



ProvibTech's Case Mount Sensors Selection Guide

Model Number	TM0782A TM0783A TM0786A	TM0784B	TM0793V	TM079VD
	General Purpose Accelerometer	Low Power Accelerometer	Velocity Transducer	Low Frequency Velocity/ Displacement
Sensitivity	100 mV/g	100 mV/g	4.0 mV/mm/sec	40 mV/mm/sec 4.0mV/um (p-p)
Frequency Response	0.5 - 10KHz	1.0 - 10KHz	2.0 - 7KHz	0.5 - 20 Hz
Temperature	-50°C to 120°C	-50°C to 120°C	-50°C to 120°C	-20°C to 70°C
Environmental Rating	IP67	IP67	IP67	IP67
Connection	TM0782A: Mil 2 pin; TM0783A: Integral cable	Special 2-pin connector	Mil 2 Pin	Mil 2 pin
Maximum Transmission Distance	300m	300m	300m	100m
Constant Current	2 - 10mA (3-10mA for TM0786A)	3 - 10mA	3 - 10mA	3-10mA
Power Supply	18 - 30VDC	9 - 30VDC	18 - 30VDC	18 - 30VDC
Bias Voltage	10 - 14VDC	6VDC	10 - 14VDC	10 - 14VDC
Connector Direction	TM0782A/ 0783A:Top; TM0786A:Side		TM0793V: Top	Top
Intrinsically Safe	TM0782A/0786A: ATEX: II 1 G, Ex ia IIC T4; CSA: Class I, Div. 1, groups A,B,C&D; PCEC: Ex ia IIC T4 GOST R: 0Exia IIC T4X		ATEX: II 1 G, Ex ia IIC T4; CSA: Class 1, Div. 1, groups A,B,C&D; PCEC: Ex ia IIC T4 GOST R: 0Exia IIC T4X	
CE	•	•	•	•
Warranty 2 years	•	•	•	•



Accelerometer TM0782A

General Purpose, Industrial Piezoelectric Accelerometers

The TM0782A-K accelerometer kit consists of one accelerometer and one 5 meter cable. This accelerometer kit directly interfaces with ProvibTech's signal conditioners: DTM, TR transmitters, DM Dual Monitors and PT580 vibration switches to measure case vibration in acceleration or velocity.



Specifications

Electrical

Sensitivity:	100mV/g, @ 25°C, ±10%
Frequency Response:	0.5 - 10,000Hz (±3dB)
Acceleration Range:	50g
Isolation:	Fully isolated
Electrical Noise:	0.0007g
Power Requirement:	2 - 10mA constant current 18 - 30VDC
Bias Voltage:	10 - 14VDC



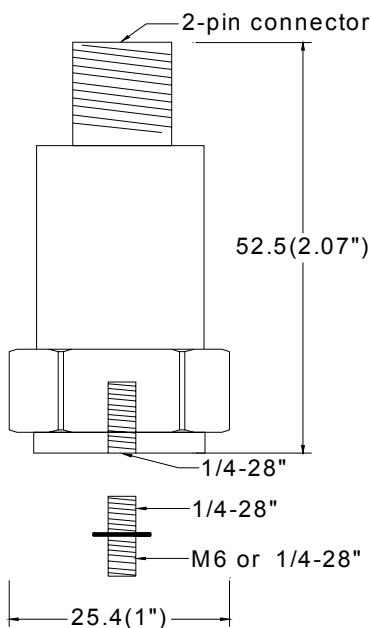
Resonance Frequency:	30 kHz
Maximum Transmission Distance:	300 meters (1,000 feet)

Environmental and Physical

Temperature Range:	-50°C to +120°C
Environmental Protection:	IP67
Weight:	90 grams
Case Material:	Stainless Steel
Mounting:	1/4-28UNF tapped hole
Installation Torque:	29N x M

Hazardous Area Approval:

- ATEX: II 1 G Ex ia IIC T4
- CSA: Class I, Div. 1, Groups A, B, C and D
I.S. Class I, Div. 1, Group A,B,C,D and T4,
Ex ia IIC T4
- CSA: Class I, Div.2, Groups A, B, C, D
Non- Incendive
- PCEC: Ex ia IIC T4
- TR CU: 0Ex ia IIC T4 X
№ TC RU C-US.ГБ05.В.00477
NANIO CCVE



Connection

- A: Power (red)
- B: COM (white)
- Shield



Order Information

TM0782A-M

Accelerometer with mounting screw 1/4-28" to M6×1

TM0782A-E

Accelerometer with mounting screw 1/4-28" to 1/4-28"

TM0782A-K-M

Accelerometer kit includes:

- ✓ TM0782A accelerometer
- ✓ Mounting screw (1/4-28" to M6×1)
- ✓ TM0702-05

TM0782A-K-E

Accelerometer kit includes:

- ✓ TM0782A accelerometer
- ✓ Mounting screw (1/4-28" to 1/4-28")
- ✓ TM0702-05

Accessories:

(Standard cable length is 5 meters. XX = 05)



TM0702-XX: Aluminum MIL connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0704-XX: Stainless steel MIL connector with armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 150°C (300°F), Maximum Length is 10 meters.

TM0704-XX-F: Stainless steel MIL connector with armor with FEP jacket XX meters cable.



TM0705-XX: Cornered MIL connector with armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 120°C (250°F), Maximum Length is 10 meters

TM0705-XX-F: Cornered MIL connector with Armor with FEP jacket XX meters cable.

TM0710: Mounting screw 1/4-28" - M6×1

TM0711: Mounting screw 1/4-28" - 1/4-28"

TM0712: Mounting screw 1/4-28" - M8

TM0713: Mounting screw 1/4-28" - M10



Accelerometer with Integral Cable TM0783A

General Purpose, Industrial Piezoelectric Accelerometers

The TM0783A accelerometer kit consists of one accelerometer and one 3 meter cable. This accelerometer kit directly interfaces with ProvibTech's signal conditioners: DTM, TR Transmitters, DM dual monitors and PT580 vibration switches to measure case vibration in acceleration or velocity.

Specifications

Electrical

Sensitivity:	100mV/g, @ 25°C, ±10%
Frequency Response:	0.5 - 10,000Hz (±3dB)
Acceleration Range:	50g
Isolation:	Fully isolated
Electrical Noise:	0.0007g
Power Requirement:	2 - 10mA constant current 18 - 30VDC
Bias Voltage:	10 - 14VDC

Resonance Frequency:	30 kHz
Maximum Transmission Distance:	300 meters (1,000 feet)

Environmental and Physical

Temperature Range:	-50°C to +120°C
Environmental Protection:	IP67
Weight:	90 grams
Case Material:	Stainless steel
Mounting:	1/4-28UNF tapped hole
Installation Torque:	29N x M

Connection

A: Power (red)
B: COM (white)
Shield

Order Information

TM0783A-M

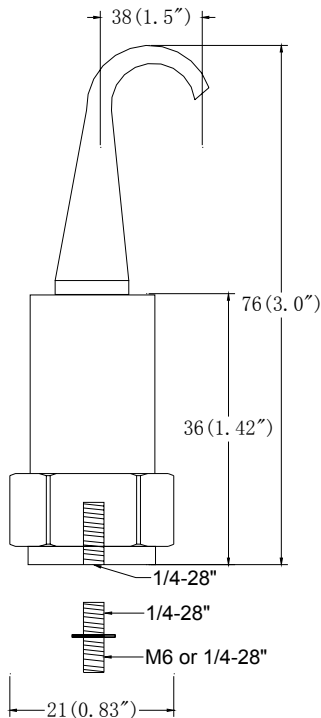
- Accelerometer Includes:
- ✓ Accelerometer
 - ✓ Mounting screw (1/4-28" to M6×1)
 - ✓ 3m cable

TM0783A-E

- Accelerometer Includes:
- ✓ Accelerometer
 - ✓ Mounting screw (1/4-28" to 1/4-28")
 - ✓ 3m cable

Accessories

- TM0710:** Mounting screw 1/4-28" - M6×1
TM0711: Mounting screw 1/4-28" - 1/4-28"
TM0712: Mounting screw 1/4-28" - M8
TM0713: Mounting screw 1/4-28" - M10





Low Power Accelerometer TM0784B

General Purpose Portable Meter Accelerometers

The TM0784B is ideal for battery powered portable meter applications which require measuring vibration with a lower power supply voltage.

Specifications

Electrical

Sensitivity:	100mV/g, @ 25°C, ±10%
Frequency Response:	1.0 - 10,000Hz (±3dB)
Acceleration Range:	10g
Isolation:	Fully isolated
Electrical Noise:	0.0007g
Power Requirement:	3 - 10mA constant current 9 - 30VDC
Nominal Bias Voltage:	6.0 VDC
Resonance Frequency:	20 KHz
Maximum Transmission Distance:	300 meters (1,000 feet)

Environmental and Physical

Temperature Range:	-50°C to +120°C
Environmental Protection:	IP67
Weight:	90 grams
Case Material:	Stainless steel

Mounting: 1/4-28UNF tapped hole



Installation Torque: 29N x M

I

Order Information

TM0784B-K

Accelerometer kit includes:
✓ TM0784B Accelerometer

Accessories

PT600-TP: accelerometer tip, 50mm
PT600-MG: magnet for accelerometer



Side-Exit Accelerometer TM0786A

The TM0786A accelerometer is a side-exit connector and multi-purpose accelerometer.

Specifications

Electrical

Sensitivity:	100mV/g, @ 25°C, ±10%
Frequency Response:	1 - 10,000Hz (±3dB)
Dynamic Range:	50g
Isolation:	Fully isolated
Electrical Noise:	0.0007g
Power Requirement:	3 - 10mA constant current
	18 - 30VDC
Bias Voltage:	10 - 14VDC
Resonance Frequency:	15 kHz
Maximum Transmission Distance:	300 meters (1,000 feet)



Environmental and Physical

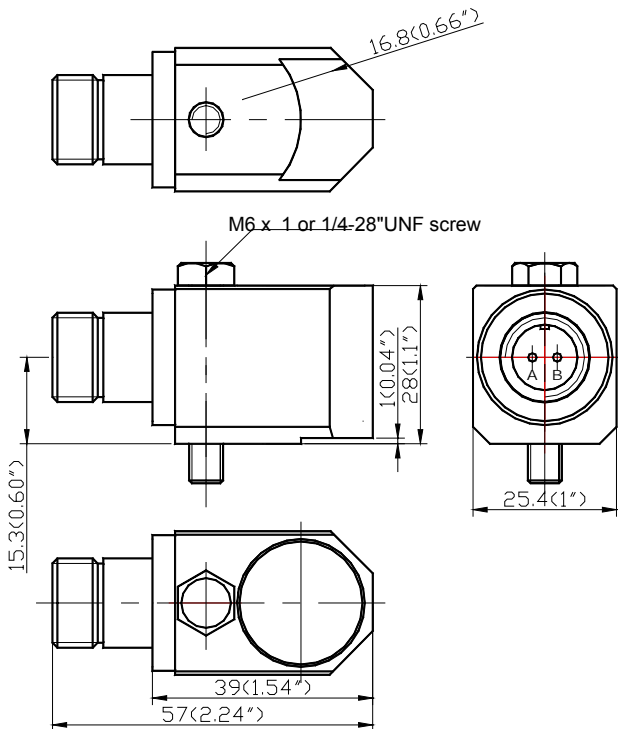
Temperature Range:	-50°C to +120°C
Environmental Protection:	IP67
Weight:	200 grams
Case Material:	304 Stainless steel
Sealing:	Hermetically welded
Mounting:	1/4-28UNF or M6×1 screw
Installation Torque:	29N x M
Connector:	MIL-C connector

Hazardous Area Approvals:

- ATEX: II 1 G Ex ia IIC T4
- CSA: I.S. Class I, Div. 1, Group A,B,C,D and T4, Ex ia IIC T4
- Class I, Div.2, Groups A, B, C, D
- Non- Incendive

PCEC: Ex ia IIC T4

TR CU: 0Ex ia IIC T4 X
№ TC RU C-US.ГБ05.В.00477
NANIO CCVE



Order Information

TM0786A-M

Side-exit accelerometer with metric mounting screw

- ✓ TM0786A accelerometer
- ✓ Mounting screw M6×1

TM0786A-E

Side-exit accelerometer with English mounting screw

- ✓ TM0786A accelerometer
- ✓ Mounting screw 1/4-28"



TM0786A-M-S

Side-exit accelerometer with metric mounting screw

- ✓ TM0786A accelerometer
- ✓ Mounting screw M6×1
- ✓ Hazardous area approval

TM0786A-E-S

Side-exit accelerometer with English mounting screw

- ✓ TM0786A accelerometer
- ✓ Mounting screw 1/4-28"
- ✓ Hazardous area approval

Accessories:

TM0714: Mounting screw M6×1

TM0715: Mounting screw 1/4-28"

(Standard cable length is 5 meters. XX = 05)



TM0702-XX: Aluminum MIL connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0704-XX: Stainless steel MIL connector with Armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 150°C (300°F), Maximum Length is 10 meters.

TM0704-XX-F: Stainless steel MIL connector with Armor with FEP jacket XX meters cable.



TM0705-XX: Cornered MIL connector with armored XX meters cable, 4.83mm diameter.

Operating temperature range goes up to 120°C (250°F), Maximum Length is 10 meters.

TM0705-XX-F: Cornered MIL connector with Armor with FEP jacket XX meters cable.



Velocity Transducer TM0793V

Piezoelectric Velocity Transducer

The TM0793V-K velocity transducer kit consists of one velocity transducer and one 5 meter cable. This velocity transducer kit directly interfaces with ProvibTech's signal conditioners: DTM, TR transmitters, DM dual monitors and PT580 vibration switches to measure case vibration in velocity or displacement.

Specifications

Electrical

Sensitivity: 4.0mV/mm/sec (100mV/in/sec),
@ 25°C, ±10%

Velocity Range: 5.0V pk

Amplitude Nonlinearity: 1%

Frequency Response: 2 - 7,000Hz (±3dB)

Isolation: Fully isolated

Transverse Sensitivity: < 5% or axial



Power Requirement:

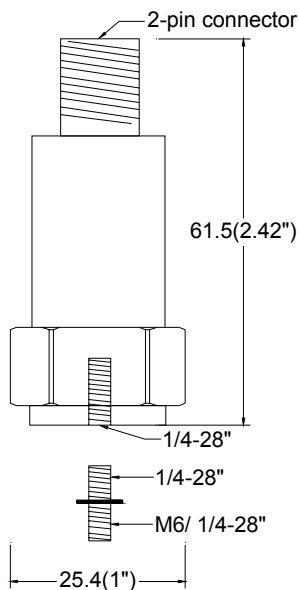
3 - 10mA constant current
18 - 30VDC

Resonance Frequency: 15 kHz

Bias Voltage: 10 - 14VDC

Maximum Transmission Distance:

300 meters (1,000 feet)



Environmental and Physical

Temperature Range: -50°C to +120°C

Environmental Protection: IP67

Weight: 250 grams

Case Material: Stainless steel

Mounting: 1/4-28UNF tapped hole

Hazardous Area Approvals:

ATEX: II 1 G Ex ia IIC T4;

CSA: I.S. Class I, Div. 1, Groups A, B, C & D
Exia IIC T4

Class I, Div.2, Groups A, B, C, D
Non-Incendive

PCEC: Ex ia IIC T4X

TR CU: 0Ex ia IIC T4 X

№ TC RU C-US.TB05.B.00477
NANIO CCVE

Connection

A: Power (red)



B: COM (white)

Order Information

TM0793V-M

Velocity sensor with mounting screw 1/4-28" to M6x1

TM0793V-E

Velocity sensor with mounting screw 1/4-28" to 1/4-28"

TM0793V-K-M

Velocity sensor kit includes:

- ✓ TM0793V velocity sensor
- ✓ Mounting screw (1/4-28" to M6x1)
- ✓ TM0702-05

TM0793V-K-E

Velocity sensor kit includes:

- ✓ TM0793V velocity sensor
- ✓ Mounting screw (1/4-28" to 1/4-28")
- ✓ TM0702-05

Accessories:

(Standard cable length is 5 meters. XX = 05)



TM0702-XX: Aluminum MIL connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0704-XX: Stainless steel MIL connector with armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 150°C (300°F), Maximum Length is 10 meters.

TM0704-XX-F: Stainless steel MIL connector with Armor with FEP jacket XX meters cable.



TM0705-XX: Cornered MIL connector with armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 120°C (250°F), Maximum Length is 10 meters.

TM0705-XX-F: Cornered MIL connector with Armor with FEP jacket XX meters cable.

TM0710: Mounting screw 1/4-28" - M6x1

TM0711: Mounting screw 1/4-28" - 1/4-28"

TM0712: Mounting screw 1/4-28" - M8

TM0793V-M-S

Velocity sensor with mounting screw 1/4-28" to M6x1
Hazardous area approval

TM0793V-E-S

Velocity sensor with mounting screw 1/4-28" to 1/4-28"
Hazardous area approval



TM0713: Mounting screw 1/4-28" - M10

Low Frequency Velocity/Displacement Sensor TM079VD

The TM079VD is specially designed to measure low frequency vibration. The TM079VD output is in velocity or displacement.

Features

- ✓ Measures frequency down to 30 rpm's in velocity
- ✓ IEPE power used with most accelerometer receivers
- ✓ Stainless steel hermetically sealed case
- ✓ Ideal for low speed machines (hydro turbines, cooling towers, fin-fans and wind-turbines)
- ✓ Large signal output, high signal/noise ratio

Specifications

Electrical

Sensitivity:

Velocity:

40 mV/mm/s (1000mV/in/sec), pk, @ 25°C, ±10%

Maximum Amplitude:

Velocity: 100 mm/s pk

Frequency Response:

0.5 - 20 Hz (±3dB)

Isolation:

Fully isolated



Power Requirement:

3 - 10mA constant current
18 - 30VDC

Output Impedance:

50Ω

Output Bias Voltage:

10 - 14VDC

Maximum Transmission Distance:

300 meters (1,000 feet)

Environmental and Physicals

Temperature Range:

-20°C to +70°C

Environmental Protection:

IP67

Weight:

1,400 grams

Case Material:

304 stainless steel

Mounting:

3/4 NPT or M20

Mounting Torque:

29N x M

Connection

A: Power (red)

B: COM (white)

Order Information

TM079VD-V-AX-BX

Vertical mounting low frequency sensor

TM079VD-H-AX-BX

Horizontal mounting low frequency sensor

AX: Sensitivity

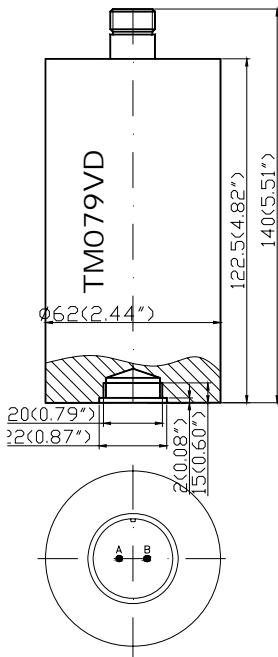
A0: Velocity: 40 mV/mm/s (1000mV/in/sec), pk

A1: Displacement: 4.0mV/μm (100mV/mil), pk-pk

BX: Mounting Stud

B0: 3/4" NPT

B1: M20×1.5





Accessories

TM0716: Mounting screw M20×1.5

TM0717: Mounting screw 3/4" NPT

(Standard cable length is 5 meters. XX = 05)



TM0702-XX: Aluminum MIL connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter. Operating temperature range goes up to 120°C (250°F)



TM0704-XX: Stainless steel MIL connector with armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 150°C (300°F), Maximum Length is 10 meters.

TM0704-XX-F: Stainless steel MIL connector with Armor with FEP jacket XX meters cable.



TM0705-XX: Cornered MIL connector with armored XX meters cable, 4.83mm diameter. Operating temperature range goes up to 120°C (250°F), Maximum Length is 10 meters.

TM0705-XX-F: Cornered MIL connector with Armor with FEP jacket XX meters cable.