QG series

QG65-KD-025H-ASP-CM

Tilt switch

2 axis horizontal mounting

Programmable device
Output: PNP

Switch points programmable
between ±1° and ±25°

Measuring range
Factory default: ±25°

CE

	General specifications 12542, v20190107
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
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 .. +60 °C
Storage temperature	-40 .. +85 °C
Measuring range	Factory default: ±25°
Centering function	Yes (0°), range: ±5°
Frequency response (-3dB)	0-0,5 Hz
Typ. Accuracy @20°C (2σ)	< ±0,1°
Offset error	< ± 0,01° (after zeroing)
Non linearity	not applicable
Sensitivity error	not applicable
Resolution	0,01°
Temperature coefficient	± 0,005°/K typ.
Max mechanical shock	20.000g
Output	dual PNP
Output load	500 mA cont., protected against back EMF
Short circuit protection	Yes
Boot time	< 100 ms
Programming options	by optional QG65-configurator (switch points, delay times, filtering)

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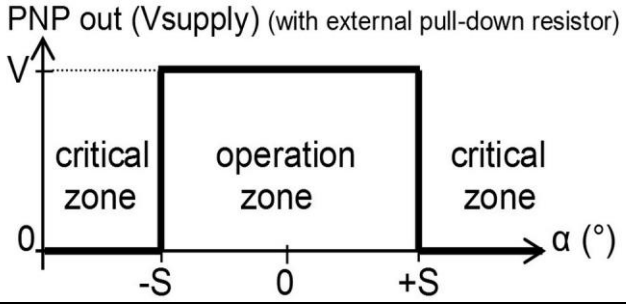
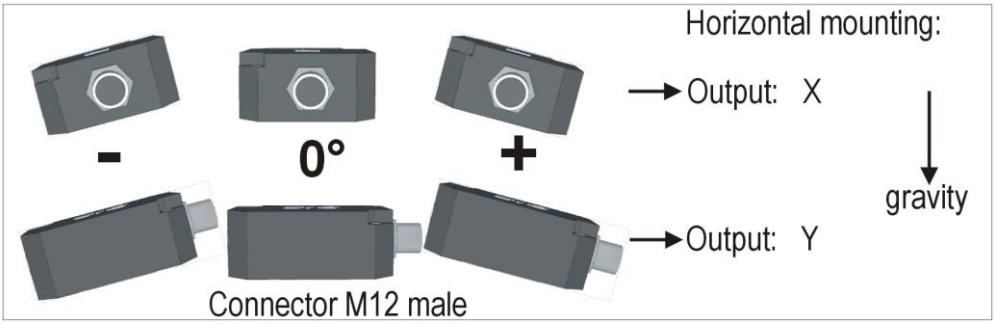
PNP-output:
- Programmable switchpoints ±S
  (opt. QG65 Configurator RS232)
  Factory default: S = ± 25°
- operation zone: conducting
- critical zone: non-conducting
- Unpowered sensor: non-conducting
- hysteresis : 0,2°
- operation ► critical delay : 0,5 s
- critical ► operation delay : 1 s

Transfer characteristic



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

Measurement orientation



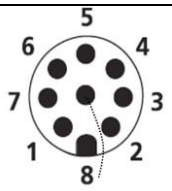
Connectivity (length ±10%)

Connection

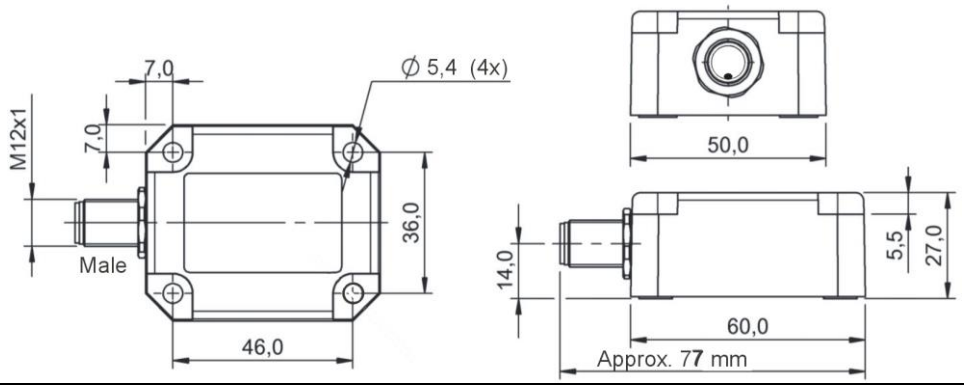
M12 male 8p connector (Brass Nickel coated, contacts copper alloy)

Wire / pin coding

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)



Center function

QG series sensors are intended to measure inclination, acceleration or tilt angle after installing in machines, equipment and systems. Flawless function in accordance with the specifications is ensured only when the device is used within its specifications.

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.