

YF2A13-050UA1M8U13

Sensor/actuator cable

PLUG CONNECTORS AND CABLES





Ordering information

Туре	Part no.
YF2A13-050UA1M8U13	2095735

Other models and accessories → www.sick.com/Sensor_actuator_cable



Detailed technical data

Technical specifications

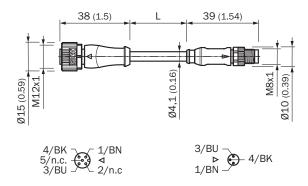
Accessory group Plug connectors and cables Connection type head A Cennection type head B Male connector, M8.3-pin, straight, A-coded Connection type head B Male connector, M8.3-pin, straight, A-coded Locking plug connector Screw connection Connector color Black Locking nut material Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) Seal material FKM Tightening torque 0.4 Nm (M8), 0.6 Nm (M12) Width across flats 9 (M8), 13 (M12) Cable 5 m, 3 wire, PUR, halogen-free Jacket material PUR, halogen-free Jacket color Black Cable diameter 4.1 mm Conductor cross section 0.25 mm² Shielding Unshielded Bending radius Flexible use > 10 x cable diameter Flexible use 10,000,000 Nominal voltage, cable 300 V AC Test voltage, cable 2,500 V AC Reference voltage 50 V AC GoV DC Rated impulse voltage 1.5 kV Current	reeminear operations	
Connection type head A Connector type head B Locking plug connector Connector material Connector material Connector color Locking nut material FKM Tightening torque Width across flats PUR, halogen-free Jacket material Jacket color Cable diameter Conductor cross section Shelding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Bending cycles Nominal voltage, cable Reference voltage Current loading FEM Connector, M12, 3-pin, straight, A-coded Male connector, M8, 3-pin, straight, A-coded Male connection Male connector, M8, 3-pin, straight, A-coded Male connection Male connector, M8, 2-pin, straight, A-coded Male connection Male connector, M8, 2-pin, straight, A-coded Male connector, M8, 2-pin, straight, A-code Male connector, M8, 2-pin, straight, A-code Male connector, M8, 2-pin, s	Accessory group	Plug connectors and cables
Connection type head B Locking plug connector Connector material TPU Connector color Locking nut material Seal material FKM Tightening torque Width across flats 9 (M8), 13 (M12) Vidth across flats PUR, halogen-free Jacket material PUR, halogen-free Jacket color Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Darag chain operation Darag chain operation Darag chain voltage, cable Reference voltage Reference voltage Current loading Male connector, M8, 3-pin, straight, A-coded Screw connection TPU Screw connection TPU Screw connection Site die, A-coded Screw connection Screw connection Screw connection Site die, A-coded Screw connection Screw connection Screw connection Site die, A-coded Screw connection Screw connection Screw connection Site die, A-coded Screw connection Screw connection Screw connection Screw connection Screw connection Site die, A-coded Screw connection Screw connection Screw connection Screw connection Screw connection Site die, A-coded Screw connection Screw connector, Mickel-plated brass (male connector), Nickel-plated brass (male connector) Site die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) Screw connector, Nickel-plate	Accessory family	Connection cables
Locking plug connector Screw connection Connector material TPU Connector color Black Locking nut material Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) Seal material FKM Tightening torque 0.4 Nm (M8), 0.6 Nm (M12) Width across flats 9 (M8), 13 (M12) Cable 5 m, 3-wire, PUR, halogen-free Jacket material PUR, halogen-free Jacket color Black Cable diameter 4.1 mm Conductor cross section 0.25 mm² Shielding Unshielded Bending radius Flexible use Stationary position Drag chain operation Prag chain operation Prag chain operation Stationary position Orac able diameter > 10 x cable diameter Bending cycles 1,0000,000 Nominal voltage, cable 300 V AC Test voltage, cable 2,500 V AC Reference voltage 50 V AC 60 V DC Rated impulse voltage 1,5 kV Current loading 4 A	Connection type head A	Female connector, M12, 3-pin, straight, A-coded
Connector material Connector color Locking nut material FKM Tightening torque Vidth across flats Cable Jacket material Jacket color Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Bending cycles Nominal voltage, cable Test voltage Current loading Flexible voltage Current loading TPU Black Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Zinc die-cast, nickel-plated (female connector) FKM Zinc die cast, nickel-plated (female connector) FKM Zinc die cast, nickel-plated (female connector) FKM Zinc die cast, nickel-plated (female connector) Zinc die cast, nickel-plated (female connector) Zi	Connection type head B	Male connector, M8, 3-pin, straight, A-coded
Connector color Locking nut material Seal material FKM Tightening torque Width across flats 9 (M8), 13 (M12) Cable Jacket material PUR, halogen-free Jacket color Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Bending voltage, cable Test voltage, cable Reference voltage Current loading Linc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM Alinc die-cast, nickel-plated (female connector), Nickel-plated (female connector) FKM Alinc die cast, nickel-plated (female connector), Nickel-plated (female connector) FKM Alinc die cast, nickel-plated (f	Locking plug connector	Screw connection
Locking nut material Seal material FKM Tightening torque Width across flats Q (MS), 13 (M12) Cable Jacket material PUR, halogen-free Black Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Bending cycles Nominal voltage, cable Test voltage, cable Rated impulse voltage Current loading FKM O.4 Nm (M8), 0.6 Nm (M12) 9 (MS), 13 (M12) 5 m, 3-wire, PUR, halogen-free Black 4.1 mm 0.25 mm² Unshielded 10.0 x cable diameter > 10 x cable d	Connector material	TPU
Seal material FKM Tightening torque 0.4 Nm (M8), 0.6 Nm (M12) Width across flats 9 (M8), 13 (M12) Cable 5 m, 3-wire, PUR, halogen-free Jacket material PUR, halogen-free Jacket color Black Cable diameter 4.1 mm Conductor cross section 0.25 mm² Shielding Unshielded Bending radius Flexible use Stationary position > 5 x cable diameter Drag chain operation > 10 x cable diameter Bending cycles 10,000,000 Nominal voltage, cable 300 V AC Test voltage, cable 2,500 V AC Reference voltage 50 V AC Go V DC Rated impulse voltage 1.5 kV Current loading 4 A	Connector color	Black
Tightening torque 0.4 Nm (M8), 0.6 Nm (M12) Width across flats 9 (M8), 13 (M12) Cable 5 m, 3-wire, PUR, halogen-free Jacket material PUR, halogen-free Jacket color Black Cable diameter 4.1 mm Conductor cross section 0.25 mm² Shielding Unshielded Bending radius > 10 x cable diameter Stationary position Drag chain operation > 5 x cable diameter Nominal voltage, cable 10,000,000 Nominal voltage, cable 300 V AC Test voltage, cable 2,500 V AC Reference voltage 50 V AC 60 V DC Rated impulse voltage 1.5 kV Current loading 4 A	Locking nut material	Zinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector)
Width across flats 9 (M8), 13 (M12) Cable 5 m, 3-wire, PUR, halogen-free Jacket material PUR, halogen-free Jacket color Black Cable diameter 4.1 mm Conductor cross section 0.25 mm² Shielding Unshielded Bending radius Flexible use Stationary position Drag chain operation > 10 x cable diameter > 5 x cable diameter > 10 x cable diameter > 10 x cable diameter 300 v acloud diameter Stationary position Drag chain operation 10,000,000 Nominal voltage, cable 300 v Acloud Classes Test voltage, cable 2,500 v Acloud Classes Reference voltage 50 v Acloud Classes 60 v DC 60 v DC Rated impulse voltage 1.5 kV Current loading 4 A	Seal material	FKM
Cable 5 m, 3-wire, PUR, halogen-free Jacket material PUR, halogen-free Black Cable diameter 4.1 mm Conductor cross section 0.25 mm² Shielding Unshielded Flexible use Stationary position Drag chain operation Drag chain operation 2.5 x cable diameter 2.10 x cable diameter 3.00 v AC Bending cycles 10,000,000 Nominal voltage, cable 300 v AC Test voltage, cable 50 v AC 60 v DC Rated impulse voltage 1.5 kV Current loading 4 4 A	Tightening torque	0.4 Nm (M8), 0.6 Nm (M12)
Jacket material Jacket color Black Cable diameter 4.1 mm Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Bending cycles Nominal voltage, cable Test voltage, cable Reference voltage Fated impulse voltage Current loading PUR, halogen-free Black 4.1 mm 0.25 mm² Unshielded Value Val	Width across flats	9 (M8), 13 (M12)
Jacket color Cable diameter 4.1 mm Conductor cross section Chielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Bending cycles Nominal voltage, cable Test voltage, cable Reference voltage 50 V AC 60 V DC Rated impulse voltage Current loading Black 4.1 mm 4.1 mm 4.2 mm² Unshielded Unshielded 5 10 x cable diameter > 10 x cable diameter > 10 x cable diameter > 10,000,000 300 V AC 2,500 V AC 60 V DC Rated impulse voltage 4.4	Cable	5 m, 3-wire, PUR, halogen-free
Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Nominal voltage, cable Test voltage Ference voltage 50 V AC 60 V DC Rated impulse voltage Current loading 4.1 mm 0.25 mm² 1.5 kV	Jacket material	PUR, halogen-free
Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Nominal voltage, cable Test voltage, cable Reference voltage Flexible use > 10 x cable diameter > 5 x cable diameter > 10 x cable diameter < 10 x cable di	Jacket color	Black
Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Bending cycles Nominal voltage, cable Test voltage, cable Reference voltage 50 V AC 60 V DC Rated impulse voltage Current loading Unshielded > 10 x cable diameter > 5 x cable diameter > 10 x cable diameter	Cable diameter	4.1 mm
Flexible use Stationary position Drag chain operation Bending cycles Nominal voltage, cable Test voltage, cable Reference voltage 50 V AC 60 V DC Rated impulse voltage Current loading Flexible use > 10 x cable diameter > 10 x cable diameter > 10,000,000 300 V AC 2,500 V AC 60 V DC Rated impulse voltage 1.5 kV	Conductor cross section	0.25 mm ²
Flexible use Stationary position Drag chain operation Bending cycles 10,000,000 Nominal voltage, cable Test voltage, cable Reference voltage 50 V AC 60 V DC Rated impulse voltage 1.5 kV Current loading > 10 x cable diameter > 5 x cable diameter > 10,000,000 300 V AC 2,500 V AC 50 V AC 60 V DC 4 A	Shielding	Unshielded
Stationary position Drag chain operation Bending cycles 10,000,000 Nominal voltage, cable Test voltage, cable 2,500 V AC Reference voltage 50 V AC Rated impulse voltage 1.5 kV Current loading > 5 x cable diameter > 10 x cable diameter 2,000,000 800 V AC 2,500 V AC 1.5 kV	Bending radius	
Drag chain operation > 10 x cable diameter 10,000,000 Nominal voltage, cable 300 V AC Test voltage, cable 2,500 V AC Reference voltage 50 V AC 60 V DC Rated impulse voltage 1.5 kV Current loading 4 A	Flexible use	> 10 x cable diameter
Description	Stationary position	> 5 x cable diameter
Nominal voltage, cable Test voltage, cable 2,500 V AC Reference voltage 50 V AC 60 V DC Rated impulse voltage 1.5 kV Current loading 300 V AC 4 A	Drag chain operation	> 10 x cable diameter
Test voltage, cable 2,500 V AC	Bending cycles	10,000,000
Reference voltage 50 V AC 60 V DC Rated impulse voltage 1.5 kV Current loading 4 A	Nominal voltage, cable	300 V AC
50 V AC 60 V DC Rated impulse voltage 1.5 kV Current loading 4 A	Test voltage, cable	2,500 V AC
Rated impulse voltage 1.5 kV Current loading 4 A	Reference voltage	
Rated impulse voltage 1.5 kV Current loading 4 A		50 V AC
Current loading 4 A		
	•	
Traversing speed 3 m/s		
	Traversing speed	3 m/s

Travelling distance	10 m
Acceleration	≤ 10 m/s²
Signal type	Sensor/actuator cable
Torsion force	180° / 1 m
Torsion cycles	2,000,000
Cycles per minutes	35
Application	Zones with oils and lubricants Drag chain operation Robot
Authorizations	UL
UL File No.	E335179
Enclosure rating	IP65 / IP66K / IP67
Ambient operating temperature	
Flexible use	-25 °C +80 °C
Stationary position	-40 °C +80 °C
Drag chain operation	-25 °C +80 °C
Head	-25 °C +85 °C
Contamination rating	3
Insulation resistance	100 ΜΩ
Overvoltage category	III
Specific insulation resistance	30 mΩ
Thermal resistance, piping	Flame retardant according to UL 1581, horizontal flame test/CSA FT2 / IEC 60332-1, IEC 60332-2-2

Classifications

ECLASS 5.0	19030312
ECLASS 5.1.4	19030312
ECLASS 6.0	27060304
ECLASS 6.2	27060304
ECLASS 7.0	27060304
ECLASS 8.0	27060304
ECLASS 8.1	27060304
ECLASS 9.0	27060304
ECLASS 10.0	27060304
ECLASS 11.0	27060304
ECLASS 12.0	27060304
ETIM 5.0	EC000830
ETIM 6.0	EC000830
ETIM 7.0	EC003249
ETIM 8.0	EC003249
UNSPSC 16.0901	26121604

Dimensional drawing (Dimensions in mm (inch))



Recommended accessories

Other models and accessories → www.sick.com/Sensor_actuator_cable

	Brief description	Туре	Part no.
Other mounting	ng accessories		
	1 piece, M8 mounting key set for SW9 with calibrated torque 0.4 Nm	TOOL-TWO4M08AF09	5337207
	1 piece, M12 mounting key set for SW13 with calibrated torque 0.6 Nm	TOOL-TW06M12AF13	5337208

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SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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For us, that is "Sensor Intelligence."

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