

Water proof vibration combined temperature sensor

Description

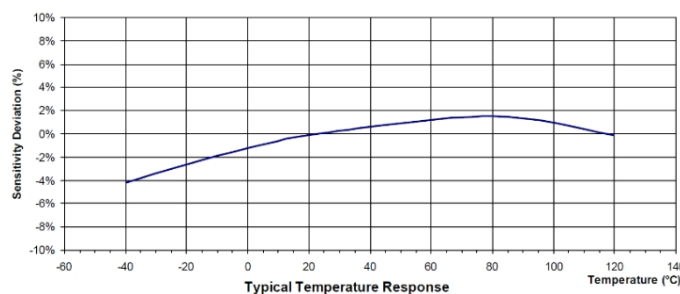
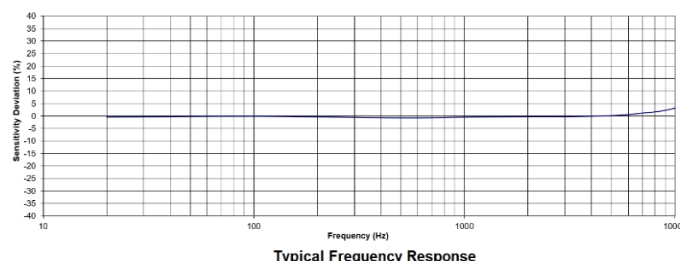
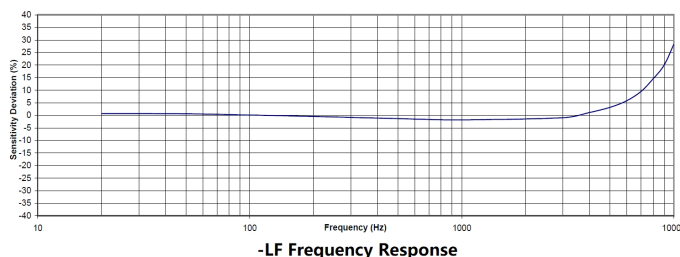
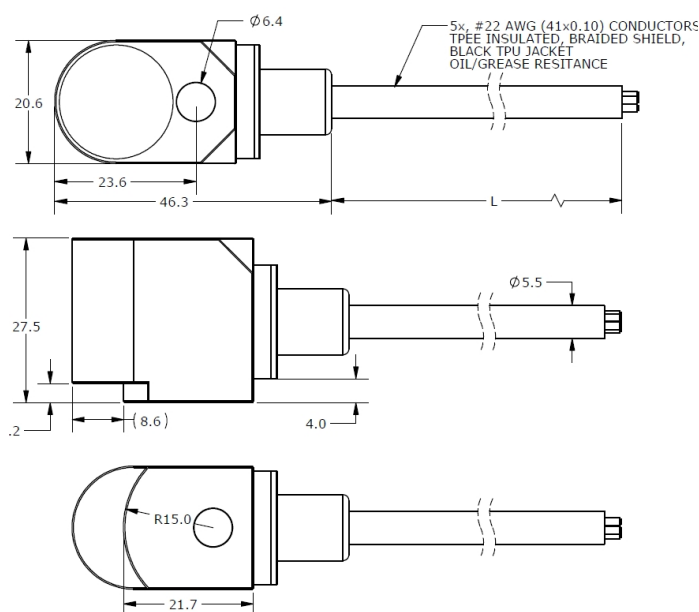
Model 341AT is an water proof IEPE accelerometer permitting vibration and temperature measurements. 341AT features an annular shear ceramic crystal which exhibits excellent output stability over time. The accelerometer incorporates an internal circuit with in a two-wire IEPE system which transmits its low impedance voltage output through the same cable that supplies the constant current power. Signal ground is internal shielded and isolated from the outer case of the unit. Polarity inversion protection for the amplify circuit is inherent in the circuit design. The welded stainless-steel construction provides a hermetic housing. Internal glass insulated connector provides long-term stability over the operating temperature range. Side outlet cable enable the compact installation and discrecional cable direction. In addition to adhesive mounting, 341AT has $\varnothing 6.4$ through holes for screw mounting on the test object. The 341AT provides wide frequency response and shock resistance, which is ideal for industrial vibration monitoring under incidental shock environment.

Features

- Water proof
- Side integrated cable
- Wide frequency response
- Rugged design
- High sensitivity
- Hermetic seal
- Case isolated
- Temperature output

Application

- Railway detection
- Gear box monitoring
- Bearing detection
- Machine monitoring



Specification

Typical at +24°C (+75°F), 24Vdc, 4 mA and 100Hz, unless otherwise stated.

Part Number	341AT-5-LF	341AT-10-LF	341AT-10	341AT-20	341AT-80	341AT-500	
Dynamic Range	±5	±10	±10	±20	±80	±500	g, peak
Sensitivity ±10%	1000	500	500	250	100	10	mV/g
Freq. Resp. ±5%	0.6-3000	0.6-3000	1-3000	1-6000	1-6000	1-6000	Hz
Freq. Resp. ±3dB	0.1-5000	0.1-5000	.3-5000	.3-8000	.3-8000	.3-8000	Hz
Resonant Frequency	18	18	25	25	25	25	kHz
Transverse Sensitivity	<5	<5	<5	<5	<5	<5	%
Temp. Resp., -55 to +125°C	±10	±10	±10	±10	±10	±10	%
Non-Linearity	±1	±1	±1	±1	±1	±1	%FSO
Residual Noise	0.00015	0.0002	0.0005	0.0005	0.0005	0.0010	g RMS
Shock Limit	2000	2000	2000	5000	5000	5000	g
Warm-up Time	<5	<5	<2	<2	<2	<2	second
Weight(cable excluded)	121	121	121	121	121	121	Gram

Items	Standard	Units
Bias Voltage	10 to 14	Vdc
Supply Voltage	18 to 30	Vdc
Supply Current	2 to 10	mA
Output Impedance	<100	Ω
Case Insulation (@100Vdc)	>100	MΩ
Operating Temperature	-55 to +125	°C

Temperature Sensor:

Items	Spec	Units
Output Sensitivity	10	mV/°C
Output Voltage at 0°C	500	mV
Accuracy	±1	°C
Range	-40 to +125	°C

Physical:

Items	Spec	Units
Humidity	Hermetically Sealed	
Case Material	316L Stainless Steel	
Sensing Element	Piezo Ceramic (Shear)	
Electrical Connection	Integrated cable	
Protection Grade	IP67	
Insulation Resistance (@500Vdc)	>200	MΩ
Operating Temperature	-40 to +125	°C

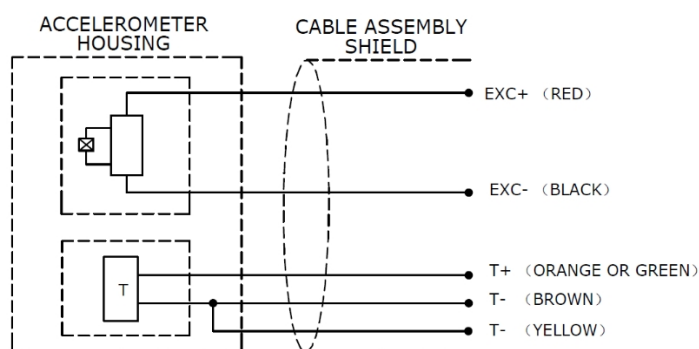
Accessories

Calibration certificate included.

Part Number	Description	Availability
PM0118	¼-28x1¼ hex head mounting screw	One screw Included
PM0329	M6x30 hex head mounting screw	
MB0004	341AT magnet mounting adapter	Optional
IN-03	3 channels IEPE signal conditioner	Optional
IN-91	Portable vibration analyzer	Optional
IN-3062	8 channels data acquisition system	Optional

Measurement configuration

Sensor	Signal conditioner	BNC cable	Data acquisition	Computer
				



Ordering information

341	A	-	80	-	LF	-	B	-	3
Model	Output signal	-	Range	-	Low frequency option	-	Mounting stud	-	Cable length
341	A=IEPE output T=Temperature signal output M1=Cable is 5*22AWG FEP jacket and sheathed	-	5=5g 10=10g 20=20g 80=80g 500=500g	-	LF= Low frequency Blank= Standard FR	-	A= ¼-28 mounting screw B= M6 mounting screw C*=Special	-	3=3 meters



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