

Serie MR405



- 1-dimensional 360° inclination sensor
- High resolution and accuracy
- Functions:
 - Angle request and cyclical output
 - Comfortable setting of parameters
 - Configurable cut-off frequency (digital filter)
- Four freely configurable, potential-free switching outputs
- Robust, simply mountable aluminium housing
- Temperature range: -40 °C to +80 °C
- Applications:
 - Industry automation
 - Agricultural and forestry machines
 - Utility vehicles
 - Crane and hoisting technology

Order key	Inclination sensor
Type	MR405

General Parameters

Measurement axes	1
Measurement range	360° (no limit stop)
Resolution	0,01°
Calibration accuracy (at 25 °C)	± 0.1°
Nonlinearity	max. ± 0.2°
Temperature coefficient	typ. ± 0.008° / K
Critical frequency	typ. 20 Hz, 2. nd order (without digital filter) / 0,3 ... 25 Hz, 8. th order (with digital filter)
Sampling rate	100 s ⁻¹

Characteristics

Interface	CAN 2.0 A and B (11 and 29 Bit ID) according to ISO 11898-2
Data rates	10k, 20k, 50k, 62,5k, 100k, 125k, 250k, 500k, 800k Bit/s, 1 MBit/s
Functions	Angle request, cyclical output, setting of parameters, digital filter (butterworth lowpass, 8th order), output of the device's internal temperature (±2.0 K accuracy), configuration via CAN
Four switching outputs	PhotoMOS relays, synchronically switching, freely configurable

Electrical Parameters

Supply voltage	10 to 30V DC
Current consumption	105mA to 40mA / 150mA to 60mA
Capacity of the switching outputs	0.5mA, max. 30V DC, short-circuit-proof

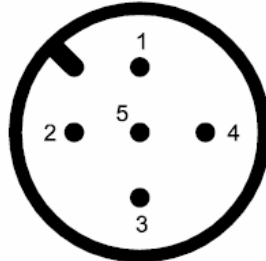
Mechanical Parameters

Connector CAN	sensor connector 5-pole (M12)
Connector switching outputs	sensor connector 8-pole (M12)
Degree of protection	IP65/67
Shock survival	max. 3.500g
Dimensions	58mm x 90mm x 31mm
Mass	ca. 160g

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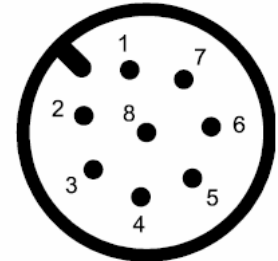
Connector assembly -
allocation (CAN-Bus-
Connector):

- 1 = Shield
- 2 = Supply voltage
(+24V)
- 3 = GND
- 4 = CAN_H
- 5 = CAN_L



Connector assembly -
allocation (Switching output-
Connector):

- 1 = Switching output 0
Allocation +U
- 2 = Switching output 0
Allocation -U
- 3 = Switching output g 1
Allocation +U
- 4 = Switching output 1
Allocation +-U
- 5 = Switching output 2
Allocation +U
- 6 = Switching output 2
Allocation -U
- 7 = Switching output 3
Allocation +U
- 8 = Switching output 3
Allocation -U



MR405.11X1.1

Typ

Interface

1 = CAN 2.0A und B(11- and 29-Bit-ID)

Supply voltage

1 = 10 bis 30 VDC

Measurement range

1 = 360°

Measurement axes

1 = 1 Axes

Connector

- 1 = CAN-Bus-Connector
(sensor connector 5-pole (M12))
- 2 = CAN-Bus-Connector
(sensor connector
5-pole (M12) with 4
switching outputs 8-pole (M12))

Accessories

- 6099.20.840 5-pole (M12) (Cable Ø 6...8 m) screened
- 6099.20.841 8-pole (M12) (Cable Ø 6...8 m) screened
- 6099.20.842 5-pole female plug screened incl. Cable (2m PUR, 0.25mm²)
- 6099.20.843 5-pole female plug screened incl. Cable (5m PUR, 0.25mm²)
- 6099.20.844 8-pole female plug screened incl. Cable (2m PUR, 0.25mm²)
- 6099.20.845 8-pole female plug screened incl. Cable (5m PUR, 0.25mm²)