



Part no.: 50142540
CMS748i-ENC1-0640-0560
Contour measurement system




Figure can vary

Contents

- Set consists of
- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Notes
- Accessories

Set consists of

	Quantity	Part no.	Designation	Article	Description
	4	424417	BT-2P40	Mounting bracket set	Contains: BT-P40 clamp bracket, 2x Bore hole 1: M6 Bore hole 2: M6 Design of mounting device: Mounting clamp Fastening, at system: Groove mounting Mounting bracket, at device: Groove mounting Type of mounting device: Clampable Material: Metal
	1	50118743	CML730i-R05-560.A/L-M12	Light curtain receiver	Operating range: 0.1 ... 4.5 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
	1	50118744	CML730i-R05-640.A/L-M12	Light curtain receiver	Operating range: 0.1 ... 4.5 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
	1	50118582	CML730i-T05-560.A-M12	Light curtain transmitter	Operating range: 0.1 ... 4 m Connection: Connector, M12, Axial, 5 -pin
	1	50118583	CML730i-T05-640.A-M12	Light curtain transmitter	Operating range: 0.1 ... 4 m Connection: Connector, M12, Axial, 5 -pin
	2	50129781	KDS DN-M12-5A-M12-5A-P3-050	Interconnection cable	Suitable for interface: IO-Link, DeviceNet, CANopen Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	3	50135146	KDS S-M12-8A-M12-8A-P1-050	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 8 -pin Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	1	50142331	LSC748-000-100	Switch cabinet	Supply voltage: 100 ... 263 V, AC Switching inputs: 4 Piece(s) Switching outputs: 4 Piece(s) Connections: 7 Piece(s)

	Quantity	Part no.	Designation	Article	Description
	1	50142931	LSC748-ENC-100	Switch cabinet	Supply voltage: 100 ... 263 V, AC Switching inputs: 4 Piece(s) Switching outputs: 4 Piece(s) Connections: 8 Piece(s)

Technical data

Basic data

Series	CMS 7xxi
Contains	1x dongle CMS700 1x rotation encoder
Order guide	Additional models on request

Functions

Optical data

Operating range	Guaranteed operating range
Operating range	0.1 ... 4.5 m
Operating range, transparent media	0.1 ... 1.75 m
Operating range limit	Typical operating range
Operating range limit	0.1 ... 6 m
Measurement field length 1	640 mm
Measurement field length 2	560 mm
Beam spacing	5 mm

Electrical data

Protective circuit	Polarity reversal protection Short circuit protected Transient protection
Output current, continuous current per channel, max.	100 mA

Performance data

Supply voltage U_B	100 ... 263 V, AC
Open-circuit current	250 mA

Inputs

Number of digital switching inputs	4 Piece(s)
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Switching inputs

Type	Digital switching input
Voltage type	DC
Switching voltage	24 V, VIN

Outputs

Number of digital switching outputs	4 Piece(s)
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Switching outputs

Type	Digital switching output
Voltage type	AC
Switching voltage	24 V, VIN

Interface	
Type	EtherNet TCP/IP , PROFINET
Ethernet	
Function	Configuration / process data
Profinet	
Function	Configuration / process data
Connection	
Number of connections	8 Piece(s)
Connection 1	
Function	Earthing
Type of connection	Earthing strap
Material	Metal
Connection 2	
Function	Voltage supply
Type of connection	Harting connector
Material	Metal
Connection 3	
Function	Width measuring light curtain connection
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 4	
Function	Height measuring light curtain connection
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 5	
Function	Rotation encoder connection (not in combination with length measuring light curtain)
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 6	
Function	External Ethernet TCP/IP connection
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Connection 7

Function	PROFINET IN connection (optional)
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Connection 8

Function	PROFINET OUT connection (optional)
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Mechanical data

Design	Cubic
Housing material	Metal , Aluminum
Lens cover material	Plastic
Housing color	Gray Red
Note	Dimensions of individual set items, see dimensioned drawings

Operation and display

Note	This information refers to the switch cabinet
Type of display	LED
Number of LEDs	3 Piece(s)
Type of configuration	performed via webConfig
Operational controls	Rotary switch

Environmental data

Ambient temperature, operation	0 ... 45 °C
Ambient temperature, storage	-20 ... 70 °C

Certifications

Certifications	CSA
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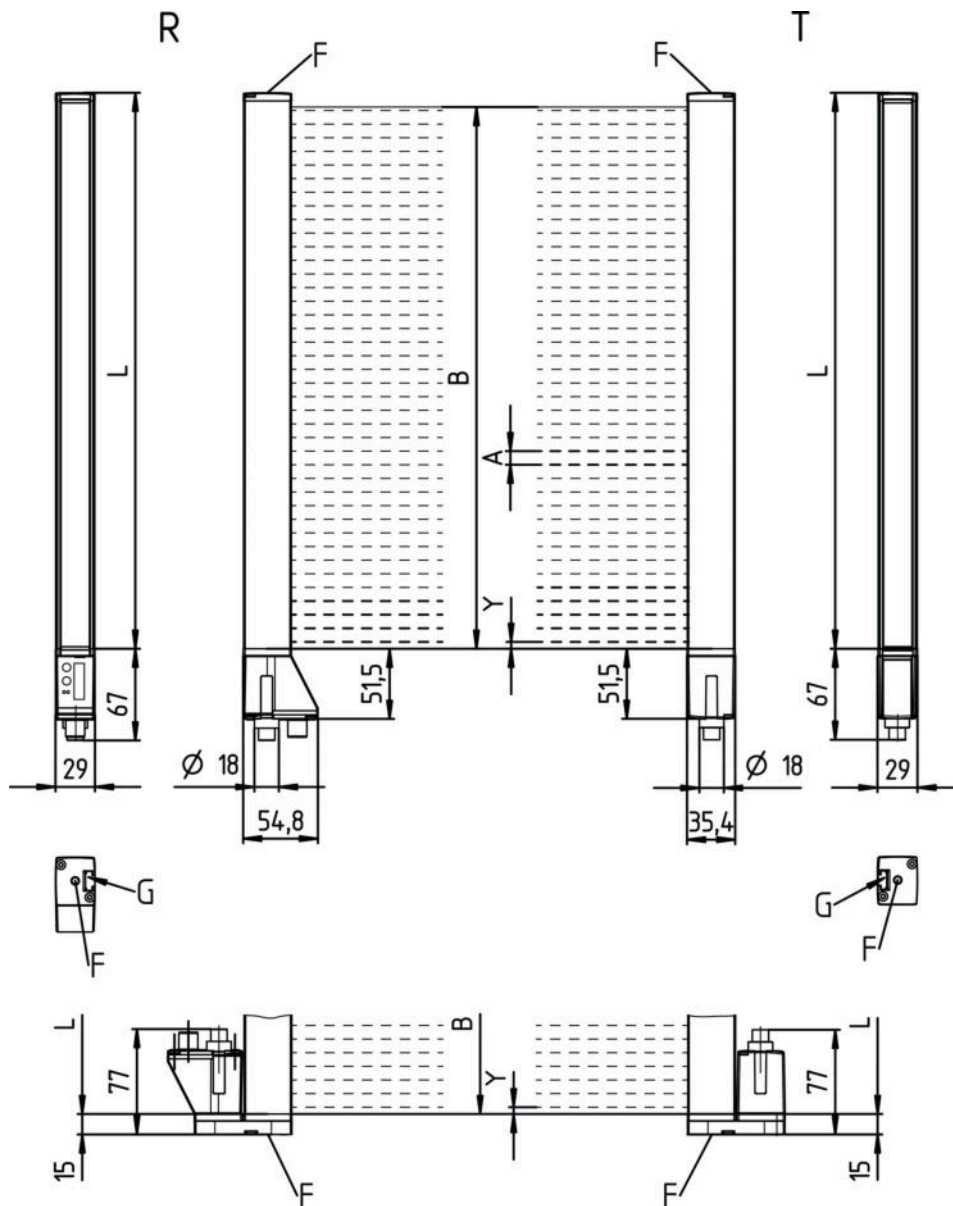
Classification

Customs tariff number	90314990
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Dimensioned drawings

All dimensions in millimeters

Light curtain transmitter and receiver



A Beam spacing 5 mm

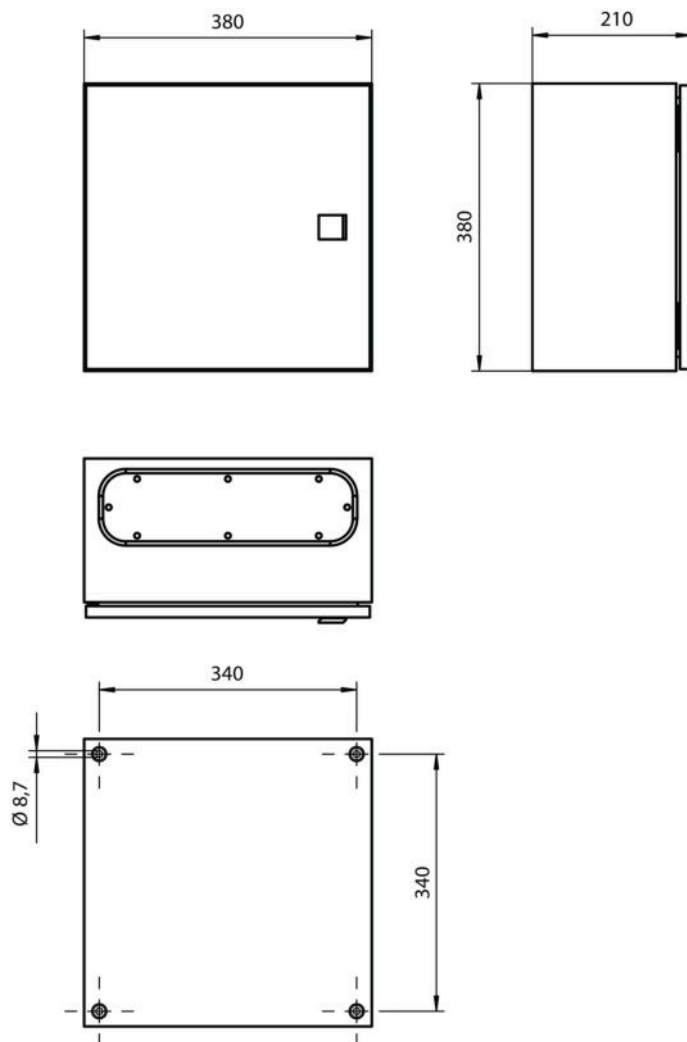
B Measurement field length 1 = 640 mm
 Measurement field length 2 = 560 mm

F M6 thread
 G Fastening groove

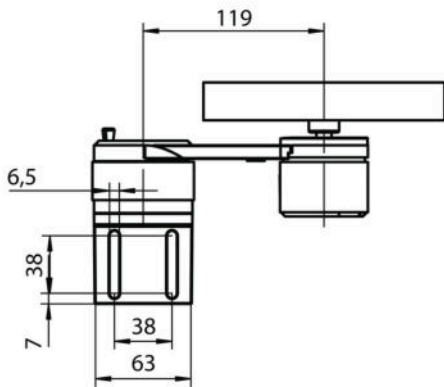
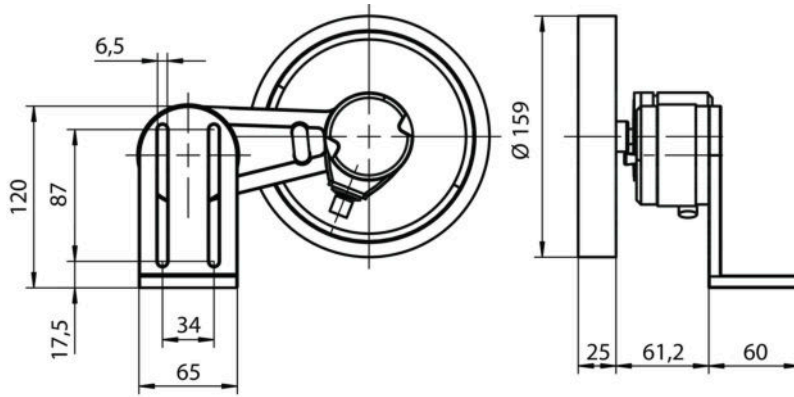
L Profile length 1 = 648 mm
 Profile length 2 = 568 mm

T Transmitter
 R Receiver
 Y 2.5 mm

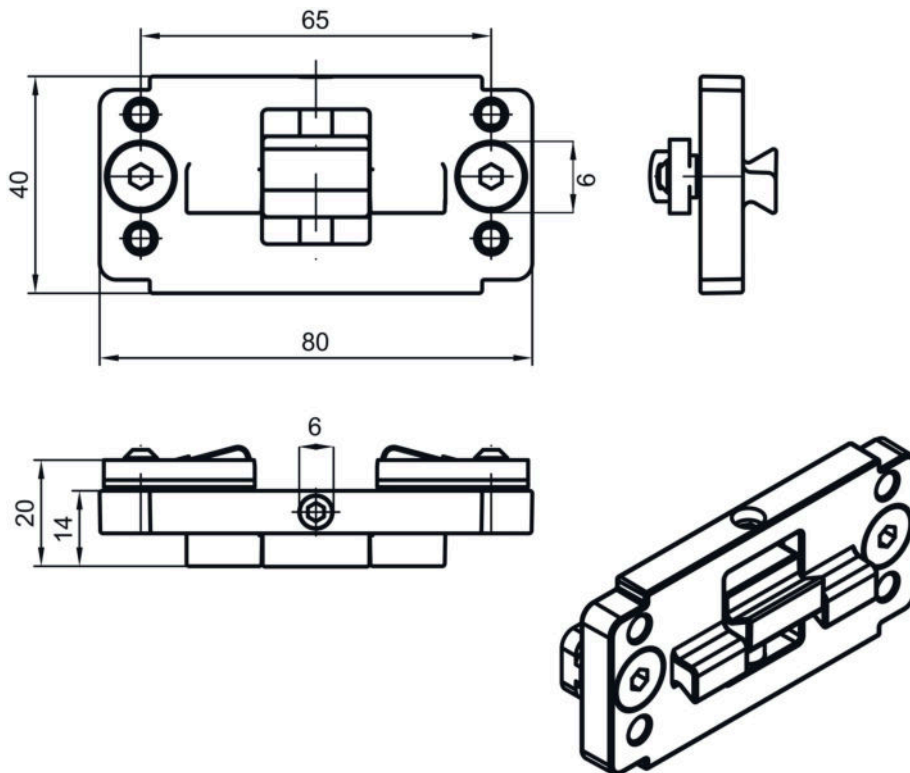
Switch cabinet



Rotation encoder



Mounting bracket



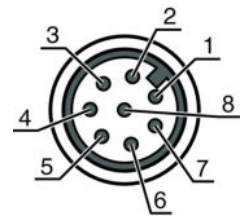
Electrical connection

Connection 1	
Function	Earthing
Type of connection	Earthing strap
Material	Metal

Connection 2	
XS1000	
Function	Voltage supply
Type of connection	Harting connector
Material	Metal

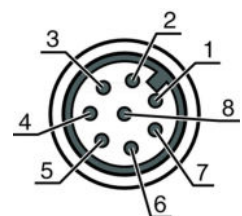
Connection 3	
XS1301	
Function	Width measuring light curtain connection
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
2	IO1
3	GND
4	IO-Link
5	IO2
6	IO3
7	IO4
8	GND



Connection 4	
XS1302	
Function	Height measuring light curtain connection
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

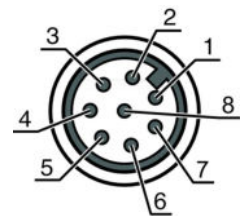
Pin	Pin assignment
1	V+
2	IO1
3	GND
4	IO-Link
5	IO2
6	IO3



Pin	Pin assignment
7	IO4
8	GND

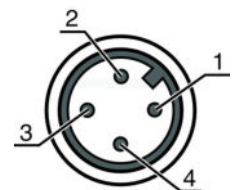
Connection 5	XS1400
Function	Rotation encoder connection (not in combination with length measuring light curtain)
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Pin	Pin assignment
1	U-
2	U+
3	A
4	B
5	N
6	A inv.
7	B inv.
8	N inv.
9	Shield



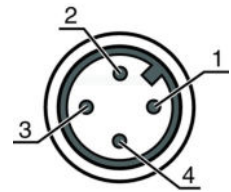
Connection 6	XETH1
Function	External Ethernet TCP/IP connection
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	TD+
2	RD+
3	TD-
4	RD-



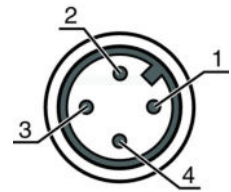
Connection 7	XS1100
Function	PROFINET IN connection (optional)
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	TD+
2	RD+
3	TD-
4	RD-

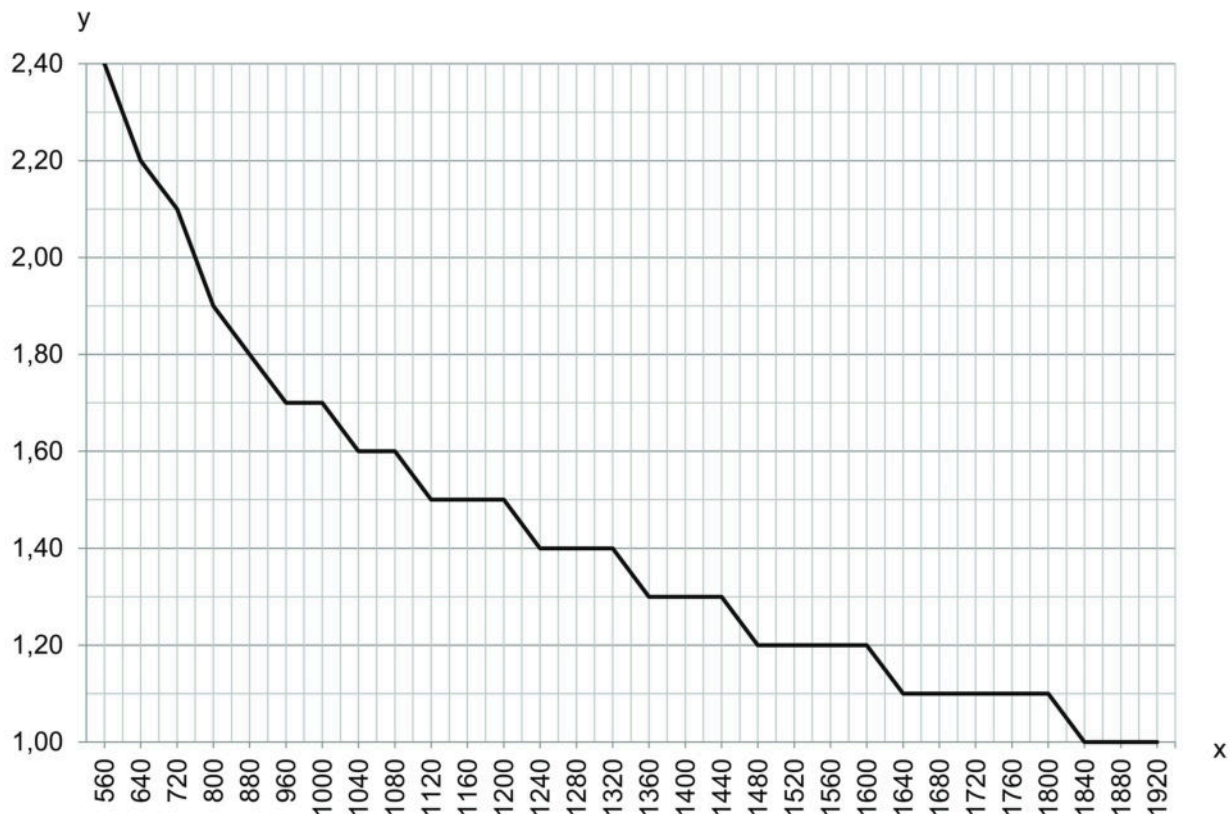


Connection 8	XS1101
Function	PROFINET OUT connection (optional)
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	TD+
2	RD+
3	TD-
4	RD-



Diagrams



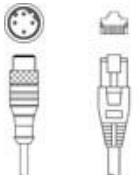
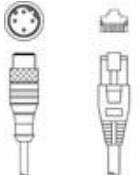
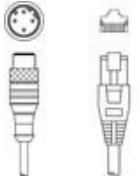
- x Total measuring length from width and height measuring light curtain [mm]
 y Max. conveyor speed [m/s]

Notes

Observe intended use!
<ul style="list-style-type: none"> • This product is not a safety sensor and is not intended as personnel protection. • The product may only be put into operation by competent persons. • Only use the product in accordance with its intended use.

Accessories

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50135082	KSS ET-M12-4A-RJ45-A-P7-100	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR
	50135083	KSS ET-M12-4A-RJ45-A-P7-150	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR
	50135084	KSS ET-M12-4A-RJ45-A-P7-300	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 30,000 mm Sheathing material: PUR

Mounting technology - Other

	Part no.	Designation	Article	Description
	50143670	BT 708M-MRSET	Mounting device set	Contains: Mounting material, Mounting profiles Design of mounting device: Profile kit Fastening, at system: Screw type / vertical Mounting bracket, at device: Groove mounting Type of mounting device: Rigid Material: Aluminum
	50143671	BT 70EM-MRSET	Mounting device set	Contains: Mounting material, Mounting profiles Design of mounting device: Profile kit Fastening, at system: Screw type / vertical Mounting bracket, at device: Groove mounting Type of mounting device: Rigid Material: Aluminum
	50143669	BT 710M-MRSET	Mounting device set	Contains: Mounting profiles, Mounting material Design of mounting device: Profile kit Fastening, at system: Screw type / vertical Mounting bracket, at device: Groove mounting Type of mounting device: Rigid Material: Aluminum

Part no.: 50142540 – CMS748i-ENC1-0640-0560 – Contour measurement

	Part no.	Designation	Article	Description
	50142039	BT 712M-MRSET	Mounting device set	Contains: Mounting profiles, Mounting material Design of mounting device: Profile kit Fastening, at system: Screw type / vertical Mounting bracket, at device: Groove mounting Type of mounting device: Rigid Material: Aluminum

Note

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