WI180C-PN

SICK
Sensor Intelligence.

WI180C-PN

Ordering information

Type	Part no.
WI180C-PN	6068088

Other models and accessories ➜ www.sick.com/

Detailed technical data

Technical specifications

Accessory family	Fieldbus modules
Enclosure rating	IP54
Dimensions (W x H x L)	39 mm x 36.3 mm x 102.35 mm
Description	PROFINET coupler for WLL180T, KTL180 and AOD1. Features: PROFINET IRT; transmission rates 10 Mbaud – 100 Mbaud; M12 PROFINET connection; M8 voltage supply 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

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

Dimensional drawing (Dimensions in mm (inch))
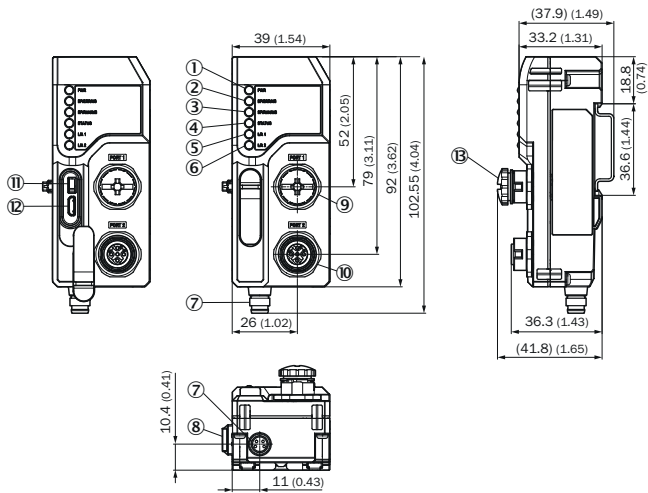
① PWR-LED
② BF/ERR/NS-LED
③ SF/RUN/MS-LED
④ Status LED
⑤ L/A1-LED
⑥ L/A2-LED
⑦ Power connection: male connector M8, 4-pin
⑧ Bus male connector, 5-pin
⑨ D-coded M12 plug connector, 4-pin, PROFINET/Ethernet
⑩ D-coded M12 plug connector, 4-pin, PROFINET/Ethernet
⑪ Factory reset button
⑫ Service port (USB, Micro-B)
⑬ M12 connector cap (accessory)

Technical data

Electrical	Supply voltage	12 – 24 VDC ±10 %
	Power consumption (without connected devices)	3 W
	Switch-on delay	1000 ms
	Switch-on delay (overall system)	2000 ms
	LEDs	PWR, BF/ERR/NS, SF/RUN/MS, STATUS, L/A1, L/A2
	Power supply	Male M8 plug connector, 4-pin
	Other interfaces	Male bus connector, 5-pin, internal system bus 2 x M12 4-pin D-coded, PROFINET
PROFINET IO	Maximum number of modules to be connected	16
	Transmission speed	100 MBit/s
	Maximum distance between nodes	100 m
	Process data	Depending on selected modules Max. 44 bytes input, 4 bytes output Min. cycle time 1 ms
	Asynchronous data	supported
	Compliant standard	IEEE802.3u (100Base-Tx)
	Conformance class	Class C (PROFINET IRT)
	Netload class	III
	Ethernet ports	2
	PROFINET features	Media Redundancy (MRP), network diagnostic (MIB/SNMP), topology detection, port diagnostic (Up/Down), connection diagnostic (connection length measurement), I&M0...4, auto device replacement, reduction ratio, openVAS tested
	GSD file	available (V2.2, V2.32, V2.33, V2.34)
EMC	Noise immunity (Length of cable ≤30 m)	in accordance with EN 61000-6-2/ EN 61131-2
	Emission	in accordance with EN 55011, class A
Product safety	Protection class	3
	Short-circuit protection	in accordance with VDE 0160
Mechanical	Protection category	IP54[1]
	Sensitivity to vibrations	IEC 60068, 10 – 55 Hz
	Shock resistance	IEC 60068, 500 m/s² (~50 g)
	Housing material	Polycarbonate
	Dimensions (HxWxD) in mm	39 x 102.55 x 36.3

[1] Valid, if WI180C-PN is connected via internal system bus with modules which fullfill IP54

Environmental parameters	Air humidity (operation/storage)	35 – 85 % relative humidity
	Temperature range (storage)	-40 – +70 °C
	Temperature range (Operation, ≤3 connected devices)	-25 – +55 °C [1]
	Temperature range (Operation, ≤8 connected devices)	-25 – +50 °C [1]
	Temperature range (Operation, ≤16 connected devices)	-25 – +45 °C [1]

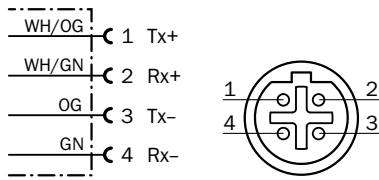[1] Temperature ranges valid if no output current on connected devices

Anschlussschema

Cd-416

Supply voltage port
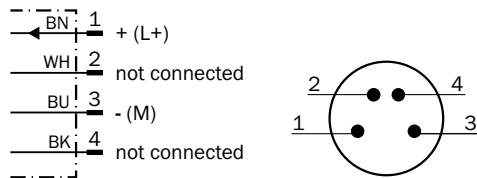
Pin	Pin assignment	Wire color	Description
1	L+	Brown	+12 ... 24 VDC
2	n.c.	n/a	Not assigned
3	M	Blue	GND
4	n.c.	n/a	Not assigned

Cd-409

PROFINET port 1 and 2 (M12 male connector, 4-pin, D-coded)

WH/OG	C 1	Tx+
WH/GN	C 2	Rx+
OG	C 3	Tx–
GN	C 4	Rx–

M12 (D-coded)

Pin	Pin assignment	Wire color	Description
1	Tx+	White/orange	Send data signal, not inverted
2	Rx+	White/green	Receive data signal, not inverted
3	Tx-	Orange	Send data signal, inverted
4	Rx-	Green	Receive data signal, inverted

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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