



QG series

Acceleration sensors

The acceleration sensors of DIS Sensors measure acceleration in one, two or three axes. These sensors are based on robust MEMS technology and thanks to the modular design easy to adapt to specific requirements. Thanks to a higher bandwidth faster movements can be measured with very high accuracy.

Specifications:

measurement range:	± 0.26 to ± 18 g (1 g = 9.81 m/s ²)
frequency:	0 - 10/50/100/500/1.000/2.000 Hz
energy supply:	5 V dc or 10 - 30 V dc
analogue output:	0.5 - 4.5 V or 4 - 20 mA
digital output:	CANopen (Safety)
level of protection:	IP67, IP68 or IP69K
precision:	depending on model and range: as high as ± 0.003 g
zeroing possibility:	depends on model
functional safety:	SIL2/PLd (optional)
housing:	(reinforced) plastic or stainless steel

Functions:

measurement of acceleration and vibration, active vibration damping, transport monitoring

Applications:

agricultural machinery, wind mills, containers



Application example

Modern wind turbines are required by law to use accelerometers to monitor swaying of the mast due to wind and (offshore) wave action. When these sensors measure values that exceed a certain threshold, a signal is given to 'feather' the blades, putting the wind turbine into a safe state.

DIS Sensors provides added value to turbine producers in the area of customer-specific filtering and safety circuit interfacing.

CANopen safety sensor for safety applications

DIS Sensors offers various inclinometers and accelerometers that are certified compliant with SIL2 (IEC 62061) and PLd (as per EN ISO 13849).

This certification makes these sensors suitable for use in safety applications. The sensors are available in both the standard QG65 reinforced plastic housing and the QG76 stainless steel housing.