

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold

Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

















Sensor/actuator cables are used for wiring sensors and actuators and for transmitting data or power in various applications. The moulded cable offers connected and tested connection of the plug-in connector to the cable ex-works. The cables may be exposed to a wide range of conditions, such as humidity, dust, heat, cold, shock or vibration

Our developers have focused specifically on this issue and designed a host of different M8 and M12 sensor-actuator cables so you are bound to find the solution you need for your application.

Is there something you have not managed to find or you feel needs explanation? Talk to us!

### General ordering data

| Туре       | SAIL-M12GM12W-4-3L1.5U  |
|------------|---|
| Order No.  | <u>1963910150</u>   |
| Version    | Sensor/actuator line, Connecting line, M12 /<br>M12, Number of poles : 4, 1.5 m, pin, straight -<br>socket, 90°, Shielded: No, LED: Yes, Sheath<br>material: PUR, Halogen: No |
| GTIN (EAN) | 4032248646401   |
| Qty.       | 1 pc(s).  |



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# **Technical data**

| <b>Dimensions</b> | and | l weights |
|-------------------|-----|-----------|
|-------------------|-----|-----------|

| Net weight | 70 a |
|------------|------|

### **Temperatures**

| Operating temperature, max. | 80 °C | Operating temperature, min. | -25 °C |  |
|-----------------------------|-------|-----------------------------|--------|--|

# **Environmental Product Compliance**

REACH SVHC Lead 7439-92-1

# **Technical specifications for cable**

| Number of poles                      | 4  | Core cross-section                     |
|--------------------------------------|--|--|
| Outside diameter                     | $4.7 \text{ mm} \pm 0.2 \text{ mm}$  | Cable length                           |
| Shielded                             | No   | Insulation                             |
| Colour coding                        | brown, white, blue, black  | Sheath material                        |
| Sheathing colour                     | black  | Halogen                                |
| Temperature range, moving            | -2580 °C   | Temperature range, static              |
| Core in accordance with UL AWM style | 10493 (80 °C / 300 V)  | Outer cladding in accorda<br>AWM style |
| Suitable for cable carriers          | Yes  | Torsion resistance                     |
| Bending radius, min., stationary     | 5 x cable diameter   | Bending radius, min., mov              |
| Acceleration                         | 5 m/s <sup>2</sup>   | Speed                                  |
| Bending cycles                       | 2 Mio  | Resistant to welding bead              |
| Configurable cable length            | No   | Hydrolysis and microbe re              |
| LABS-free                            | Yes  | Resistance to oils                     |
| Resistance to spread of flame        | in accordance with IEC<br>60332-1-2, in accordance<br>with IEC 60332-1-3, in<br>accordance with IEC<br>60332-2-2, In accordance<br>with UL1581 UL/ CUL |  |

| Core cross-section                             | 0.34 mm <sup>2</sup>                |
|--|-------------------------------------|
| Cable length                                   | 1.5 m                               |
| Insulation                                     | PP                                  |
| Sheath material                                | PUR                                 |
| Halogen  | No                                  |
| Temperature range, stationary                  | -4080 °C                            |
| Outer cladding in accordance with UL AWM style | 20233 (80 °C / 300 V)               |
| Torsion resistance                             | 360 °/m                             |
| Bending radius, min., moving                   | 10 x cable diameter                 |
| Speed  | 5 m/s                               |
| Resistant to welding beads                     | No                                  |
| Hydrolysis and microbe resistant               | Yes                                 |
| Resistance to oils                             | in accordance with IEC<br>60811:404 |
|  |                                     |

#### **General technical data**

| AF size                      |                         | Version               | pin, straight - socket, |
|------------------------------|-------------------------|-----------------------|-------------------------|
|                              | 12 mm                   |                       | 90°                     |
| Connection thread            | M12 / M12               | Housing main material | PUR                     |
| Threaded ring material       | Diecast zinc            | Coding                | А                       |
| Protection degree            | IP65, IP66, IP67, IP68, | Contact surface       | 0.11.1.1                |
|                              | when screwed in         | _                     | Gold-plated             |
| LED                          | Yes                     | Rated voltage         | 24 V                    |
| Rated current                | 4 A                     | Insulation strength   | 10 <sup>8</sup> Ω       |
| Temperature range of housing | -25+80 °C               | Tightening torque     | M12: 0.8 - 1.2 Nm       |
| Plugging cycles              | ≥ 100                   | Pollution severity    | 3                       |
| jumpered                     | No                      |                       |                         |

# **Standards**

| Connector standard | IEC 61076-2-101 | Certificate No. (UL) | E307231 |
|--------------------|-----------------|----------------------|---------|



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#### Classifications

| ETIM 6.0    | EC001855    | ETIM 7.0   | EC001855    |
|-------------|-------------|------------|-------------|
| eClass 9.0  | 27-06-03-11 | eClass 9.1 | 27-06-03-11 |
| eClass 10.0 | 27-06-03-11 | UNSPSC     | 26-12-16-13 |

### **Approvals**

Approvals



ROHS Conform

#### **Downloads**

| Brochure/Catalogue          | CAT 8 SAI 15/16 EN  |
|-----------------------------|---|
|                             | <u>FL FIELDWIRING EN</u>  |
| Engineering Data            | EPLAN, WSCAD  |
| Product Change Notification | DE - Technische Änderung zu M12 Gewindering mit 6-Kant              |
|                             | EN - Technical change to M12 nut with additional hexagonal mounting |



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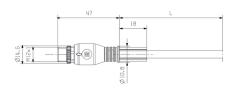
Germany

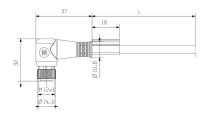
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# **Drawings**

# **Dimensioned drawing**

# **Dimensioned drawing**



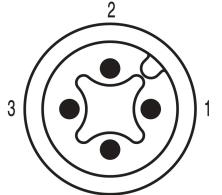


Male, straight

Angled socket

#### Pole scheme

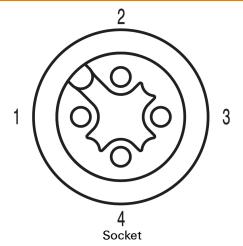
Wiring diagram



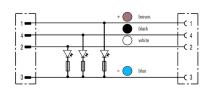
4

Male

# Pole scheme



The ideal tool: Screwty ® with torque function





Light, securely screwed-in round plug-in connectors. Screwty set DM / VPE: 1 / Order No.: 192000000 Adapters: M12, M12 F, M8, M8 F



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# Accessories

#### Tool



Tools for stripping the sheathing from uncut power lines and outlet lines, plus screwdrivers for installing Pick-to-Light components.

#### General ordering data

Туре SCREWTY-M12-DM Order No. 1900001000 GTIN (EAN)

4032248436408

Qty. 1 pc(s). Version

Tools, Cable gland tool for moulded M12 lines

#### **Tools**



- Stripping tools with automatic self-adjustment
- For flexible and solid conductors
- Ideally suitable for mechanical and plant engineering, railway and rail traffic, wind energy, robot technology, explosion protection as well as marine, offshore and ship building sectors
- Stripping length adjustable via end stop
- · Automatic opening of clamping jaws after stripping
- No fanning-out of individual conductors
- · Adjustable to diverse insulation thicknesses
- Double-insulated cables in two process steps without special adjustment
- · No play in self-adjusting cutting unit
- Long service life
- · Optimised ergonomic design

# **General ordering data**

STRIPPER 6-16 RED-LINE Туре

9203110000

4032248541423 GTIN (EAN)

Qty. 1 pc(s).

Order No.

Stripping and cutting tool, 16mm<sup>2</sup>



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# **Accessories**

### Cutting tools for outside diameters up to 22 mm



Cutting tools for conductors up to 8 mm, 12 mm, 14 mm and 22 mm outside diameter. The special blade geometry allows pinch-free cutting of copper and aluminium conductors with minimum physical effort. The cutting tools also come with VDE and GS-tested protective insulation up to 1,000 V in accordance with EN/IEC 60900.

#### **General ordering data**

Type KT 8
Order No. 9002650000
GTIN (EAN) 4008190020163
Oty. 1 pc(s).

Version

Cutting tools ,Cutting tool for one-hand operation

#### Blank



TM-I is an acknowledged and accredited marker type for traffic engineering applications. There are five different tag lengths available for individual labelling with long character strings. Easy handling of separation and installation thanks to the project marker field. Preattachment of sleeves and retrofitting of tags offer excellent versatility

The special contour of TM-I allows easy assembly and secures firm positioning. They are compatible with a number of commercially available sleeves. Thanks to the MultiCard format, the tags can be printed quickly and conveniently with the SMark laser printer, PrintJet ADVANCED, plotter, MC-Mobilo or the STI pen.

- Easy handling of separation and installation thanks to the project marker field.
- Acknowledged and accredited marker for traffic engineering applications
- Pre-attachment of sleeves and retrofitting of tags offer excellent versatility
- Not suited for labelling with P-lnk or STI pen in connection with CLI T sleeves

**For custom printing:** Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

#### General ordering data

Type TM-I 18 MC NE GE
Order No. 1718431687
GTIN (EAN) 4008190349028
Qty. 320 pc(s).

Version

TM-I, Insert markers, 18 x 4 mm, yellow



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# **Accessories**

Type TM-I 18 MC NE WS
Order No. 1718431044
GTIN (EAN) 4008190349011
Oty. 320 pc(s).

Version

TM-I, Insert markers, 18 x 4 mm, white

#### **Tools**

# Sheathing stripper for PVC cables



### General ordering data

Type AM 12
Order No. 9030060000
GTIN (EAN) 4008190337827
Oty. 1 pc(s).

Version

Tools, Sheathing strippers, UTP and STP data cables

### Screwty® cable gland tool with torque function



# The ideal tool for any application

Screwty® is the ideal, all-purpose tool for tightening all common sensor and actuator cables. Even difficult-to-reach round plugs are accessible using the Screwty®. A simple turning movement tightens and loosens the connectors without the need for excessive force. The Screwty® is a unique and global solution since it fits with most cables and plugs from other vendors (over 90 %). The Screwty® consists of a handle with a conventional 1/4" adapter. Thus it can be used for all sizes: for M12 and M8 round plug-in connectors, and for M12F and M8F customisable plugs and sockets, as well as for all M23 plugs and sockets.

#### General ordering data

| Туре       | SAI-SCREWTY BOX   | Version             |
|------------|-------------------|---------------------|
| Order No.  | <u>1939180000</u> | Tools, Bolting tool |
| GTIN (EAN) | 4032248615506     |                     |
| Qty.       | 1 pc(s).          |                     |
| Туре       | SCREWTY SW12      |                     |
| Order No.  | <u>2598970000</u> |                     |
| GTIN (EAN) | 4050118781151     |                     |
| Qty.       | 1 pc(s).          |                     |