

QG65-KD-001..025H-ASP-CM

**Tilt switch
programmable**
2 axis horizontal mounting

Output
PNP

Supply voltage
8 - 30V dc

Measuring range
Switch points
up to $\pm 25^\circ$



General specifications 12129, v20170317

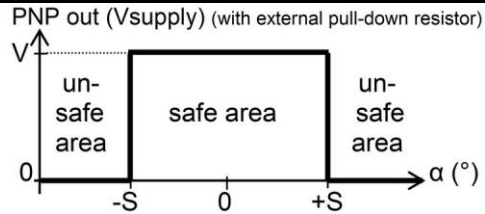
Housing	Reinforced plastic injection molded (Faradex DS, black, EMI shielded by stainless steel fiber in PC)
Dimensions (indicative)	60x50x27 mm
Mounting	4x M5x25 mm zinc plated pozidrive screws included (optional: 2x Ø4mm positioning pins)
Ingress Protection (IEC 60529)	IP67
Relative humidity	0 - 100%
Weight	approx. 110 gram
Supply voltage	8 - 30V dc
Polarity protection	Yes
Current consumption	≤ 50 mA
Operating temperature	-40 .. +85 °C
Storage temperature	-40 .. +85 °C
Measuring range	Switch points up to $\pm 25^\circ$
Centering function	Yes (0°), range: $\pm 5^\circ$
Frequency response (-3dB)	0,5 Hz
Accuracy (2 σ)	$< \pm 0,1^\circ$
Offset error	$< \pm 0,01^\circ$ (after zeroing)
Non linearity	not applicable
Sensitivity error	not applicable
Resolution	0,01°
Temperature coefficient	$\pm 0,005^\circ/\text{K}$ typ.
Max mechanical shock	20.000g
Output	dual PNP
Output load	100 mA cont., 250 mA max 10 sec., Resistive
Short circuit protection	No
Boot time	< 10 ms

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PNP-output:

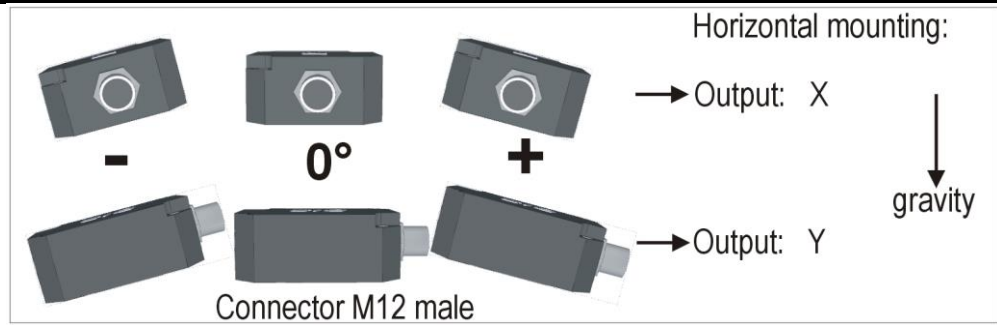
- Programmable switchpoints $\pm S$ (opt. QG65 Configurator RS232)
Factory default: $S = \pm 15^\circ$
- at 0° : safe area, conducting
- outside $\pm S$: unsafe, non-conducting
- Unpowered sensor: non-conducting
- hysteresis : $0,2^\circ$
- safe \blacktriangleright unsafe delay : 500 mS
- unsafe \blacktriangleright safe delay : 1000 mS

Transfer characteristic



The default 0° position is when the sensor is mounted horizontally (label upwards) and no acceleration is applied.

Measurement orientation



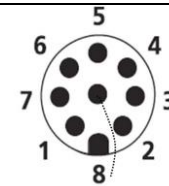
Connection

Wire / pin coding

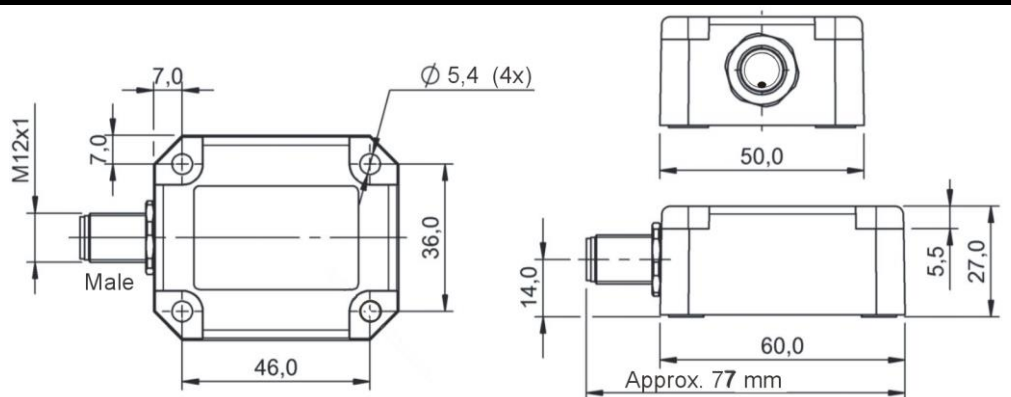
Connectivity (length $\pm 10\%$)

M12 male 8p connector (Brass Nickel coated, contacts copper alloy)

- Pin 1: Output Y
- Pin 2: Supply voltage
- Pin 3: Programming interface RS232 Rx
- Pin 4: Programming interface RS232 Tx
- Pin 5: Gnd
- Pin 6: Zero input
- Pin 7: Output X
- Pin 8: Not connected



Mechanical dimensions (indicative only)



Zero function

Zeroing should be done within 1 min. after power up. After zeroing you've 1 min. left for another centering.
Normally the zero input should be left unconnected. Connect zero input to ground for more than 0,5s

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 fulfil your requirements.