

Technical data sheet

Modular connection unit

Part no.: 50130109
MA 150

Contents

- Technical data
- Dimensioned drawings
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- Circuit diagrams
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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) |
|-----------------------|------------|

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 |
| 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

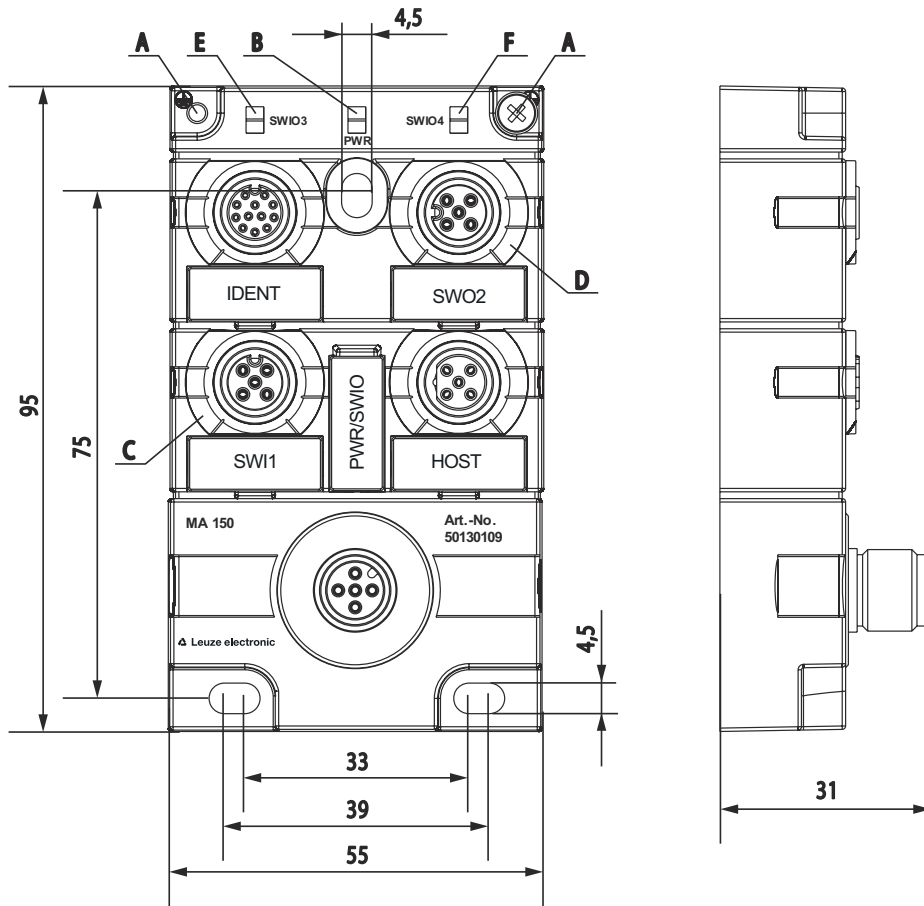
| | |
|----------------------|---------|
| Degree of protection | IP 67 |
| Approvals | c UL US |

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 |
| ETIM 5.0 | EC001855 |
| ETIM 6.0 | EC001855 |
| ETIM 7.0 | EC001855 |
| ETIM 8.0 | EC001855 |
| ETIM 9.0 | EC001855 |
| ETIM 10.0 | EC001855 |

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

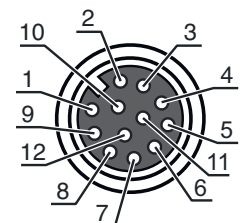
Connection 1

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 |

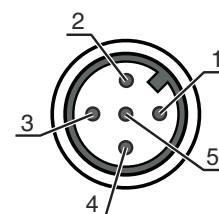


Electrical connection

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

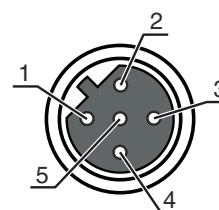
| Connection 2 | PWR / SWIO |
|--------------------|------------|
| Type of connection | Connector |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 5 -pin |
| Encoding | A-coded |

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



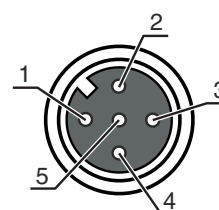
| Connection 3 | HOST |
|--------------------|-----------|
| Type of connection | Connector |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 5 -pin |
| Encoding | B-coded |

| 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 | - |



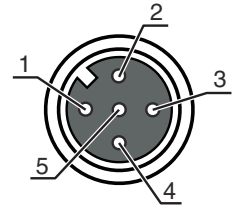
Electrical connection

Connection 5

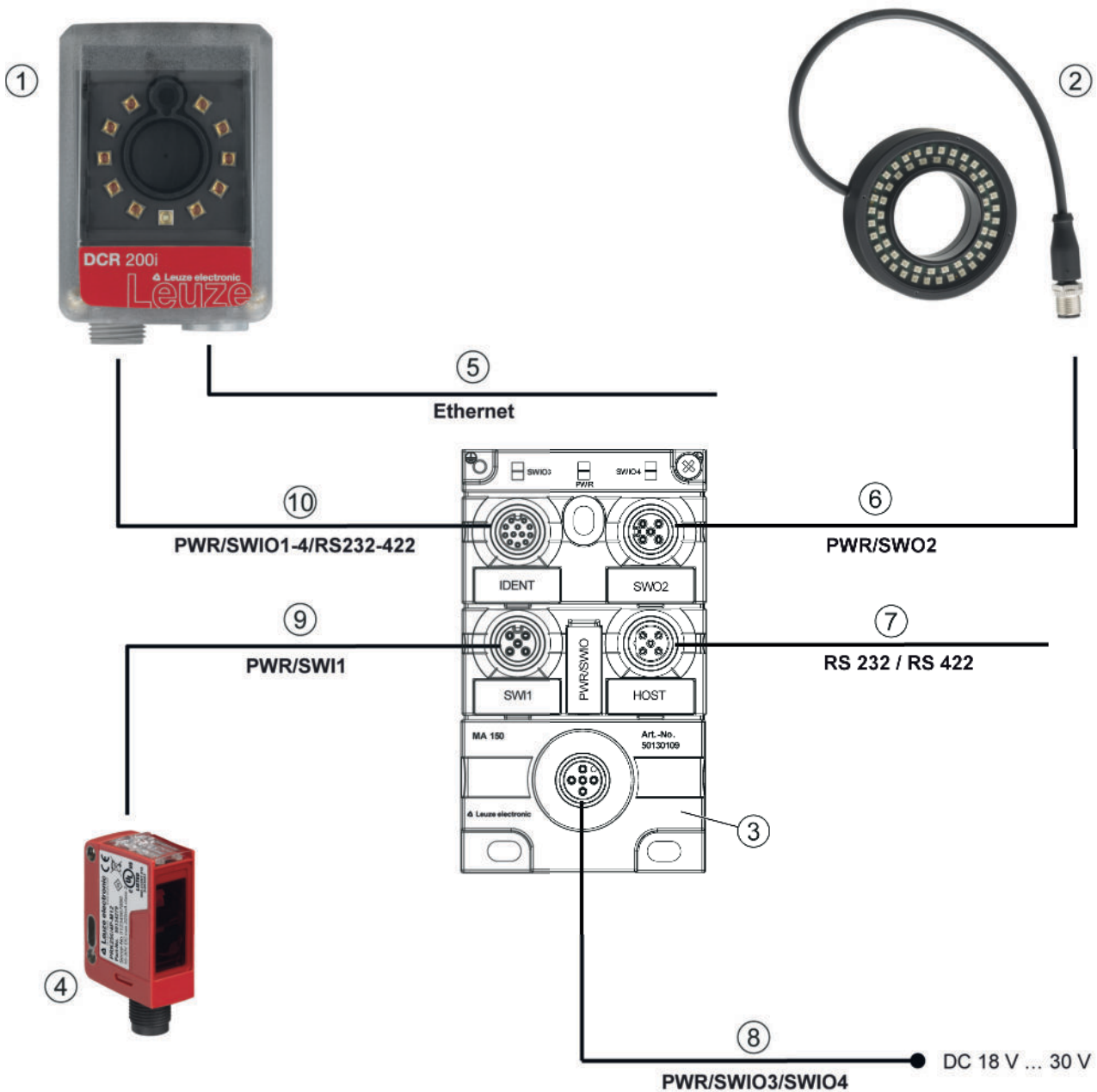
SWO 2

| | |
|--------------------|-----------|
| 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
- 2 50132511 RL-70/40r-003-M12 external illumination
- 3 MA 150
- 4 Sensor

- 5 Cable M12 connector / RJ45 connector, 4-pin (e.g. 50135080)
- 6 Cable M12 connector / M12 socket, 3-pin (e.g. 50130734)
- 7 Cable M12 connector / open cable end, 5-pin (e.g. 50108595)

- 8 Cable M12 socket / open cable end, 5-pin (e.g. 50132077)
- 9 Cable M12 socket / M12 connector, 4-pin (e.g. 50132438)
- 10 Cable M12 socket / M12 connector, 12-pin (e.g. 50130284)

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 | Suitable for interface: Interbus-S Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 2.000 mm Sheathing material: PUR |
| | 50132077 | KD U-M12-5A-V1-020 | Connection cable | 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 | 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 | 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 | 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 | 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.