

# DUAL AXIS INCLINOMETER $\pm 10^\circ$ .... $\pm 45^\circ$

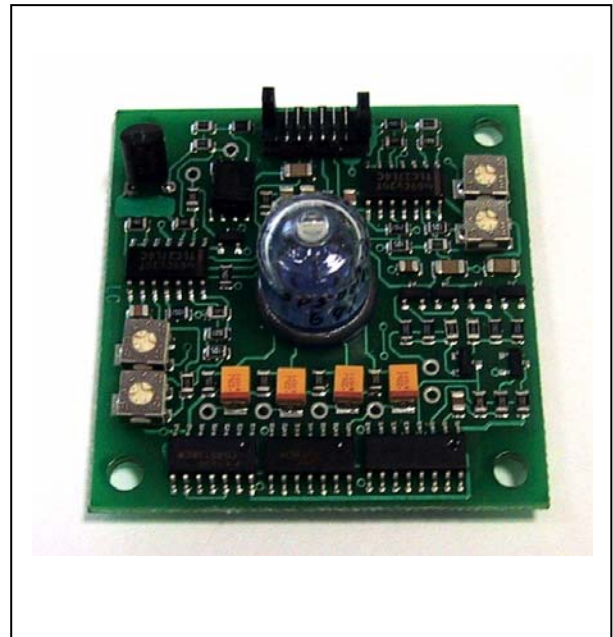
## Model EL 800 Open Version

### PROFILE

Model EL 800 dual axis inclinometer combine an electrolytic level sensor with a CMOS hybrid signal conditioning circuit . The level sensor is partially filled with a conductive fluid and platinum contacts are hermetically sealed in a glass envelope. When the sensor is at its zero position the electrical impedance of the fluid from the central electrode to each left and right electrodes is equal . When the sensor tilt , the movement of the fluid determine the change of the impedance in proportion to the angle of tilt . Technical performances , low cost and open architecture make them ideal for OEM application in construction machinery , civil engineering and geotechnical applications .All models are temperature compensated to the full industrial range

### Main Features

- Measuring ranges  $\pm 10^\circ$  to  $\pm 45^\circ$
- Voltage supply 7 to 24 VDC
- Optional temperature sensor
- New Cmos electronics
- Very long life
- 1000 G shock survival
- No mechanical moving part
- Gravity referenced tilt sensor
- Low weighs and dimensions
- Low current consumption less than 2 mA



### DESCRIPTION

- PCB 45 mm X 45 mm X 1.6mm
- Resolution 0.01 °
- Current consumption 2mA
- Range from  $\pm 10^\circ$  to  $\pm 50^\circ$
- Molex connector 90325-06
- Mounting 4 thru holes diam 3.5

### Applications

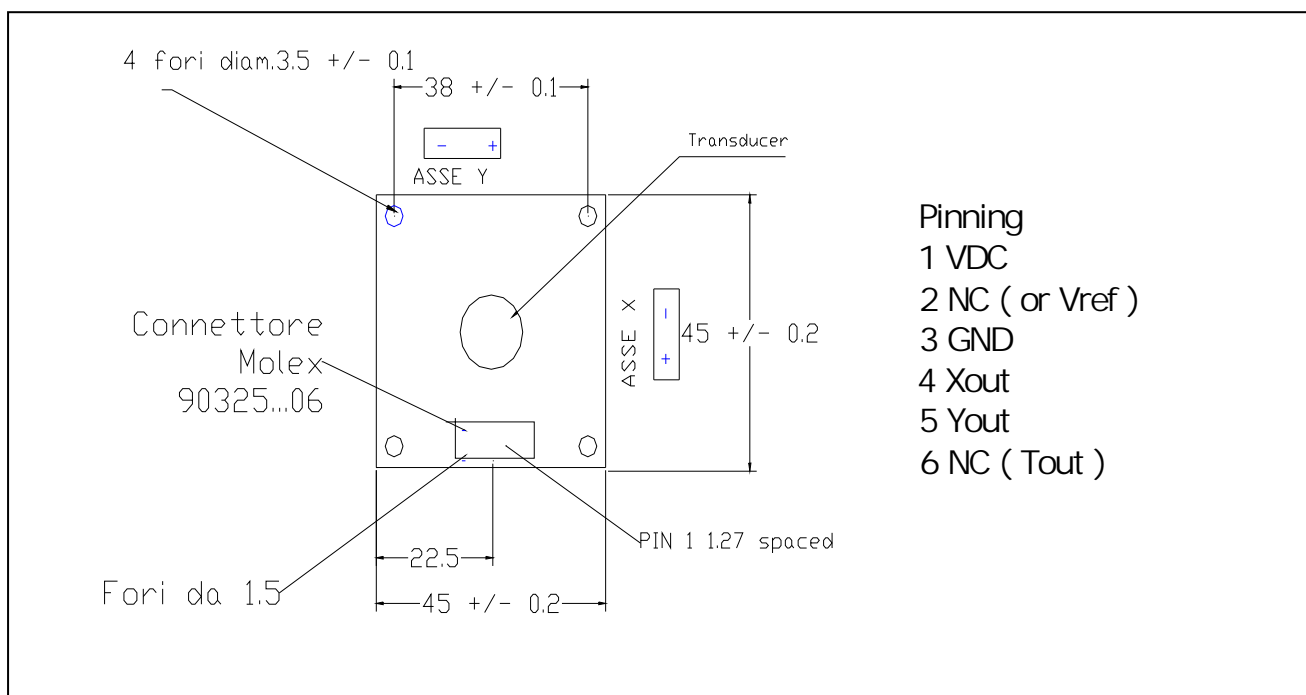
- Platform levelling
- Measure pitch and roll
- Automatic levelling systems
- Wheel alignment
- Robotics
- Construction equipment
- Antenna positioning
- Machine tools and heavy machinery

North Europe Office:

Nordic Transducer DK-9560 Hadsund Denmark web: [www.ntt.dk](http://www.ntt.dk) e-mail: [sensor@ntt.dk](mailto:sensor@ntt.dk)

## TECHNICAL SPECIFICATIONS Dual Axis inclinometer Model EL 800

Measuring Ranges	°	<b>+/- 10 , ± 20 , ± 45</b>
Voltage Supply	Volt	7 to 24 volt
Y-X out zero	Volt	2.5 V +/- 50mV
Input Impedance	K ohms	> 1.5
Sensitivity	mV	130 mV / ° for 10 degree model 65 mV / ° for 20 degree model 26 mV / ° for 45 degree model
Isteresy	°	< 0.02 ° for 10 degree model
Resolution	°	0.005 ° for 10 degree model 0.01 ° for other models
Linearity	% FS	< 1 % for 10 degree model < 3 % for 45 degree model
Repeatability	°	0.01
Working Temperature compensated	° C	0°C to 70°C -20 to 70 optional
Storage temperature	° C	-40 ....+ 80
Frequency response	sec	0.15 ( Factory calibrated )
Temperature Zero Drift T 0- 60	°	< 0.15
Temperature Sensivity drift T 0 -60	°	< 0.3
Cross axis error	°	< 0.3 at max tilt for 10 degree model < 2.9 at max tilt for 45 degree model
Current consumption	mA	< 2 mA
Mounting		Hole distance 38mm Hole diameter 3,5 mm
Dimensions	mm	45X 45 X 16 ( 10 degree model ) 45x45x27 ( 45 degree model )
Connector		Compatible connector Picoflex PF50 1,27 mm
Materials		Fiberglas PC board , Alcohol based fluid, containing no heavy metals, non corrosive, that can be custom tailored for conductivity and viscosity.



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