

TS-2 Compact High Accuracy Tilt Sensor





High accuracy $\pm 0.1^\circ$ industrial dual axis tilt sensor, suited to earth moving and mining applications where space limitations are a consideration. To simplify system integration, the 3-axis sensor offers the flexibility of twelve mounting orientations.

Designed to operate in rugged environments, the TS-2 compact high accuracy tilt sensor reports $\pm 180^\circ$ pitch and $\pm 90^\circ$ roll to $\pm 0.1^\circ$ accuracy maintained over the full angle and temperature range.

Features:

- High degree of accuracy over the full angular range, and across the full operating temperature range. Every TS-2 is fully profiled during calibration to realise maximum sensor accuracy.
- High-level shock protection (10,000g) for survivability in harsh operating conditions.
- Engineering support available for firmware customisation to suit machine positioning systems. TS-2 supports deployment of firmware upgrade over CANbus.
- Designed and assembled in Australia.



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Technical Specifications

Measurement Range	Pitch Roll	±180° ±90°
Sensor Accuracy	Angular precision Resolution Repeatability Refresh rate Base sensor cycle Hysteresis	±0.1° over the full angle range ±0.01° ±0.1° 10–100Hz, software selectable 5ms ±0.1°
Interface	Protocol Profile Transmission rate Connectors Input voltage Firmware customisation upgrades installed over CANbus.	CANopen DSP-410 Default 20kBaod. Readily customisable M12 maie, 5-pin, a-code Automotive power supply 12V/24V DC
Electrical	Supply Voltage Current	5.5 – 30VDC ≤ 10mA @ 24VDC
Environmental	Operating temp. Storage temp. Ingress protection	-40°C to 85°C; -40°F to 185°F -40°C to 85°C; -40°F to 185°F IP68 / IP69K
Size and weight	Dimensions Weight	L 90mm x W 30mm x D 20mm; L 3.54" x W 1.18" x D 0.79" 120g; 4.2oz
Materials	Industrial version Marine version Fully encapsulated electronics	Aluminium housing, zinc connectors 316 Stainless steel
Markings	Human readable sequential serial number and QR code Permanently engraved orientation marker	
Regulations	RCM	RoHS