Acceleration sensors

With relay output for limit monitoring

Analog / CANopen®

GAM900

GAM900

Features

- **Acceleration sensor / analog / CANopen®**
- **Up to two relay outputs for limit monitoring**
- **3 axes detection, MEMS based**
- **Measuring range ±2 g**
- **Connection: connector M12, 12-pin**
- **Offshore capability (plastic housing)**

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
Interfaces	CANopen®, Analog (4...20 mA or 0...10 V)
Frequency bands	6 (configurable)
Measuring range	±2 g
Resolution	<4 mg
Accuracy 3σ (with band pass filtering)	=35 mg (in the range of ±1000 mg) =10 mg (in the range of ±250 mg)
Interference immunity	DIN EN 61000-6-2 EN 61326-3-1
Emitted interference	DIN EN 61000-6-4
Status indicator	DUO-LED integrated in housing
Approval	UL approval / E63076

Technical data - mechanical design

Dimensions W x H x L	55 x 30 x 90 mm
Protection DIN EN 60529	IP 67
Materials	GAM900-M: aluminium GAM900-P: Glass-fiber reinforced plastic
Operating temperature	-40...+85 °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.	200 g (plastic), 250 g (aluminium)
Connection	Connector M12, 12-pin

GAM900

Part number

GAM900-		3	2G	.			.ACA	...

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: parameterization by the customer or with two switching threshold

Voltage supply / interface
CC 10...30 VDC / CANopen® and analog (4...20 mA)
VC 10...30 VDC / CANopen® and analog (0...+10 V)*

Connection / Output
J 1 x M12 connector, 12-pin / 1 x relay
2 2 x M12 connector, 12-pin / 2 x relay

Measuring range
2G ±2 g

Number of axes
3 Three axes

Housing material
M Aluminium
P Glass-fiber reinforced plastic

* On request

Accessories

Connectors and cables	
11142900	Female connector M12, 12-pin, 1 m cable (Z 201.M01)
11138627	Female connector M12, 12-pin, 5 m cable (Z 201.M05)
11142902	Female connector M12, 12-pin, 10 m cable (Z 201.M10)

Acceleration sensors

With relay output for limit monitoring

Analog / CANopen®

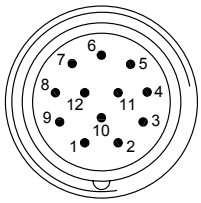
GAM900

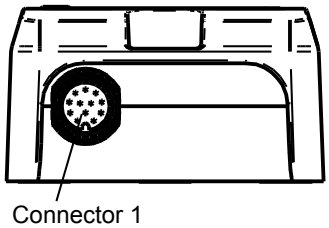
Terminal assignment

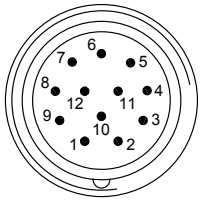
Connector 1, connector M12, 12-pin	
Pin	Description
Pin 1	GND
Pin 2	Test input
Pin 3	UB
Pin 4	Analog ground
Pin 5	Analog output X
Pin 6	Analog output Y
Pin 7	Relay 1 / contact NO*
Pin 8	CAN Ground
Pin 9	Relay 1 / contact CO*
Pin 10	Relay 1 / contact NC*
Pin 11	CAN Low
Pin 12	CAN High

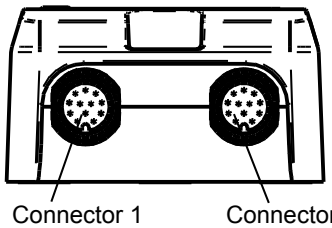
Connector 2, connector M12, 12-pin	
Pin	Description
Pin 1	Relay 2 / contact CO*
Pin 2	n.c.
Pin 3	n.c.
Pin 4	n.c.
Pin 5	n.c.
Pin 6	n.c.
Pin 7	n.c.
Pin 8	CAN Ground
Pin 9	Relay 2 / contact NO*
Pin 10	Relay 2 / contact NC*
Pin 11	CAN Low
Pin 12	CAN High

* Customer-specific relay configuration on request









GAM900

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...25 Hz	0.05...25 Hz	0.05...25 Hz	0.05...25 Hz	0.05...25 Hz	0.05...25 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.

Installation position

Acceleration sensors

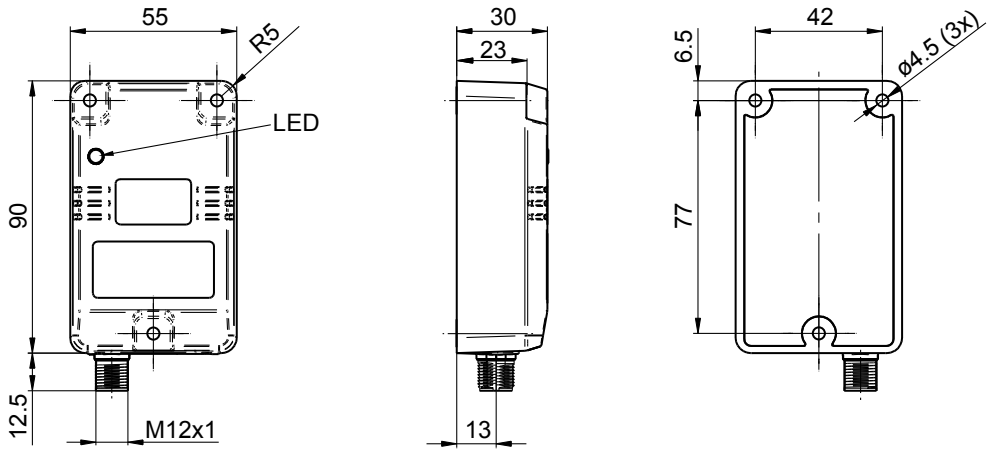
With relay output for limit monitoring

Analog / CANopen®

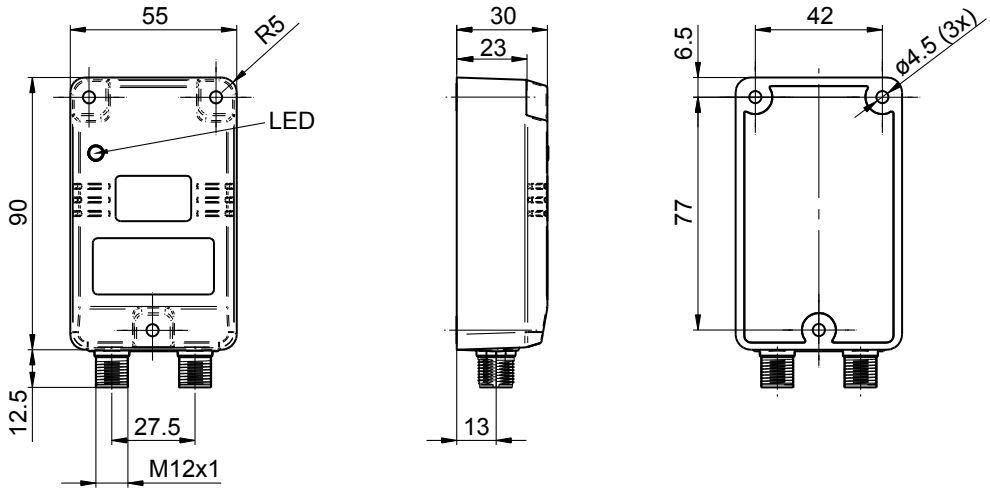
GAM900

Dimensions

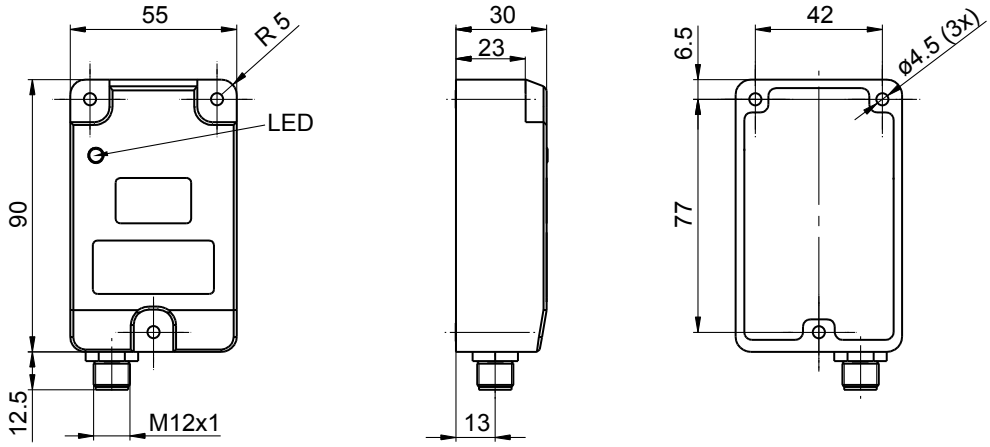
GAM900 - plastic housing 1x connector M12



GAM900 - plastic housing 2x connector M12



GAM900 - aluminium housing 1x connector M12



GAM900

Dimensions

GAM900 - aluminium housing 2x connector M12