

PRODUCT DATA

Piezoelectric Accelerometer Monitoring DeltaTron® Accelerometer — Types 8341

USES

- In-flight measurements
- Industrial applications

FEATURES

- Insulated case
- Hermetically sealed
- High resolution
- Low-impedance output

Description

Type 8341 is a piezoelectric Shear design accelerometer with integral electronics initially developed for in-flight active vibration control on rotor and fixed wing aircraft. The transducer features case insulation and is hermetically sealed to enclosure protection IP 67. The housing material is stainless steel.

Type 8341 has a top connector and is mounted on the object by means of a 1/4"-28 UNF threaded stud.

Characteristics

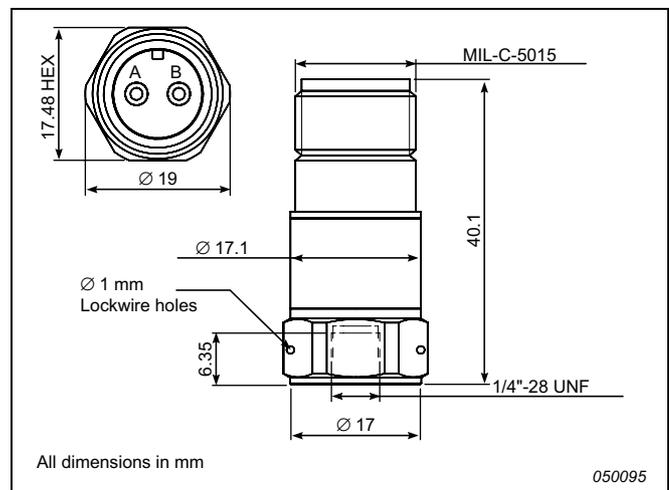
The piezoelectric accelerometer features a built-in preamplifiers. The sensitivity is expressed in terms of voltage per unit acceleration (mV/g).

The Shear design gives a high degree of linearity, and excellent immunity to base bending and temperature fluctuations. The signal is collected and amplified in the built-in amplifier.



Calibration

The sensitivity given on the calibration chart has been measured at 159.2 Hz with a 95% confidence level, using a coverage factor $k = 2$.



Specifications – Monitoring DeltaTron Accelerometer Type 8341

	Units	8341	
Dynamic Characteristics			
Voltage Sensitivity (@ 160Hz)	mV/g	100 ±10%	
Measuring Range	g	±50	
Mounted Resonance Frequency	kHz	27	
Amplitude Response ±10%	Hz	0.5 to 10000	
Residual Noise	mg	0.04	
Transverse Sensitivity	%	<5	
Electrical Characteristics			
Output Impedance	Ω	<100	
DC Output	At room temperature	V	12 ±1
Bias Voltage	In specified temp. range	V	8 to 16
Power Supply		mA	2 to 20
Start-up Time		s	3
Grounding			Case insulated
Environmental Characteristics			
Temperature Range	°C (°F)		-50 to +100 (-60 to +212)
Humidity			Hermetically sealed
Max. Operational Shock (peak)	g pk		5000
Base Strain Sensitivity	Equiv. g/μ strain		<0.012
Thermal Sensitivity	Equiv. %/°C (%/°F)		0.11 (0.06)
Physical Characteristics			
Dimensions			See outline drawing
Weight	gram (oz.)		41 (1.45)
Case Material			Stainless steel
Connector			MIL-C-5015
Mounting			¼"–28 UNF thread
Mounting Torque	Nm (lb. in.)		1.8 (15)

All values are typical at 25°C (77°F) unless measurement uncertainty is specified

COMPLIANCE WITH STANDARDS



Compliance with EMC Directive and Low Voltage Directive of the EU



Compliance with the EMC requirements of Australia and New Zealand

Ordering Information

Type 8341 includes the following accessories:

- Carrying box
- Calibration chart
- ¼"–28 UNF mounting stud, length 8.7 mm (0.34")

OPTIONAL ACCESSORIES*

- AO 0614: Tefzel® Double-shielded Cable, MIL-C-5015 to Open End, 15 m (49 ft.), -40 to +125°C (-40 to +257°F)
- AO 0610: Tefzel Double-shielded Cable, MIL-C-5015 to BNC, 15 m (49 ft.), -40 to +125°C (-40 to +257°F)
- UA 2056: ¼"–28 UNF mounting stud, length 8.7 mm, (0.34"), set of 10

SERVICE

- 8341-CAF: Industrial IEPE Accelerometer, Accredited Calibration
- 8341-CAI: Industrial IEPE Accelerometer, Accredited Calibration Performed as initial
- 8341-CTF: Industrial IEPE Accelerometer, Traceable Calibration
- 8341-CTI: Industrial IEPE Accelerometer, Traceable Calibration Performed as initial
- 8341-EW1: Industrial IEPE Accelerometer, Extended Warranty, one year extension

* Additional accessories and cables are available (see www.bksv.com)

TRADMARKS

Tefzel is registered trademark of E.I. du Pont de Nemours and Company.

Brüel & Kjær reserves the right to change specifications and accessories without notice

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