

## SAIP-M12GM12W-4-5.0U

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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

Version	Sensor/actuator line, Connecting line, M12 / M12, Number of poles : 4, 5 m, pin, straight - socket, 90°, Shielded: No, LED: No, Sheath material: PUR, Halogen: No
Order No.	<a href="#">1108880500</a>
Type	SAIP-M12GM12W-4-5.0U
GTIN (EAN)	4032248887958
Qty.	1 items

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## Technical data

### Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate no. (cULus)	E307231

### Dimensions and weights

Net weight	145.2 g
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### Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c
REACH SVHC	Lead 7439-92-1
SCIP	e8d8af70-4c85-4483-bc8c-9bc5b598e2a9

### Technical specifications for cable

Cable length	5 m	Sheathing colour	black (similar to RAL 9005)
Resistance to oils	Yes	Suitable for cable carriers	Yes
Core cross-section	0.34 mm <sup>2</sup>	Number of wires	4
Shielded	No	Halogen	No
Insulation	PP	Acceleration	5 m/s <sup>2</sup>
Bending radius, min., moving	10 x cable diameter	Bending radius, min., stationary	5 x cable diameter
Bending cycles	12 Mio	Resistance to spread of flame	In accordance with UL1581 UL / CUL FT2, in accordance with IEC 60332-2-2
Speed	3.33 m/s	Sheath material	PUR
Configurable cable length	No	LABS-free	Yes
Hydrolysis and microbe resistant	Yes	Outer cladding in accordance with UL AWM style	20549 (80 °C / 300 V)
Core in accordance with UL AWM style	10493 (80 °C / 300 V)	Irradiation crosslinked	No
Welding spark resistance	No	Colour coding	brown, white, blue, black
Torsion resistance	180 °/m	Temperature range, stationary	-50...80 °C
Resistant to welding beads	No	Bending cycles at torsion	> 5 Mio.
Temperature range, moving	-25...60 °C	Length of torsion	1 m
Number of poles	4	Outside diameter	4.1 mm + 0.15 mm

### General technical data

Coding	A-coded	Connection thread	M12 / M12
Contact surface	Gold-plated	LED	No
Version	pin, straight - socket, 90°	Housing main material	PUR
Insulation resistance	108 Ω	Nominal voltage	250 V
Nominal current	4 A	Protection degree	IP65, IP66, IP67, IP68, when screwed in
Plugging cycles	≥ 100	Pollution severity	3
jumped	No	Threaded ring material	Plastic
Temperature range of housing	-25...+85 °C	Tightening torque	M12 (plastic): 0.9 - 1.1 Nm

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**Technical data**

**Electrical properties**

Insulation resistance	108 Ω	Nominal voltage	250 V
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**General standards**

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

Connector standard	IEC 61076-2-101
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**Plug, left**

Plug left	M12, A-coded, IP69, male contact, straight, Plastic, unshielded
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**Plug, right**

Plug right	M12, A-coded, IP69, female contact, angled 90°, Plastic, unshielded
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**Classifications**

ETIM 8.0	EC001855	ETIM 9.0	EC001855
ETIM 10.0	EC001855	ECLASS 14.0	27-06-03-11
ECLASS 15.0	27-06-03-11		

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Drawings

Dimensioned drawing



Male, straight

Dimensioned drawing



Angled socket

Pole scheme



Male

Pole scheme



Socket

# Drawings

## Wiring diagram



## 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

## Cutting tools



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 (KT 8 to KT 22) 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	Version	
Order No.	<a href="#">9002650000</a>	Cutting tools, Cutting tool for one-hand operation	
GTIN (EAN)	4008190020163		
Qty.	1 ST		

## Tools



Sheathing stripper for PVC cables

## General ordering data

Type	AM 12	Version	
Order No.	<a href="#">9030060000</a>	Tools, Sheathing strippers	
GTIN (EAN)	4008190337827		
Qty.	1 ST		

## 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.

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## Accessories

## General ordering data

Type	SCREWTY-M12-DM	Version	
Order No.	<a href="#">1900001000</a>		Cable gland tool for moulded M12 lines
GTIN (EAN)	4032248436408		
Qty.	1 ST		
Type	SCREWTY SW12	Version	
Order No.	<a href="#">2598970000</a>		Interchangeable blade for cable gland tool
GTIN (EAN)	4050118781151		
Qty.	1 ST		
Type	SAI-SCREWTY BOX	Version	
Order No.	<a href="#">1939180000</a>		Bolting tool
GTIN (EAN)	4032248615506		
Qty.	1 ST		

## 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	Version	
Order No.	<a href="#">9203110000</a>		Stripping and cutting tool
GTIN (EAN)	4032248541423		
Qty.	1 ST		

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## Accessories

## Blank



TM-I is an acknowledged and accredited marker type for traffic engineering applications. There are various different tag lengths available for individual labelling with long character strings. Easy handling of separation and installation thanks to the project marker field. Pre-attachment 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 PrintJet CONNECT, plotter 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-Ink 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 WS	Version
Order No.	<a href="#">1718431044</a>	TM-I, Insert markers, 1.5 - 22 mm, 18 x 4 mm, white
GTIN (EAN)	4008190349011	
Qty.	320 ST	
Type	TM-I 18 MC NE GE	Version
Order No.	<a href="#">1718431687</a>	TM-I, Insert markers, 1.5 - 22 mm, 18 x 4 mm, yellow
GTIN (EAN)	4008190349028	
Qty.	320 ST	