

# YF8U13-100VA1M2A13

Sensor/actuator cable

**PLUG CONNECTORS AND CABLES** 





## Ordering information

Туре	Part no.
YF8U13-100VA1M2A13	2110093

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



#### Detailed technical data

#### Technical specifications

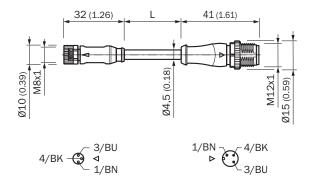
Connection type head A         Female connector, M12, 3-pin, straight, A-coded           Connection type head B         Male connector, M12, 3-pin, straight, A-coded           Locking plug connector         Screw connection           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Seal material         FKM           Tightening torque         0.4 Nm (M8), 0.6 Nm (M12)           Width across flats         9 (M8), 13 (M12)           Cable         10 m, 3-wire, PVC           Jacket color         Gray           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         Flexible use Stationary position         > 5 x cable diameter           Reference voltage         4.0 x cable diameter           Reference voltage         4.6 W.Y.C.           Current loading         4.4           Signal type         Sensor/actuator cable           Application         Zones with chemicals           Authorizations         UL           UL File No.         Elaxible use Stationary position         -5 °C +80 °C           Stationary position	roominoar opcomoducino	
Locking plug connector         Screw connection           Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Seal material         FKM           Tightening torque         0.4 Nm (M8), 0.6 Nm (M12)           Width across flats         9 (M8), 13 (M12)           Cable         10 m, 3-wire, PVC           Jacket material         PVC           Jacket color         Gray           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         * 10 x cable diameter           Flexible use         > 10 x cable diameter           S x cable diameter         > 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x cable diameter           S x cable diameter         * 5 x	Connection type head A	Female connector, M8, 3-pin, straight, A-coded
Connector material         TPU           Connector color         Black           Locking nut material         Zinc die-cast, nickel-plated           Seal material         FKM           Tightening torque         0.4 Nm (M8), 0.6 Nm (M12)           Width across flats         9 (M8), 13 (M12)           Cable         10 m, 3-wire, PVC           Jacket material         PVC           Jacket color         Gray           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         > 10 x cable diameter           Stationary position         > 5 x cable diameter           Reference voltage         ≤ 60 V AC/DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Signal type         Sensor/actuator cable           Application         Zones with chemicals           Authorizations         UL           UL File No.         E335179           Enclosure rating         IP65 / IP66K / IP67           Operating temperature         -5 *C +80 *C	Connection type head B	Male connector, M12, 3-pin, straight, A-coded
Connector color Locking nut material Seal material FKM Tightening torque 0.4 Nm (M8), 0.6 Nm (M12) Width across flats 9 (M8), 13 (M12) Cable 10 m, 3-wire, PVC Jacket material PVC Jacket color Gray Cable diameter 4.5 mm Conductor cross section Shielding Bending radius Flexible use Stationary position Stationary position Reference voltage  \$\leq \ \text{60 V AC/DC} \\ Rated impulse voltage \text{4.5 kW} Current loading 4 A Signal type Application Authorizations UL UL File No. E1sxible use	Locking plug connector	Screw connection
Locking nut material         Zinc die-cast, nickel-plated           Seal material         FKM           Tightening torque         0.4 Nm (M8), 0.6 Nm (M12)           Width across flats         9 (M8), 13 (M12)           Cable         10 m, 3-wire, PVC           Jacket material         PVC           Jacket color         Gray           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         > 10 x cable diameter           Stationary position         > 5 x cable diameter           Reference voltage         ≤ 60 V AC/DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Signal type         Sensor/actuator cable           Application         Zones with chemicals           Authorizations         UL           UL File No.         E335179           Enclosure rating         IP65 / IP66K / IP67           Operating temperature         -5 * C +80 * C	Connector material	TPU
Seal material         FKM           Tightening torque         0.4 Nm (M8), 0.6 Nm (M12)           Width across flats         9 (M8), 13 (M12)           Cable         10 m, 3-wire, PVC           Jacket material         PVC           Jacket color         Gray           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         Flexible use           Stationary position         > 5 x cable diameter           Positionary position         > 5 x cable diameter           Reference voltage         ≤ 60 V AC/DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Signal type         Sensor/actuator cable           Application         Zones with chemicals           Authorizations         UL           UL File No.         E335179           Enclosure rating         IP65 / IP66K / IP67           Operating temperature         Flexible use         -5 *C +80 *C	Connector color	Black
Tightening torque	Locking nut material	Zinc die-cast, nickel-plated
Width across flats         9 (M8), 13 (M12)           Cable         10 m, 3-wire, PVC           Jacket material         PVC           Jacket color         Gray           Cable diameter         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         > 10 x cable diameter           Stationary position         > 5 x cable diameter           Reference voltage         ≤ 60 V AC/DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Signal type         Sensor/actuator cable           Application         Zones with chemicals           Authorizations         UL           UL File No.         E335179           Enclosure rating         IP65 / IP66K / IP67           Operating temperature         -5 ° C +80 ° C	Seal material	FKM
Cable         10 m, 3-wire, PVC           Jacket material         PVC           Gray         4.5 mm           Conductor cross section         0.25 mm²           Shielding         Unshielded           Bending radius         Flexible use Stationary position           Flexible use Stationary position         > 10 x cable diameter           S x cable diameter         > 5 x cable diameter           Reference voltage         ≤ 60 V AC/DC           Rated impulse voltage         1.5 kV           Current loading         4 A           Signal type         Sensor/actuator cable           Application         Zones with chemicals           Authorizations         UL           UL File No.         E335179           Enclosure rating         IP65 / IP66K / IP67           Operating temperature         Flexible use         -5 °C +80 °C	Tightening torque	0.4 Nm (M8), 0.6 Nm (M12)
Jacket material  Jacket color  Cable diameter  Conductor cross section  Shielding  Bending radius  Flexible use Stationary position  Reference voltage  ≤ 60 V AC/DC  Rated impulse voltage  Current loading  Signal type  Application  Authorizations  UL  UL File No.  Enclosure rating  Operating temperature  Flexible use  -5 °C +80 °C	Width across flats	9 (M8), 13 (M12)
Jacket color  Cable diameter  Conductor cross section  Shielding  Bending radius  Flexible use Stationary position  Reference voltage  \$\leq 60 \text{ V AC/DC}\$  Rated impulse voltage  1.5 kV  Current loading  Application  Authorizations  UL  UL File No.  E335179  Enclosure rating  Operating temperature  Flexible use  4.5 mm  4.5 mm  4.5 mm  4.5 mm  5 x cable diameter  \$\leq 60 \text{ V AC/DC}\$  Rated diameter  \$\leq 60 \text{ V AC/DC}\$  U.S kV  Current loading  \$\leq 4 \text{ A}\$  Signal type  \$\leq 5 \text{ sensor/actuator cable}\$  Application  UL  UL File No.  E335179  Enclosure rating  Operating temperature  Flexible use  Flexible use  Flexible use  Flexible vise  Flexible vise  \$\leq 60 \text{ V AC/DC}\$  Flexible use  Flexible vise  \$\leq 60 \text{ V AC/DC}\$  Rated impulse voltage  \$\leq 60 \text{ V AC/DC}\$  U.S kV  Current loading  \$\leq 60 \text{ V AC/DC}\$  Rated impulse voltage  \$\leq 60 \text{ V AC/DC}\$  U.S kV  Current loading  \$\leq 60 \text{ V AC/DC}\$  Rated impulse voltage  \$\leq 60 \text{ V AC/DC}\$  U.S kV  Current loading  \$\leq 60 \text{ V AC/DC}\$  Flexible vise  \$\leq 60 \text{ V AC/DC}\$  Flexible vise  \$\leq 60 \text{ V AC/DC}\$  \$\leq 60 \text{ V AC/DC}\$  Flexible vise  \$\leq 60 \text{ V AC/DC}\$  \$\leq 60 \text{ V AC/DC}\$  Flexible vise  \$\leq 60 \text{ V AC/DC}\$  \$\leq 60 \text	Cable	10 m, 3-wire, PVC
Cable diameter Conductor cross section 0.25 mm² Unshielded  Flexible use Stationary position  Reference voltage  60 V AC/DC  Rated impulse voltage 1.5 kV Current loading 4 A Signal type Sensor/actuator cable Application Authorizations UL UL File No. E335179 Enclosure rating Operating temperature  Flexible use  7 0.25 mm² Vunshielded  9 10 x cable diameter  > 5 x cable diameter  > 60 V AC/DC  Actor diameter  > 60 V AC/DC  1.5 kV  Current loading 4 A Signal type Sensor/actuator cable Zones with chemicals  UL UL File No. E335179 Enclosure rating Operating temperature  Flexible use  - 5 °C +80 °C	Jacket material	PVC
Conductor cross section  Shielding  Bending radius  Flexible use Stationary position  Reference voltage  \$ 60 V AC/DC  Rated impulse voltage  \$ 1.5 kV  Current loading  4 A  Signal type  Application  Authorizations  UL  UL File No.  Enclosure rating  Operating temperature  Flexible use  \$ 0.25 mm²  Unshielded  \$ 1.0 x cable diameter  \$ 5 x cable diameter  \$ 60 V AC/DC  Available diameter  \$ 60 V AC/DC  Availabl	Jacket color	Gray
Shielding Bending radius  Flexible use Stationary position  Reference voltage  ≤ 60 V AC/DC  Rated impulse voltage  1.5 kV  Current loading  Signal type  Application  Authorizations  UL  File No.  Enclosure rating  Operating temperature  Flexible use  -5 °C +80 °C	Cable diameter	4.5 mm
Bending radius  Flexible use Stationary position  Reference voltage  ≤ 60 ∨ AC/DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Signal type  Sensor/actuator cable  Application  Authorizations  UL  Flexible use  Flexible use  -5 ° C +80 ° C	Conductor cross section	0.25 mm <sup>2</sup>
Flexible use Stationary position  Reference voltage  \$\leq\$ 60 V AC/DC  Rated impulse voltage  Current loading  4 A  Signal type  Application  Authorizations  UL  Flexible use  Flexible use  \$\leq\$ 1.0 x cable diameter  \$\leq\$ 5 x cable diameter  \$\leq\$ 60 V AC/DC   Leg 4  \$\leq\$ 4  \$\leq\$ 5 ensor/actuator cable  \$\leq\$ 2 cones with chemicals  UL  \$\leq\$ 1.5 cones with chemicals  \$\leq\$ 1.5 log 1.5 l	Shielding	Unshielded
Reference voltage  ≤ 60 V AC/DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Signal type  Application  Authorizations  UL  File No.  E335179  Enclosure rating  Operating temperature  Flexible use  > 5 ° C +80 ° C	Bending radius	
Reference voltage  ≤ 60 V AC/DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Signal type  Sensor/actuator cable  Zones with chemicals  UL  UL File No.  E335179  Enclosure rating  Operating temperature  Flexible use  -5 °C +80 °C	Flexible use	> 10 x cable diameter
≤ 60 V AC/DC  Rated impulse voltage  1.5 kV  Current loading  4 A  Signal type  Sensor/actuator cable  Application  Zones with chemicals  UL  UL File No.  E335179  Enclosure rating  IP65 / IP66K / IP67  Operating temperature  Flexible use  -5 °C +80 °C	Stationary position	> 5 x cable diameter
Rated impulse voltage  Current loading  4 A  Signal type  Sensor/actuator cable  Application  Zones with chemicals  UL  UL File No.  E335179  Enclosure rating  IP65 / IP66K / IP67  Operating temperature  Flexible use  -5 °C +80 °C	Reference voltage	
Current loading 4 A  Signal type Sensor/actuator cable  Application Zones with chemicals  UL  UL File No. E335179  Enclosure rating IP65 / IP66K / IP67  Operating temperature  Flexible use -5 °C +80 °C		≤ 60 V AC/DC
Signal type  Application  Zones with chemicals  Authorizations  UL  UL File No.  E335179  Enclosure rating  IP65 / IP66K / IP67  Operating temperature  Flexible use  Flexible use  Sensor/actuator cable  Zones with chemicals  UL  E335179  Enclosure rating  IP65 / IP66K / IP67	Rated impulse voltage	1.5 kV
Application Zones with chemicals  Authorizations UL  UL File No. E335179  Enclosure rating IP65 / IP66K / IP67  Operating temperature  Flexible use -5 °C +80 °C	Current loading	4 A
Authorizations  UL  UL File No.  E335179  Enclosure rating  Operating temperature  Flexible use  Flexible use  Flexible use  UL  E335179  IP65 / IP66K / IP67	Signal type	Sensor/actuator cable
UL File No. E335179 Enclosure rating IP65 / IP66K / IP67 Operating temperature Flexible use -5 °C +80 °C	Application	Zones with chemicals
Enclosure rating  Operating temperature  Flexible use -5 °C +80 °C	Authorizations	UL
Operating temperature  Flexible use -5 °C +80 °C	UL File No.	E335179
Flexible use -5 °C +80 °C	Enclosure rating	IP65 / IP66K / IP67
	Operating temperature	
Stationary position -30 °C +80 °C	Flexible use	-5 °C +80 °C
	Stationary position	-30 °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 VW1 / CSA FT1

#### 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))



# 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.

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