



WI180C-PN

Fieldbus modules

INTEGRATION MODULES AND ADAPTERS

SICKSensor Intelligence.



Ordering information

Туре	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

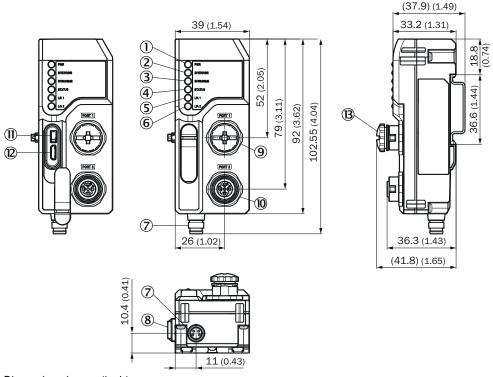
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cRUus certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

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
- ® Bus male connector, 5-pin
- D-coded M12 plug connector, 4-pin, PROFINET/Ethernet
- @ D-coded M12 plug connector, 4-pin, PROFINET/Ethernet
- factory reset button
- 12 Service port (USB, Micro-B)
- M12 connector cap (accessory)

INTEGRATION MODULES AND ADAPTERS

Technical data

PROFINET IO

EMC

Product safety

Mechanical

Supply voltage	12 - 24 VDC ±10 %
Power consumption (with- out 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
Maximum number of mod- ules 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&MO4, auto device replacement, reduction ratio, openVAS tested
GSD file	available (V2.2, V2.32, V2.33, V2.34)
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
Protection class	3
Short-circuit protection	in accordance with VDE 0160
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

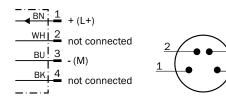
Air humidity (operation/storage)	35 – 85 % relative humidity
Temperature range (storage)	-40 - +70 °C
Temperature range (Operation, ≤3 connected devices)	-25 - +55 °C ¹
Temperature range (Operation, ≤8 connected devices)	-25 - +50 °C ¹
Temperature range (Operation, ≤16 connected devices)	-25 - +45 °C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

¹ Temperature ranges valid if no output current on connected devices

Dimensions in mm (inch)

Anschlussschema Cd-416

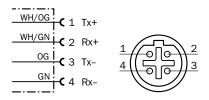
Supply voltage port



Pin	Pin assig	nment Wire colo	Description
1	L+	Brown	+12 24 VDC
2	n.c.	n/a	Not assigned
3	М	Blue	GND
4	n.c.	n/a	Not assigned

Anschlussschema 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	Туре	part no.	
connectors and cables				
-	 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	
	 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	
	 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: Zones with chemicals, Uncontaminated zones 	YG8U14-050VA3XLEAX	2095963	

SICK AT A GLANCE

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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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