



WI180C-PN

Fieldbus modules

INTEGRATION MODULES AND ADAPTERS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
WI180C-PN	6068088

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



Detailed technical data

Features

Accessory group	Fieldbus modules
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
Enclosure rating	IP54
Dimensions (W x H x L)	39 mm x 36.3 mm x 102.35 mm

Certificates

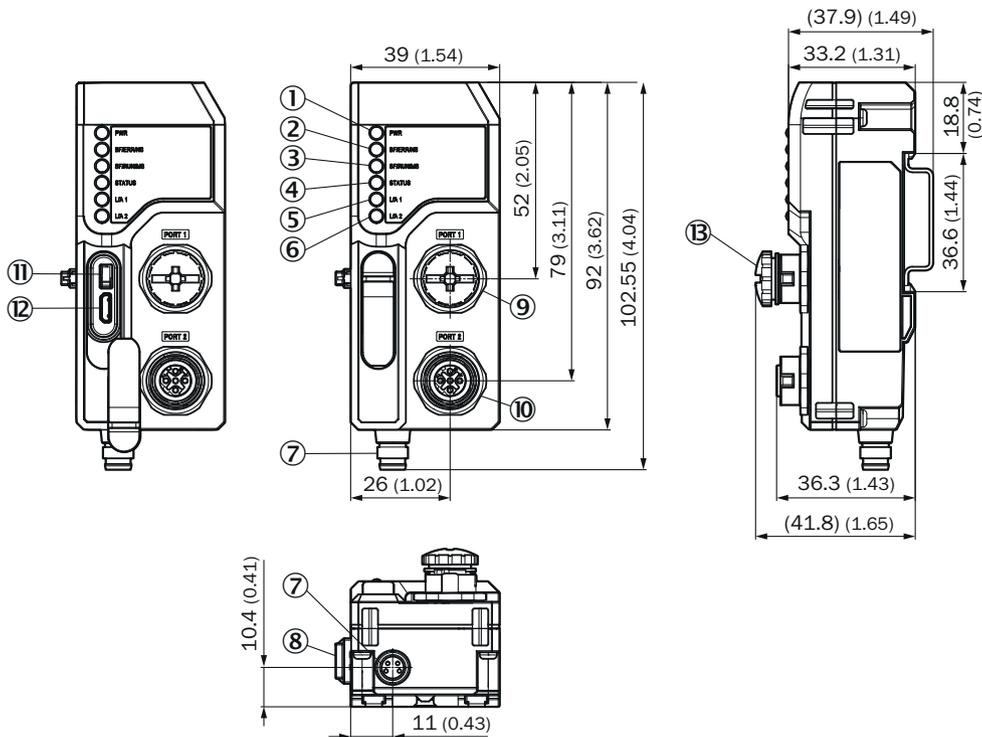
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cRUUs certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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

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
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&MO..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/s ² (~50 g)
	Housing material	Polycarbonate
	Dimensions (HxWxD) in mm	39 x 102.55 x 36.3
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

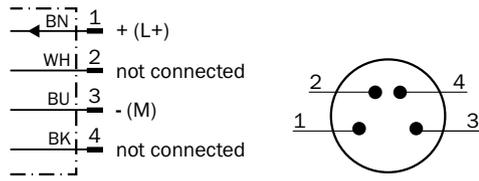
¹ Valid, if WI180C-PN is connected via internal system bus with modules which fulfill IP54

¹ Temperature ranges valid if no output current on connected devices

Dimensions in mm (inch)

Anschlusschema Cd-416

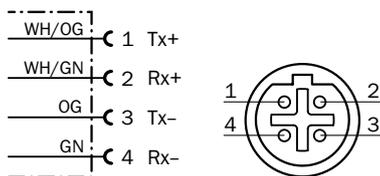
Supply voltage port



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

Anschlusschema Cd-409

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



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

Recommended accessories

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

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, M12, 4-pin, straight, D-coded • Signal type: PROFINET • Cable: 2 m, 4-wire, CAT5, CAT5e, PVC • Description: PROFINET, shielded 	SSL-1204-G02MZ90	6048241
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 4-pin, straight, D-coded • Connection type head B: Male connector, RJ45, 4-pin, straight • Signal type: PROFINET • Cable: 2 m, 4-wire, CAT5, CAT5e, PVC • Description: PROFINET, shielded 	SSL-2J04-G02MZ60	6048244
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 4-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 4-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with chemicals 	YG8U14-050VA3XLEAX	2095963

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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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