

## Technical data sheet

### Modular connection unit

Part no.: 50130109  
MA 150

#### Contents

- Technical data
- Dimensioned drawings
- Electrical connection
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For illustration purposes only



## Technical data

### Electrical data

#### Performance data

Supply voltage $U_B$	18 ... 30 V, DC
Current consumption, max.	150 mA

### Connection

Number of connections	5 Piece(s)
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#### Connection 1

Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	12 -pin
Encoding	A-coded

#### Connection 2

Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

#### Connection 3

Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

#### Connection 4

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

#### Connection 5

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

### Mechanical data

Design	Cubic
Dimension (W x H x L)	55 mm x 31 mm x 95 mm
Housing material	Metal
Metal housing	Diecast zinc
Net weight	296 g
Housing color	Silver

### Operation and display

Type of display	LED
Number of LEDs	5 Piece(s)

### Environmental data

Ambient temperature, operation	-25 ... 60 °C
Ambient temperature, storage	-40 ... 80 °C

### Certifications

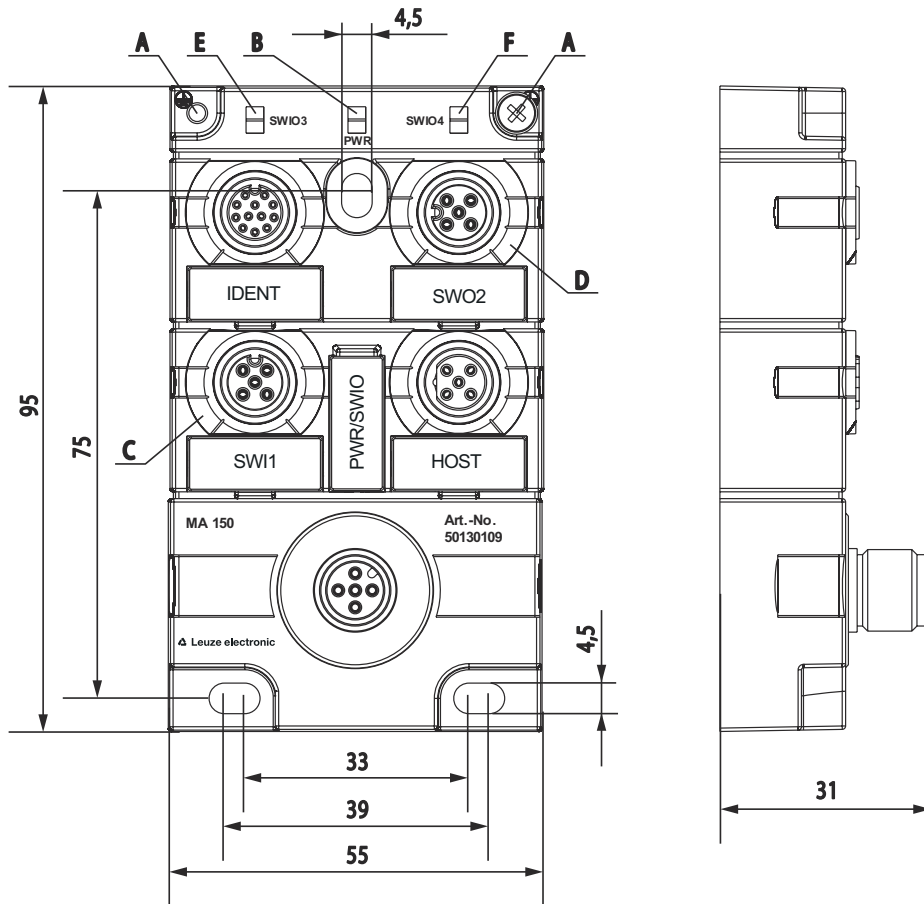
Degree of protection	IP 67
Approvals	c UL US

### Classification

Customs tariff number	85411000
ECLASS 5.1.4	27069190
ECLASS 8.0	27069190
ECLASS 9.0	27069190
ECLASS 10.0	27069190
ECLASS 11.0	27069090
ECLASS 12.0	27069090
ECLASS 13.0	27069090
ECLASS 14.0	27069090
ECLASS 15.0	27069090
ECLASS 16.0	27069090
ETIM 5.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855
ETIM 8.0	EC001855
ETIM 9.0	EC001855
ETIM 10.0	EC001855
UNSPSC 26.08	26121600

# Dimensioned drawings

All dimensions in millimeters



- A Earthing strap
- B LED indicator
- C LED indicator
- D LED indicator
- E LED indicator
- F LED indicator

## Electrical connection

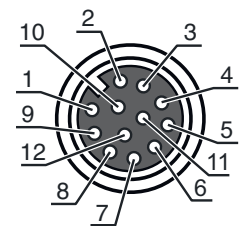
### Connection 1

### IDENT

Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	12 -pin
Encoding	A-coded

### Pin Pin assignment

1	VIN
2	GNDIN
3	SWIN 1
4	SWOUT 2
5	FE
6	GNDOUT

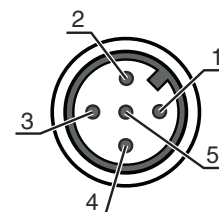


## Electrical connection

Pin	Pin assignment
7	Rx-
8	Tx-
9	RxD/Rx+
10	TxD/Tx+
11	SWIO 3
12	SWIO 4

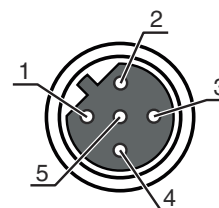
Connection 2	PWR / SWIO
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	VIN
2	SWIO 3
3	GNDIN
4	SWIO 4
5	FE



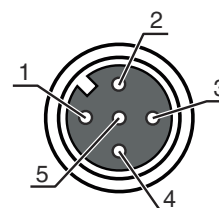
Connection 3	HOST
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Pin	Pin assignment
1	Rx-
2	TxD/Tx-
3	GNDOUT
4	Tx-
5	RxD/Rx+



Connection 4	SWI 1
Type of connection	Connector
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment
1	VIN
2	-
3	GNDIN
4	SWIN 1
5	-



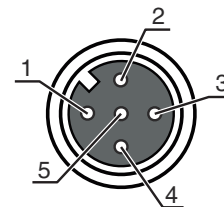
# Electrical connection

## Connection 5

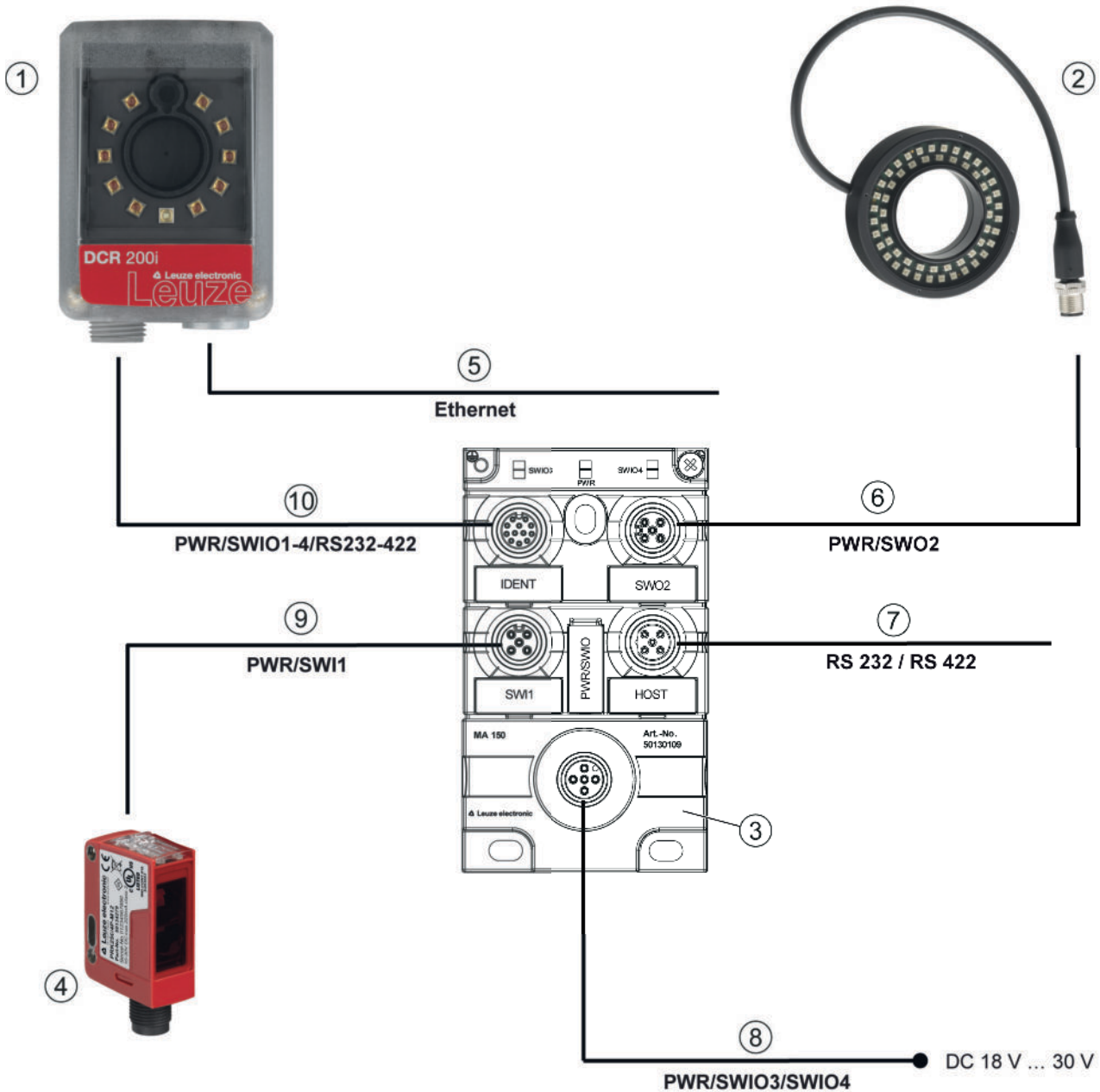
## SWO 2

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

Pin	Pin assignment
1	VIN
2	-
3	GNDIN
4	SWIO 2
5	-



**Circuit diagrams**



- |  |   |   |
|--|---|---|
| 1 DCR 200i   | 5 Cable M12 connector / RJ45 connector, 4-pin (e.g. 50135080) | 8 Cable M12 socket / open cable end, 5-pin (e.g. 50132077)  |
| 2 50132511 RL-70/40r-003-M12 external illumination | 6 Cable M12 connector / M12 socket, 3-pin (e.g. 50130734)     | 9 Cable M12 socket / M12 connector, 4-pin (e.g. 50132438)   |
| 3 MA 150   | 7 Cable M12 connector / open cable end, 5-pin (e.g. 50108595) | 10 Cable M12 socket / M12 connector, 12-pin (e.g. 50130284) |
| 4 Sensor   |   |   |

**Operation and display**

LED	Display	Meaning
1 PWR	Green, continuous light	Operating voltage applied
2 SWI 1	White, continuous light	Switching output/switching state
3 SWO 2	White, continuous light	Switching output/switching state

# Operation and display

LED	Display	Meaning
4 SWIO 3	White, continuous light	Switching output/switching state
5 SWIO 4	White, continuous light	Switching output/switching state

## Notes

**Observe intended use!**

- ⌘ 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 - Connection cables

	Part no.	Designation	Article	Description
	50108595	KB IBS-2000-SA	Interconnection cable	Application: Oil and lubricant resistant Suitable for interface: Interbus-S Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50132077	KD U-M12-5A-V1-020	Connection cable	Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC

### Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50130284	KDS S-M12-CA-M12-CA-P1-020	Interconnection cable	Application: Oil and lubricant resistant Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 12 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50130734	KDS U-M12-3A-M12-3A-P1-020	Interconnection cable	Application: Oil and lubricant resistant Connection 1: Connector, M12, Axial, Female, A-coded, 3 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 3 -pin Shielded: No Cable length: 2,000 mm Sheathing material: PUR

# Accessories

	Part no.	Designation	Article	Description
	50132438	KDS U-M12-4A-M12-4A-V1-020	Interconnection cable	Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 4 -pin Shielded: No Cable length: 2,000 mm Sheathing material: PVC
	50135080	KSS ET-M12-4A-RJ45-A-P7-020	Interconnection cable	Application: Oil and lubricant resistant Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 2,000 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.