

#### 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.

The M8 and M12 sensor-actuator cables are supplied as standard with brass nickel-plated nuts. However if you are looking to use our products in an extremely harsh environment, we can also supply a variant with a plastic nut. This enables use in environments where cables with nickel-plated M8 and M12 nuts would rust.

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

#### General ordering data

Туре	e SAIP-M12BG-4-10U	
Order No.	<u>1108741000</u>	
Version	Sensor/actuator line, One end without connector, M12, Number of poles: 4, 10 m, Female socket, straight, Shielded: No, LED: No, Sheath material: PUR, Halogen: No	
GTIN (EAN)	4032248888429	
Qty.	1 pc(s).	



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# Technical data

# **Dimensions and weights**

Net weight	314 g

# **Environmental Product Compliance**

REACH SVHC Lead 7439-92-1

# **Technical specifications for cable**

Number of poles	4
Outside diameter	4.7 mm ± 0.2 mm
Shielded	No
Colour coding	brown, white, blue, black
Sheathing colour	black
Temperature range, moving	-2580 °C
Core in accordance with UL AWM style	
	10493 (80 °C / 300 V)
Suitable for cable carriers	Yes
Bending radius, min., stationary	5 x cable diameter
Acceleration	5 m/s <sup>2</sup>
Bending cycles	2 Mio
Configurable cable length	No
LABS-free	
	Yes
Resistance to spread of flame	in accordance with IEC
	60332-1-2, in accordance
	with IFC 60332-1-3 in

Yes
in accordance with IEC
60332-1-2, in accordance
with IEC 60332-1-3, in
accordance with IEC
60332-2-2, In accordance
with UL1581 UL/ CUL
FT1

Core cross-section 0.34 mm²  Cable length 10 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  Resistance to oils in accordance with IEC  60811:404		
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 Resistance to oils in accordance with IEC	Core cross-section	0.34 mm <sup>2</sup>
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 Resistance to oils in accordance with IEC	Cable length	10 m
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 Resistance to oils in accordance with IEC	Insulation	PP
Temperature range, stationary  Outer cladding in accordance with UL  AWM style  20233 (80 °C / 300 V)  Torsion resistance  Bending radius, min., moving  Speed  5 m/s  Resistant to welding beads  Hydrolysis and microbe resistant  Resistance to oils  -4080 °C  20233 (80 °C / 300 V)  10 x cable diameter  5 m/s  No  Hydrolysis and microbe resistant  Yes  Resistance to oils  in accordance with IEC	Sheath material	PUR
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  Resistance to oils  in accordance with IEC	Halogen	No
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	Temperature range, stationary	-4080 °C
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  Resistance to oils in accordance with IEC		00000 (0000 (000))
Bending radius, min., moving  10 x cable diameter  Speed  5 m/s  Resistant to welding beads  No  Hydrolysis and microbe resistant  Resistance to oils  in accordance with IEC	AWM style	20233 (80 °C / 300 V)
Speed 5 m/s Resistant to welding beads No Hydrolysis and microbe resistant Yes Resistance to oils in accordance with IEC	Torsion resistance	360 °/m
Resistant to welding beads No Hydrolysis and microbe resistant Yes Resistance to oils in accordance with IEC	Bending radius, min., moving	10 x cable diameter
Hydrolysis and microbe resistant  Resistance to oils  Yes  in accordance with IEC	Speed	5 m/s
Resistance to oils in accordance with IEC	Resistant to welding beads	No
	Hydrolysis and microbe resistant	Yes
60811:404	Resistance to oils	
	-	60811:404

#### **General technical data**

AF size	12 mm	Version	Female socket, straight
Connection thread	M12	Housing main material	PUR
Threaded ring material	Plastic	Coding	А
Protection degree	IP65, IP66, IP67, IP68, when screwed in	Contact surface	Gold-plated
LED	No	Rated voltage	250 V
Rated current	4 A	Insulation strength	10 <sup>8</sup> Ω
Temperature range of housing	-25+80 °C	Tightening torque	M12 (plastic nut): 0.6 - 0.8 Nm
Plugging cycles	≥ 100	Pollution severity	3
jumpered	No		

### **Standards**

Connector standard	IEC 61076-2-101	Certificate no. (cULus)	E307231

# 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		



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# **Technical data**

#### **Approvals**

Approvals



ROHS Conform

#### **Downloads**

Brochure/Catalogue	<u>FL FIELDWIRING EN</u>
Engineering Data	EPLAN, WSCAD
Product Change Notification	Technical change to M12 plastic nuts - EN
	Technical change to M12 plastic nuts - DE



#### Weidmüller Interface GmbH & Co. KG

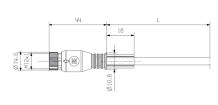
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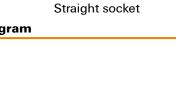
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# **Drawings**

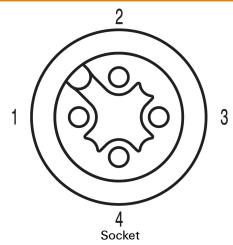
# **Dimensioned drawing**



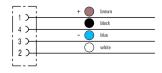
#### Wiring diagram



#### Pole scheme



The ideal tool: Screwty ® with torque function





Light, securely screwed-in round plug-in connectors. Screwty set DM / VPE: 1 / Order No.: 1920000000 Adapters: M12, M12 F, M8, M8 F



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# **Accessories**

#### **Tools**

Qty.

Qty.

# Sheathing stripper for PVC cables



### **General ordering data**

Type AM 12

Order No. 9030060000

GTIN (EAN) 4008190337827

1 pc(s).

Version

Tools, Sheathing strippers, UTP and STP data cables

# 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**

1 pc(s).

 Type
 KT 8
 Version

 Order No.
 9002650000
 Cutting tools ,Cutting tool for one-hand operation

 GTIN (EAN)
 4008190020163



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# **Accessories**

#### **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**

Type STRIPPER 6-16 RED-LINE

Order No. <u>9203110000</u>

GTIN (EAN) 4032248541423

Qty. 1 pc(s).

Version

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

#### Tool



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

# **General ordering data**

Type SCREWTY-M12-DM Version

Order No. <u>1900001000</u> GTIN (EAN) 4032248436408

Qty. 1 pc(s).

Tools, Cable gland tool for moulded M12 lines



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# **Accessories**

#### **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**

Туре	TM-I 18 MC NE GE	Version
Order No.	<u>1718431687</u>	TM-I, Insert markers, 18 x 4 mm, yellow
GTIN (EAN)	4008190349028	
Qty.	320 pc(s).	
Туре	TM-I 18 MC NE WS	Version
Type Order No.	TM-I 18 MC NE WS 1718431044	Version TM-I, Insert markers, 18 x 4 mm, white



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# **Accessories**

### 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).	