

# QG series

QG65-KI-360H-AI-CM

## Inclination sensor

1 axis vertical mounting

Output  
4 - 20 mA

Supply voltage  
10 - 30V dc

Measuring range  
360°



### QG65-KI-360H-AI-CM

Housing
Dimensions
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
Offset error
Non linearity
Sensitivity error
Resolution
Temperature coefficient
Max mechanical shock
Output
Output load
Short circuit protection
Output refresh rate

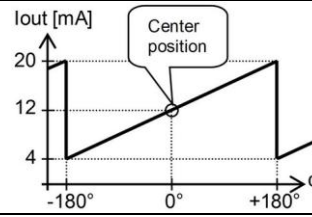
### General specifications 11377, v20150330

Plastic injection molded housing (Faradex DS, black, EMI shielded by stainless steel fiber in PC)
60x50x27 mm
4x M5x25 mm zinc plated steel pozidrive screws included (optional: 2x Ø4mm positioning pins)
IP67
0 - 95% non condensing
ca 110 gr
10 - 30V dc
Yes
≤ 25 mA ( excluding output signal )
-40 .. +85°C
-40 .. +85°C
360°
Yes (12 mA = 0°), range 360°
10 Hz
overall 0,07° typ.
< ± 0,03° typ. (< ± 0,08° max.) after centering
< ± 0,06° typ. (< ± 0,15° max.)
not applicable
0,01°
± 0,005°/K typ.
20.000g
4 - 20 mA
Rload ≤ (50°Vs-300) [Ω] (Eg: Vs = 24 V: Rload ≤ 900 Ω)
Yes (max 10 s)
20 ms

## QG65-KI-360H-AI-CM

$$I_{out} = 12 + 8 \cdot (\alpha / 180) \text{ [mA]}$$

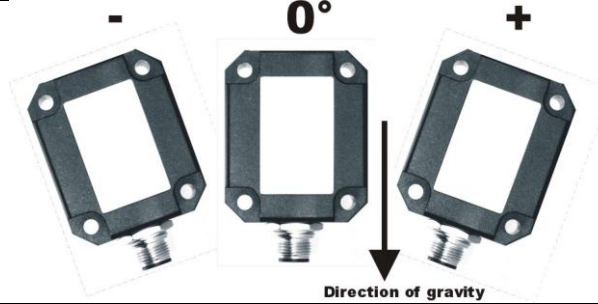
## Transfer characteristic



## QG65-KI-360H-AI-CM

Rotation in vertical plane.  
Lateral tilt sensitivity error:  
<math>\pm 0,03^\circ</math> lateral tilt (typ.)  
Max. lateral tilt: 45°

## Measurement orientation



## QG65-KI-360H-AI-CM

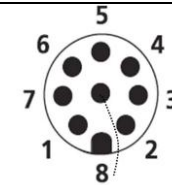
Connection

Wire / pin coding

## Connectivity

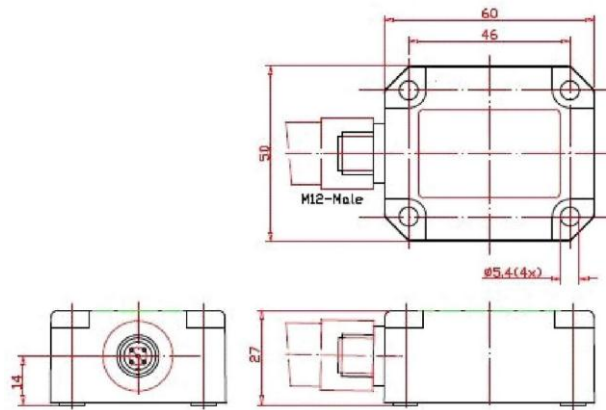
M12 male 8p connector

- Pin 1: Output for factory use only
- Pin 2: Supply voltage
- Pin 3: Programming interface RS232 Rx
- Pin 4: Programming interface RS232 Tx
- Pin 5: Gnd
- Pin 6: Centering input
- Pin 7: Output
- Pin 8: Shield



## QG65-KI-360H-AI-CM

## Mechanical dimensions (indicative only)



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## Center function

Centering can be done to eliminate mechanical offsets.  
To execute centering connect center input to ground (>0,5sec) within 1 min. after power up.  
After centering you have 1 min. left for another centering.  
Normally the center input should be left unconnected.