

Accel/Gyro based level sensor, with CANbus Output

Omni-Directional Sensing: Provides sensing in 360 degrees of movement

 Reverse polarity and short circuit protection

The Purpose of the model A450 omni-directional level sensor is to monitor the level condition of a platform. A signal is provided to the operator whenever the base upon which the sensor is mounted is out of level in any direction. Typical applications include manlifts, cranes and mobile platforms.

Improvements in digital accelerometer devices permit the design of a level sensor with a higher degree of sensitivity and reliability while reducing end user cost and simplifying field applications. The PQ model was developed with a micro controller interface which allows fewer peripheral components and a smaller control footprint. A new "Zero button" has been added to allow further factory or field customization. The new level sensor can be configured in digital or CANbus output, with a wide range of calibrated settings up to an 80° tilt.

Electrical Data	
Voltage Supply	10-60VDC (Optional 5VDC)
Current Consumption	70mA @ 30VDC
CANbus Protocol	J1939 or CANopen
Digital Output	4A Max Sourcing
Firmware: CANbus software	125 Kb/s BAUD rate
Mechanical Data	
Node ID	0x33
PDO	0x1B3
Sampling Rate of Gyroscope	100Hz
Zero Sensor at Current position	Hold for 5 Seconds
Revert Back to Factory Settings (Absolute Zero)	Hold for 10 Seconds
Trip Angle Range	0.5 to 45° - Factory preset to 45°
Time Delay Range	0 to 25 seconds - Factory preset to 1.0 sec
Reset Delay Range	0 to 25 seconds - Factory preset to 0 sec
Sensor Output Filter	Max Trip angle +.05



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LEVEL SENSOR PART NUMBERING

Example: A400G-30-20TR

Normally closed, Sinking, 3° trip angle, 2 sec time delay on trip & reset with fixed time delay



Data sheet Model A450, **PQ Controls, Inc.** 95 Dolphin Road, Bristol, CT, USA 06010 Tel: 860-583-6994, Fax: 860-583-6011, Email: info@pqcontrols.com www.pqcontrols.com



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Mounting Dimensions



Wiring (A450 model)		
Color	Function	
Green	CAN High	
Yellow	CAN Low	
Red	VS	
Black	Ground	



Note:

- 1. Additional Options possible, please contact sales for information
- 2. Output wires varies with model
- 3. These models are not field adjustable
- 4 Customer can specify the connector, the default connector is the Deutsch DT04 6P