

# QG series



QG65N-KDXYh-030-CAN-CFM

**Inclination sensor**  
2 axis horizontal mounting

Output  
CANopen

Supply voltage  
8 - 30 Vdc

Measuring range  
 $\pm 30^\circ$



CANopen



## QG65N-KDXYh-030-CAN-CFM

Housing
Dimensions (indicative)
Mounting
Ingress Protection (IEC 60529)
Relative humidity
Weight
Supply voltage
Polarity protection
Current consumption
Operating temperature
Storage temperature
Measuring range
Centering function
Frequency response (-3dB)
Accuracy (2 $\sigma$ )
Offset error
Non linearity
Sensitivity error
Resolution
Temperature coefficient
Max mechanical shock
CAN interface (hardware)
CAN communication profile
Baud rate
Node Id
TPDO
Event time
Sync mode
Heartbeat
Programming options
Output format
Filtering
Modes of operation
Integrated termination resistor
Boot time

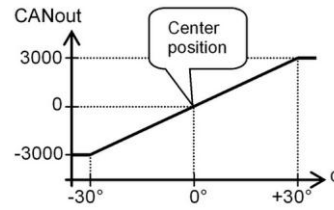
## General specifications 11545, v20140728

Plastic injection molded housing (Faradex DS, black, EMI shielded by stainless steel fiber in PC)
60x50x27 mm
4x M5x25 mm zinc plated pozidrive screws included (optional: 2x $\varnothing$ 4mm positioning pins)
IP67
0 - 100%
ca 110 gr
8 - 30 Vdc
Yes
$\leq 50$ mA
-40 .. +85°C
-40 .. +85°C
$\pm 30^\circ$
Yes (CANout 0 = 0°), range: $\pm 5^\circ$
10 Hz
overall 0,09° typ.
$< \pm 0,03^\circ$ typ. ( $< \pm 0,08^\circ$ max.) after centering
$< \pm 0,09^\circ$ typ. ( $< \pm 0,18^\circ$ max.)
not applicable
0,01°
$\pm 0,009^\circ/K$ typ.
10.000g
CAN 2.0 A and B according to ISO 11898-1 & ISO 11898-2
CANopen, CiA301 V4.2.0 & EN 50325-4
125 kbit/s (default), 250 kbit/s, 500 kbit/s, 1Mbit/s 01h (range: 01h - 7Fh) TPDO1: 181h (for Node ID=01h) TPDO1: 5 - 500 ms (default: 100 ms) On/off (default: off) On/off (default: on, 2s)
Baudrate, Node Id, Event time, Sync mode, Heartbeat, Output format Integer: -3000 to +3000 (PDO1:X=byte2,1;Y=byte4,3) Input filter enabled, output filter disabled Event mode, Sync-mode Optional, default: no
$< 1$ s

## QG65N-KDXYh-030-CAN-CFM

CANoutput =  $100 \cdot \alpha$   
clipping outside measuring range

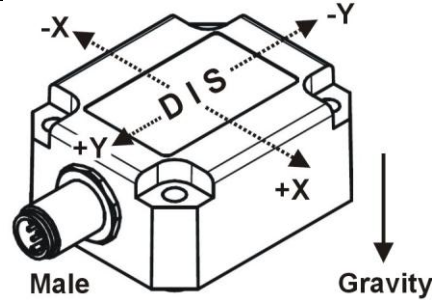
## Transfer characteristic



## QG65N-KDXYh-030-CAN-CFM

Default 0°: horizontal, no acceleration applied.  
Cross tilt sensitivity error:  
 $< (0,12 \cdot \text{cross tilt angle})^2 \% \text{ typ.}$   
Note:  
one axis  $< 10^\circ$  tilt for max. accuracy

## Measurement orientation



## QG65N-KDXYh-030-CAN-CFM

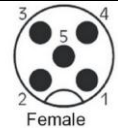
Connection

Wire / pin coding

## Connectivity (length $\pm 10\%$ )

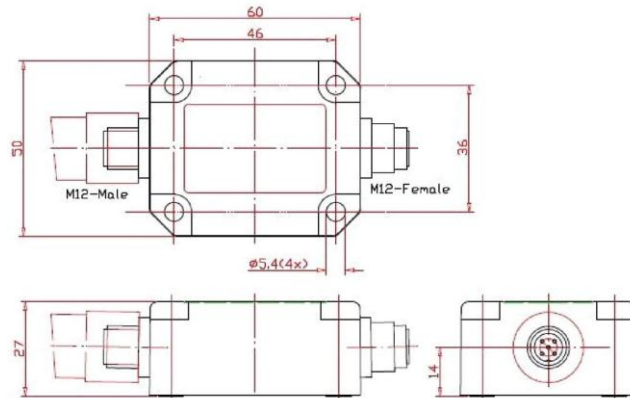
M12 connectors: 1x male + 1x female (internal T-junction) (5 pins, A-coding) ( CiA303 V1.8.0 )  
No bus termination inside. A CANbus always has to be terminated properly.

Pin 1: Shield  
Pin 2: Vcc  
Pin 3: Gnd & CAN\_GND  
Pin 4: CAN\_H  
Pin 5: CAN\_L



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## Mechanical dimensions (indicative only)



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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](http://www.dis-sensors.com), see 'downloads'

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

As this device is accelerometer-based the sensor is inherent sensitive for accelerations/vibrations.  
Application specific testing must be carried out to check whether this sensor will fulfill your requirements.