



# Sensor/Actuator Boxes

## ◀ Section 6

### I/O-System – *SPEEDWAY*

- Uncompromising protection, even in the harshest environments outside the control cabinet
- Degree of protection: IP67
- Fully encapsulated

### Sensor/Actuator Boxes

- Passive M8/M12 sensor/actuator boxes
- Machine-level signal connection in harsh environment

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| <b>Item Number Keys</b>               | 581  |
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| <b>Interfaces and Configurations</b>  | 583  |



|   | Description                         | Item No.        |     |     |
|---|-------------------------------------|-----------------|-----|-----|
| <b>M12 Sensor/Actuator Box, with Connection Cable</b> | 4-way, 4 pin, 5 m connecting cable  | 757-244/000-005 | 584 |     |
|   | 4-way, 4 pin, 10 m connecting cable | 757-244/000-010 |     |     |
|   | 6-way, 4 pin, 5 m connecting cable  | 757-264/000-005 |     |     |
|   | 6-way, 4 pin, 10 m connecting cable | 757-264/000-010 |     |     |
|   | 8-way, 4 pin, 5 m connecting cable  | 757-284/000-005 |     |     |
|   | 8-way, 4 pin, 10 m connecting cable | 757-284/000-010 |     |     |
|   | 8-way, 4 pin, 25 m connecting cable | 757-284/000-025 |     |     |
|   | 4-way, 5 pin, 5 m connecting cable  | 757-245/000-005 |     | 586 |
|   | 4-way, 5 pin, 10 m connecting cable | 757-245/000-010 |     |     |
|   | 6-way, 5 pin, 5 m connecting cable  | 757-265/000-005 |     |     |
|   | 6-way, 5 pin, 10 m connecting cable | 757-265/000-010 |     |     |
|   | 8-way, 5 pin, 5 m connecting cable  | 757-285/000-005 |     |     |
|   | 8-way, 5 pin, 10 m connecting cable | 757-285/000-010 |     |     |
|   | 8-way, 5 pin, 25 m connecting cable | 757-285/000-025 |     |     |

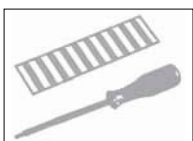


|  |   |                 |     |     |
|--|---|-----------------|-----|-----|
| <b>M12 Sensor/Actuator Box, with M23 Connector</b> | 4-way, 4-pole, M23 connector              | 757-144         | 588 |     |
|  | 6-way, 4-pole, M23 connector              | 757-164         |     |     |
|  | 8-way, 4-pole, M23 connector              | 757-184         |     |     |
|  | 4-way, 5-pole, M23 connector              | 757-145         |     | 590 |
|  | 6-way, 5-pole, M23 connector              | 757-165         |     |     |
|  | 8-way, 5-pole, M23 connector              | 757-185         |     |     |
|  | 8-way, 5-pole, without LED, M23 connector | 757-185/100-000 |     |     |



|  |                                      |                 |     |
|--|--------------------------------------|-----------------|-----|
| <b>M8 Sensor/Actuator Box, with Connection Cable</b> | 4-way, 3 pin, 2 m connecting cable   | 757-443/000-002 | 592 |
|  | 4-way, 3 pin, 5 m connecting cable   | 757-443/000-005 |     |
|  | 4-way, 3 pin, 10 m connecting cable  | 757-443/000-010 |     |
|  | 6-way, 3 pin, 5 m connecting cable   | 757-463/000-005 |     |
|  | 6-way, 3 pin, 10 m connecting cable  | 757-463/000-010 |     |
|  | 8-way, 3 pin, 5 m connecting cable   | 757-483/000-005 |     |
|  | 8-way, 3 pin, 10 m connecting cable  | 757-483/000-010 |     |
|  | 10-way, 3 pin, 5 m connecting cable  | 757-403/000-005 |     |
|  | 10-way, 3 pin, 10 m connecting cable | 757-403/000-010 |     |

|   |                               |         |     |
|---|-------------------------------|---------|-----|
| <b>M8 Sensor/Actuator Box, with M16 Connector</b> | 4-way, 3-pole, M16 connector  | 757-343 | 594 |
|   | 6-way, 3-pole, M16 connector  | 757-363 |     |
|   | 8-way, 3-pole, M16 connector  | 757-383 |     |
|   | 10-way, 3-pole, M16 connector | 757-303 |     |



|   |  |  |     |
|---|--|--|-----|
| <b>Accessories</b>                        |  |  |     |
| Labeling cards, adapter, connecting cable |  |  | 596 |

### For Signal Acquisition at the Machine Level

Passive M8/M12 sensor/actuator boxes are placed close to the process and acquire signals at the machine level. They can be used in very harsh environmental conditions and establish the connection from sensors and actuators to the controller across molded or detachable cables. Use of standardized pluggable connectors supports sensor and actuator plug & play, and the individual wiring of I/O signals to automation components in the control cabinet is simplified via trunk cable. Cabling is well-arranged and minimized.

### Signal Acquisition in Exceptionally Harsh Conditions

The sensor/actuator boxes are very robust and comply with degree of protection IP67 or IP68 with molded cabling (72 hours at 1 m water depth). Therefore, they are the ideal solution for applications where signals must be recorded under extreme environmental conditions (temperature, shock, vibration) without a control cabinet. They're also excellent alternatives when the use of an active IP67 I/O system would not be cost-effective due to a low signal count or simple signal conditions (digital signal acquisition/output).

### Plug & play Connection Technology

The sensor/actuator boxes with a removable connecting cable (M16 or M23 pluggable connector) are well-suited to areas where frequent easy release and reconnection is required (transport, modification, service, etc.).

### Fixed Trunk Cable

The sensor/actuator boxes with molded cables are preferred when challenging cable paths do not allow the use of preassembled M16/M23 cables.

### Extreme Mechanical Performance

A system/machine is exposed to severe mechanical and thermal influences. It is important to process its signals despite strong vibration and shock. The sensor/actuator boxes are used at the machine level. Full encapsulation safeguards system operation, mitigating the effects of extreme vibration and temperature loads when collecting signals and supplying power via the connecting cable of the controller or other automation components in the uncritically positioned area of the control cabinet.

### Flexible Assembly

The sensor/actuator boxes can be directly mounted on the machine. Extensive engineering ensures compliance with standardized specifications from CNOMO guidelines regarding the spacing of assembly drill holes that are often used in passive distributor or sensor/actuator boxes. An optional adapter is available that can be used to seamlessly mount two modules side by side. This has the advantage of maintaining a defined distance for proper routing of the sensor/actuator cables and of avoiding contamination points.

- Simple and economical addition to IP20 automation products
  - With increased requirements for environmental conditions
  - For plug & play connection technology when needed
  - For simpler cable installation in the form of trunk cables
- High-quality PUR connecting cables (suitable for drag chains, halogen free)
- Fully encapsulated (resistance and leak-proof)
- Flange sockets (metal design)
- -25 °C to +80 °C operating temperature range
- Incl. status LEDs

## Sensor/Actuator Boxes

### Item Number Keys

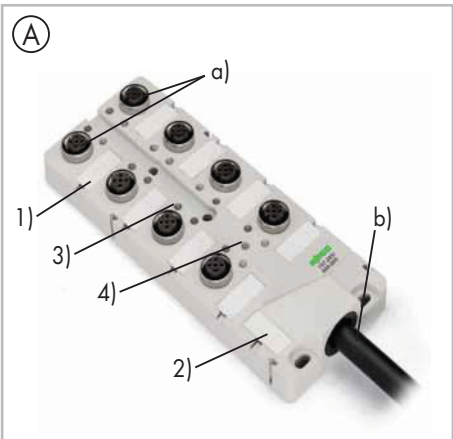
Explanation of the components for the item number key

| Series   |  |
|--|--|
|  |  |
| <b>Item No. : 757-abc/x00-0yy</b>                |  |
| <b>a: Design</b>                                 | <b>x00: Status LEDs</b>                    |
| 1: M12 Sensor/Actuator Box with M23 Connector    | 100: Without status LEDs                   |
| 2: M12 Sensor/Actuator Box with Cable Connection |  |
| 3: M8 Sensor/Actuator Box with M16 Connector     | <b>0yy: Length of the connecting cable</b> |
| 4: M8 Sensor/Actuator Box with Cable Connection  | 002: 2m                                    |
|  | 005: 5m                                    |
|  | 010: 10m                                   |
|  | 025: 25m                                   |
| <b>b: No of M8/M12 connectors</b>                |  |
| 4: 4 ea.   |  |
| 6: 6 ea.   |  |
| 8: 8 ea.   |  |
| 0: 10 ea.  |  |
| <b>c: Pole No.</b>                               |  |
| 3: 3-pole  |  |
| 4: 4-pole  |  |
| 5: 5-pole  |  |

## Standards and Rated Conditions

### General Specifications

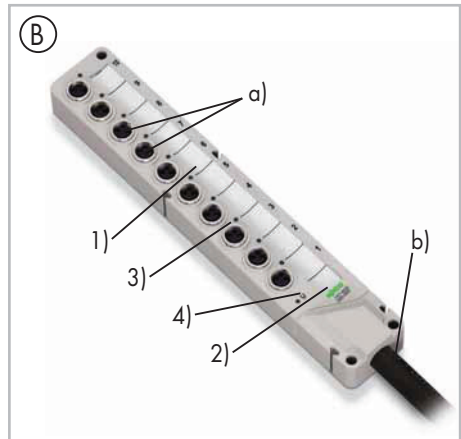
|  |  |
|--|--|
| <b>Electrical Data</b>                       |  |
| Contact resistance                           | 10 mΩ  |
| Operating voltage                            | 10 V ... 30 VDC  |
| Current carrying capacity                    | 2 A per signal;<br>9 A per SA box (M12) or 6 A per SA box (M8) |
| Switching function                           | PNP  |
| <b>Mechanical Data</b>                       |  |
| <b>Protection type</b>                       |  |
| Sensor/actuator boxes with cable connection  | IP68 (72 hours at 1 m water depth)                             |
| Sensor/actuator boxes with M16/M23 connector | IP67   |
| Operating temperature                        | -25 °C ... +80 °C  |
| Mounting                                     | Screw mount  |
| Mounting position                            | any  |
| Vibration resistance                         | 5g acc. to IEC 60068-2-6                                       |
| Shock resistance                             | 49g acc. to IEC 60068-2-27                                     |
| <b>Material Data</b>                         |  |
| General                                      | Silicon and halogen free                                       |
| Encapsulation                                | Fully encapsulated with conformal coating (UL 94 V0)           |
| Housing material                             | PA 66 (UL 94 V0); RAL 7035                                     |
| Connecting cable                             | Suitable for drag chains                                       |



- (1) Sensor/actuator marking
- (2) Module marking
- (3) LED status indicator (by channel), yellow
- (4) LED operating indicator module, green

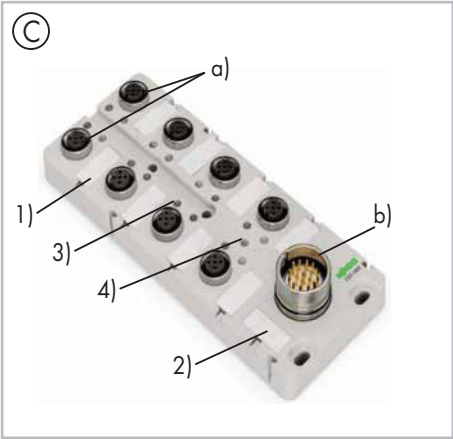
**Housing design (A)**  
**M12 Sensor/Actuator Box with Cable Connection**

- Sensor/actuator connections M12 (a)
- Connecting cable (b)



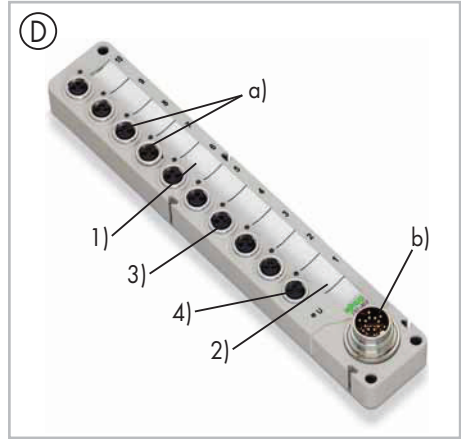
**Housing design (B)**  
**M8 Sensor/Actuator Box with Cable Connection**

- Sensor/actuator connections M8 (a)
- Connecting cable (b)



**Housing design (C)**  
**M12 Sensor/Actuator Box with M23 Connector**

- Sensor/actuator connections M12 (a)
- Supply input M23 (b)



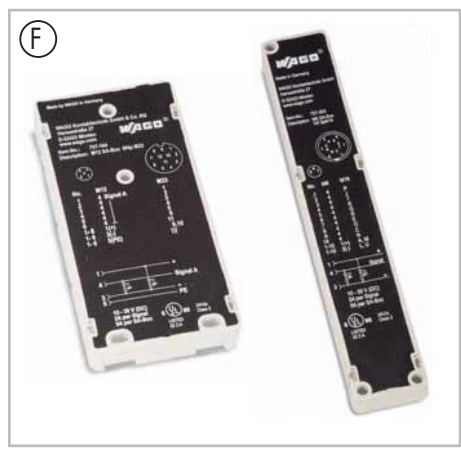
**Housing design (D)**  
**M8 Sensor/Actuator Box with M16 Connector**

- Sensor/actuator connections M8 (a)
- Supply input M16 (b)



- Adapter (E)**
- Optional accessory
  - For seamless assembly of two side-by-side sensor/actuator boxes
  - Defined distance for proper cable connection
  - Covers contamination points
  - W x H x L (mm):
    - 10-way: 20 x 16 x 175
    - 8-way: 20 x 16 x 152
    - 6-way: 20 x 16 x 123
    - 4-way: 20 x 16 x 117

- Degree of protection (F)**
- All modules are fully encapsulated
  - Protection class: IP67/68
  - Printing on back of module details pin assignment



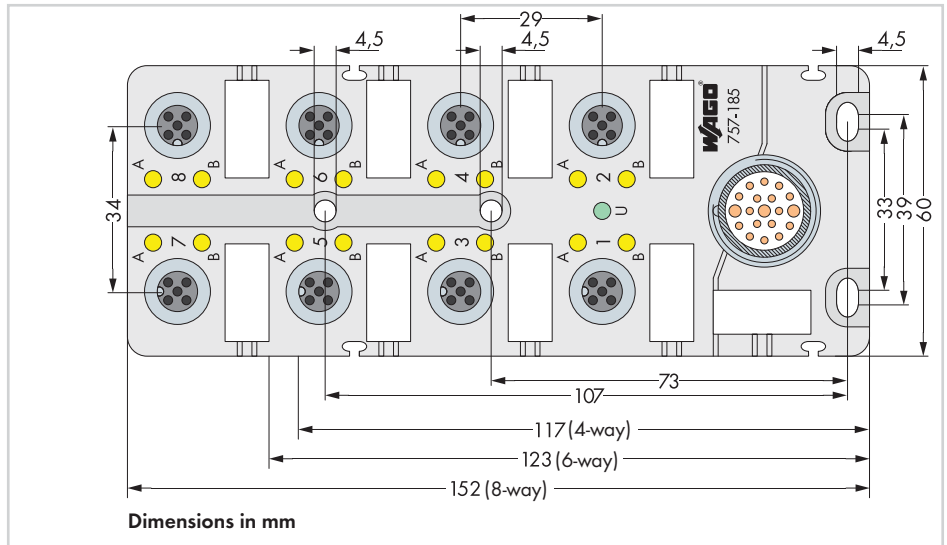


# Sensor/Actuator Boxes

## Interfaces and Configurations

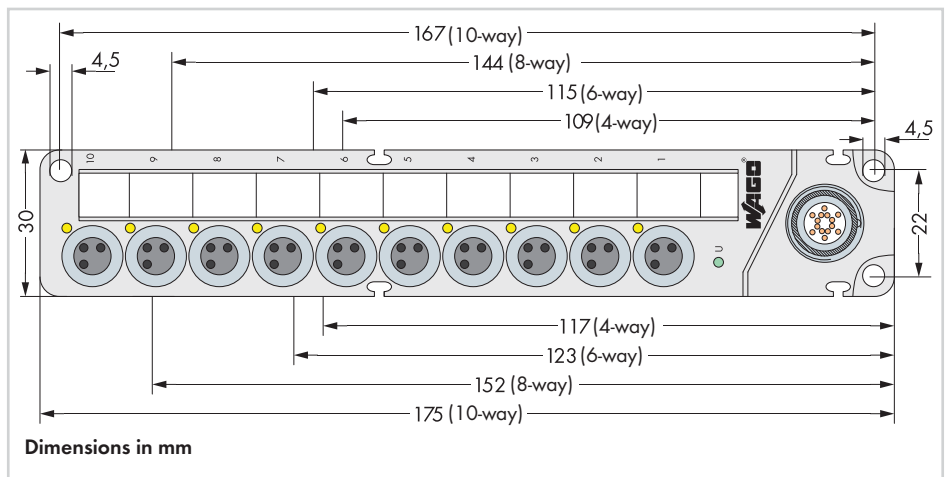
### Dimensions and Mounting Dimensions of M12 Sensor/Actuator Boxes

The dimensions also apply to M12 sensor/actuator boxes with cable connection.

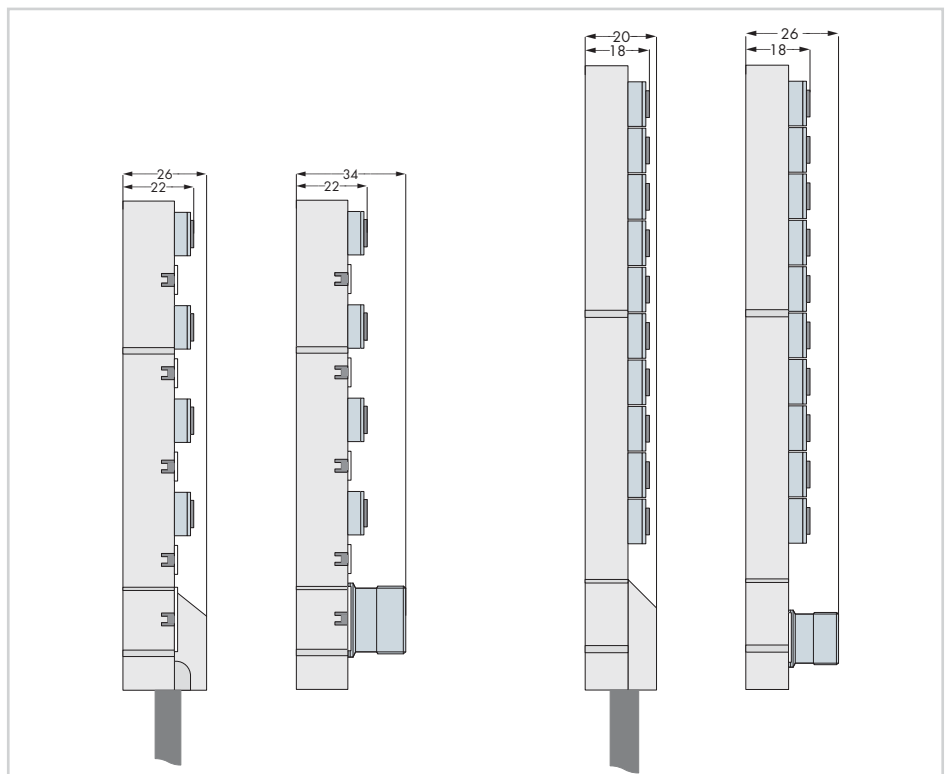


### Dimensions and Mounting Dimensions of M8 Sensor/Actuator Boxes

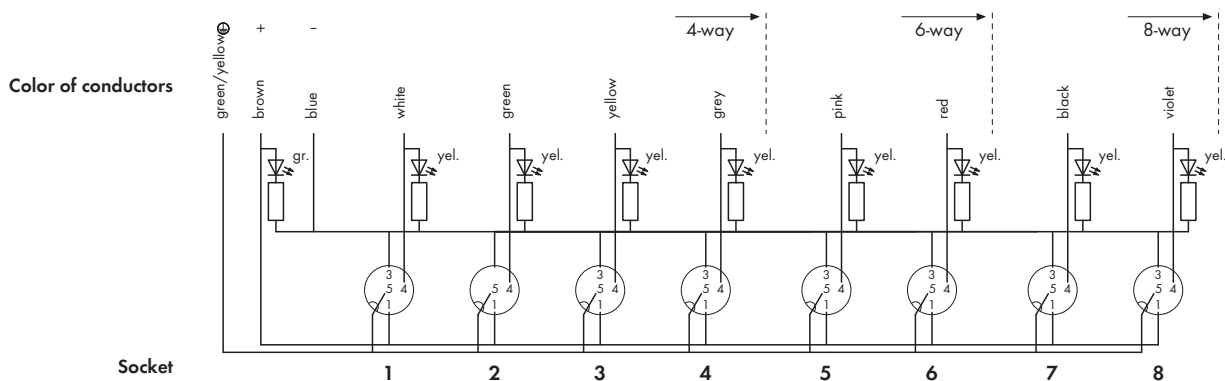
The dimensions also apply to M8 sensor/actuator boxes with cable connection.



### Dimensions: Depth of M12 sensor/actuator boxes or M8 sensor/actuator boxes







### Mechanical Data

|                           |  |
|---------------------------|--|
| Degree of protection      | IP68 (1 meter water depth for 72 hours)<br>acc. to EN 60529 In fully locked position<br>with the appropriate plugs or protective<br>caps |
| Operating temperature     | -25 °C ... +80 °C (current load according<br>to derating curve)  |
| Fixing                    | Screw mounting   |
| Dimensions (mm) W x H x L | 4-way: 60 x 26 x 117<br>6-way: 60 x 26 x 123<br>8-way: 60 x 26 x 152   |
| Weight                    | 4-way: 165 g<br>6-way: 180 g<br>8-way: 215 g<br>without cable  |
| Mounting position         | any  |
| Vibration resistance      | acc. to IEC 60068-2-6  |
| Shock resistance          | acc. to IEC 60068-2-27   |

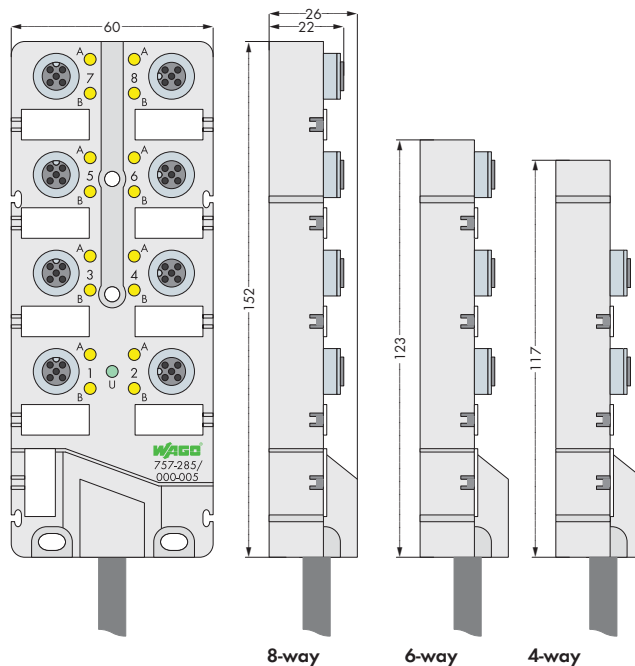
### Material Data

|                                      |  |
|--------------------------------------|--|
| General                              | Silicon and halogen free   |
| Plating                              | Fully encapsulated with conformal coating<br>(UL 94 V0)  |
| Enclosure                            | PA 66 (UL 94 V0); RAL 7035   |
| Contacts                             |  |
| I/O slot                             | Socket, M12 x 1, 4-pole incl. PE   |
| Contact                              | CuSn, pre-nickelized and 0.8 µm gold-plated  |
| Tapped bush                          | Zn diecast nickel-plated   |
| Seal                                 | Viton  |
| Connection cycles                    | 50   |
| Connecting cable                     |  |
| Cable design                         | Outer sheath PUR halogen-free<br>Black<br>Cable end 100 mm stripped  |
| Cable Ø                              | 7.5 mm SA box 4-way<br>7.8 mm SA box 6-way<br>8.2 mm SA box 8-way  |
| Conductor design                     | n x 0.34 mm <sup>2</sup> + 3 x 1.00 mm <sup>2</sup><br>conductor 0.34 mm <sup>2</sup><br>extra-fine stranded 43 x 0.1 mm<br>conductor 1.00 mm <sup>2</sup><br>extra-fine stranded 55 x 0.15 mm<br>color identification of conductors |
| Suitable for drag chain applications |  |
| bending radius                       | min. 10 x cable Ø  |
| amb. temperature range               | -40 °C ... +90 °C stagnant;<br>-5 °C ... +80 °C moving   |



# M12 Sensor/Actuator Boxes

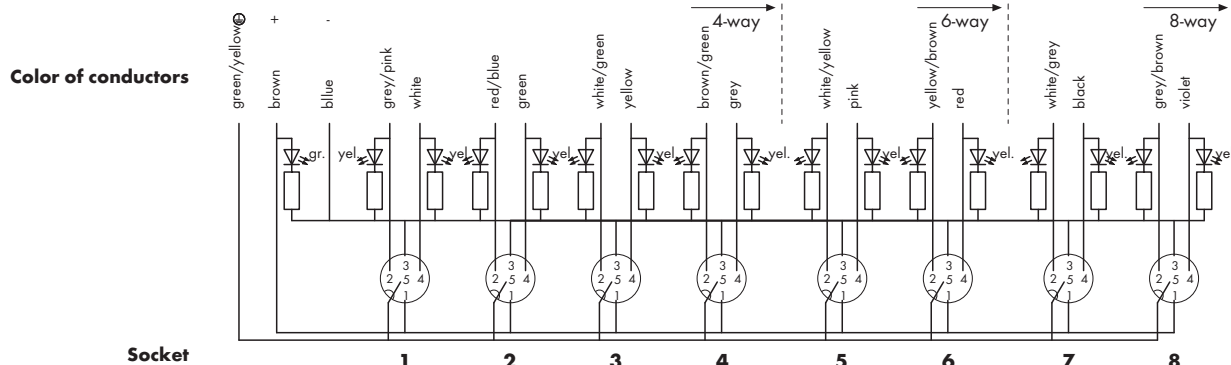
5-pole, with cable connection



- 4-, 6- and 8-way sensor/actuator boxes
- 5 poles (2 signals per contact)
- Cable length 5 and 10 m
- Green LED operating indicator
- Yellow LED status indicator
- incl. markers (10 pcs)
- incl. M12 protective caps (2 pcs)

| Description  | Item No.   | Pack. Unit |
|--|--|------------|
| <b>M12 sensor/actuator box</b>                             |  |            |
| 4-way, 5-pole, 5m connecting cable                         | 757-245/000-005  | 1          |
| 4-way, 5-pole, 10m connecting cable                        | 757-245/000-010  | 1          |
| 6-way, 5-pole, 5m connecting cable                         | 757-265/000-005  | 1          |
| 6-way, 5-pole, 10m connecting cable                        | 757-265/000-010  | 1          |
| 8-way, 5-pole, 5m connecting cable                         | 757-285/000-005  | 1          |
| 8-way, 5-pole, 10m connecting cable                        | 757-285/000-010  | 1          |
| 8-way, 5-pole, 25m connecting cable                        | 757-285/000-025  | 1          |
| <b>Accessories</b>   |  |            |
| Marker card, marking pen, spacer module and protective cap | see page 596   |            |
| IP67 cables and connectors                                 | see page 597 + Section 11  |            |
| <b>Approvals</b>   |  |            |
| UL 508   | E 175199, UL 508, Class 2 Equipment<br>Components are designed to be supplied through Class 2 power supplies in accordance with UL 1310 or Class 2 transformers in accordance with UL 1585 |            |

| Electrical Data           |                                |
|---------------------------|--------------------------------|
| Contact resistance        | ≤ 10 mΩ                        |
| Operating voltage         | 10 V ... 30 V DC               |
| Current carrying capacity | 2 A per signal; 9 A per SA box |
| Rated voltage             | 32 V ~ eff.                    |
| Insulation voltage        | 1 kV / 3 s                     |
| Insulation resistance     | > 10 <sup>9</sup> Ω            |
| Degree of pollution       | 3 acc. to VDE 0110             |
| Switching function        | PNP                            |

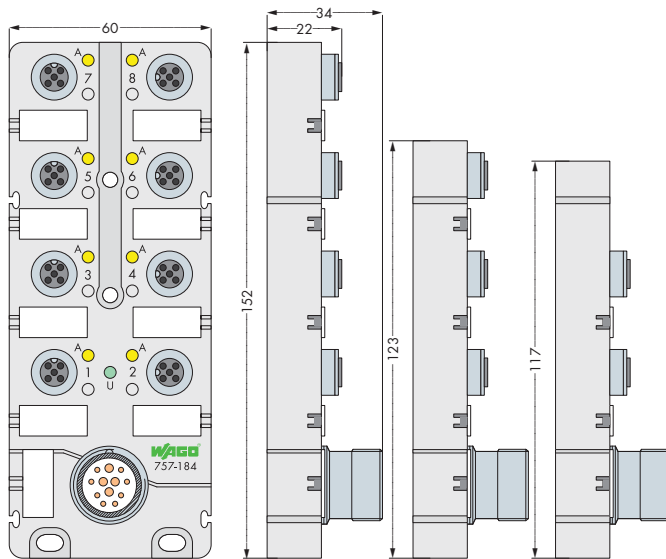


| Mechanical Data           |  |
|---------------------------|--|
| Degree of protection      | IP68 (1 meter water depth for 72 hours)<br>acc. to EN 60529 In fully locked position with the appropriate plugs or protective caps |
| Operating temperature     | -25 °C ... +80 °C (current load according to derating curve)   |
| Fixing                    | Screw mounting   |
| Dimensions (mm) W x H x L | 4-way: 60 x 26 x 117<br>6-way: 60 x 26 x 123<br>8-way: 60 x 26 x 152   |
| Weight                    | 4-way: 165 g<br>6-way: 185 g<br>8-way: 225 g<br>without cable  |
| Mounting position         | any  |
| Vibration resistance      | acc. to IEC 60068-2-6  |
| Shock resistance          | acc. to IEC 60068-2-27   |
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| Material Data                        |  |
|--------------------------------------|--|
| General                              | Silicon and halogen free   |
| Potting                              | Fully encapsulated with conformal coating (UL 94 V0)   |
| Enclosure                            | PA 66 (UL 94 V0); RAL 7035   |
| Contacts                             | Socket, M12 x 1, 5-pole incl. PE   |
| I/O slot                             | CuSn, pre-nickelated and 0.8 µm gold-plated  |
| Contact                              | Zn diecast nickel-plated   |
| Tapped bush                          | Viton  |
| Seal                                 | 50   |
| Connection cycles                    |  |
| Connecting cable                     |  |
| Cable design                         | Outer sheath PUR halogen-free<br>Black<br>Cable end 100 mm stripped  |
| Cable Ø                              | 8.2 mm SA box 4-way<br>8.8 mm SA box 6-way<br>9.7 mm SA box 8-way  |
| Conductor design                     | n x 0.34 mm <sup>2</sup> + 3 x 1.00 mm <sup>2</sup><br>conductor 0.34 mm <sup>2</sup><br>extra-fine stranded 43 x 0.1 mm<br>conductor 1.00 mm <sup>2</sup><br>extra-fine stranded 55 x 0.15 mm<br>color identification of conductors |
| Suitable for drag chain applications |  |
| bending radius                       | min. 10 x cable Ø  |
| amb. temperature range               | -40 °C ... +90 °C stagnant;<br>-5 °C ... +80 °C moving   |
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# M12 Sensor/Actuator Boxes

4-pole, with M23 connection

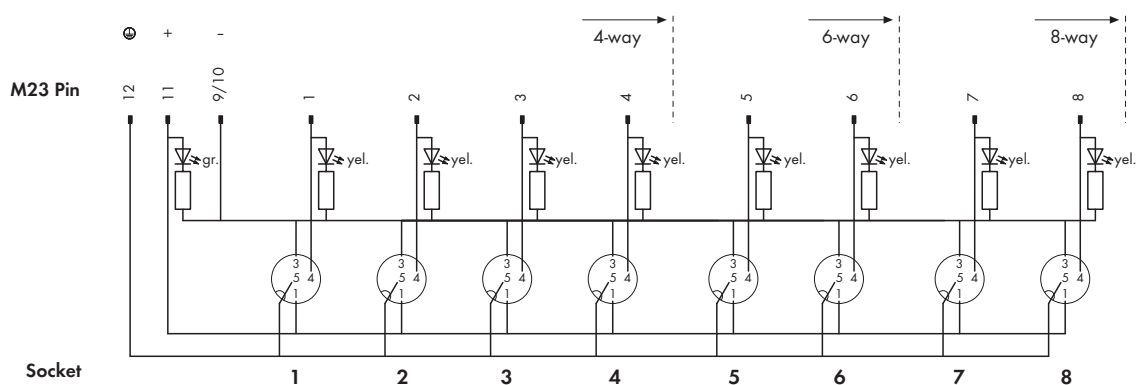


8-way      6-way      4-way

- 4-, 6- and 8-way sensor/actuator boxes
- 4 poles (1 signal per contact)
- M23 connector (12 poles)
- Green LED operating indicator
- Yellow LED status indicator
- incl. markers (10 pcs)
- incl. M12 protective caps (2 pcs)

| Description  | Item No.   | Pack. Unit |
|--|--|------------|
| <b>M12 sensor/actuator box</b>                             |  |            |
| 4-way, 4-pole, M23 connector                               | 757-144  | 1          |
| 6-way, 4-pole, M23 connector                               | 757-164  | 1          |
| 8-way, 4-pole, M23 connector                               | 757-184  | 1          |
| <b>Accessories</b>   |  |            |
| Marker card, marking pen, spacer module and protective cap | see page 596   |            |
| IP67 cables and connectors                                 | see page 597 + Section 11  |            |
| <b>Approvals</b>   |  |            |
| UL 508   | E 175199, UL 508, Class 2 Equipment<br>Components are designed to be supplied through Class 2 power supplies in accordance with UL 1310 or Class 2 transformers in accordance with UL 1585 |            |

| Electrical Data           |                                |
|---------------------------|--------------------------------|
| Contact resistance        | ≤ 10 mΩ                        |
| Operating voltage         | 10 V ... 30 V DC               |
| Current carrying capacity | 2 A per signal; 9 A per SA box |
| Rated voltage             | 32 V ~ eff.                    |
| Insulation voltage        | 1 kV / 3 s                     |
| Insulation resistance     | > 10 <sup>9</sup> Ω            |
| Degree of pollution       | 3 acc. to VDE 0110             |
| Switching function        | PNP                            |

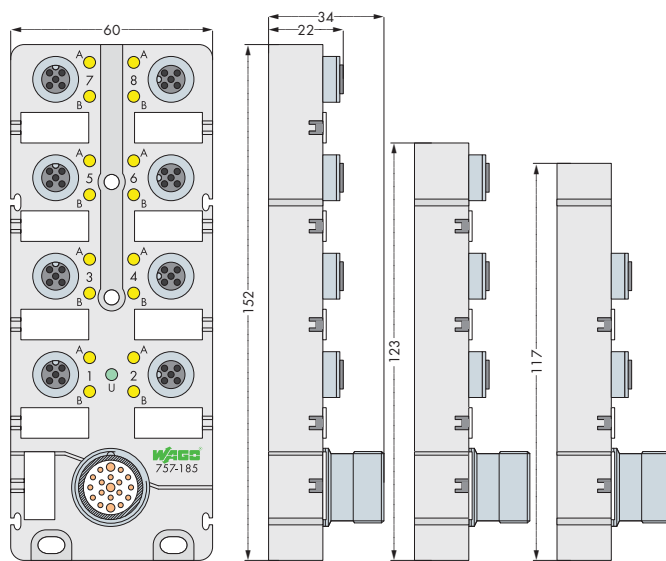


| Mechanical Data           |  |
|---------------------------|--|
| Degree of protection      | IP67 acc. to EN 60529 (NEMA 6 & 6P)                                    |
|                           | In fully locked position with the appropriate plugs or protective caps |
| Operating temperature     | -25 °C ... +80 °C (current load according to derating curve)           |
| Fixing                    | Screw mounting   |
| Dimensions (mm) W x H x L | 4-way: 60 x 34 x 117   |
|                           | 6-way: 60 x 34 x 123   |
|                           | 8-way: 60 x 34 x 152   |
| Weight                    | 4-way: 180 g   |
|                           | 6-way: 195 g   |
|                           | 8-way: 235 g   |
| Mounting position         | any  |
| Vibration resistance      | acc. to IEC 60068-2-6  |
| Shock resistance          | acc. to IEC 60068-2-27   |
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| Material Data     |  |
|-------------------|--|
| General           | Silicon and halogen free                             |
| Plating           | Fully encapsulated with conformal coating (UL 94 V0) |
| Enclosure         | PA 66 (UL 94 V0); RAL 7035                           |
| Contacts          |  |
| I/O slot          | Socket, M12 x 1, 4-pole incl. PE                     |
| Contact           | CuSn, pre-nickel and 0.8 µm gold-plated              |
| Tapped bush       | Zn diecast nickel-plated                             |
| Seal              | Viton  |
| Connection cycles | 50   |
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# M12 Sensor/Actuator Boxes

5-pole, with M23 connection



8-way

6-way

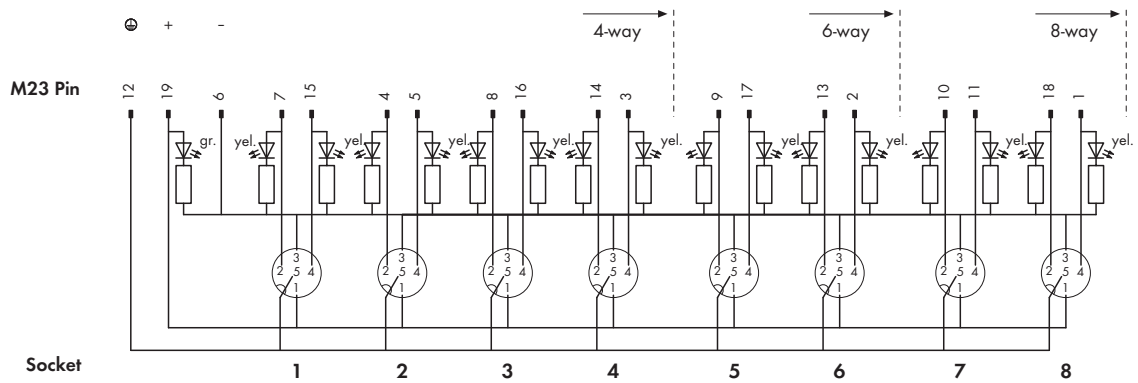
4-way

- 4-, 6- and 8-way sensor/actuator boxes
- 5 poles (2 signals per contact)
- M23 connector (19 poles)
- Green LED operating indicator
- Yellow LED status indicator  
(does not apply for modules marked as "without LED")
- incl. markers (10 pcs)
- incl. M12 protective caps (2 pcs)

Note: Modules without status LED can also be used to transmit analog signals

| Description  | Item No.   | Pack. Unit |
|--|--|------------|
| <b>M12 sensor/actuator box</b>                             |  |            |
| 4-way, 5-pole, M23 connector                               | 757-145  | 1          |
| 6-way, 5-pole, M23 connector                               | 757-165  | 1          |
| 8-way, 5-pole, M23 connector                               | 757-185  | 1          |
| 8-way, 5-pole, without LED,                                | 757-185/100-000  | 1          |
| <b>M23 connector</b>                                       |  |            |
| <b>Accessories</b>   | <b>Item No.</b>  |            |
| Marker card, marking pen, spacer module and protective cap | see page 596   |            |
| IP67 cables and connectors                                 | see page 597 + Section 11  |            |
| <b>Approvals</b>   |  |            |
| UL 508   | E 175199, UL 508, Class 2 Equipment<br>Components are designed to be supplied through Class 2 power supplies in accordance with UL 1310 or Class 2 transformers in accordance with UL 1585 |            |

| Electrical Data           |                                |
|---------------------------|--------------------------------|
| Contact resistance        | ≤ 10 mΩ                        |
| Operating voltage         | 10 V ... 30 V DC               |
| Current carrying capacity | 2 A per signal; 9 A per SA box |
| Rated voltage             | 32 V ~ eff.                    |
| Insulation voltage        | 1 kV / 3 s                     |
| Insulation resistance     | > 10 <sup>9</sup> Ω            |
| Degree of pollution       | 3 acc. to VDE 0110             |
| Switching function        | PNP                            |

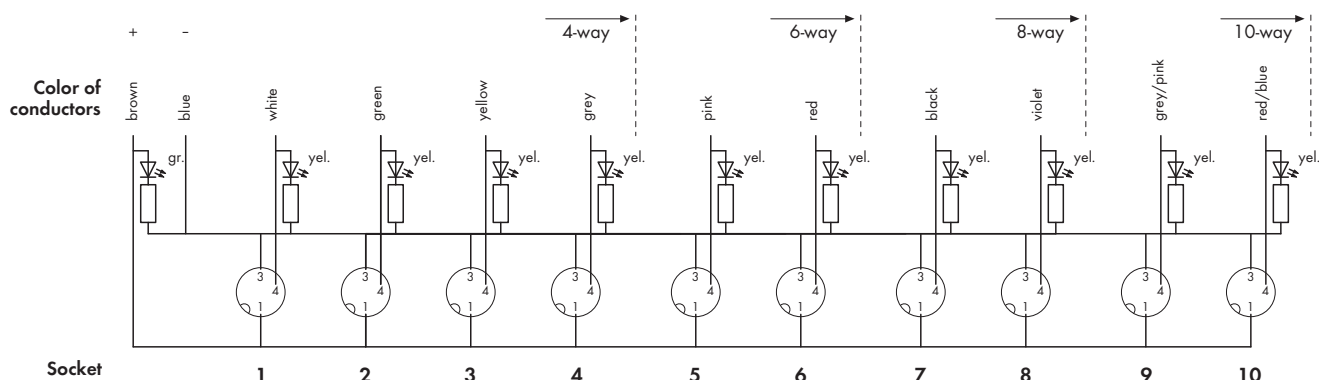


| Mechanical Data           |  |
|---------------------------|--|
| Degree of protection      | IP67 acc. to EN 60529 (NEMA 6 & 6P)                                    |
|                           | In fully locked position with the appropriate plugs or protective caps |
| Operating temperature     | -25 °C ... +80 °C (current load according to derating curve)           |
| Fixing                    | Screw mounting   |
| Dimensions (mm) W x H x L | 4-way: 60 x 34 x 117<br>6-way: 60 x 34 x 123<br>8-way: 60 x 34 x 152   |
| Weight                    | 4-way: 180 g<br>6-way: 200 g<br>8-way: 245 g                           |
| Mounting position         | any  |
| Vibration resistance      | acc. to IEC 60068-2-6  |
| Shock resistance          | acc. to IEC 60068-2-27   |

| Material Data     |  |
|-------------------|--|
| General           | Silicon and halogen free                             |
| Plating           | Fully encapsulated with conformal coating (UL 94 V0) |
| Enclosure         | PA 66 (UL 94 V0); RAL 7035                           |
| Contacts          |  |
| I/O slot          | Socket, M12 x 1, 5-pole incl. PE                     |
| Contact           | CuSn, pre-nickel and 0.8 µm gold-plated              |
| Tapped bush       | Zn diecast nickel-plated                             |
| Seal              | Viton  |
| Connection cycles | 50   |



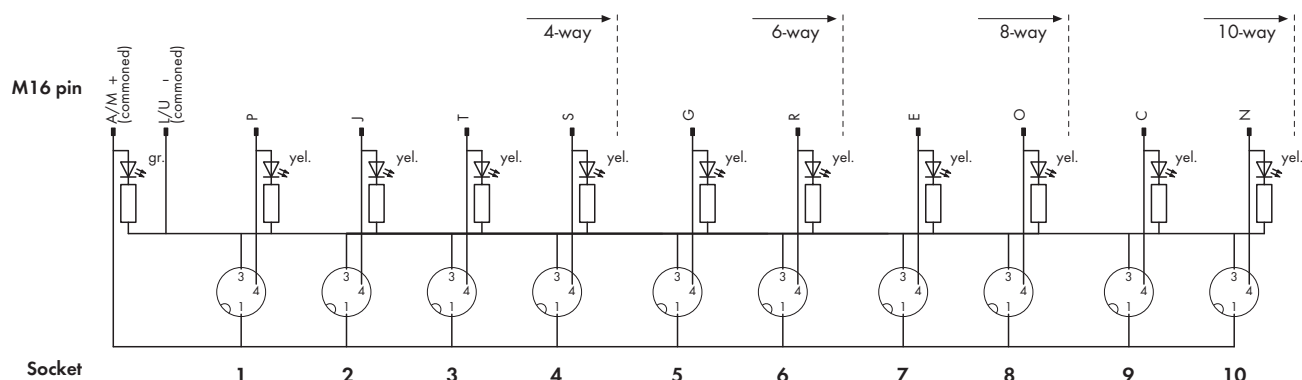




| Mechanical Data           |   |
|---------------------------|---|
| Degree of protection      | IP68 (1 meter water depth for 72 hours)<br>acc. to EN 60529 In fully locked position<br>with the appropriate plugs or protective caps |
| Operating temperature     | -25 °C ... +80 °C (current load according<br>to derating curve)   |
| Fixing                    | Screw mounting  |
| Dimensions (mm) W x H x L | 4-way: 30 x 20 x 117  |
|                           | 6-way: 30 x 20 x 123  |
|                           | 8-way: 30 x 20 x 152  |
|                           | 10-way: 30 x 20 x 175   |
| Weight                    | 4-way: 85 g   |
|                           | 6-way: 95 g   |
|                           | 8-way: 110 g  |
|                           | 10-way: 130 g   |
| Mounting position         | any   |
| Vibration resistance      | acc. to IEC 60068-2-6   |
| Shock resistance          | acc. to IEC 60068-2-27  |
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| Material Data                        |   |
|--------------------------------------|---|
| General                              | Silicon and halogen free  |
| Potting                              | Fully encapsulated with conformal coating<br>(UL 94 V0)   |
| Enclosure                            | PA 66 (UL 94 V0); RAL 7035  |
| Contacts                             |   |
| I/O slot                             | Socket, M8 x 1, 3-pole  |
| Contact                              | CuSn, pre-nickelized and 0.8 µm gold-plated   |
| Tapped bush                          | Zn diecast nickel-plated  |
| Seal                                 | Viton   |
| Connection cycles                    | 50  |
| Connecting cable                     |   |
| Cable design                         | Outer sheath PUR halogen-free<br>Black<br>Cable end 100 mm stripped   |
| 757-443/000-002:                     | Cable end 200 mm stripped   |
| Cable Ø                              | 6.4 mm SA box 4-way<br>7.2 mm SA box 6-way<br>7.4 mm SA box 8-way<br>7.6 mm SA box 10-way   |
| Conductor design                     | n x 0.34 mm <sup>2</sup> + 2 x 0.75 mm <sup>2</sup><br>conductor 0.34 mm <sup>2</sup><br>extra-fine stranded 43 x 0.1 mm<br>conductor 0.75 mm <sup>2</sup><br>extra-fine stranded 21 x 0.205 mm<br>color identification of conductors |
| Suitable for drag chain applications |   |
| bending radius                       | min. 10 x cable Ø   |
| amb. temperature range               | -40 °C ... +90 °C stagnant;<br>-5 °C ... +80 °C moving  |
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| Mechanical Data           |   |
|---------------------------|---|
| Degree of protection      | IP67 acc. to EN 60529 (NEMA 6 & 6P)<br>In fully locked position with the appropriate plugs or protective caps |
| Operating temperature     | -25 °C ... +80 °C (current load according to derating curve)  |
| Fixing                    | Screw mounting  |
| Dimensions (mm) W x H x L | 4-way: 30 x 26 x 117<br>6-way: 30 x 26 x 123<br>8-way: 30 x 26 x 152<br>10-way: 30 x 26 x 175                 |
| Weight                    | 4-way: 100 g<br>6-way: 110 g<br>8-way: 120 g<br>10-way: 145 g   |
| Mounting position         | any   |
| Vibration resistance      | acc. to IEC 60068-2-6   |
| Shock resistance          | acc. to IEC 60068-2-27  |
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| Material Data     |  |
|-------------------|--|
| General           | Silicon and halogen free                             |
| Plating           | Fully encapsulated with conformal coating (UL 94 V0) |
| Enclosure         | PA 66 (UL 94 V0); RAL 7035                           |
| Contacts          |  |
| I/O slot          | Socket, M8 x 1, 3-pole                               |
| Contact           | CuSn, pre-nickel and 0.8 μm gold-plated              |
| Tapped bush       | Zn diecast nickel-plated                             |
| Seal              | Viton  |
| Connection cycles | 50   |
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# Accessories for the WAGO-I/O-SYSTEM 757

Marking cards



Marker strips for Series 757

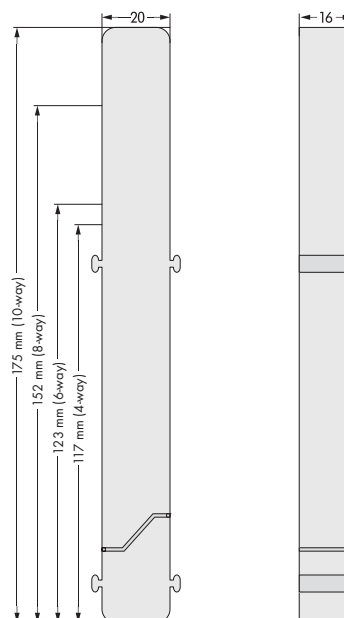


Marking pen with fiber tip



| Description                                     |                             | Item No. | Pack. Unit |
|---|-----------------------------|----------|------------|
| Marker card (40 tags)                           | for M12 sensor/actuator box | 757-011  | 1          |
| Marker strips for M8 sensor/actuator box 4-way  |                             | 757-041  | 100        |
| Marker strips for M8 sensor/actuator box 6-way  |                             | 757-061  | 100        |
| Marker strips for M8 sensor/actuator box 8-way  |                             | 757-081  | 100        |
| Marker strips for M8 sensor/actuator box 10-way |                             | 757-001  | 100        |
| Marking pen                                     | for permanent marking       | 210-110  | 1          |

Spacer module

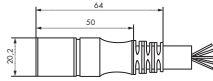


| Description                                  |                    | Item No. | Pack. Unit |
|--|--------------------|----------|------------|
| Spacer module for sensor/actuator box 4-way  |                    | 757-040  | 10         |
| Spacer module for sensor/actuator box 6-way  |                    | 757-060  | 10         |
| Spacer module for sensor/actuator box 8-way  | (see illustration) | 757-080  | 10         |
| Spacer module for sensor/actuator box 10-way |                    | 757-000  | 10         |

# WAGO-I/O-SYSTEM 756

Distribution cables for the WAGO-I/O-SYSTEM 757

## M16 Socket



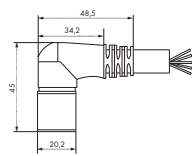
14-pole

Pin A, L: 0.75 mm<sup>2</sup>  
Pin C - J, N - T: 0.34 mm<sup>2</sup>

|                   |                   |
|-------------------|-------------------|
| A brown           | N pink-brown      |
| C white-pink      | O violet          |
| E black           | P white           |
| G pink            | R red             |
| J green           | S gray            |
| L blue            | T yellow          |
| M commoned with A | U commoned with L |

| M16 Distribution cables for connecting M8 sensor /actuator boxes |   | Cable Ø      | Item No.         | Pack. Unit |
|--|---|--------------|------------------|------------|
| 14-pole,   | M16 socket, straight, one free wire end, 5 m  | 9.1 mm ± 0.2 | 756-3205/140-050 | 1          |
|  | M16 socket, straight, one free wire end, 10 m | 9.1 mm ± 0.2 | 756-3205/140-100 | 1          |
|  | M16 socket, straight, one free wire end, 15 m | 9.1 mm ± 0.2 | 756-3205/140-150 | 1          |

## M16 Socket



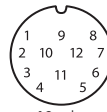
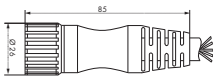
14-pole

Pin A, L: 0.75 mm<sup>2</sup>  
Pin C - J, N - T: 0.34 mm<sup>2</sup>

|                   |                   |
|-------------------|-------------------|
| A brown           | N pink-brown      |
| C white-pink      | O violet          |
| E black           | P white           |
| G pink            | R red             |
| J green           | S gray            |
| L blue            | T yellow          |
| M commoned with A | U commoned with L |

| M16 Distribution cables for connecting M8 sensor /actuator boxes |  | Cable Ø      | Item No.         | Pack. Unit |
|--|--|--------------|------------------|------------|
| 14-pole,   | M16 socket, right angle, one free wire end, 5 m  | 9.1 mm ± 0.2 | 756-3206/140-050 | 1          |
|  | M16 socket, right angle, one free wire end, 10 m | 9.1 mm ± 0.2 | 756-3206/140-100 | 1          |
|  | M16 socket, right angle, one free wire end, 15 m | 9.1 mm ± 0.2 | 756-3206/140-150 | 1          |

## M23 Socket



12-pole

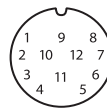
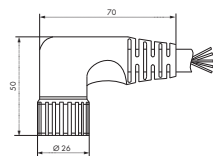


19-pole

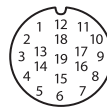
|  |                 |                    |
|--|-----------------|--------------------|
| Pin 9, 11, 12: 1.00 mm <sup>2</sup> ; Pin 1 - 8: 0.34 mm <sup>2</sup>                  |                 |                    |
| 1 white  | 5 pink          | 9 blue             |
| 2 green  | 6 red           | 10 commoned with 9 |
| 3 yellow   | 7 black         | 11 brown           |
| 4 gray   | 8 violet        | 12 green-yellow    |
| Pin 6, 12, 19: 1.00 mm <sup>2</sup> ; Pin 1 - 5, 7 - 11, 13 - 19: 0.34 mm <sup>2</sup> |                 |                    |
| 1 violet   | 8 white-green   | 15 white           |
| 2 red  | 9 white-yellow  | 16 yellow          |
| 3 gray   | 10 white-gray   | 17 pink            |
| 4 red-blue   | 11 black        | 18 gray-brown      |
| 5 green  | 12 green-yellow | 19 brown           |
| 6 blue   | 13 yellow-brown |                    |
| 7 gray-pink  | 14 brown-green  |                    |

| M23 Distribution cables for connecting M8 sensor /actuator boxes |   | Cable Ø      | Item No.         | Pack. Unit |
|--|---|--------------|------------------|------------|
| 12-pole,   | M23 socket, straight, one free wire end, 5 m  | 8.6 mm ± 0.3 | 756-3201/120-050 | 1          |
|  | M23 socket, straight, one free wire end, 10 m | 8.6 mm ± 0.3 | 756-3201/120-100 | 1          |
|  | M23 socket, straight, one free wire end, 15 m | 8.6 mm ± 0.3 | 756-3201/120-150 | 1          |
| 19-pole,   | M23 socket, straight, one free wire end, 5 m  | 9.7 mm ± 0.3 | 756-3203/190-050 | 1          |
|  | M23 socket, straight, one free wire end, 10 m | 9.7 mm ± 0.3 | 756-3203/190-100 | 1          |
|  | M23 socket, straight, one free wire end, 15 m | 9.7 mm ± 0.3 | 756-3203/190-150 | 1          |

## M23 Socket



12-pole



19-pole

|  |                 |                    |
|--|-----------------|--------------------|
| Pin 9, 11, 12: 1.00 mm <sup>2</sup> ; Pin 1 - 8: 0.34 mm <sup>2</sup>                  |                 |                    |
| 1 white  | 5 pink          | 9 blue             |
| 2 green  | 6 red           | 10 commoned with 9 |
| 3 yellow   | 7 black         | 11 brown           |
| 4 gray   | 8 violet        | 12 green-yellow    |
| Pin 6, 12, 19: 1.00 mm <sup>2</sup> ; Pin 1 - 5, 7 - 11, 13 - 19: 0.34 mm <sup>2</sup> |                 |                    |
| 1 violet   | 8 white-green   | 15 white           |
| 2 red  | 9 white-yellow  | 16 yellow          |
| 3 gray   | 10 white-gray   | 17 pink            |
| 4 red-blue   | 11 black        | 18 gray-brown      |
| 5 green  | 12 green-yellow | 19 brown           |
| 6 blue   | 13 yellow-brown |                    |
| 7 gray-pink  | 14 brown-green  |                    |

| M23 Distribution cables for connecting M8 sensor /actuator boxes |  | Cable Ø      | Item No.         | Pack. Unit |
|--|--|--------------|------------------|------------|
| 12-pole,   | M23 socket, right angle, one free wire end, 5 m  | 8.6 mm ± 0.3 | 756-3202/120-050 | 1          |
|  | M23 socket, right angle, one free wire end, 10 m | 8.6 mm ± 0.3 | 756-3202/120-100 | 1          |
|  | M23 socket, right angle, one free wire end, 15 m | 8.6 mm ± 0.3 | 756-3202/120-150 | 1          |
| 19-pole,   | M23 socket, right angle, one free wire end, 5 m  | 9.7 mm ± 0.3 | 756-3204/190-050 | 1          |
|  | M23 socket, right angle, one free wire end, 10 m | 9.7 mm ± 0.3 | 756-3204/190-100 | 1          |
|  | M23 socket, right angle, one free wire end, 15 m | 9.7 mm ± 0.3 | 756-3204/190-150 | 1          |

Custom cable lengths upon request



# WAGO-I/O-SYSTEM 756

## Distribution cables for the WAGO-I/O-SYSTEM 757

| Technical Data   | M16<br>connecting cable                                 | M23<br>connecting cable   |
|--|---|---|
| <b>General</b>   |   |   |
| Operating voltage  |   |   |
| 12-pole  | -/-   | 300 V   |
| 14-pole  | 150 V   | -/-   |
| 19-pole  | -/-   | 150 V   |
| Operating current  |   |   |
| 12-pole  | -/-   | 8 A   |
| 14-pole  | 4 A (0.34mm <sup>2</sup> ); 6 A (0.75 mm <sup>2</sup> ) | -/-   |
| 19-pole  | -/-   | 10 A (contacts 6, 12, 19); 8 A (other contacts)   |
| Rated surge voltage  |   |   |
| 12-pole  | -/-   | 2.5 kV AC   |
| 14-pole  | 1.2 kV  | -/-   |
| 19-pole  | -/-   | 1.5 kV AC   |
| Insulation resistance  | -/-   | ≥ 10 <sup>12</sup> Ω  |
| Contact resistance   | -/-   | ≤ 3 mΩ  |
| Resistance of conductor  |   |   |
| 0.34 mm <sup>2</sup>   | ≤ 53.5 mΩ/km  | ≤ 54.1 mΩ/km  |
| 0.75 mm <sup>2</sup>   | ≤ 26.0 mΩ/km  | -/-   |
| 1.0 mm <sup>2</sup>  | -/-   | ≤ 18.7 mΩ/km  |
| Degree of pollution (VDE 0110)   | II/III  | III   |
| Degree of protection (IEC 60529)   | IP67 (in fully locked position)                         |   |
| Operating temperature  |   |   |
| moved  | -30 °C ... +90 °C                                       | -5 °C ... +80 °C  |
| static   |   | -40 °C ... +90 °C   |
| Suitable for drag chain applications                                     |   |   |
| Bending radius   |   | min 10 x Cable ø  |
| Bending cycles   |   | ≥ 2 million   |
| Acceleration   |   | max. 5 m/s <sup>2</sup>   |
| Path feed rate   |   | max. 200 m/min  |
| Path   |   | max. 5 m horizontal, max. 2 m vertical  |
| Other characteristics  | Oil resistant acc. to DIN/VDE 0472 part 803             | Silicone/PVC free,<br>resistant to oil, chemicals,<br>hydrolysis and microbes   |
| <b>Cables</b>  |   |   |
| Designation  | LifYwYw11Y  | Li9YH-11Y   |
| Comment  |   | designed according to UL style 21198, core style 10493  |
| Conductor  |   | 100 mm stripped wire end  |
|  |   | fine-stranded bare copper conductors  |
| 12-polig (8 wires 0.34 mm <sup>2</sup> ; 3 wires 1.0 mm <sup>2</sup> )   | -/-   | 43 x 0.1 mm; 128 x 0.1 mm   |
| 14-polig (10 wires 0.34 mm <sup>2</sup> ; 2 wires 0.75 mm <sup>2</sup> ) | 42 x 0.1 mm; 95 x 0.1 mm                                | -/-   |
| 19-polig (16 wires 0.34 mm <sup>2</sup> ; 3 wires 1.0 mm <sup>2</sup> )  | -/-   | 43 x 0.1 mm; 55 x 0.1 mm  |
| Conductor insulation   | PVC Y1 8 acc. to DIN VDE 0207                           | PP9Y halogen free   |
| Core wrapping  |   | Fleece  |
| Outer jacket   | PUR Polyurethane  | Polyurethane (PUR) halogen free<br>flame retardant acc. to DIN VDE 0472, part 804<br>color: black (≈ RAL 9005)                |
| Cable ø 12-pole  | -/-   | ø 8.6 mm ± 0.3  |
| Cable ø 14-pole  | ø 9.1 mm ± 0.2  | -/-   |
| Cable ø 19-pole  | -/-   | ø 9.7 mm ± 0.3  |
| <b>Connectors</b>  |   |   |
| Mechanical life  |   | 50 mating cycles  |
| Moulded body   | Polyamide (PA)/UL 94 V0                                 | Thermoplastic Polyester (PBT),<br>Polyamide (PA 66)/UL 94 V0  |
| Housing material   | CuZn/Ni   | Machined part of Copper-Zinc alloy (CuZn),<br>Die cast part of Zinc (GD-Zn)<br>Polyurethane (PUR), plastic injection moulding |
| Contact material   |   | CuZn  |
| Contact plating  | Gold (Au)   | Nickel (Ni) with gold plating (Au) or passivated finish   |
| Sealing and O-ring   | CR (Neoprene)   | Fluorocarbon rubber (FPM)   |