WI180C-EC

Ordering information

Type	Part no.
WI180C-EC	6068089

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	EtherCAT coupler for WLL180T, KTL180 and AOD1. ⌕Features: EtherCAT; transmission rates of up to 100 Mbaud; M12 EtherCAT 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

eCl@ss 5.0	27242202
eCl@ss 5.1.4	27242602
eCl@ss 6.0	27242602
eCl@ss 6.2	27242602
eCl@ss 7.0	27242602
eCl@ss 8.0	27242602
eCl@ss 8.1	27242602
eCl@ss 9.0	27242602
eCl@ss 10.0	27242602
eCl@ss 11.0	27242602
eCl@ss 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))
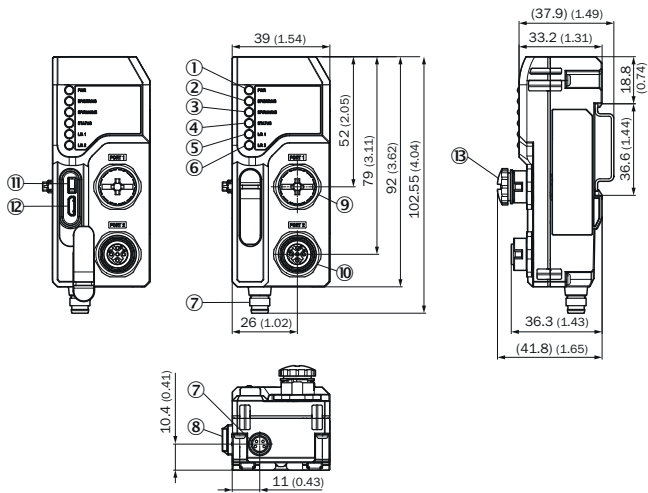
① PWR-LED
② BF/ERR/NS-LED
③ SF/RUN/MS-LED
④ Status LED
⑤ L/A1-LED
⑥ L/A2-LED
⑦ Power connection: male connector M8, 4-pin
⑧ Bus male connector, 5-pin
⑨ D-coded M12 plug connector, 4-pin, PROFINET/Ethernet
⑩ D-coded M12 plug connector, 4-pin, PROFINET/Ethernet
⑪ Factory reset button
⑫ Service port (USB, 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, EtherCAT
EtherCAT	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 12 bytes input and 6 bytes output Gateway 8 bytes input and 3 bytes output per module Minimum cycle time: TBD
	Asynchronous data	Service data objects (SDOs) over CANopen-over-EtherCAT (CoE)
	Compliant standard	IEEE802.3u (100Base-Tx)
	Ethernet ports	2
	ESI file	Available on www.sick.com
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

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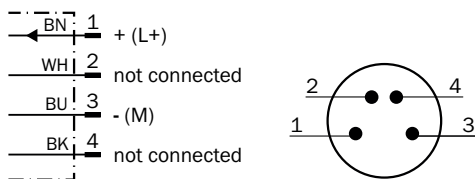
Pin	Pin assignment	Wire color	Description
1	L+	Brown	+12 ... 24 VDC
2	n.c.	n/a	Not assigned
3	M	Blue	GND
4	n.c.	n/a	Not assigned

Cd-433

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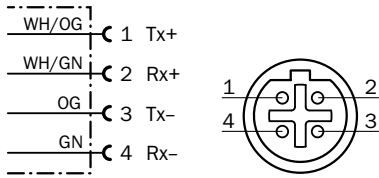
M12 (D-coded)

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

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