QG series

QG76-SD-030H-CAN-CFM

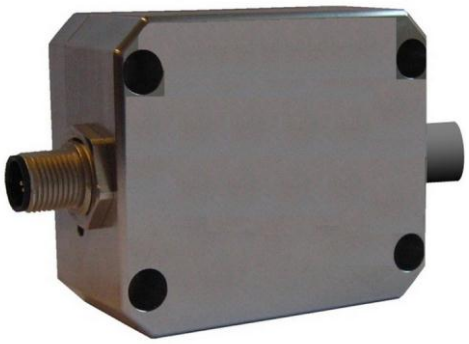
Inclination sensor

2 axis horizontal mounting

Output
CANopen

Supply voltage
10 - 30V dc

Measuring range
± 30°



QG76-SD-030H-CAN-CFM	General specifications v20140723
Housing	Stainless steel
Dimensions	70x60x33 mm
Mounting	4x M4x25 mm stainless steel pozidrive screws (optional: 2x Ø4mm positioning pins)
Ingress Protection (IEC 60529)	IP67
Relative humidity	0 - 100%
Weight	ca. 700 gr
Supply voltage	10 - 30V dc
Polarity protection	Yes
Current consumption	≤ 50 mA
Operating temperature	-40 .. +85°C
Storage temperature	-40 .. +85°C
Measuring range	± 30°
Centering function	Yes (CANout 0 = 0°), range: ±5°
Frequency response (-3dB)	10 Hz
Accuracy	overall 0,04° typ.
Offset error	< ± 0,03° typ. (< ± 0,08° max.) after centering
Non linearity	< ± 0,02° typ. (< ± 0,07° max.)
Sensitivity error	< ± 0,02% typ. (< ± 0,07% max.)
Resolution	0,01°
Temperature coefficient	± 0,005°/K typ.
Max mechanical shock	20.000g
CAN interface (hardware)	CAN 2.0 A and B according to ISO 11898-1 & ISO 11898-2
CAN communication profile	CANopen, CiA301 V4.2.0 & EN 50325-4
Baud rate	125 kbit/s (default), 250 kbit/s, 500 kbit/s, 1Mbit/s
Node Id	01h (range: 01h - 7Fh)
TPDO	TPDO1: 181h (for Node ID=01h)
Event time	TPDO1: 5 - 500 ms (default: 100 ms)
Sync mode	On/off (default: off)
Heartbeat	On/off (default: on, 2s)
Programming options	Baudrate, Node Id, Event time, Sync mode, Heartbeat, Output format
Output format	Integer: -3000 to +3000 (PDO1:X=byte2,1;Y=byte4,3)
Temperature compensation	Yes
Filtering	Input filter enabled, output filter disabled
Modes of operation	Event mode, Sync-mode
Integrated termination resistor	Optional, default: no
Boot up time	< 1 s

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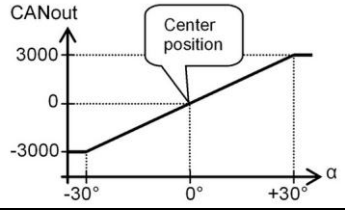
CANoutput = 100*α

clipping outside measuring range

Transfer characteristic



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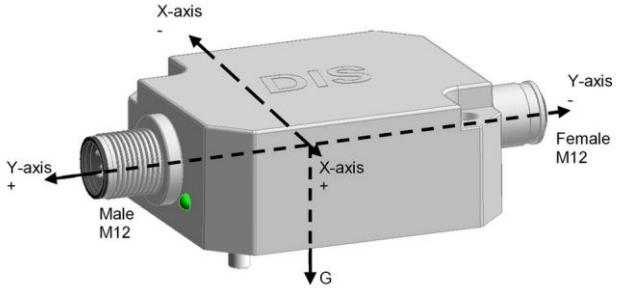
Default 0°: horizontal, no acceleration applied.

Cross tilt sensitivity error:
< (0,12 * cross tilt angle)² % typ.

Note:
one axis <10° tilt for max. accuracy

Measurement orientation



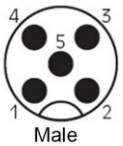
QG76-SD-030H-CAN-CFM

Connection

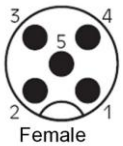
Wire / pin coding

M12 connectors: 1x male + 1x female (5 pins, A-coding) (CiA303 V1.8.0)

Pin 1:	Shield
Pin 2:	Vcc
Pin 3:	Gnd & CAN_GND
Pin 4:	CAN_H
Pin 5:	CAN_L



Male



Female

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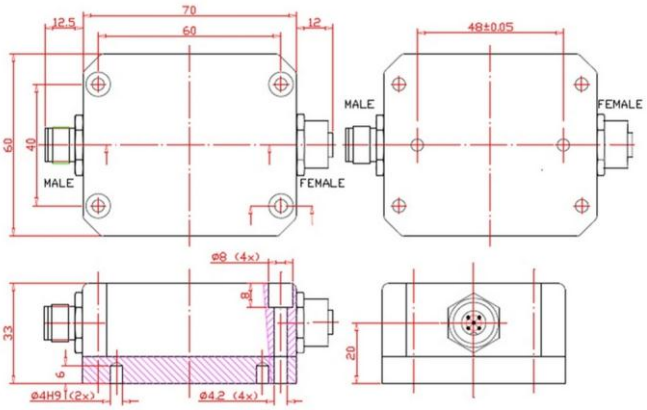
Mechanical dimensions



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Center function, CAN-manual, EDS-file

Centering can be done to eliminate mechanical offsets. (can be done by CAN object 300Fh)
The current sensor position will be stored as the new Center position in the internal Eeprom.

A CAN-manual is available at www.dis-sensors.com, see 'downloads'

EDS-file (CiA306 V1.3.0) is available at www.dis-sensors.com, see 'downloads'