

FA101 SERIES

Accelerometer

SPECIFICATIONS

- ◆ 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 $\pm 5\%$ (Hz) FA101/FA101-24/FA101-A2	0-200	0-250	0-300	0-500	0-750	0-1000	0-1200	0-1250
Frequency Response $\pm 5\%$ (Hz) FA101-A1	0-100	0-150	0-250	0-400	0-700	0-700	0-700	0-700
Frequency Response $\pm 5\%$ (Hz) FA101-A3	0-200	0-250	0-300	0-500	0-750	0-1000	0-1000	0-1000

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)

AccuracyNon-Linearity : $<\pm 2\%$ 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 $\pm 5\%$ F.S.	4 to 20 mA
Zero Offset	$<\pm 10$ mV	$<\pm 10$ mV	2,5 V (± 250 mV)	0 V $\pm 5\%$ F.S.	12 mA $\pm 5\%$ F.S.
Input Impedance/Consumption	10 k Ω	10 k Ω	<30 mA	-	-
Output Impedance	<5 k Ω	<5 k Ω	<90 Ω	-	-
Insulation under 50 Vdc	≥ 100 M Ω	≥ 100 M Ω	≥ 100 M Ω	≥ 100 M Ω	≥ 100 M Ω

Electrical Termination

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

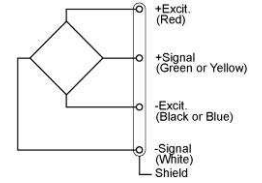
Mechanical CharacteristicsHousing Material : Aluminium alloy
Weight w/o cable : <25 grams

PRODUCT REFERENCES

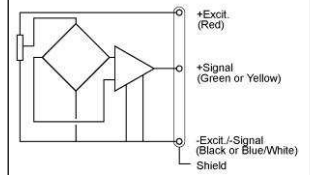
Low Level Output Sensor			
Model		Full Scale Range (F.S.)	Option(s)
	In g		L : Linearity $\leq \pm 1\%$ F.S. Zl : Zero shift $\leq \pm 1\%$ F.S. / 108 °F ET1 : CTR -20 to 100 °C [-4 to 212 °F] OTR=CTR ET2 : CTR -40 to 120 °C [-40 to 248 °F] OTR=CTR LC"X" : Additional cable length in ft
FA101 FA101-24	±2		ET1
High Level Output Sensor			
Model		Power Supply Reference	Full Scale Range (F.S.)
		A1 : Unipolar-tension A2 : Bipolar-tension A3 : Current loop	In g
			Option(s) L : Linearity $\leq \pm 1\%$ F.S. Zl : Zero shift $\leq \pm 1\%$ 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

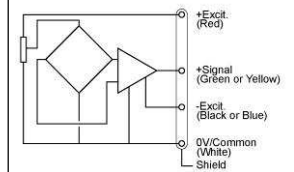
FA101 / FA101-24



FA101-A1



FA101-A2



⁽¹⁾ Option unavailable with version A3

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