Baumer
Passion for Sensors

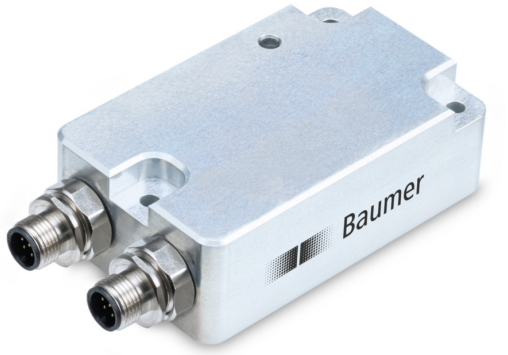
Acceleration sensors

GAM900

With relay output for limit monitoring
Analog / CANopen®

Overview

- Acceleration sensor for machine & process monitoring
- Limit value monitoring with relay output
- Acceleration output via Analog / CANopen®
- 3-axes MEMS based acquisition
- Measuring range ±2 g
- Connection: connector M12
- Offshore capability



Technical data

Technical data - electrical ratings	
Voltage supply	10...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤200 mA (24 VDC)
Initializing time	≤ 2000 ms after power on
Interface	CANopen® Analog 4...20 mA (0...10 V optional)
Frequency bands	6 (configurable)
Measuring range	±2 g
Resolution	< 4 mg
Accuracy 3σ	= 35 mg (in the range of ±1000 mg) = 10 mg (in the range of ±250 mg) (with band pass filtering, up to -1dB)
Interference immunity	DIN EN 61000-6-2 DIN EN 61326-3-1

Technical data - electrical ratings	
Emitted interference	EN 61000-6-4
Status indicator	DUO-LED integrated in housing
Technical data - mechanical design	
Dimensions W x H x L	55 x 30 x 90 mm
Protection EN 60529	IP 55
Material	Aluminium
Operating temperature	-40...+75 °C
Resistance	DIN EN 60068-2-6 Vibration 20 g, 60-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Weight approx.	250 g
Connection	Connector M12

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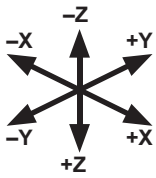
Installation position



Terminal assignment

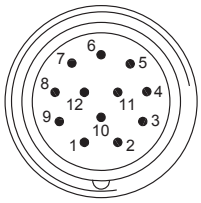
Connector 1, connector M12, 12-pin

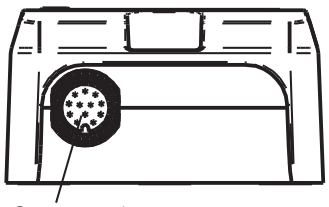
Pin	Description
1	GND
2	Test input (max. 30 V)
3	UB
4	Analog ground
5	Analog output X
6	Analog output Y
7	Relay 1 / contact NO*
8	CAN Ground
9	Relay 1 / contact CO*
10	Relay 1 / contact NC*
11	CAN Low
12	CAN High

Terminal assignment

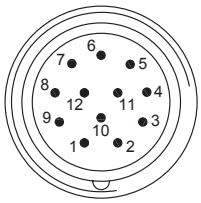
Connector 2, connector M12, 12-pin

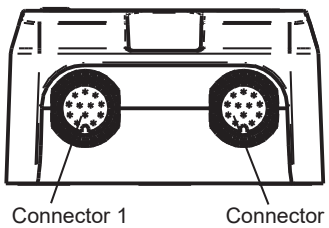
Pin	Description
1	Relay 2 / contact CO*
2	n.c.
3	n.c.
4	n.c.
5	n.c.
6	n.c.
7	n.c.
8	CAN Ground
9	Relay 2 / contact NO*
10	Relay 2 / contact NC*
11	CAN Low
12	CAN High





* Customer-specific relay configuration on request





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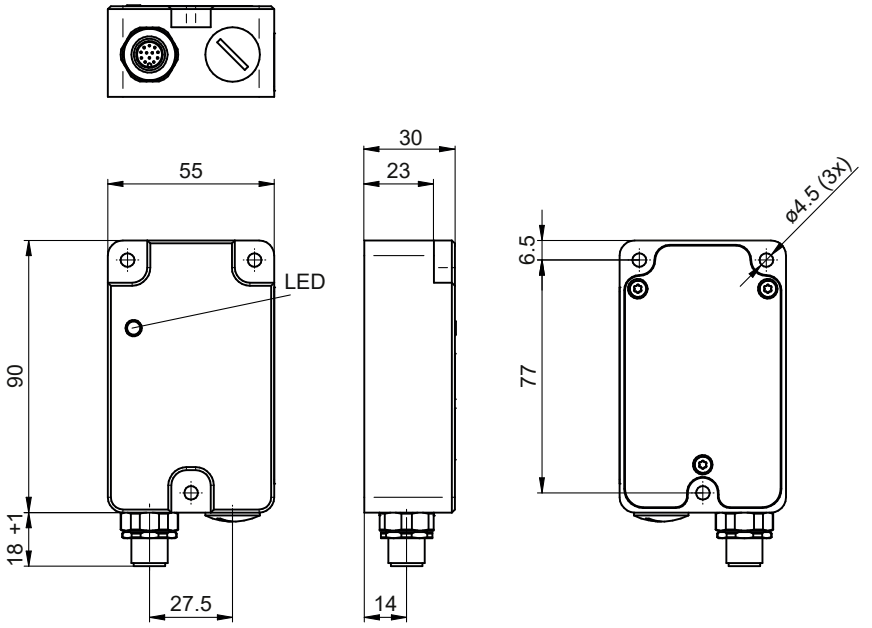
Configuration profile

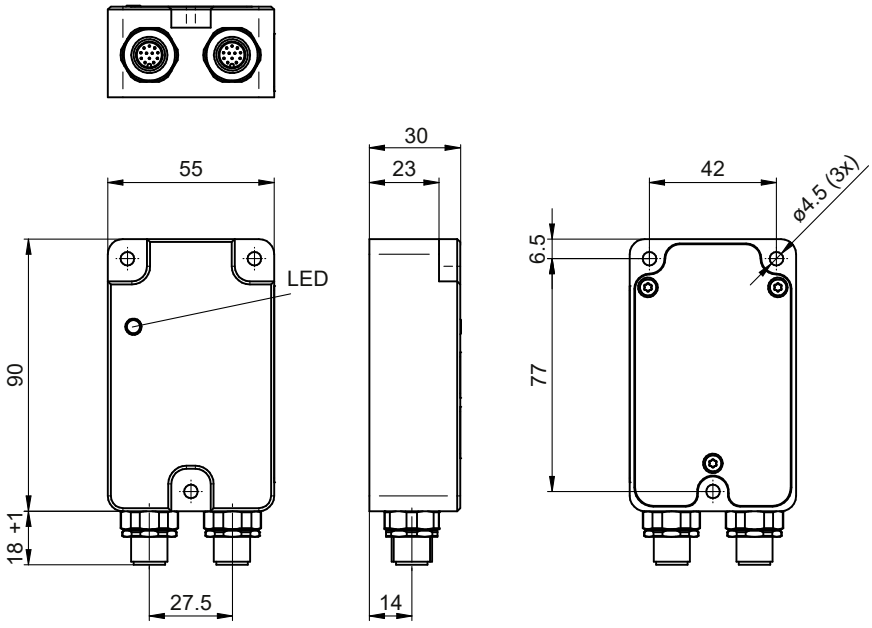
Band	CANopen® 1	CANopen® 2	CANopen® 3	CANopen® 4	Analog 1	Analog 2
Direction	X	Y	Z	|X,Y|	X	Y
Range	±2 g	±2 g	±2 g	±2 g	±0.5 g	±0.5 g
Resolution	1.00 mg	1.00 mg	1.00 mg	1.00 mg	0.244 mg	0.244 mg
Filter type	Bandpass	Bandpass	Bandpass	Bandpass	Bandpass	Bandpass
Filter order	4	4	4	4	4	4
Bandwidth	0.05...10 Hz	0.05...10 Hz	0.05...10 Hz	0.05...10 Hz	0.05...10 Hz	0.05...10 Hz
Relay ID	2	2	–	1	–	–
Relay attack value	see part no.	see part no.	–	see part no.	–	–
Relay attack time	0 s	0 s	–	0 s	–	–
Relay decay value	100 %	100 %	–	100 %	–	–
Relay decay time	1 s	1 s	–	1 s	–	–

Different configurations on request.

Dimensions



Connector 1x M12



Connector 2x M12

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Ordering reference

	GAM900	-	M	3	2G	#	.	##	AC	A	...
Product											
	GAM900										
Housing material											
Aluminium			M								
Number of axes											
Three axes				3							
Measuring range											
±2 g					2G						
Connection / Output											
1 x M12 connector, 12-pin / 1 x relay						J					
2 x M12 connector, 12-pin / 4 x relay						2					
Voltage supply / interface											
10...30 VDC / CANopen® and analog (4...20 mA)								CC			
10...30 VDC / CANopen® and analog (0...+10 V)(1)								VC			
Resolution											
12 bit (OUT 1), 16 bit (OUT 2)									AC		
Resolution											
1-channel architecture, 1 relay										A	
Relay trigger threshold											
Encoding value 05...99 at choice Trigger threshold = encoding value x 10 mg (e.g. 80 mg = 08 x 10 mg) Encoding value 00: at different switching threshold											...

(1) On request