Data sheet

WI180C-IOA00

Interface modules

INTEGRATION MODULES AND ADAPTERS

SICK
Sensor Intelligence.

Ordering information

Type	part no.
WI180C-IOA00	6071650

Other models and accessories ➜ www.sick.com/Interface_modules

Detailed technical data

Features

Product segment	Integration modules and adapters
Product	Interface modules
Description	IO-Link Smart Sensor Gateway for WLL180T, KTL180 and AOD1; Features: IO-Link; COM3; M8 connection, 4-pin; full read/write functionality for the process and service data of the connected sensors. See operating instructions for additional information and technical details
Enclosure rating	IP50
Dimensions (W x H x L)	39 mm x 36.3 mm x 102.35 mm

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

Classifications

ECLASS 5.0	27242202
ECLASS 5.1.4	27242602
ECLASS 6.0	27242602
ECLASS 6.2	27242602
ECLASS 7.0	27242602
ECLASS 8.0	27242602
ECLASS 8.1	27242602
ECLASS 9.0	27242602

ECLASS 10.0	27242602
ECLASS 11.0	27242602
ECLASS 12.0	27242602
ETIM 5.0	EC001597
ETIM 6.0	EC001597
ETIM 7.0	EC001597
ETIM 8.0	EC001597
UNSPSC 16.0901	32151705

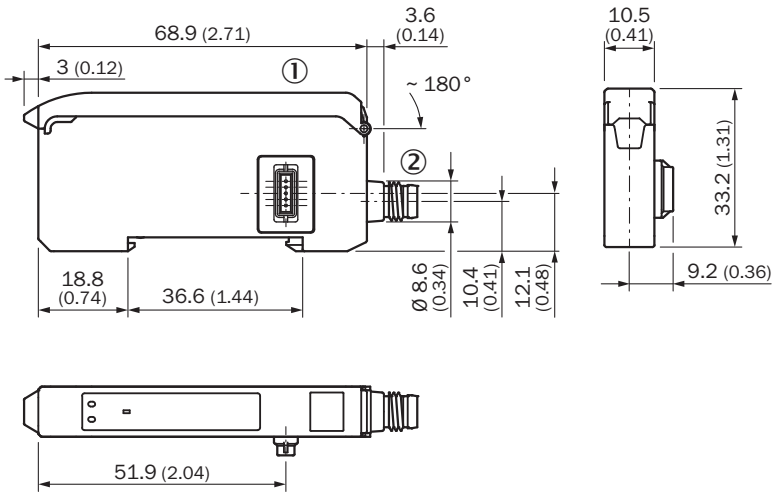
Technical data

Features	Supported products	WLL180T fiber amplifiers KTL180 fiber contrast sensors OD1 displacement sensors (via AOD1 amplifier) OL1 displacement sensors (via AOD1 amplifier)
	Further functions	IO-Link connection for easy configuration of the WI180C-IO Sensor Integration Gateway with SOPAS ET, the engineering tool from SICK
Mechanics/ Electronics	Supply voltage	10.8 - 26.4 V (SIO), 18 - 26.4 V (IO-Link)
	Power consumption (without connected devices)	40 mA
	Switch-on delay	300 ms (connected to one WLL180T/KTL180)
	Switch-on delay (overall system)	350 ms (connected to 16 WLL180T/KTL180) 2.5 s (connected to one AOD1 with OD1)
	Optical indicators	1 Green (Power/C) 2 Orange (Q1, Q2)
	Switching output	Push/Pull
	Output: QL1 / C	Switching output or IO-Link mode
	Output current Imax	≤ 100 mA[6]
	Pin 2 configuration	External input, Teach-in, switching signal
	Connection type	Male connector M8, 4-pin
	Circuit protection	A[2] B[3] C[4]
	Protection class	III
	Weight	20 g
	Dimensions (W x H x D)	10.5 mm x 34.6 mm x 71.9 mm
	Housing material	Plastic, ABS/PC
	Enclosure rating	IP50[5]
Safety-related parameters	MTTFd	520.7 years
	DCavg	0%
Smart Task	Smart Task name	Base logics (SLTI)
	Logic function	Direct AND OR Window Hysteresis
	Timer function	Deactivated On delay Off delay ON and OFF delay Impulse (one shot)
	Inverter	Yes
IO-Link interface	Protocol version	IO-Link V1.1
	Communication interface detail	COM3 (230.4 kBaud)
	Cycle time	2.0 ms
	Process data length	16 bytes
	Process data structure (5 analog outputs out of 16 modules)	Bit 0 - Bit 1 = QL1 - QL2 Bit 2 - Bit 33 = Module 1 Qint.1 - Module 16 Qint.2 Bit 34 - Bit 47 = Reserved Bit 48 - Bit 63 = Analog output 5 Bit 64 - Bit 79 = Analog output 4 Bit 80 - Bit 95 = Analog output 3 Bit 96 - Bit 111 = Analog output 2 Bit 112 - Bit 127 = Analog output 1
	Process data structure (7 analog outputs out of 7 modules)	Bit 0 - Bit 1 = QL1 - QL2 Bit 2 - Bit 15 = Module 1 Qint.1 - Module 7 Qint.2 Bit 16 - Bit 31 = Analog output 7 Bit 32 - Bit 47 = Analog output 6 Bit 48 - Bit 63 = Analog output 5 Bit 64 - Bit 79 = Analog output 4 Bit 80 - Bit 95 = Analog output 3 Bit 96 - Bit 111 = Analog output 2 Bit 112 - Bit 127 = Analog output 1
	Vendor ID	26
	Device ID HEX	0x80022E
	Device ID DEC	8389166
Internal system bus	Protocol version	V1
	Maximum number of connected modules	16
Ambient data	Electromagnetic compatibility (EMC)	EN 60947-5-2
	Shock load	500m/s² (50G)
	Ambient operating temperature	-25 ... +55°C [6]
	Ambient storage temperature	-40... +70°C

[2] A = VS connections reverse-polarity protected.
[3] B = inputs and output reverse-polarity protected.
[4] C = interference suppression.
[5] With correctly attached system bus module.
[6] Depending on number of connected sensor devices.
1-3 units: Ambient temperature -25...55°C; max. output current 100mA
4-8 units: Ambient temperature -25...50°C; max. output current 50mA
9-16 units: Ambient temperature -25...45°C; max. output current 20mA

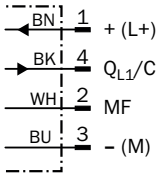
Dimensions in mm (inch)

Dimensional drawing



Dimensions in mm (inch)

Anschlussschema Cd-447



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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