

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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 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 stainless-steel nut. This enables use in environments where cables with nickel-plated M12 nuts would rust and cables with a plastic nut are unsuitable for mechanical reasons. Is there something you have not managed to find or you feel needs explanation? Talk to us!

#### General ordering data

Version	Sensor/actuator line, One end without connector, M12, Number of poles: 4, 0.6 m, Female socket, straight, Shielded: No, LED: No, Sheath material:	
	PUR, Halogen: No	
Order No.	9457950060	
Туре	SAIV-M12BG-4-0.6U	
GTIN (EAN)	4032248229574	
Qty.	1 pc(s).	



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# **Technical data**

Colour coding       brown, w         Core cross-section       0.34 mm         Halogen       No         Insulation       PP         LABS-free       Yes         Number of poles       4         Outside diameter       4.7 mm = 4.7	= 0.2 mm ance with UL / CUL FT2, ance with IEC	Bending cycles Bending radius, min., moving Cable length Configurable cable length Core in accordance with UL AWM style Hydrolysis and microbe resistant Irradiation crosslinked Length of torsion Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads  Sheathing colour Speed Temperature range, moving Torsion resistance	12 Mio 10 x cable diameter 0.6 m No 10493 (80 °C / 300 V) Yes No 1 m 20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C 360 °/m
Technical specifications for cable  Acceleration 5 m/s² Bending cycles at torsion > 5 Mio. Bending radius, min., stationary 5 x cable Colour coding brown, w Core cross-section 0.34 mm Halogen No Insulation PP LABS-free Yes Number of poles 4  Outside diameter 4.7 mm = 1 n accord UL 1581 in accord UL 1581 in accord 60332-2  Sheath material PUR Shielded No Suitable for cable carriers Yes Temperature range, stationary 4080° Welding spark resistance No  General technical data  Coding A Contact surface Gold-plate Insulation strength 10 <sup>8</sup> Ω Plugging cycles ≥ 100 Protection degree IP65, IP6 when scr Rated voltage 250 V Threaded ring material Stainless (316L)	to 0.2 mm ance with UL / CUL FT2, ance with IEC	Bending cycles Bending radius, min., moving Cable length Configurable cable length Core in accordance with UL AWM style Hydrolysis and microbe resistant Irradiation crosslinked Length of torsion Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads  Sheathing colour Speed Temperature range, moving	12 Mio 10 x cable diameter 0.6 m No 10493 (80 °C / 300 V) Yes No 1 m 20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C
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Bending cycles at torsion       > 5 Mio.         Bending radius, min., stationary       5 x cable         Colour coding       brown, w         Core cross-section       0.34 mm         Halogen       No         Insulation       PP         LABS-free       Yes         Number of poles       4         Outside diameter       4.7 mm =	to 0.2 mm ance with UL / CUL FT2, ance with IEC	Bending radius, min., moving Cable length Configurable cable length Core in accordance with UL AWM style Hydrolysis and microbe resistant Irradiation crosslinked Length of torsion Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads Sheathing colour Speed Temperature range, moving	10 x cable diameter 0.6 m No 10493 (80 °C / 300 V) Yes No 1 m 20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C
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Core cross-section       0.34 mm         Halogen       No         Insulation       PP         LABS-free       Yes         Number of poles       4         Outside diameter       4.7 mm =         Resistance to spread of flame       In accord 60332-2         Sheath material       PUR         Shielded       No         Suitable for cable carriers       Yes         Temperature range, stationary       -4080 °         Welding spark resistance       No         General technical data         Coding       A         Contact surface       Gold-plate         Insulation strength       10 <sup>8</sup> Ω         Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)	2 0.2 mm ance with UL / CUL FT2, ance with IEC	Core in accordance with UL AWM style Hydrolysis and microbe resistant Irradiation crosslinked Length of torsion Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads Sheathing colour Speed Temperature range, moving	10493 (80 °C / 300 V) Yes No 1 m 20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C
Halogen       No         Insulation       PP         LABS-free       Yes         Number of poles       4         Outside diameter       4.7 mm =         Resistance to spread of flame       In accord 60332-2         Sheath material       PUR         Shielded       No         Suitable for cable carriers       Yes         Temperature range, stationary       -4080 °         Welding spark resistance       No         General technical data         Coding       A         Contact surface       Gold-plate         Insulation strength       10 <sup>8</sup> Ω         Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)	= 0.2 mm ance with UL / CUL FT2, ance with IEC	Hydrolysis and microbe resistant Irradiation crosslinked Length of torsion Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads Sheathing colour Speed Temperature range, moving	Yes No 1 m 20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C
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LABS-free Yes  Number of poles  Outside diameter  Resistance to spread of flame  Resistance to spread of flame  In accord $011581$ in accord $0332-2$ Sheath material  PUR  Shielded  No  Suitable for cable carriers  Temperature range, stationary  Welding spark resistance  No  General technical data  Coding  Contact surface  Insulation strength  Plugging cycles  Protection degree  Rated voltage  Threaded ring material  Yes  A.  Gold-plate  108 $\Omega$ When scr  Rated voltage  Threaded ring material  Stainless  (316L)	ance with UL / CUL FT2, ance with IEC -2	Length of torsion Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads Sheathing colour Speed Temperature range, moving	1 m  20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C
Number of poles  Outside diameter  Resistance to spread of flame  Resistance to spread of flame  In accord	ance with UL / CUL FT2, ance with IEC -2	Outer cladding in accordance with UL AWM style Resistance to oils Resistant to welding beads Sheathing colour Speed Temperature range, moving	20549 (80 °C / 300 V) in accordance with IEC 60811:404  No black 5 m/s -2580 °C
A Qutside diameter  Resistance to spread of flame  Resistance to spread of flame  In accord UL1581 in accord 60332-2  Sheath material  PUR  Shielded  No Suitable for cable carriers  Temperature range, stationary  Welding spark resistance  No  General technical data  Coding  Contact surface Insulation strength  Plugging cycles  Protection degree  Rated voltage  Threaded ring material  A.7 mm =  4.7 mm =  4.7 mm =  4.7 mm =  5 decorded  Resistance  Resistance  A  Coding  A  Col80°  Rol80°  Positionary  A  Colding  A  Colding  A  Contact surface Insulation strength  10 <sup>8</sup> Ω  Plugging cycles  ≥ 100  Protection degree  IP65, IP6 when scr  Rated voltage  Threaded ring material  Stainless (316L)	ance with UL / CUL FT2, ance with IEC -2	AWM style Resistance to oils Resistant to welding beads  Sheathing colour Speed Temperature range, moving	in accordance with IEC 60811:404  No black 5 m/s -2580 °C
Resistance to spread of flame  Resistance to spread of flame  In accord UL1581 in accord 60332-2  Sheath material  PUR  Shielded  No  Suitable for cable carriers  Temperature range, stationary  Welding spark resistance  No  General technical data  Coding  Contact surface  Insulation strength  Plugging cycles  Protection degree  Rated voltage  Threaded ring material  In accord  In accord  In accord  In accord  A Contact  Sea Gold-plate  In Sulation strength  In B Q  When scr  Rated voltage  Stainless  (316L)	ance with UL / CUL FT2, ance with IEC -2	Resistant to welding beads  Sheathing colour Speed Temperature range, moving	No black 5 m/s -2580 °C
	UL / CUL FT2, ance with IEC -2	Sheathing colour Speed Temperature range, moving	black 5 m/s -2580 °C
Sheath material       PUR         Shielded       No         Suitable for cable carriers       Yes         Temperature range, stationary       -4080 °         Welding spark resistance       No         General technical data         Coding       A         Contact surface       Gold-plate         Insulation strength $10^8 Ω$ Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)		Speed Temperature range, moving	black 5 m/s -2580 °C
Shielded       No         Suitable for cable carriers       Yes         Temperature range, stationary       -4080 °         Welding spark resistance       No         General technical data         Coding       A         Contact surface       Gold-plate         Insulation strength $10^8 Ω$ Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)	C	Speed Temperature range, moving	5 m/s -2580 °C
Suitable for cable carriers  Yes  Temperature range, stationary  Welding spark resistance  No  General technical data  Coding  Contact surface  Insulation strength  Plugging cycles  Protection degree  Rated voltage  Threaded ring material  Yes  A  Col80°  A  Gold-plate  Bold-plate  10 <sup>8</sup> $\Omega$ Plugging cycles  2 100  Protection degree  Stainless (316L)	C	Temperature range, moving	-2580 °C
Temperature range, stationary -4080 ° Welding spark resistance No  General technical data  Coding A Contact surface Gold-plate Insulation strength $10^8 \Omega$ Plugging cycles $\geq 100$ Protection degree IP65, IP6 when scr Rated voltage $250 V$ Threaded ring material Stainless (316L)	С		
Welding spark resistance No  General technical data  Coding A Contact surface Gold-plate Insulation strength $10^8 \Omega$ Plugging cycles $\geq 100$ Protection degree IP65, IP6 when scr Rated voltage $250 V$ Threaded ring material Stainless (316L)	C	lorsion resistance	360 °/m
General technical data         Coding       A         Contact surface       Gold-plate         Insulation strength       10 <sup>8</sup> Ω         Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)			
Contact surface       Gold-plate         Insulation strength $10^8 Ω$ Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)			
Contact surface       Gold-plate         Insulation strength $10^8 Ω$ Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)		Connection thread	M12
Insulation strength $10^8 Ω$ Plugging cycles       ≥ 100         Protection degree       IP65, IP6 when scr         Rated voltage       250 V         Threaded ring material       Stainless (316L)		Housing main material	PUR
Plugging cycles ≥ 100  Protection degree IP65, IP6 when scr  Rated voltage 250 V  Threaded ring material Stainless (316L)	30	LED	
Protection degree IP65, IP6 when scr Rated voltage 250 V Threaded ring material Stainless (316L)			No
when scr Rated voltage 250 V Threaded ring material Stainless (316L)		Pollution severity	3
Threaded ring material Stainless (316L)	6, IP67, IP68, ewed in	Rated current	4 A
(316L)		Temperature range of housing	-40 +85 ° C
Version Female s	steel 1.4404	Tightening torque	M12: 0.8 - 1.2 Nm
	ocket, straight	jumpered	No
Electrical properties			
Insulation strength $10^8 \Omega$		Rated voltage	250 V
General standards		<u>-</u>	
Certificate no. (cULus) E30723		Connector standard	IEC 61076-2-101
Standards			
Connector standard IEC 6107			

Creation date March 17, 2023 10:30:25 AM CET



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# **Technical data**

#### Classifications

ETIM 6.0	EC001855	ETIM 7.0	EC001855
ETIM 8.0	EC001855	ECLASS 9.0	27-06-03-11
ECLASS 9.1	27-06-03-11	ECLASS 10.0	27-06-03-11
ECLASS 11.0	27-06-03-11	ECLASS 12.0	27-06-03-11

### **Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
SCIP	1c533b66-fcff-4da5-b89f-fd55fbf5cb55

#### **Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E307231

#### **Downloads**

Engineering Data	CAD data – STEP	
Engineering Data	WSCAD	
Catalogues	Catalogues in PDF-format	
Brochures	<u>FL FIELDWIRING EN</u>	



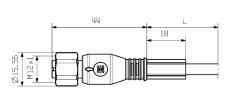
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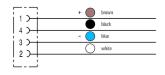
# **Drawings**

# **Dimensioned drawing**

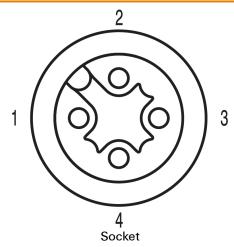


Straight socket

#### 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