

 PH58

Encoder with measurement range
up to 255 revolutions



- Housing diameter 58 mm
- Protection class up to IP67/IP69
- True-absolute measurement principle
- Wear and maintenance free
- Redundant version available

Product versions



Analog output



Analog output, programmable / tare
function



Analog output, redundant



Digital output CANopen



Digital output CANopen, redundant



PH58 - Magnetic Multiturn Encoder
Version with analog output

Specifications

		Order options
Shaft	Shaft for clamping flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	1 V20 V21 V22
	Shaft for synchro flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	V23 V24 V25
Measurement range	up to 255 x 360° (255 revolutions) 1 revolution, 2 revolutions ... up to 255 revolutions	2 1T 2T ... 255T
Output	Voltage 0.5 ... 10 V Voltage 0.5 ... 4.5 V Voltage 0.5 ... 4.5 V Current 4 ... 20 mA, 3 wire	3 U2 U6 U8 I1
Resolution	Up to 16 bit	
Repeatability	0.1°	
Linearity	±(2°+ 0.015% f.s.)	
Housing material	Aluminum (housing), stainless steel (shaft)	
Mounting	Clamps or screws	
Protection class	IP67 shaft IP67/69 housing (with IP69 compatible connector)	
Signal characteristics	Signal increasing CW Signal increasing CCW	4 CW CCW
Connection	Connector M12 axial, 5 pin	5 M12A5
Revolutions per minute (mechanical)	10,000 r.p.m. max.	
Allowable shaft load	80 N radial, 50 N axial	
Life cycle of bearings	1 x 10 ⁹ rev. (2800 h per 6000 r.p.m)	
Shock	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks	
Vibration	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles	
Temperature range	-40 ... +85°C	
Weight	approx. 400 g	
EMC	DIN EN 61326-1:2013	

Order code

PH58	-	1	-	2	-	3	-	4	-	5
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Order example: PH58 – V20 – 255T – I1 – CW – M12A5



PH58 - Magnetic Multiturn Encoder
Version with Analog output, programmable / tare function

Specifications

		Order options
Shaft	Shaft for clamping flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	1 V20 V21 V22
	Shaft for synchro flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	V23 V24 V25
Measurement range	up to 255 x 360° (255 revolutions) 1 revolution, 2 revolutions ... up to 255 revolutions	2 1T 2T ... 255T
Output	Voltage 0.5 ... 10 V, programmable Voltage 0.5 ... 4.5 V, programmable Voltage 0.5 ... 4.5 V, programmable Current 4 ... 20 mA, 3 wire, programmable	3 U2/PMU U6/PMU U8/PMU I1/PMU
	Voltage 0.5 ... 10 V, tare function Voltage 0.5 ... 4.5 V, tare function Voltage 0.5 ... 4.5 V, tare function Current 4 ... 20 mA, 3 wire, tare function	U2/PMZ U6/PMZ U8/PMZ I1/PMZ
Resolution	Up to 16 bit	
Repeatability	0.1°	
Linearity	±(2°+ 0.015% f.s.)	
Housing material	Aluminum (housing), stainless steel (shaft)	
Mounting	Clamps or screws	
Protection class	IP67 shaft; IP67/69 housing (with IP69 compatible connector)	
Signal characteristics	Signal increasing CW Signal increasing CCW	4 CW CCW
Connection	Connector M12 axial, 5 pin	5 M12A5
Revolutions per minute (mech.)	10,000 r.p.m. max.	
Allowable shaft load	80 N radial, 50 N axial	
Life cycle of bearings	1 x 10 ⁹ rev. (2800 h per 6000 r.p.m)	
Shock	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks	
Vibration	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles	
Temperature range	-40 ... +85°C	
Weight	approx. 400 g	
EMC	DIN EN 61326-1:2013	

Order code

PH58 – **1** – **2** – **3** – **4** – **5**

Order example: PH58 – V20 – 255T – U2/PMU – CW – M12A5



PH58 - Magnetic Multiturn Encoder
Version with analog output, redundant

Specifications

		Order options
Shaft	Shaft for clamping flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	1 V20 V21 V22
	Shaft for synchro flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	V23 V24 V25
Measurement range	up to 255 x 360° (255 revolutions) 1 revolution, 2 revolutions ... up to 255 revolutions	2 1T 2T ... 255T
Output	Voltage 0.5 ... 10 V, two channels, redundant Voltage 0.5 ... 4.5 V two channels, redundant Voltage 0.5 ... 4.5 V two channels, redundant Current 4 ... 20 mA, 3 wire, redundant	3 U2R U6R U8R I1R
Resolution	Up to 16 bit	
Repeatability	0.1°	
Linearity	±(2°+ 0.015% f.s.)	
Housing material	Aluminum (housing), stainless steel (shaft)	
Mounting	Clamps or screws	
Protection class	IP67 shaft IP67/69 housing (with IP69 compatible connector)	
Signal characteristics	Signal 1 increasing CW / signal 2 increasing CW Signal 1 increasing CCW / signal 2 increasing CCW Signal 1 increasing CCW / signal 2 increasing CCW	4 CW/CW CW/CCW CCW/CCW
Connection	Connector M12 axial, 8 pin	5 M12A8
Revolutions per minute (mech.)	10,000 r.p.m. max.	
Allowable shaft load	80 N radial, 50 N axial	
Life cycle of bearings	1 x 10 ⁹ rev. (2800 h per 6000 r.p.m)	
Shock	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks	
Vibration	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles	
Temperature range	-40 ... +85°C	
Weight	approx. 400 g	
EMC	DIN EN 61326-1:2013	

Order code

PH58 – **1** – **2** – **3** – **4** – **5**

Order example: PH58 – V20 – 255T – I1R – CW – M12A8



PH58 - Magnetic Multiturn Encoder
Version with digital output CANopen

Specifications

		Order options
Shaft	Shaft for clamping flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	1 V20 V21 V22
	Shaft for synchro flange: Shaft 6 mm Shaft 10 mm Shaft 12 mm	V23 V24 V25
Measurement range	up to 255 x 360° (255 revolutions) 1 revolution, 2 revolutions ... up to 255 revolutions	2 1T 2T ... 255T
Output	CANopen (CiA 301-V4.02/406-V3.2) CANopenR redundant CAN SAE J1939 CAN SAE J1939R redundant	3 MCANOP MCANOPR MCANJ1939 MCANJ1939R
Resolution	14 bit per revolution	
Repeatability	0.1°	
Linearity	±1°	
Housing material	Aluminum (housing), stainless steel (shaft)	
Mounting	Clamps or screws	
Protection class	IP67 shaft IP67/69 housing (with IP69 compatible connector)	
Connection	Connector M12 axial, 5 pin	4 M12A5/CAN
Revolutions per minute (mechanical)	10,000 r.p.m. max.	
Allowable shaft load	80 N radial, 50 N axial	
Life cycle of bearings	1 x 10 ⁹ rev. (2800 h per 6000 r.p.m)	
Shock	DIN EN 60068-2-27:2010, 100 g/11 ms, 100 shocks	
Vibration	DIN EN 60068-2-6:2008, 20 g 10 Hz-2 kHz, 10 cycles	
Temperature range	-40 ... +85°C	
Weight	approx. 400 g	
EMC	DIN EN 61326-1:2013	

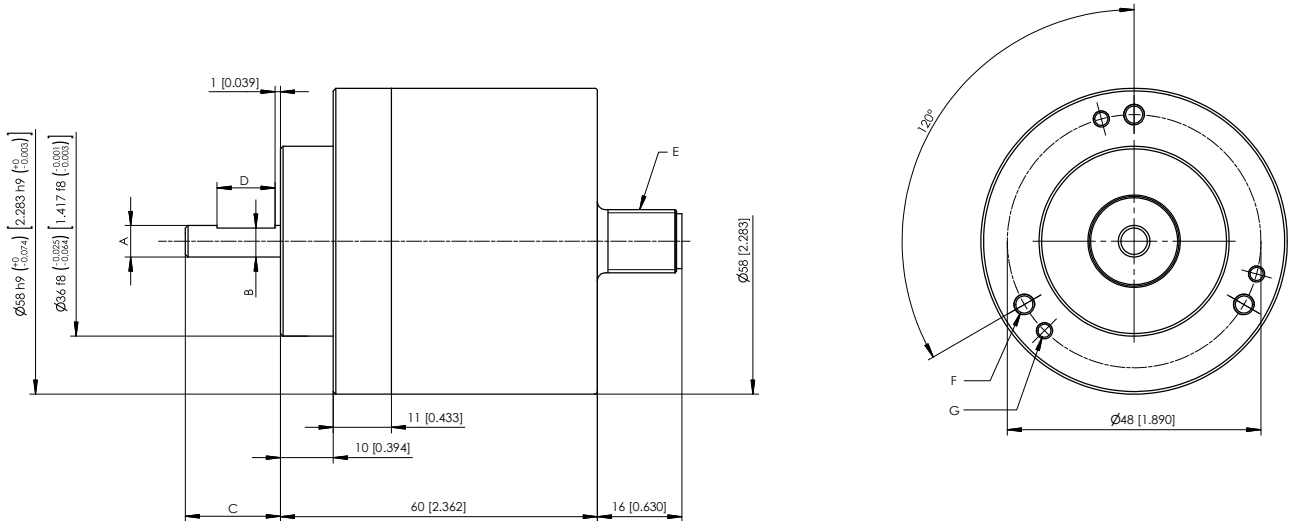
Order code

PH58	-	1	-	2	-	3	-	4
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Order example: PH58 – V20 – 255T – MCANOP – M12A5/CAN

Dimensions

Clamping flange



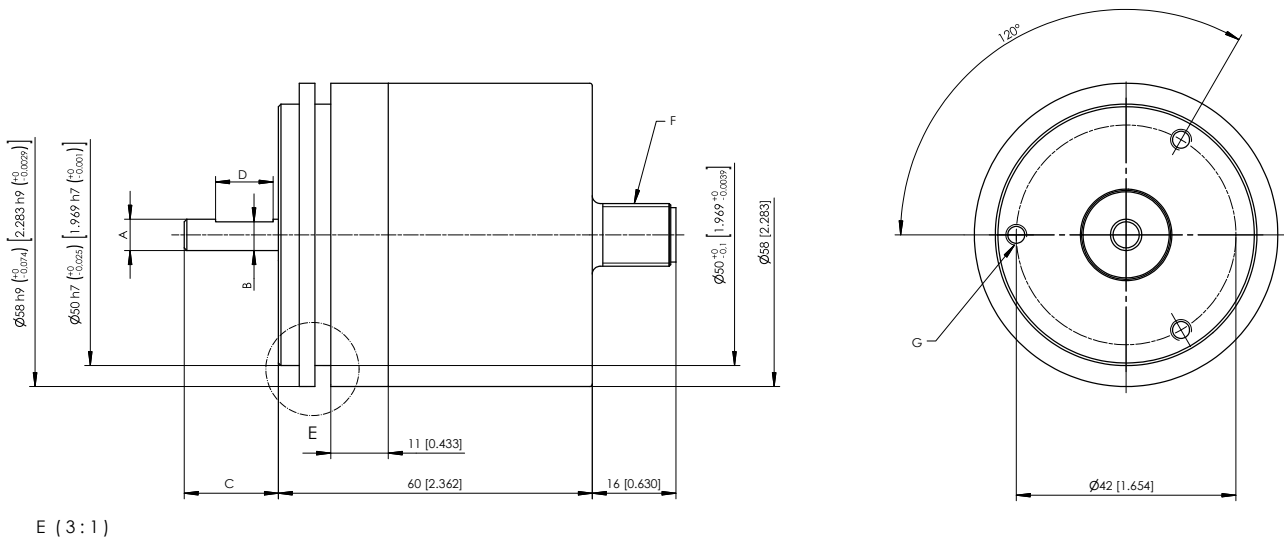
- E – Connector M12
- F – 3 x M4 – 6 [0.236] deep
- G – 3 x M3 – 6 [0.236] deep

Dimensions in mm [inch].
Dimensions informative only.
For guaranteed dimensions consult factory.

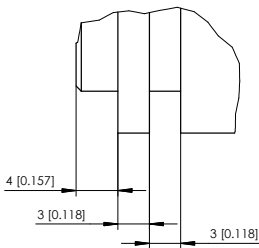
Shaft dimensions for clamping flange

Dim.	V20	V21	V22
A	$\varnothing 6g7$ -0,004 -0,016 [0.236 -0.0002 -0.0006]	$\varnothing 10g7$ -0,005 -0,02 [0.394 -0.0002 -0.0008]	$\varnothing 12g7$ -0,006 -0,024 [0.472 -0.0002 -0.0009]
B	5,5 [0.217]	9 [0.354]	11 [0.433]
C	18 [0.709]	20 [0.787]	20 [0.787]
D	11 [0.433]	15 [0.591]	15 [0.591]

Synchro flange



E (3:1)



F – Connector M12
G – 3 x M4 – 6 [0.236] deep


Dimensions in mm [inch].
Dimensions informative only.
For guaranteed dimensions consult factory.


Shaft dimensions for synchro flange


Dim.	V23	V24	V25
A	$\begin{matrix} \text{ø}6g7 & -0,004 \\ & -0,016 \end{matrix}$	$\begin{matrix} \text{ø}10g7 & -0,005 \\ & -0,02 \end{matrix}$	$\begin{matrix} \text{ø}12g7 & -0,006 \\ & -0,024 \end{matrix}$
	$\left[\begin{matrix} 0.236 & -0.0002 \\ & -0.0006 \end{matrix} \right]$	$\left[\begin{matrix} 0.394 & -0.0002 \\ & -0.0008 \end{matrix} \right]$	$\left[\begin{matrix} 0.472 & -0.0002 \\ & -0.0009 \end{matrix} \right]$
B	5,5 [0.217]	9 [0.354]	11 [0.433]
C	18 [0.709]	20 [0.787]	20 [0.787]
D	11 [0.433]	15 [0.591]	15 [0.591]


Output specification

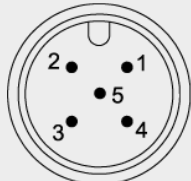
Analog output

U2 Voltage output 0.5 ... 10 V 	Excitation voltage	8 ... 36 V DC
	Excitation current	20 mA typical at 24 V DC 38 mA typical at 12 V DC max. 50 mA
	Output voltage	0.5 ... 10 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013


U6 Voltage output 0.5 ... 4.5 V 	Excitation voltage	5 V DC $\pm 5\%$
	Excitation current	typical 140 mA max.
	Output voltage	0.5 ... 4.5 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013


U8 Voltage output 0.5 ... 4.5 V 	Excitation voltage	8 ... 36 V DC
	Excitation current	17 mA typical at 24 V DC 32 mA typical at 12 V DC 50 mA max.
	Output voltage	0.5 ... 4.5 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013


I1 Current output 4 ... 20 mA, 3 wires 	Excitation voltage	8 ... 36 V DC
	Excitation current	typical 36 mA at 24 V DC typical 70 mA at 12 V DC 120 mA max.
	Load R _L	500 Ω max.
	Output current	4 ... 20 mA
	Measuring rate	1 kHz standard
	Stability (temperature)	±50 x 10 ⁻⁶ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013


Signal wiring	Output signals	Connector pin no.	Cable color
Connector M12, 5 pin  View to the sensor connector	Excitation +	1	brown
	Signal	2	white
	GND	3	blue
	Do not connect!	4	black
	Do not connect!	5	(grey)

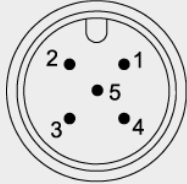
Analog output, programmable / tare function

U2/PMU programmable U2/PMZ tare function Voltage output 0.5 ... 10 V 	Excitation voltage	8 ... 36 V DC
	Excitation current	20 mA typical at 24 V DC 38 mA typical at 12 V DC max. 50 mA
	Output voltage	0,5 ... 10 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

U6/PMU programmable U6/PMZ tare function Voltage output 0.5 ... 4.5 V 	Excitation voltage	5 V DC $\pm 5\%$
	Excitation current	typical 140 mA
	Output voltage	0.5 ... 4.5 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

U8/PMU programmable U8/PMZ tare function Voltage output 0.5 ... 4.5 V 	Excitation voltage	8 ... 36 V DC
	Excitation current	17 mA typical at 24 V DC 32 mA typical at 12 V DC max. 50 mA
	Output voltage	0.5 ... 4.5 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

I1/PMU programmable I1/PMZ tare function Current output 4 ... 20 mA, 3 wire 	Excitation voltage	8 ... 36 V DC
	Excitation current	typical 36 mA at 24 V DC typical 70 mA at 12 V DC max. 120 mA
	Load R _L	500 Ω max.
	Output current	4 ... 20 mA
	Measuring rate	1 kHz standard
	Stability (temperature)	±50 x 10 ⁻⁶ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

Signal wiring	Output signals	Connector pin no.	Cable color
Connector M12, 5 pin  View to the sensor connector	Excitation +	1	brown
	Signal	2	white
	GND	3	blue
	Do not connect!	4	black
	SPAN/ZERO	5	grey

Output .../PMU

Programming of the start and end value by the customer (programmable)

Teach-In of start and end value for the analog outputs U2/PMU, U8/PMU, I1/PMU is provided by a binary signal SPAN/ZERO. At the start position connect signal SPAN/ZERO for a period of 2 ... 3 seconds to GND via push button. At the end position connect signal SPAN/ZERO for a period of 5 ... 6 seconds to GND via a push button. The scaling range will be stored non-volatile.


To reset the sensor to factory default ZERO/END must be connected to ground while powering up the sensor for 2 ... 3 seconds.


Output .../PMZ


Programming of the zero point by the customer (tare function)


Teach-In of the zero point for the analog outputs U2/PMZ, U6/PMZ, U8/PMZ and I1/PMZ is provided by a binary signal SPAN/ZERO. At the start position connect signal SPAN/ZERO for a period of 2 ... 3 seconds to GND via push button. The sensitivity of the output signal remains unchanged. The programmed position will be stored non-volatile. To reset the sensor to the factory values the button must be pushed for a period of 2 ... 3 seconds when the sensor is switched on.

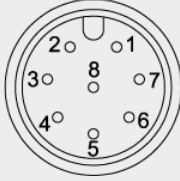
Analog output, redundant

U2R Voltage output 0.5 ... 10 V 	Excitation voltage	8 ... 36 V DC
	Excitation current	20 mA typical at 24 V DC 38 mA typical at 12 V DC max. 50 mA per channel
	Output voltage	0.5 ... 10 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013


U6R Voltage output 0.5 ... 4.5 V 	Excitation voltage	5 V DC $\pm 5\%$
	Excitation current	typical 140 mA per channel
	Output voltage	0.5 ... 4.5 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

U8R Voltage output 0.5 ... 4.5 V 	Excitation voltage	8 ... 36 V DC
	Excitation current	17 mA typical at 24 V DC 32 mA typical at 12 V DC max. 50 mA per channel
	Output voltage	0.5 ... 4.5 V DC
	Output current	2 mA max.
	Measuring rate	1 kHz standard
	Stability (temperature)	$\pm 50 \times 10^{-6}$ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

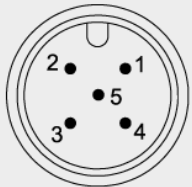
I1R Current output 4 ... 20 mA, 3 wires 	Excitation voltage	8 ... 36 V DC
	Excitation current	36 mA typical at 24 V DC 76 mA typical at 12 V DC max. 120 mA per channel
	Load R _L	500 Ω max.
	Output current	4 ... 20 mA
	Measuring rate	1 kHz standard
	Stability (temperature)	±50 x 10 ⁻⁶ / °C f.s. (typical)
	Protection	Reverse polarity, short circuit
	Operating temperature	See specification of the respective sensor
	EMC	DIN EN 61326-1:2013

Signal wiring	Channel	Output signals	Connector pin no.	Cable color
Connector M12, 8 pin  View to the sensor connector	1	Excitation +	1	white
		Signal	2	brown
		GND	3	green
		Do not connect!	4	yellow
	2	Excitation +	5	grey
		Signal	6	pink
		GND	7	blue
		Do not connect!	8	red

Digital output

CANOP CANopen 	CAN Specification	ISO 11898, Basic and Full CAN 2.0 B
	Communication profile	CANopen CiA 301 V 4.02, Slave
	Device profile	Encoder CiA 406 V 3.2
	Configuration services	Layer Setting Service (LSS), CiA Draft Standard 305 (transmission rate, node id)
	Error Control	Node Guarding, Heartbeat, Emergency Message
	Node ID	Default: 127; programmable via LSS or SDO
	PDO	3 TxPDO, 0 RxPDO, static mapping
	PDO Modes	Event-/Time triggered, Remote-request, Sync cyclic/acyclic
	SDO	1 server, 0 Client
	CAM	8 cams
	Certified	Yes
	Transmission rates	50 kBaud to 1 MBaud, default: 125 kBaud; programmable via LSS or SDO
	Bus connection	M12 connector, 5 pin
	Integrated bus terminating resistor	Adjustable by the customer
	Bus, galvanic isolated	No

Specifications	Excitation voltage	8 ... 36 V DC
	Excitation current	20 mA typical at 24 V DC 40 mA typical at 12 V DC, 80 mA max.
	Resolution	0.05° max.
	Stability (temperature)	$\pm 50 \times 10^{-6}/^{\circ}\text{C}$ f.s. (typical)
	Repeatability	1 LSB
	Operating temperature	See specification of the respective sensor
	Protection	Reverse polarity, short circuit
	Dielectric strength	1 kV (V AC, 50 Hz, 1 min.)
	EMC	DIN EN 61326-1:2013

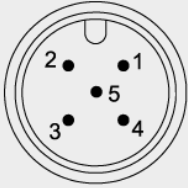
Signal wiring	Output signals	Connector pin no.	Cable color
Connector M12, 5 pin 	Shield	1	brown
	Excitation +	2	white
	GND	3	blue
	CAN-H	4	black
	CAN-L	5	grey
	View to the sensor connector		

MCANJ1939 SAE J1939 	CAN Specification	ISO 11898, Basic and Full CAN 2.0 B
	Transceiver	24V-compliant, not isolated
	Communication profile	SAE J1939
	Baud Rate	250 kbit/s
	Internal termination resistor	120 Ω adjustable by the customer
	Address	Default 247d, configurable

NAME Fields	Arbitrary address capable	1	Yes
	Industry group	0	Global
	Vehicle system	7Fh (127d)	Non specific
	Vehicle system instance	0	
	Function	FFh (255d)	Non specific
	Function instance	0	
	ECU instance	0	
	Manufacturer	145h (325d)	Manufacturer ID
	Identity number	0nnn	Serial number 21 bit

Parameter Group Numbers (PGN)	Configuration data	PGN EF00h	Proprietary-A (PDU1 peer-to-peer)
	Process data	PGN FFnnh	Proprietary-B (PDU2 broadcast); nn Group Extension (PS) configurable

Specifications	Excitation voltage	8 ... 36 V DC
	Excitation current	20 mA typical at 24 V DC 40 mA typical at 12 V DC max. 80 mA
	Measuring rate	1 kHz (asynchronous)
	Stability (temperature)	±50 x 10 ⁻⁶ /°C f.s. (typical)
	Repeatability	1 LSB
	Operating temperature	See specification of the respective sensor
	Protection	Reverse polarity, short circuit
	Dielectric strength	1 kV (V AC, 50 Hz, 1 min.)
	EMV	EN 61326-1:2013

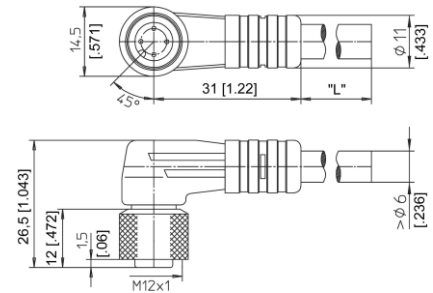
Signal wiring	Output signals	Connector pin no.	Cable color
Connector M12, 5 pin  View to the sensor connector	Shield	1	brown
	Excitation +	2	white
	GND	3	blue
	CAN-H	4	black
	CAN-L	5	grey

Connector cables

Connector cable M12, 4 pin (angular coupling)

shielded connector
Suitable for 5-pin
sensor connectors

The 4-core screened cable is supplied with a mating 4-pin 90° M12 connector at one end and 4 wires at the other end. Available lengths are 2 m, 5 m and 10 m.
Wire: cross sectional area 0.34 mm²
Cable diameter: 5.6 ±0.2 mm



Order code

KAB - xM - M12/4F/W - LITZE

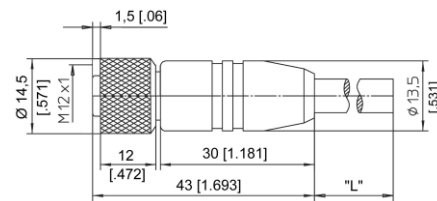
IP69: **KAB - xM - M12/4F/W/69K - LITZE**

xM = length in m

Connector cable M12, 4 pin (straight coupling)

shielded connector
Suitable for 5-pin
sensor connectors

The 4-core screened cable is supplied with a mating 4-pin M12 connector at one end and 4 wires at the other end. Available lengths are 2 m, 5 m and 10 m.
Wire: cross sectional area 0.34 mm²
Cable diameter: 5.6 ±0.2 mm



Order code

KAB - xM - M12/4F/G - LITZE

IP69: **KAB - xM - M12/4F/G/69K - LITZE**

xM = length in m

Signal wiring M12, 4 pin	Plug connection / cable color			
	1	2	3	4
	brown	white	blue	black

Applicable for cable carriers

Maximum movement speed	3 m/s
Maximum acceleration	5 m/s ²
Minimum bending radius	10 x cable diameter

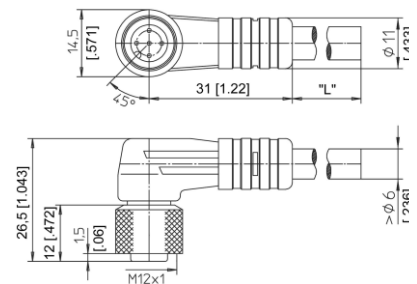
Connector cable M12, 5 pin (angular coupling)

shielded connector

The 5-core screened cable is supplied with a mating 5-pin 90° M12 connector at one end and 4 wires at the other end. Available lengths are 2 m, 5 m and 10 m.

Wire: cross sectional area 0.34 mm²

Cable diameter: 5.6 ±0.2 mm



Order code

KAB - xM - M12/5F/W - LITZE

IP69: **KAB - xM - M12/5F/W/69K - LITZE**

xM = length in m

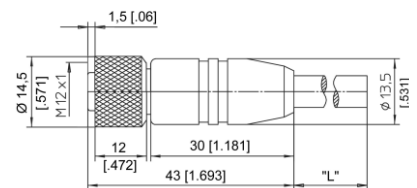
Connector cable M12, 5 pin (straight coupling)

shielded connector

The 5-core screened cable is supplied with a mating 5-pin M12 connector at one end and 4 wires at the other end. Available lengths are 2 m, 5 m and 10 m.

Wire: cross sectional area 0.34 mm²

Cable diameter: 5.6 ±0.2 mm



Order code

KAB - xM - M12/5F/G - LITZE

IP69: **KAB - xM - M12/5F/G/69K - LITZE**

xM = length in m

Signal wiring M12, 5 pin	Plug connection / Cable color				
	1	2	3	4	5
	brown	white	blue	black	grey

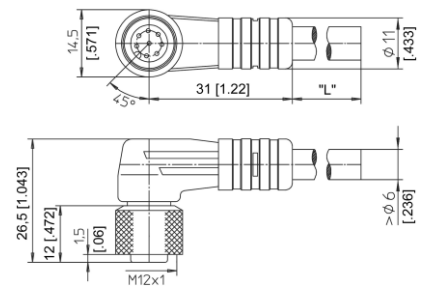
Applicable for cable carriers

Maximum movement speed	3 m/s
Maximum acceleration	5 m/s ²
Minimum bending radius	10 x cable diameter

Connector cable M12, 8 pin (angular coupling)

shielded connector

The 8-lead shielded cable is supplied with a mating 8-pin 90° M12 connector at one end and 8 wires at the other end. Available lengths are 2 m, 5 m and 10 m.
Wire: cross sectional area 0.25 mm²
Cable diameter: 6.3 ±0.2 mm



Order code

KAB - xM - M12/8F/W - LITZE

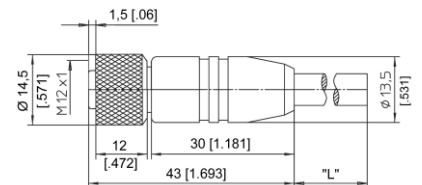
IP69: **KAB - xM - M12/8F/W/69K - LITZE**

xM = length in m

Connector cable M12, 8 pin (straight coupling)

shielded connector

The 8-lead shielded cable is supplied with a mating 8-pin M12 connector at one end and 8 wires at the other end. Available lengths are 2 m, 5 m and 10 m.
Wire: cross sectional area 0.25 mm²
Cable diameter: 6.3 ±0.2 mm



Order code

KAB - xM - M12/8F/G - LITZE

IP69: **KAB - xM - M12/8F/G/69K - LITZE**

xM = length in m

Signal wiring M12, 8 pin	Plug connection / cable color							
	1	2	3	4	5	6	7	8
	white	brown	green	yellow	grey	pink	blue	red

Applicable for cable carriers

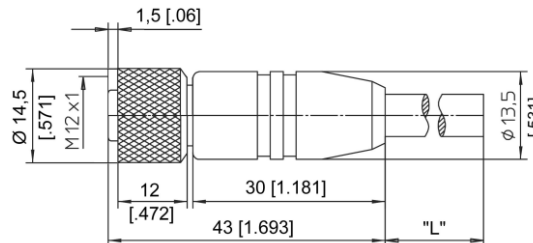
Maximum movement speed	3 m/s
Maximum acceleration	5 m/s ²
Minimum bending radius	10 x cable diameter

Connector/bus cable M12, 5 pin CAN-Bus

The 5-lead shielded cable is supplied with a female 5 pin M12 connector at one end and a male 5 pin M12 connector at the other end.

Available lengths are 0.3 m, 2 m, 5 and 10 m.

Cable diameter: 6.7 ±0.2 mm



Order code

KAB - xM - M12/5F/G - M12/5M/G - CAN

IP69: **KAB - xM - M12/5F/G/69K - M12/5M/G/69K - CAN**

xM = length in m

Applicable for cable carriers

Maximum movement speed	3 m/s
Maximum acceleration	5 m/s ²
Minimum bending radius	10 x cable diameter

T-connector for bus cable M12, 5 pin CAN-Bus

Order code

KAB - TCONN - M12/5M - 2M12/5F - CAN



Terminating resistor M12, 5 pin CAN-Bus

Order code

KAB - RTERM - M12/5M/G - CAN



Applicable for cable carriers

Maximum movement speed	3 m/s
Maximum acceleration	5 m/s ²
Minimum bending radius	10 x cable diameter

