Data Sheet for sensor accessories

MEGATRON

Accessories for rotary encoders with CAN interface	Series CANZUB

Picture shows hardware from CANopen starter kit

Accessories for MEGATRON CAN rotary encoders with M12 connectors:
- Cables with M12 connectors from 0.5 m up to 10 m
- T- and Y-pieces
- Terminators with integrated 120 Ohm resistor

CANopen starter-kit with, includes:
- PCAN-View USB-interface
- Cables, T-/Y-pieces, terminators
- Drivers/software on optical disc

With CAN accessories from MEGATRON a CAN-Network structure can be build fast and secure, which works for many years trouble-free. The electrical parameters from the CAN network accessories are a perfect match for MEGATRON´s rotary encoders with CAN interface and ensure all time a reliable data transmission.

The CANopen starter kit essentially meets three requirements:
1. Everything necessary is included to offer users a quick entry in the CANopen rotary encoder world
2. Encoders can be parameterized to the needs of the application before they are installed
3. The function of rotary encoders can be tested separately from the application

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Technical Data for Cables and Connectors

Technical Data Connectors

Connector design	Plug, coupling / straight, angled
Connector locking system	Screw-cap
Type of connector	M12
Number of poles	5
Operating temperature	-20 °C up to +70 °C
Protection grade (IEC60529)	IP67
Mechanical operation	> 100 mating cycles
Contact material	Metal, CuZn
Contact plating	Au (gold)
Contact carrier material	TPU, BK
Screw-cap (plug)	CuZn, nickel-plated
Plug housing material	TPU

Technical Data Wire

Wire gauge (mm)	2 x AWG 22, 2 x AWG 23
Cable sheath characteristics	Oil-resistant, UV-stable, halogen-free, UL
Cable sheath diameter	7 mm
EMC compliance	Shielded
Operating temperature	-20 °C up to +70 °C

Electrical Data

Rated voltage	60 V
Insulation resistance	$\geq 10^8\,\Omega$
Terminating resistor value in terminator	120 Ω

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CAN cable with straight plugs

Article designation:	Order number:
0,5 m M12, 5-pol. 1 x plug male straight, 1 x plug female straight, IP67	135612
1 m M12, 5-pol. 1 x plug male straight, 1 x plug female straight, IP67	135613
2 m M12, 5-pol. 1 x plug male straight, 1 x plug female straight, IP67	135614
5 m M12, 5-pol. 1 x plug male straight, 1 x plug female straight, IP67	135615
10 m M12, 5-pol. 1 x plug male straight, 1 x plug female straight, IP67	135616

PIN-assignment

| Function:	
U_b	PIN 2
Ground (GND)	PIN 3
CAN (High)	PIN 4
CAN (Low)	PIN 5
CAN GND (Shield)	PIN 1

ILLUSTRATION

X = cable length

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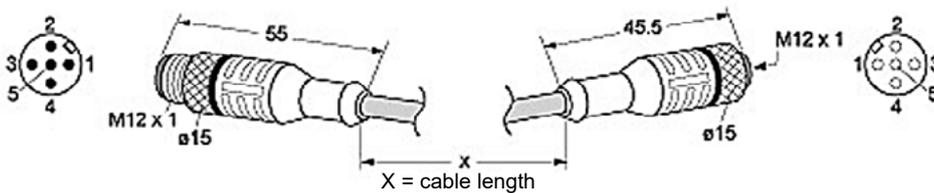
Accessories for rotary encoders with CAN interface	Series CANZUB

CAN cable with angled plugs

Article designation:	Order number:
0,5 m M12, 5-pol. 1 x plug male angled, 1 x plug female angled, IP67	135617
1 m M12, 5-pol. 1 x plug male angled, 1 x plug female angled, IP67	135618
2 m M12, 5-pol. 1 x plug male angled, 1 x plug female angled, IP67	135619
5 m M12, 5-pol. 1 x plug male angled, 1 x plug female angled, IP67	135620
10 m M12, 5-pol. 1 x plug male angled, 1 x plug female angled, IP67	135621

PIN-assignment

Function:	
Ub	PIN 2
Ground (GND)	PIN 3
CAN (High)	PIN 4
CAN (Low)	PIN 5
CAN (GND(Shield)	PIN 1

ILLUSTRATION


X = cable length

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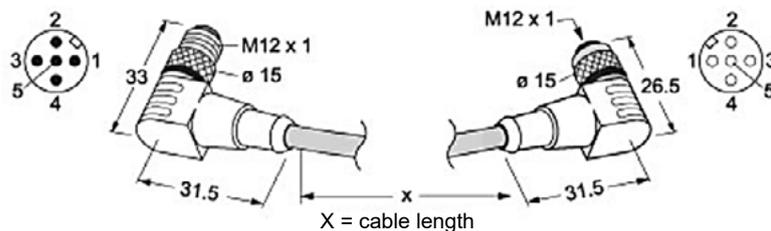
Accessories for rotary encoders with CAN interface	Series CANZUB

CAN T-piece

Article designation:	Order number:
T-piece CAN, M12, 5-pol., IP67	135622

PIN-assignment

Function:

|	
Ub	PIN 2
Ground (GND)	PIN 3
CAN (High)	PIN 4
CAN (Low)	PIN 5
CAN (GND(Shield)	PIN 1
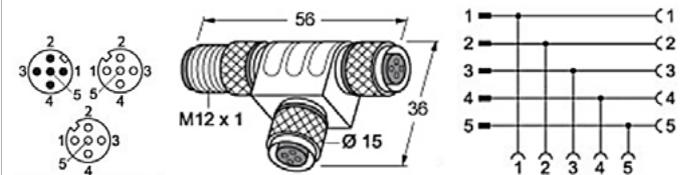
ILLUSTRATION

CAN Y-piece

Article designation:	Order number:
Y-piece CAN, M12, 5-pol., IP67	135623

PIN-assignment

Function:

Ub	PIN 2
Ground (GND)	PIN 3
CAN (High)	PIN 4
CAN (Low)	PIN 5
CAN (GND(Shield)	PIN 1

ILLUSTRATION

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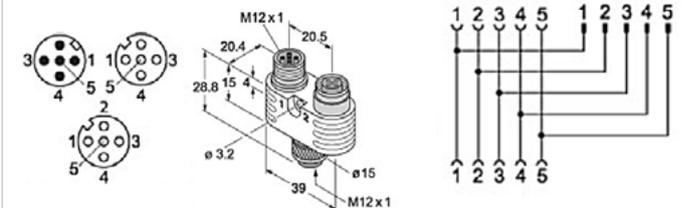
| Accessories for rotary encoders with CAN interface	Series CANZUB

CAN terminator male plug

Article designation:	Order number:
Terminator, CAN, 120 Ohm, male plug, M12, 5-pol., IP67	135624

PIN-assignment

Function:	
Ub	PIN 2
Ground (GND)	PIN 3
CAN (High)	PIN 4
CAN (Low)	PIN 5
CAN GND (Shield)	PIN 1
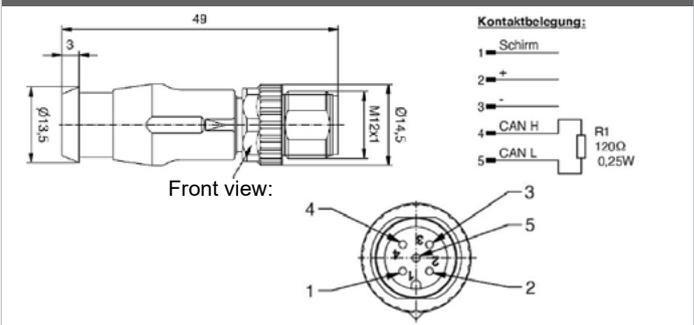
ILLUSTRATION

CAN terminator female plug

Article designation	Order number:
Terminator, CAN, 120 Ohm, female plug, M12, 5-pol., IP67	135625

### PIN-assignment

Function:	
Ub	PIN 2
Ground (GND)	PIN 3
CAN (High)	PIN 4
CAN (Low)	PIN 5
CAN GND (Shield)	PIN 1

ILLUSTRATION

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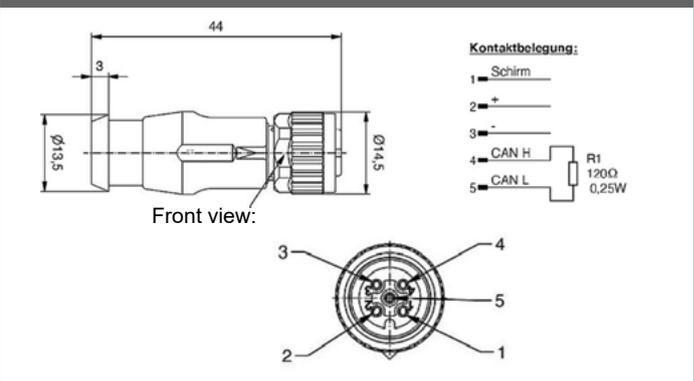
Accessories for rotary encoders with CAN interface	Series CANZUB

CANopen Starter-Kit

Article designation:	Order no:
CANopen Starter Kit	135691

Scope of Delivery CANopen Starter-Kit

Quantity [pcs.]:	Article designation:
2	T-piece, CAN M12, 5 pol., 1 x male plug, 2 x female plugs, IP67 Art. Nr. 135622
1	Terminator, CAN, 120 Ohm, 2 x male plugs, IP67 Art. No. 135624
1	Terminator, CAN, 120 Ohm, Art. No. 135625
1	1 m CAN cable M12, 5-pol., 1 x male plug, 1 x female plug, straight, IP67 Art. No. 135613
1	Adapter cable 9 pol SUB-D female plug , M12 male plug, incl. 2 single strand wires as connection as supply voltage for the rotary encoder
1	PCAN-View USB-Interface from PEAK Systems
1	Optical disc incl.: ■ Device-drivers and interface-DLL for Windows ® (*) ■ PCAN-view CAN-monitor software for Windows ® (*)

(*) MEGATRON recommends to download the latest drivers and PCAN-View software from https://www.üeak-systems.com for free

Product data PCAN-USB Interface

|	
Connections	1 x USB type A (to computer), 1 x 9 pol. SUB-D (to CAN-BUS)
Baud rate changeable	Up to 1Mbit/s
Supply voltage	Via USB-interface
CAN-specifications	2.0A (11-Bit-ID) and 2.0B (29-Bit-ID)
Required drivers	Device-drivers for Windows ® >XP, LINUX, Kernel >2.6
Supported operating systems	Windows, LINUX

PIN-assignment Inter 9-pol SUB-D female plug (top view)

Function:	PIN
CAN (Low)	2
GND	3, 6
CAN (High)	7
Screen	Housing
n.c.	1, 4, 5, 8, 9
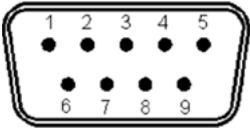
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Adapter cable 9-pol SUB-D coupling to M12 plug:

ILLUSTRATION

Single strand cable sheath colour white
Single strand cable sheath colour brown

Cable length: app. 30 cm

M12 Plug

SUB-D Plug
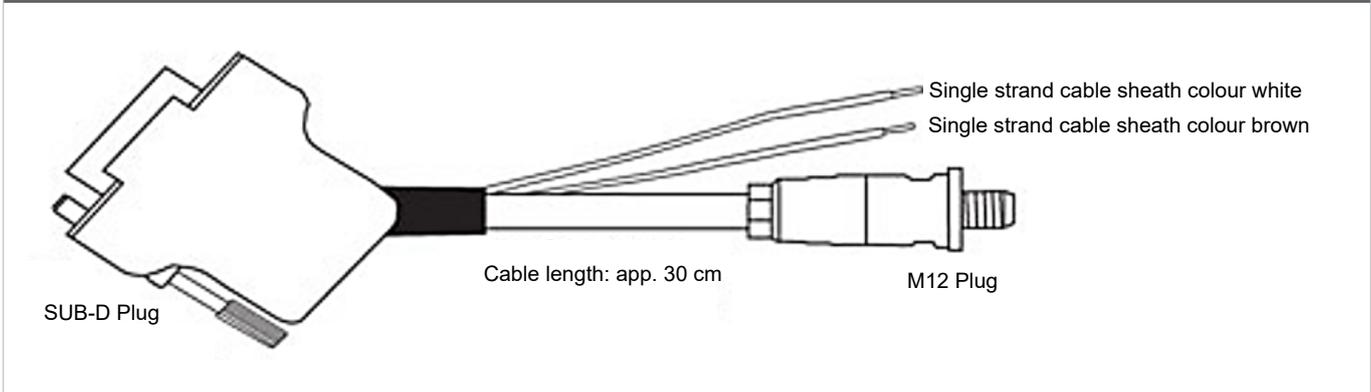
PIN-assignment adapter 9-pol SUB-D female plug (top-view)

Function:	PIN
CAN (High)	7
CAN (Low)	2
CAN (GND)	6
Screen	Housing
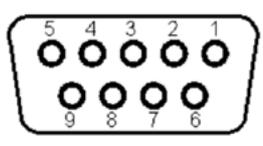
PIN-assignment adapter cable 5-pol plug M12

Function:	PIN
CAN (High)	4
CAN (Low)	5
CAN (GND)	1
GND	3
VSUP	2
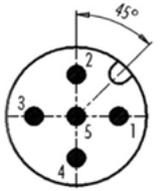
Assignment single strand wires

Function:	Cable sheath colour
VSUP (+) rotary encoder	brown
GND (-) rotary encoder	white

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