

Dynamic inclination sensors GIM700DR.

Enhanced efficiency and control

The motion-compensated GIM700DR inclination sensors set new standards in terms of signal quality and response time especially in dynamic applications. Thanks to sensor data fusion of 6-degree-of-freedom MEMS sensors for acceleration and gyroscope, they are extremely responsive and precise, especially when external accelerations are involved. The rugged design offers highest availability under harshest environmental conditions.

Highest precision in dynamic applications

- Uniaxial and biaxial inclination measurement with compensation of external accelerations
- High signal quality and fast response time due to powerful, field-proven sensor fusion algorithms
- Six-degree-of-freedom inertial measurement unit (IMU)
- Output of raw data for acceleration and rotation rate for additional applications

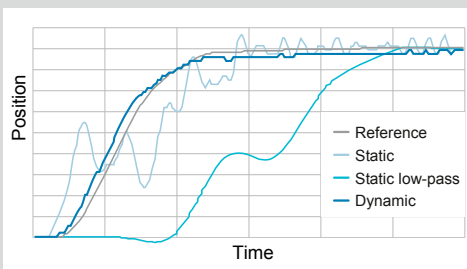
Extremely durable and space-saving design

- Robust R-series for use under the toughest environment conditions
- Protection up to IP 67 & IP 69K, corrosion protection CX (C5-M)
- E1 compliant design
- Extended temperature range -40 ... +85 °C
- Flat design (27 mm) for use in confined spaces
- Configuration flexibly adaptable to the application



Principal fields of application

- Mobile machines
- Off-highway machinery
- Cranes & construction machines
- Agriculture & forest machinery
- Fire-fighting & municipal vehicles
- Automatic guided vehicles (AGV)
- Automatic assembling & boring / drilling machines
- Robotics applications



Motion compensated position

The reliable, precise and fast measurement of the angular position of moving machine parts in real time is the key to maximum dynamics, control and safety. The GIM700DR enables this position measurement with highest dynamics and precision through unsurpassed signal quality, robustness, high resolution and minimal following error. This is results in increased efficiency, reduced wear, and improved ease of use.

Product overview GIM700DR



	GIM700DR 1-dimensional	GIM700DR 2-dimensional	GIM700DR 2-dimensional
Installation	Vertical	Horizontal	Vertical
Measuring range	0 ... 360°	±90° / ±180°	±90° / ±180°
Size (housing)	77 x 62 x 27 mm		
Sensing method	MEMS (6 degrees-of-freedom) Acceleration 3-axial ±6 g Gyroscope 3-axis up to ±250° / sec		
Voltage supply / interface	8 ... 36 VDC / CANopen® 8 ... 36 VDC / SAEJ1939		
Connection	Flange connector 2 x M12, 5-pin (plug, socket)		
Resolution	0.01°		
Accuracy (typ., 25 °C)	±0.3° static ±0.5° dynamic		
Operating temperature	-40 ... +85 °C		
Protection	IP 67 / IP 68 / IP 69K		
Comfort functions	Low pass filter, configurable		

Learn more about our GIM700DR series at:
www.baumer.com/dynamic-inclination

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