

## PRODUCT DATA

# Brüel & Kjær® Piezoelectric Accelerometer Monitoring CCLD Accelerometer Type 8341

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, transducer electronic datasheet (TEDS), 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.

### Uses

- In-flight measurements
- Industrial applications

### Features

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



050036

## Design and characteristics

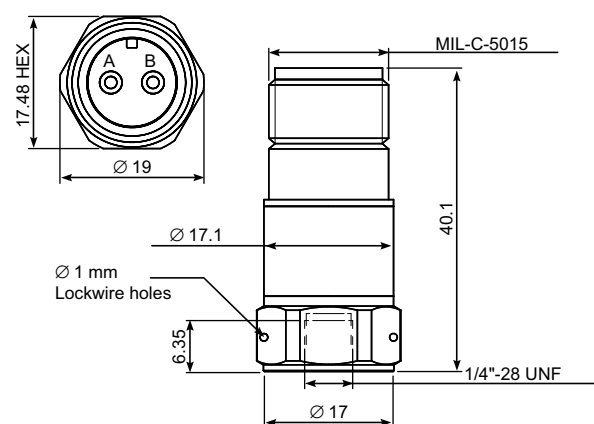
The piezoelectric accelerometer features a built-in CCLD preamplifier\*. The sensitivity is expressed in terms of voltage per unit acceleration (mV/g).

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.

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

### TEDS

Type 8341 includes TEDS, which contains sensor- and application-specific information including frequency response compensation. The TEDS function is applicable from serial number 54135.



All dimensions in mm

050095

\* CCLD: Constant current line drive, also known as DeltaTron® (ICP® and IEPE compatible)

	UNIT	TYPE 8341*
DYNAMIC CHARACTERISTIC		
Voltage Sensitivity (@ 160 Hz)	mV/g	100 ±10%
Measuring Range	g	± 50
Mounted Resonance Frequency	kHz	27
Amplitude Response ±10%	Hz	0.5 to 10,000
Residual Noise	mg	0.04
Transverse Sensitivity	%	<5
ELECTRICAL CHARACTERISTICS		
DC Output Bias Voltage		
At room temperature	V	12 ±1
In specified temp. range	V	8 to 16
Output Impedance	Ω	<100
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
Thermal Sensitivity	Equiv. %/°C (%/°F)	0.11 (0.06)
Base Strain Sensitivity	Equiv. g/μ strain	<0.012
GENERAL CHARACTERISTICS		
Dimensions		See outline drawing
Weight	gram (oz)	41 (1.45)
Case Material		Stainless steel
Connector		MIL-C-015
Mounting		¼"- 28 UNF thread
Mounting Torque	Nm (lb in.)	1.8 (15)
TEDS Support		Yes (from serial no. 54135)

\* All values are typical at 25 °C (77 °F) unless otherwise specified.



Type 8341

Monitoring CCLD Accelerometer

Includes:

- 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

CALIBRATION SERVICES

ACC-M-CAI

Initial accredited calibration, monoaxial accelerometer, including programming of TEDS

ACC-M-CAF

Accredited calibration, monoaxial accelerometer, including programming of TEDS

ACC-M-CTF

Traceable calibration, monoaxial accelerometer, including programming of TEDS

ACC-M-EW-CNT

Accelerometer monoaxial, Extended Warranty contract

\* Additional accessories, cables and services are available (see [www.hbkworld.com](http://www.hbkworld.com))