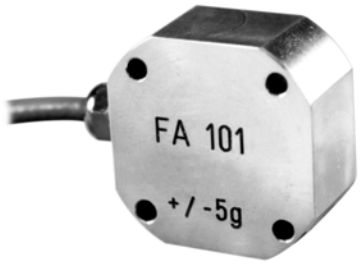
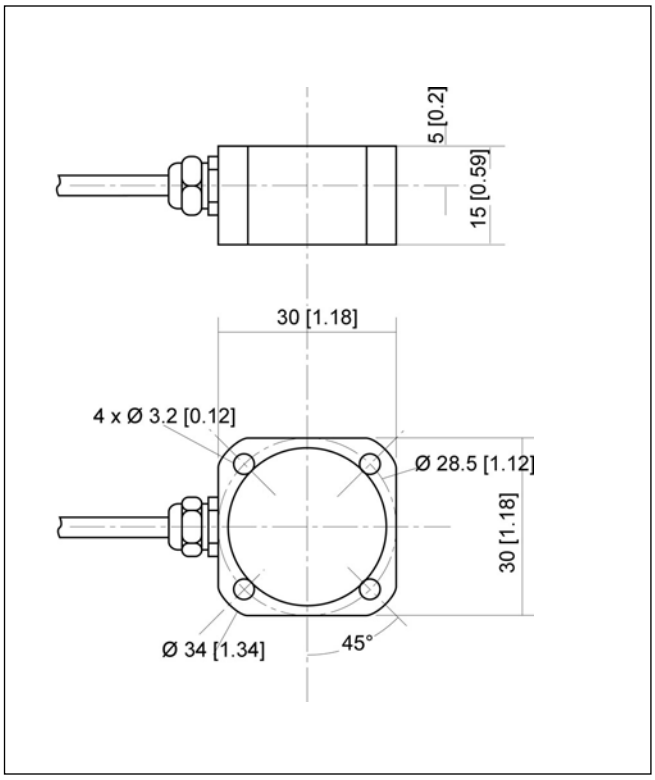
FA101 SERIES

Accelerometer





- **Full Scale Range ±2 g to ±500 g**
- **DC Response**
- **Integrated Over-range Stops**
- **Solid State Reliability**
- **High Level Output Model with Integrated Amplifier**

The FA101 is a general purpose accelerometer which is especially useful for measuring low-level ranges. Packaged in a rugged metal case, the FA101 accelerometers are designed for easy handling to suit a wide range of environmental conditions. They are also available with built-in A1/A2 module, providing internal signal conditioning.

With many years of experience as a designer and manufacturer of sensors, FGP Sensors has the expertise to customize and/or design sensors for specific uses and testing environments. To meet your needs we also offer complete turnkey systems. Our conditioning electronics can power the sensor, amplify the electronic signal, and display the data digitally. A turnkey measurement system arrives with matched components, formatted, calibrated and ready for your immediate use.

Characteristics

Measurement Range (g)	**±2**	**±5**	**±10**	**±20**	**±50**	**±100**	**±200**	**±500**
Over-range (g)	400	400	400	400	1000	2000	2000	2000
Frequency Response ±5% (Hz) FA101/FA101-24/FA101-A2	0-200	0-250	0-300	0-500	0-750	0-1000	0-1200	0-1250
Frequency Response ±5% (Hz) FA101-A1	0-100	0-150	0-250	0-400	0-700	0-700	0-700	0-700
Frequency Response ±5% (Hz) FA101-A3	0-200	0-250	0-300	0-500	0-750	0-1000	0-1000	0-1000

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Technical Specifications

Range (F. S.)

From ±2 to ±500 g (see table on reverse side)

Over-range

From 400 to 2000 g (see table on reverse side)

Accuracy

Non-Linearity : <±2% F.S.
Transverse Sensitivity : <3%

Temperature Range

Operating Temperature Range (OTR) : -20 to 80 °C [-4 to 176°F]
Compensated Temperature Range (CTR) : 0 to 60 °C [32 to 140 °F]
Zero Shift in CTR : <2% F.S. / 108 °F
Sensitivity Shift in CTR : <2% of reading / 108 °F

Electrical Characteristics

Model	**FA101**	**FA101-24**	**FA101-A1**	**FA101-A2**	**FA101-A3**
Supply Voltage	10 Vdc	14 to 36 Vdc	10 to 30 Vdc	±15 Vdc	12 to 36 Vdc
F.S. Output	±20 to ±100 mV	±20 to ±100 mV	±2 V (±250 mV)	±5 V ±5% F.S.	4 to 20 mA
Zero Offset	<±10 mV	<±10 mV	2,5 V (±250 mV)	0 V ±5% F.S.	12 mA ±5% F.S.
Input Impedance/Consumption	10 kΩ	10 kΩ	<30 mA	-	-
Output Impedance	<5 kΩ	<5 kΩ	<90 Ω	-	-
Insulation under 50 Vdc	≥100 MΩ	≥100 MΩ	≥100 MΩ	≥100 MΩ	≥100 MΩ

Electrical Termination

Cable Gland Termination, 2 m [6.5 ft] cable length standard

Mechanical Characteristics

Housing Material : Aluminium alloy
Weight w/o cable : <25 grams

Product References

Low Level Output Sensor

Model

Full Scale Range (F.S.)
In g

Option(s)
L : Linearity ≤±1% F.S.
ZI : Zero shift ≤±1% F.S. / 108 °F
ET1 : CTR -20 to 100 °C [-4 to 212 °F] OTR=CTR
ET2 : CTR -40 to 120 °C [-40 to 248 °F] OTR=CTR
LC"X" : Additional cable length in ft

FA101 FA101-24	±2	ET1

High Level Output Sensor

Model

Power Supply Reference
A1 : Unipolar-tension
A2 : Bipolar-tension
A3 : Current loop

Full Scale Range (F.S.)
In g

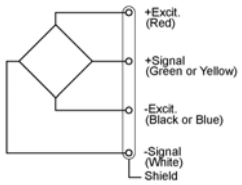
Option(s)
L : Linearity ≤±1% F.S.
ZI : Zero shift ≤±1% F.S. / 108 °C
ET1 : CTR -20 to 100 °C [-4 to 212 °F] OTR=CTR [(1)]
ET2 : CTR -40 to 120 °C [-40 to 248 °F] OTR=CTR [(1)]
LC"X" : Additional cable length in ft

FA101	A1	±2	ET1

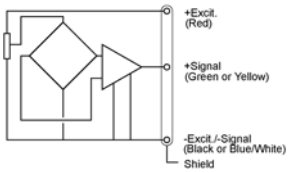
"X" = Custom value

Wiring Schematic

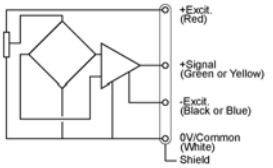
FA101 / FA101-24



FA101-A1



FA101-A2



(1) Option unavailable with version A3

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