

# YF8U14-020UA1M8U13

Sensor/actuator cable

**PLUG CONNECTORS AND CABLES** 





## Ordering information

Туре	Part no.
YF8U14-020UA1M8U13	2107786

Other models and accessories → www.sick.com/Sensor\_actuator\_cable



#### Detailed technical data

#### Technical specifications

Accessory group Accessory family Connection type head A Connection type head B Locking plug connector Connector material Connector material Connector color Black Locking nut material Conding nut material FKM Tightening forque Width across flats PUR, halogen-free Jacket material Jacket color Cable diameter Conductor cross section Shalding Bending radius Flexible use Stationary position Drag chain operation Drag chain voltage, cable Reference voltage Reference voltage Rated impulse voltage Cunnection type head B Male connector, M8, 4-pin, straight, A-coded Male connector, M8, 3-pin, straight, A-coded Male connector, M8, 3-pin, straight, A-coded Acceded Male connector, M8, 3-pin, straight, A-coded Male connector, M8, 3-pin, straight, A-coded Male connector, M8, 3-pin, straight, A-coded Acceded Male connector, M8, 3-pin, straight, A-coded Male connector	reeminear operations	
Connection type head A Connection type head B Connector type head B Connector Make A pin, straight, A-coded Connector material Connector material Connector color Connector material Connector color Connector material Connector material Connector color Connector material Connector color Connector material Connector color Connector color Connector material Connector color Connector connector connector) Connector con	Accessory group	Plug connectors and cables
Connection type head B Locking plug connector Connector material Connector color Locking nut material Seal material FKM Tightening torque Width across flats 9 Cable Jacket material PUR, halogen-free Jacket material PUR, halogen-free Black 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  Black Jipate die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM O.4 Nm Vide die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM O.4 Nm Vide die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM O.4 Nm O.5 male connector, M8, 3-pin, straight, A-coded O.4 Nm O.5 Nm O.5 Nm O.5 Nm O.5 Nm O.6 Nm O.6 Nm O.7 Nm O.7 Nm O.8 Nm O.	Accessory family	Connection cables
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       Width across flats     9       Cable     2 m, 4-wire, PUR, halogen-free       Jacket material     PUR, halogen-free       Jacket color     Black       Cable diameter     4.5 mm       Conductor cross section     0.25 mm²       Shielding     Unshielded       Bending radius     Flexible use Stationary position Drag chain operation     > 5 x cable diameter       Stationary position 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	Connection type head A	Female connector, M8, 4-pin, straight, A-coded
Connector material Connector color Locking nut material FKM Tightening torque Width across flats 9 Cable Jacket material Jacket color 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 Current loading  Rated impulse voltage Cundetor color Clacking nut material FKM O.4 Nm  9 C4.4 Nm  9 C4.5 Nm C4.5 Nm C5.6 No V AC C60 V DC Rated impulse voltage C4.5 Nm C5.4 Cable diameter C5.4 Cable diameter C5.4 Cable diameter C5.5 V AC C60 V DC Rated impulse voltage C4.5 Nm C5.5 V AC C60 V DC C60	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 Cable Jacket material PUR, halogen-free Jacket color Black Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Bending cycles Nominal voltage, cable Test voltage, cable Reference voltage Cate diameter Locking nut material Jinc die-cast, nickel-plated (female connector), Nickel-plated brass (male connector) FKM O.4 Nm O.4 Nm O.4 Nm O.4 Nm O.4 Nm O.4 Wire, PUR, halogen-free Black V.5 mm O.25 mm² Unshielded Unshielded Unshielded Stationary position Drag chain operation Stationary position O.25 cable diameter > 5 x cable diameter > 10,000,000 Source Current loading A A	Locking plug connector	Screw connection
Locking nut material  Seal material  FKM  0.4 Nm  Width across flats  9  Cable  Jacket material  Jacket color  Cable diameter  Conductor cross section  Shielding  Bending radius  Flexible use Stationary position Drag chain operation Drag chain operation  Bending voltage, cable  So V AC  Rated impulse voltage  Current loading  FKM  0.4 Nm  9  2 m, 4-wire, PUR, halogen-free  9  1 m, 4-wire, PUR, halogen-free  9  1 m, 4-wire, PUR, halogen-free  9  2 m, 4-wire, PUR, halogen-free  9  1 m, 4-wire, PUR, halogen-free  9  2 m, 4-wire, PUR, halogen-free  9  2 m, 4-wire, PUR, halogen-free  9  2 m, 4-wire, PUR, halogen-free  9  1 acket impulse voltage  1 m, 4-wire, PUR, halogen-free  9  2 m, 4-wire, PUR, halogen-free	Connector material	TPU
Seal material FKM   Tightening torque 0.4 Nm   Width across flats 9   Cable 2 m, 4-wire, PUR, halogen-free   Jacket material PUR, halogen-free   Jacket color Black   Cable diameter 4.5 mm   Conductor cross section 0.25 mm²   Shielding Unshielded   Bending radius Flexible use   Stationary position Drag chain operation > 10 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   60 V DC   Rated impulse voltage 1.5 kV   Current loading 4 A	Connector color	Black
Tightening torque         0.4 Nm           Width across flats         9           Cable         2 m, 4-wire, PUR, halogen-free           Jacket material         PUR, halogen-free           Jacket color         Black           Cable diameter         4.5 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           Cable         2 m, 4-wire, PUR, halogen-free           Jacket material         PUR, halogen-free           Jacket color         Black           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Sheiding         Unshielded           Bending radius         Flexible use Stationary position Paragchain operation         > 10 x cable diameter           Drag chain operation         > 10 x cable diameter           Nominal voltage, cable         10,000,000           Reference voltage         300 V AC           Test voltage, cable         2,500 V AC           Rated impulse voltage         1.5 kV           Current loading         4 A	Seal material	FKM
Cable Jacket material PUR, halogen-free PUR, halogen-free Black Cable diameter Cable diameter Conductor cross section Shielding Bending radius Flexible use Stationary position Drag chain operation Drag chain operation Pominal voltage, cable Test voltage, cable Reference voltage  Fated impulse voltage Current loading  2 m, 4-wire, PUR, halogen-free PUR,	Tightening torque	0.4 Nm
Jacket material Jacket color Black Cable diameter 4.5 mm  Conductor cross section O.25 mm² Shielding Bending radius  Flexible use Stationary position Drag chain operation Drag chain operation Personal voltage, cable Test voltage, cable Reference voltage  Fated impulse voltage Current loading  PUR, halogen-free Black 4.5 mm O.25 mm² Unshielded  9.10 x cable diameter > 5 x cable diameter > 10 x	Width across flats	9
Jacket color Cable diameter 4.5 mm 0.25 mm² Unshielded Bending radius Flexible use Stationary position Drag chain operation 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 Current loading 4 A	Cable	2 m, 4-wire, PUR, halogen-free
Cable diameter Conductor cross section Shielding Bending radius  Flexible use Stationary position Drag chain operation Drag chain operation About 10,000,000  Nominal voltage, cable Test voltage Ference voltage  50 V AC 60 V DC  Rated impulse voltage Current loading  4.5 mm  0.25 mm² Unshielded  > 10 x cable diameter > 5 x cable diameter > 10 x cable	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	4.5 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 <sup>2</sup>
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  4 A	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  Reference voltage  50 V AC  60 V DC  Rated impulse voltage  1.5 kV  Current loading  4 A	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°/1m
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

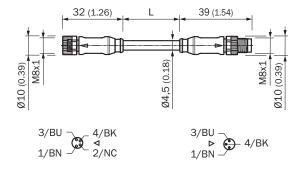
## Classifications

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

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PLUG CONNECTORS AND CABLES

### Dimensional drawing (Dimensions in mm (inch))



# SICK AT A GLANCE

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.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

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