

Serie MR407


- 2-dimensional inclination sensor with measurement range $\pm 10^\circ / \pm 45^\circ / \pm 60^\circ$ (depending on type)
- High resolution and accuracy
- Comfortable CAN Bus interface
 - Freely selectable IDs
 - Baud rates from 10 kBit/s to 1 MBit/s
- High sampling rate and bandwidth
- Programmable vibration suppression
- Functions:
 - Angle request and cyclical output
 - Comfortable setting of parameters
 - Configurable cut-off frequency (digital filter)
- Four freely configurable, potential-free switching outputs (type MR407.2x only)
- Robust, simply mountable aluminium housing
- Suitable for industrial use:
 - Temperature range: -40°C to $+80^\circ\text{C}$
 - Degree of protection: IP65/67
- Applications:
 - Industry automation
 - Agricultural and forestry machines
 - Utility vehicles
 - Crane and hoisting technology

Technical data
General Parameters

Measurement axes	2 (X/Y)
Measurement ranges	$\pm 10^\circ / \pm 45^\circ / \pm 60^\circ$
Resolution	0,05° / 0.1° / 0.1°
Calibration accur. (at 25°C)	$\pm 0,1^\circ$ (zero point and accumulated value)
Nonlinearity	max. $\pm 0,2^\circ / \pm 0,3^\circ / \pm 0,4^\circ$
Temperature range (zero point)	typ. $\pm 0.008^\circ/\text{K}$
Cut-off frequency	typ. 20 Hz, 2 nd order (without digital filter) / 0.3 ... 25 Hz, 8 th ord. (with digital filter)
Operating temperature	-40°C to $+80^\circ\text{C}$

Characteristics

Interface	CAN 2.0A and B (11- und 29-Bit-ID)
Data rates	10k, 20k, 50k, 62.5k, 100k, 125k, 250k, 500k, 800k Bit/s, 1 MBit/s angle request, cyclical output, setting of parameters, digital filter (butterworth lowpass, 8th order), output of the device's internal temperature ($\pm 2.0\text{ K}$ accuracy), configuration via CAN
Functions	
four switching outputs (MR407.2x only)	PhotoMOS relais, synchronically switching, freely configurable

Electrical Parameters

Supply voltage	10 V DC to 30 V DC
Current consumption (MR407.1x / MR407.2x)	105 mA to 40 mA / 150 mA to 60 mA
Capacity of the switching outputs (MR407.2x)	0,5 A, max. 30 V DC, short-circuit-proof

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Mechanical Parameters

Connector CAN	sensor connector 5-pole (M12)
Connector switching outputs (MR406.2)	sensor connector 8-pole (M12)
Degree of protection	IP65/67
Shock survival	max. 3.500g
Dimensions / Mass	58mm x 90mm x 31mm / about 160g

Order key

