angled, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Note

↳ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.