

Ultra-compact inclination sensors GIM140R.

Less space consumption – more performance

The GIM140R inclination sensor is a powerful inclination sensor in an extremely compact design that is designed for a variety of applications. Numerous design details in combination with extended functions facilitate simple integration and time-saving commissioning.

Space-saving, precise and robust design

- Ultra-compact 14 mm flat sensor design for use in tight spaces
- Absolute accuracy up to $\pm 0.2^\circ$ for accurate positioning
- Extended temperature range $-40 \dots +85^\circ\text{C}$
- High protection against shocks and vibration up to 50 g / 20 g
- Rugged industry-proof aluminum housing
- Protection rating up to IP 67 / IP 69K
- Power consumption ≤ 12 mA
- Corrosion protection CX (C5-M)
- E1 compliant design
- Redundant version (2-channel architecture)



Maximum comfort in the application

- Teach input for time saving zero position adjustment
- Cable core cross section of 0.5 mm^2 for use of mobile automation connectors, e.g. DEUTSCH / AMP
- Innovative out-of-range diagnostics for easy operation
- Energy-saving operation directly from vehicle battery



High protection



Low temperatures



Extremely high EMC immunity



Principal fields of application

- Mobile elevated working platforms (MEWPs)
- Scissor lifts
- Telehandler
- Forklifts
- Cranes & hoists
- Photo voltaic
- Mobile antennas
- Patient tables

Product overview GIM140R



	GIM140R 1-dimensional	GIM140R 2-dimensional
Sensing method	MEMS	
Size (housing)	48 x 14 x 45 mm	
Measuring range	0 ... 30° 0 ... 60° 0 ... 90° 0 ... 120° 0 ... 180° 0 ... 270° 0 ... 360°	±10° ±30° ±45° ±60°
Voltage supply / Interface	8 ... 30 VDC / Analog 0.5 ... 4.5 VDC 12 ... 30 VDC / Analog 0 ... 10 VDC 12 ... 30 VDC / Analog 4 ... 20 mA 8 ... 36 VDC / CANopen® 8 ... 36 VDC / CANopen® redundant (2-channel architecture)	
Resolution	Up to 0.1°	Up to 0.05°
Accuracy (+25 °C)	Up to ±0.2°	
Operating temperature	-40 ... +85 °C	
Material	Housing: aluminum, anodised	
Protection DIN EN 60529	IP 67 / IP 69K	
Connection	Cable 0.3 m (5 x 0.5 mm ²) Resilient 0.5 mm ² core cross section matching also cables with mobile automation connection technology (e.g. DEUTSCH / AMP)	
Comfort functions	User-configurable low-pass filter Integrated terminating resistor Teach input for zero position adjustment Innovative output characteristics for out-of-range diagnostics	

Learn more about our GIM140R encoder series at:

www.baumer.com/inclination

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