

# 2 – Dimensional Inclination Sensor



GEMAC

## 2D\_ISA

The inclination sensor 2D\_ISA is able to measure tilt and angles in two dimensions with high accuracy. It consists of two micromechanical silicon sensors in a metal housing hermetically sealed under nitrogen atmosphere. This leads to longtime stability, low vibration sensitivity and high reliability. Due to its small size the sensor is easy to integrate in almost every measurement problem.



Sensors

### Technical Specifications:

Measurement:	2 - axial
Measurement Ranges:	$\pm 10^\circ$ (max. $15^\circ$ ); $\pm 45^\circ$ (max. $90^\circ$ )
Operating Temperature Range:	$-25^\circ\text{C}$ up to $+85^\circ\text{C}$
Zero Degree Resolution:	$0,01^\circ / 0,045^\circ$
Zero Degree Offset:	$\pm 0,12^\circ$
Temperature Drift:	$\pm 0,008^\circ/\text{K}$
Cross Sensitivity:	1% FS
Output:	analog
Supply Voltage:	$5\text{V} \pm 5\%$
Dimensions:	35mm x 26mm x 12mm

### Characteristics of 2D\_ISA:

- low vibration sensitivity
- shock resistance up to 1100g
- high stability
- high reliability
- high accuracy

### Applications:

Lifting Platforms  
Construction Machinery  
Special Vehicles  
Medicine Equipment

Last updated: Juni 2001

