



Proximity Probes

Seismic Sensors and Accessories



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ProvibTech's Proximity Probe Selection Guide

Part Number (Initial Prefix)	TM0105	TM0108	TM0110	TM0120
Probe Tip Size	5mm	8mm	11mm	25mm
Probe Model Type	Standard, 7200 compatible	Standard, 7200 compatible	Standard, 7200 compatible	Standard
Linear Range	80 mils, 2mm	80 mils, 2mm	160 mils, 4mm	470 mils, 12mm
Probe Lengths	0.5m or 1.0 m	0.5m or 1.0 m	0.5m or 1.0 m	
Extension Cable Lengths	4.0m, 4.5m, 8.0m or 8.5 m	4.0m, 4.5m, 8.0m or 8.5 m	4.0m, 4.5m, 8.0m or 8.5 m	
Integral Probe Extension Cable (Option)	5. m or 9.0m	5.0m or 9.0m	5.0m or 9.0m	Customer Specifies
Available with Armored Cable	•	•	•	•
Probe Driver	Required	Required	Required	Not Required
Hazardous Rating	•	•	•	

8mm, 5mm Proximity Probe TM0180 and TM0105 Systems

Introduction to proximity probe transducers

Proximity probe transducers are used to measure the static and dynamic distance between the target and the probe. ProvibTech's TM series proximity probes measure the following:

- ✓ Radial vibration used for indicating bearing condition and measuring machine malfunctions such as rotor imbalance, misalignment, and shaft crack.
- ✓ Axial thrust position used for determining thrust bearing wear or potential bearing failure.
- ✓ Shaft radial position used for determining shaft position relative to rotor attitude angle, an indicator of rotor stability and shaft alignment.
- ✓ Vibration amplitude and phase angle used for diagnostic information in Polar and Bode formats or for vector monitoring.
- ✓ Eccentricity used to measure the shaft bow during startup of large turbine machinery.
- ✓ Phase reference used for measuring shaft rotation speed and phase angle of shaft vibration for monitoring and diagnostic purposes.

The TM series proximity probe systems are designed to meet API 670 standards. Each system consists of a probe, extension cable, and a driver. ProvibTech's transmitters (DTM and TR series) can directly interface with the probe and extension cable; therefore, eliminating the need of a probe driver. This smart design allows for easier field installation and greater economical benefits.

Components of proximity probe transducers

Probe

The TM0180 (8mm) and the TM0105 (5mm) probes are designed for long life cycles and are suitable for harsh environments. ProvibTech realizes one of the most significant problems in proximity probe installations are ground loops and loss of isolation due to damaged cable jackets. ProvibTech's custom rugged cable jacket prevents the probe cable from breaking and tearing and is highly resistive to corrosive environments.

The TM0180 probe and extension cable are equipped with a standard protective rubber boot, which covers the connectors and prevents oil and dirt penetration.

The TM0180 and TM0105 series probes come in 0.5m and 1.0m cable lengths, as well as, special lengths of 5.0m and 9.0m with an integrated probe and extension cable design.



The probe may be selected in English or metric units, as well as, reverse mounting options. Reverse mount probes are used with the KS01 probe holding system or TM0393 probe housings for hazardous areas.

Extension Cable

ProvibTech's extension cable design results in better system performance and a longer life cycle.

One may select various extension cable lengths based on the probe cable length. The total length of the probe and the extension cable need to be 5m or 9m in total length.

The connector on the extension cable is also an API 670 standard, allowing compatibility with other manufacturers' proximity probe systems.

Driver

The TM0182 driver is used for the TM0180 and TM0105 proximity probe systems. The circuit isolation from ground is a standard feature for all ProvibTech's drivers. The total length of cable between the probe and the driver should be 5m or 9m. The distance between the driver and the vibration monitor can be up to 300m (1,000 ft). The three conductor shielded cables from the probe driver should be used to connect to a vibration monitor, such as, ProvibTech's PT2060 monitor.

Note: Probe Driver is not required with some models of DTM or TR Transmitters.

Assessories

KS01: Probe holding system for reverse-mount probes

KS02: GAP tester for comfortable setting of probe distance

KS04: LoopChecker for dynamic testing of the complete measurement circuit

KS05: SensiChecker for easy determination of the loop sensitivity

Hazardous Area

The TM0180 and TM0105 proximity probe transducers have hazardous area approvals. Please consult ProviBTech for further information.

System Specifications

Electrical

Power Supply:

Voltage: -23 to -30VDC
Current: < 12mA

Linear Range:

2.0mm (80mils) begins at 0.25mm (10mils) from probe face (AISI4140)
Range is 0.25 - 2.25mm (10 - 90 mils)

Sensitivity:

7.87 mV/um (200mV/mil)

Temperature Sensitivity (Normal):

Probe and 5 meters cable, from -35°C to 120°C, tolerance is within $\pm 0.3\%/^{\circ}\text{C}$ in the middle of the linear range. At 2.25mm (90mil), nominal $\pm 0.5\%/^{\circ}\text{C}$

Linearity (deviation from straight line):

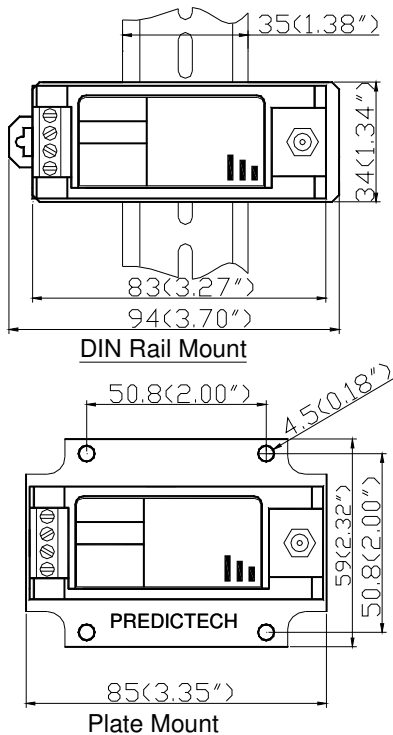
Within $\pm 0.0254\text{mm}$ (± 1.0 mil) of a straight line, when calibrated as a system. $\pm 0.038\text{mm}$ ($\pm 1.5\text{mil}$) typical including interchangeability errors

Frequency Response ($\pm 3\text{db}$):

0 - 10.0 KHz

Minimum Target Size:

15mm (0.6 inch) in diameter



Environmental

Probe Driver Temperature:

Operation: -40°C to +80°C
Storage: -50°C to +100°C

Probe Temperature:

Operation/Storage: -40°C to +177°C

Extension Cable Temperature:

Operation/Storage: -40°C to +177°C

Humidity:

100% non-condensing

Approval:

ATEX: II 1 G, Ex ia IIC T4@Ta=-40°C~+80°C
KEMA06ATEX0217X

CSA: Intrinsically safe.

Class I, Div. 1, Groups A, B, C and D, T4

Class I, Zone 0, Ex ia IIC T4

Non-incendive

Class 1, Div. 2, Groups A, B, C and D

PCEC: Ex ia IIC T4

GOST R: 0ExiaIIC T4

Probe and cable approval:

ATEX: II1G, ExiaIIC T4@Ta=-55°C~+115°C,

II2G, ExiaIIC T2@Ta=-55°C~+232°C

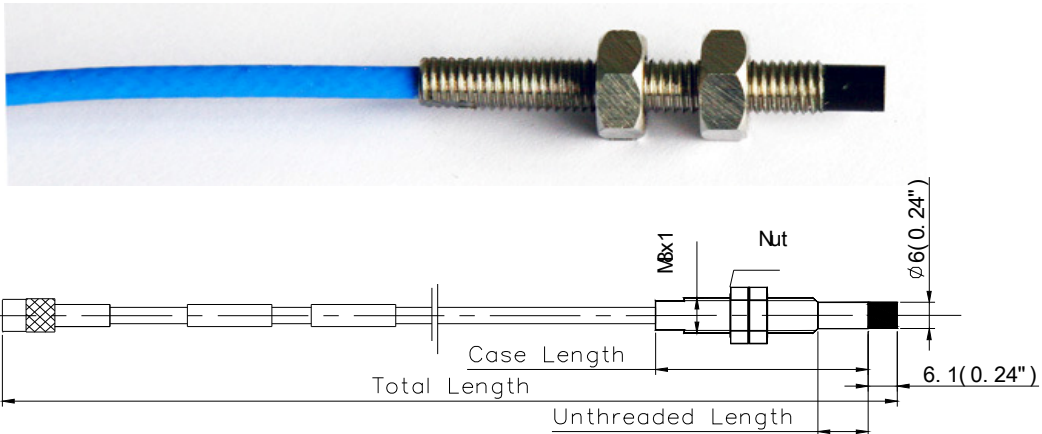
KEMA07ATEX0110X

CSA: Class I, Div 1, Grps ABCD, ExiaIIC T4

Physical

Driver Height: 75mm (2.95")

Driver Mounting: 35mm DIN rail mount or Plate mount



TM0105 Probe 5mm

Standard 5mm TM0105 Probes

(Works with TM0181 cables and TM0182 drivers)

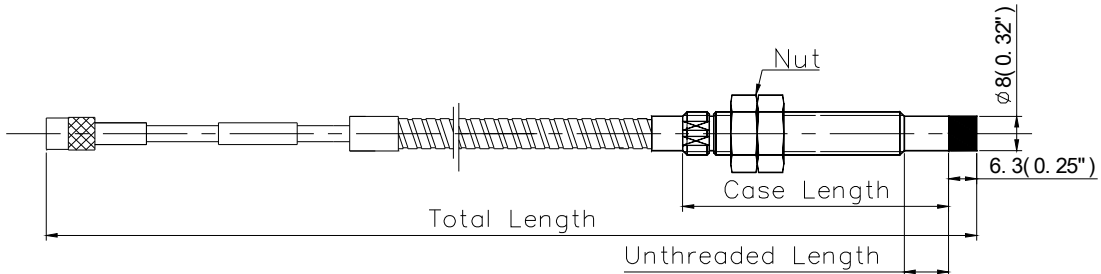
TM0105	-XX	-XX	-XX	-XX	-XX
Standard 5mm Probe	Probe Type	Unthreaded Length	Case Length	Total Length	Connector Type
1/4"-28UNF; without armor	-01	Standard: 00 (0.0 in) Increment: 05 (0.5 in)	Standard: 20 (2.0 in) Increment: 05 (0.5 in)	05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	00 (none) 02 (yes)
1/4"-28UNF; with armor	-02	Maximum: Case length- 1.0 in	Minimum: 10 (1.0 in) Maximum: 95 (9.5 in)		
M8x1; without armor	-07	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 05 (50 mm) Increment: 01 (10 mm)		
M8x1; with armor	-08	Maximum: Case length- 20 mm	Minimum: 02 (20 mm) Maximum: 25 (250 mm)		

7200 Series 5mm TM0105 Probes

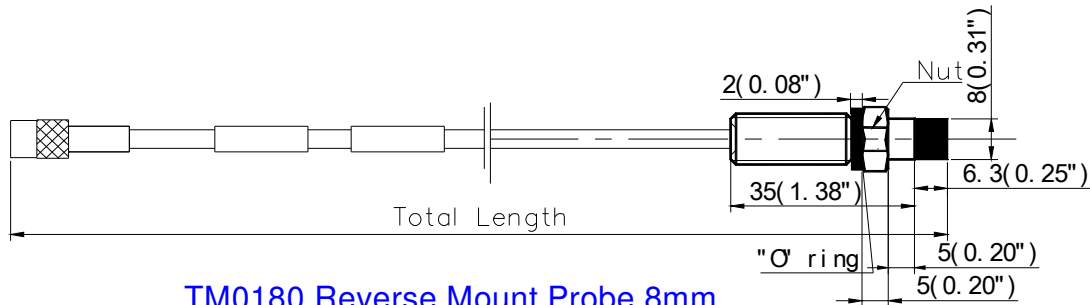
(Works with TM0181-21747 cables and TM0182-18745 drivers)

TM0105	-XXXXX	-XX	-XX	-XX	-XX
7200 5mm Probe	Probe Type	Unthreaded Length	Case Length	Total Length	Connector Type
1/4"-28UNF; without armor	-21500	Standard: 00 (0.0 in) Increment: 05 (0.5 in)	Standard: 20 (2.0 in) Increment: 05 (0.5 in)	05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	00 (none) 02 (yes)
1/4"-28UNF; with armor	-21501	Maximum: Case length- 1.0 in	Minimum: 10 (1.0 in) Maximum: 95 (9.5 in)		
M8x1; without armor	-22812	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 05 (50 mm) Increment: 01 (10 mm)		
M8x1; with armor	-22813	Maximum: Case length - 20 mm	Minimum: 02 (20 mm) Maximum: 25 (250 mm)		

Proximity Transducers, Seismic Sensors and Accessories



TM0180 Probe 8mm



TM0180 Reverse Mount Probe 8mm

Standard 8mm TM0180

(Works with TM0181 cables and TM0182 drivers)

TM0180	-XX	-XX	-XX	-XX	-XX
Standard 8mm Probe	Probe Type	Unthreaded Length	Case Length	Total Length	Connector Type
3/8"-24UNF; without armor	-01	Standard: 00 (0.0 in) Increment: 05 (0.5 in)	Standard: 20 (2.0 in) Increment: 05 (0.5 in)	05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	00 (none) 02 (yes)
3/8"-24UNF; with armor	-02	Maximum: Case length- 1.0 in	Minimum: 10 (1.0 in) Maximum: 95 (9.5 in)		
M10x1; without armor	-07	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 05 (50 mm) Increment: 01 (10 mm)		
M10x1; with armor	-08	Maximum: Case length- 20 mm	Minimum: 02 (20 mm) Maximum: 25 (250 mm)		
Reverse mount 3/8"-24UNF; without armor	-06	02 (0.2 in)	12 (1.2 in)	05 (0.5m) 10 (1.0m)	02 (yes)
Reverse mount M10x1; without armor	-05	05 (5 mm)	03 (30 mm)		

Reverse Mount Accessories

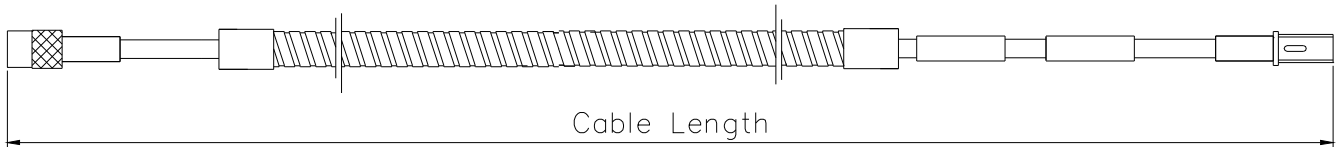
KS01: Probe holding system for reverse-mount probes

7200 Series 8mm TM0180 Probes

(Works with TM0181-21747 cables and TM0182-18745 drivers)

TM0180	-XXXXX	-XX	-XX	-XX	-XX
7200 8mm Probe	Probe Type	Unthreaded Length	Case Length	Total Length	Connector Type
3/8"-24UNF; without armor	-21504	Standard: 00 (0.0 in) Increment: 05 (0.5 in)	Standard: 20 (2.0 in) Increment: 05 (0.5 in)	05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	00 (none) 02 (yes)
3/8"-24UNF; with armor	-21505	Maximum: Case length- 1.0 in	Minimum: 10 (1.0 in) Maximum: 95 (9.5 in)		
M10×1; without armor	-22810	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 05 (50 mm) Increment: 01 (10 mm)		
M10×1; with armor	-22811	Maximum: Case length- 20 mm	Minimum: 02 (20 mm) Maximum: 25 (250 mm)		
Reverse mount 3/8"-24UNF; without armor	-21508	02 (0.2 in)	12 (1.2 in)	05 (0.5m) 10 (1.0m)	02 (yes)

Extension Cable



Extension Cable

Extension Cable for 5mm and 8mm Probes

(Works with TM0180 probes and TM0182 drivers)

TM0181	-XXXXX	-XXX	-XX
Probe Type	Model	Cable Length	Armor
Standard 5mm and 8mm probe		-040 (4.0 m)	-00 (No)
7200 series 5mm and 8mm probe	-21747	-045 (4.5 m) -080 (8.0 m) -085 (8.5 m)	-01 (Yes)



Proximity Probe Driver for 5mm and 8mm Probes

(Works with TM0180 probes and TM0181 cables)

TM0182	-AXX	-BXX	-CXX
Probe Type	Cable Length	Hazardous Area Certification	Mounting
Standard 8mm probe	-A50 (standard 8mm probe, 5m) -A90 (standard 8mm probe, 9m)	-B00 (no) -B01 (multiple)	-C00 (DIN rail) -C01 (plate mount)
Standard 5mm probe	-A55 (standard 5mm probe, 5m) -A95 (standard 5mm probe, 9m)		
7200 8mm/5mm probe	-A57 (7200 8mm / 5mm probe, 5m, 18745) -A97 (7200 8mm / 5mm probe, 9m, 18745)		

Note: The total length of the probe and cable should be either 5.0 meters or 9.0 meters.

11mm Proximity Probe TM0110 System

Linear range

The 11mm probe has up to 4mm (160mil) linear range. The TM0110 probe is recommended when a longer linear range is required. The TM0110 proximity probe system is designed to meet API 670 industrial standard. The system consists of a probe, extension cable and driver. In most cases, ProvibTech's transmitters (DTM and TR series) and dual monitors (DM series) directly interface with a probe and extension cable, eliminating the need of a driver.

Components of TM0110 system

Proximity Probe – TM0110

The TM0110 probe is an 11mm probe designed for harsh environments. The rugged cable jacket helps prevent the probe cable from breaking and tearing, as well as, being highly resistive to corrosive environments. The TM0110 proximity probe and extension cable are equipped with a standard protective rubber boot, which covers the connectors and prevents oil and dirt penetration.

The standard cable lengths for the TM0110 are 0.5m and 1.0m. Additional lengths of 5.0m and 9.0m are available with an integrated probe and extension cable connected together equaling one part.

The probe may be selected in either English or metric units, as well as, reverse mounting options.

Extension Cable – TM0181

ProvibTech's extension cable design results in better system performance and a longer life cycle.

One may select various extension cable lengths based on the probe cable length. The total length of the probe and the extension cable need to be 5m or 9m.

The connector on the extension cable is also an API 670 standard, allowing compatibility with other manufacturers' proximity probe systems.

Driver – TM0182

The TM0182 driver is used for the TM0110 proximity probe systems. The isolation from ground for the driver is a standard feature for all ProvibTech's drivers. The total length of cable between the probe and the driver should be 5m or 9m. The distance between the driver and the monitor can be up to 300m (1,000 ft). The three conductor shielded cables from the probe driver are used to connect to a vibration monitor, such as, ProvibTech's PT2060 and DM vibration monitor.

Note: Probe Driver is not required when using ProvibTech's DTM or Transmitters.

System Specifications

Electrical

Power Supply:

Voltage: -23 to -30VDC
 Current: < 12mA

Linear Range:

4.0mm (160mils) begins at 0.40mm (16mils) from probe surface (AISI4140)
 Range is 0.40 - 4.40mm (16 - 173 mils)

Sensitivity:

3.94 mV/um (100mV/mil)

Temperature Sensitivity:

Probe and 5 meters cable, from -30°C to 120°C, typical tolerance is within ±0.4%/°C reference with the middle of the linear range

Linearity (deviation from straight line):

Within ±0.06mm (±2.4 mil) of a straight line, if calibrated as a system. ±0.16mm (±6.5mil) typical including interchangeability errors

Frequency Response (±3db):

0 - 3.0 kHz

Minimum Target Size:

33mm (1.3 inch) in diameter

Environmental

Probe Driver Temperature:

Operation: -40°C to +80°C
 Storage: -50°C to +100°C

Probe Temperature:

Operation/Storage: -40°C to +177°C

Cable Temperature:

Operation/Storage: -40°C to +177°C

Humidity:

100% non-condensing

Approval:

ATEX: II 1 G, Ex ia IIC T4@Ta=-40°C~+80°C
 KEMA06ATEX0217X

CSA: Intrinsically safe. ;

Class I, Div. 1, Groups A, B, C and D, T4

Class I, Zone 0, Ex ia IIC T4

Non-incentive

Class I, Div. 2, Groups A, B, C and D, T4

PCEC: Ex ia IIC T4

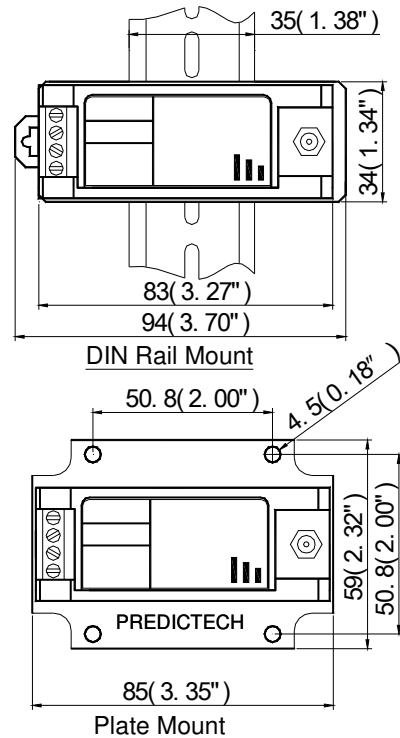
GOST R: 0ExiaIIC T4X



Probe and cable approval:

ATEX: II1G, ExiaIIC T4@Ta=-55°C~+115°C,
 II2G, ExiaIIC T2@Ta=-55°C~+232°C
 KEMA07ATEX0110X

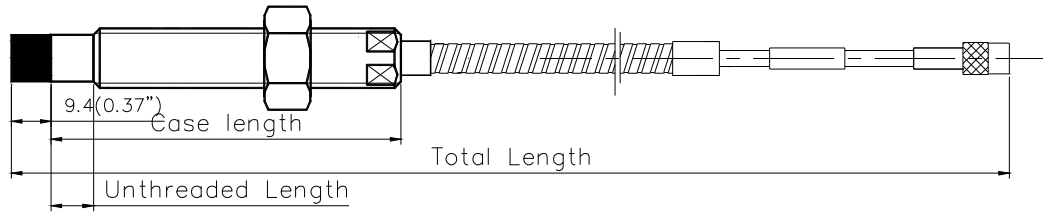
CSA: Class I, Div 1, Grps ABCD, ExiaIIC T4



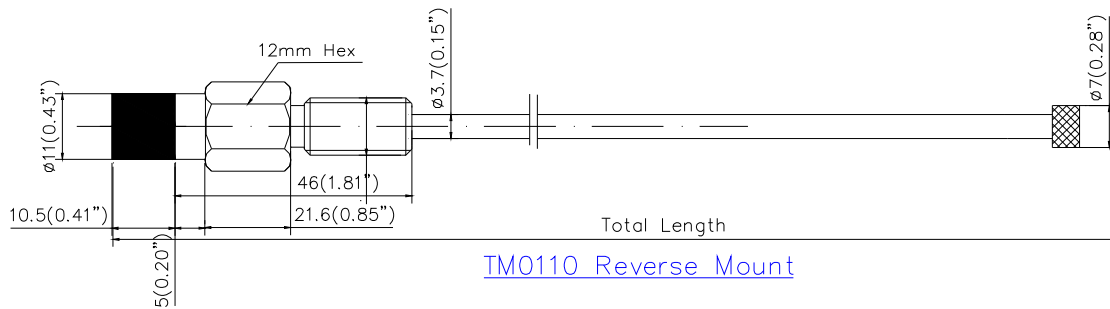
Physical

Driver Height: 75mm (2.95")

Driver Mounting: 35mm DIN rail mount or Plate mount



11mm Probe TM0110



TM0110 Reverse Mount

Standard 11mm TM0110 Probes

(Works with TM0181 cable and TM0182 driver)

TM0110	-XX	-XX	-XX	-XX	-XX
Standard 11mm Probe	Probe Type	Unthreaded Length	Case Length	Total Length	Connector Type
1/2"-20UNF; without armor	-02	Standard: 00 (0.0 in) Increment: 05 (0.5 in)	Standard: 30 (3.0 in) Increment: 05 (0.5 in)	05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	00 (none) 02 (yes)
1/2"-20UNF; with armor	-03	Maximum: Case length- 1.0 in	Minimum: 10 (1.0 in) Maximum: 95 (9.5 in)		
M14×1.5; without armor	-00	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 05 (50 mm) Increment: 01 (10 mm)		
M14×1.5; with armor	-01	Maximum: Case length- 20 mm	Minimum: 02 (20 mm) Maximum: 25 (250 mm)		
Reverse mount M10×1; without armor	-05	05 (5 mm)	30 (30 mm)	05 (0.5m) 10 (1.0m)	02 (yes)
Reverse mount 3/8"-24UNF; without armor	-06	02 (0.2 in)	12 (1.2 in)		

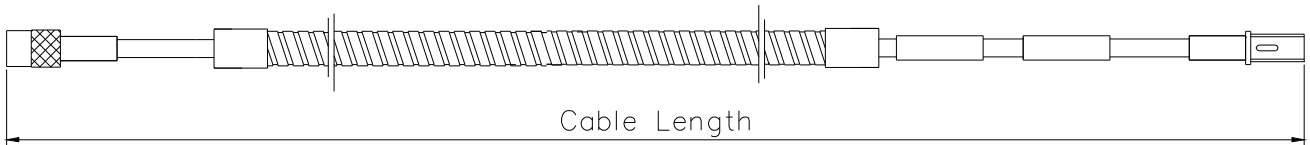
Reverse Mount Accessories

KS01: Probe holding system for reverse-mount probes

7200 Series 11mm TM0110 Probes

(Works with TM0181-24710 cables and TM0182-19049 drivers)

TM0110	-XXXXX	-XX	-XX	-XX	-XX
Standard 11mm Probe	Probe Type	Unthreaded Length	Case Length	Total Length	Connector Type
1/2"-20UNF; without armor	-19048	Standard: 00 (0.0 in) Increment: 05 (0.5 in)	Standard: 30 (3.0 in) Increment: 05 (0.5 in)	05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	00 (none) 02 (yes)
1/2"-20UNF; with armor	-24798	Maximum: Case length- 8.0 in	Minimum: 15 (1.5 in) Maximum: 95 (9.5 in)		
M14×1.5; without armor	-26179	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 05 (50 mm) Increment: 01 (10 mm)		
M14×1.5; with armor	-26180	Maximum: Case length- 210 mm	Minimum: 03 (30 mm) Maximum: 25 (250 mm)		
Reverse mount 3/8"-24UNF; without armor	-29776			05 (0.5m) 10 (1.0m) 50 (5.0m) 90 (9.0m)	02 (yes)



Extension Cable

Extension Cable for 11mm Probes

(Works with TM0110 probes and TM0182 drivers)

TM0181	-XXXXX	-XXX	-XX
Probe Type	Model	Cable Length	Armor
Standard 11mm probe	-	-040 (4.0 m)	-00 (No)
		-045 (4.5 m)	-01 (Yes)
7200 series 11mm probe	-24710	-080 (8.0 m)	
		-085 (8.5 m)	

Note: The total length of the probe and cable should be either 5.0 meters or 9.0 meters.



Probe Driver for 11mm Probes

(Works with TM0110 probes and TM0181 cables)

TM0182	-AXX	-BXX	-CXX
Probe Type	Cable Length	Hazardous Area Certification	Mounting
Standard 11mm probe	-A51 (standard 11mm probe, 5m) -A91 (standard 11mm probe, 9m)	-B00 (no) -B01 (multiple)	-C00 (DIN rail) -C01 (plate mount)
7200 11mm probe	-A52 (7200 11mm probe, 5m) -A92 (7200 11mm probe, 9m)		

25mm Proximity Probe TM0120 System

Linear range

The 25mm probe has up to 12mm (470mil) linear range. The probe is designed for measuring differential expansion. The TM0120 integrates the probe, extension cable and the driver into one unit. This integral proximity probe is designed for easy field installation.

The TM0120 probe comes in lengths of 1m, 5m and 9m standard cable (2 conductor shielded cable).

System Specifications

Electrical

Power Supply:

Voltage: -15 to -30VDC

Current: < 12mA

Linear Range:

12mm (470mils) begins at about 2mm (80mils) from probe surface (AISI4140)

Sensitivity:

0.787 mV/um (20mV/mil) ± 4%

Temperature Sensitivity:

Probe and 5 meters cable within the operation temperature range, typical tolerance is within ±5% FS.

Linearity (deviation from straight line):

Within ±0.25mm (±10 mil) of a straight line

Frequency Response (±3db):



0 - 2.0 KHz

Minimum Target Size:

67mm (2.6") in diameter

Environmental

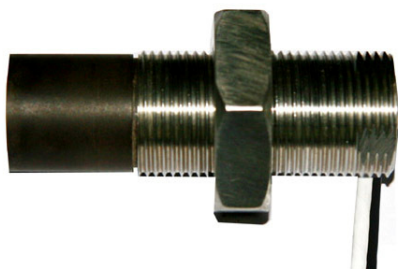
Probe Temperature:

Operation: -35°C to +85°C

Storage: -50°C to +100°C

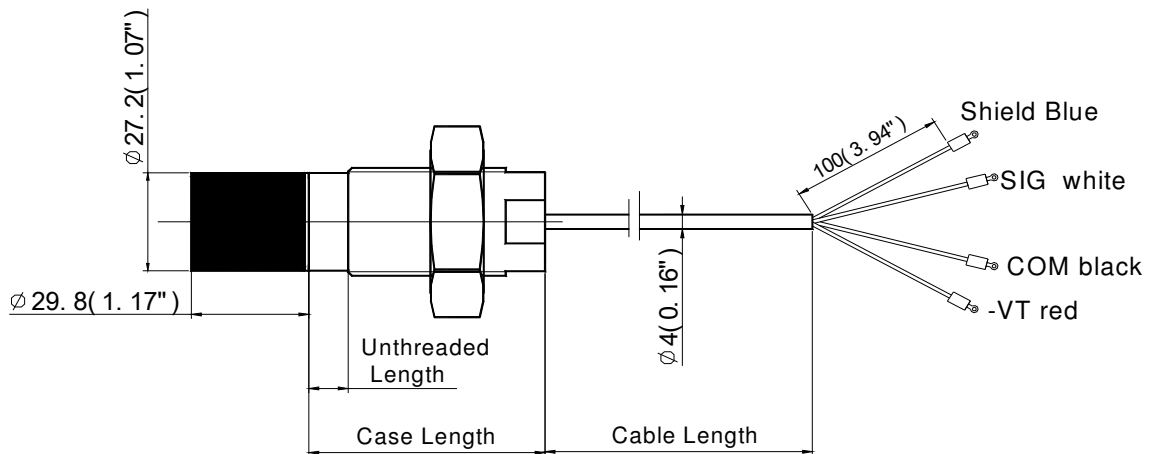
Humidity:

100% non-condensing



25mm TM0120 Integral Proximity Probe Selection Table

TM0120	-XX	-XX	-XX	-XX
25mm Integral Probe	Probe Type	Unthreaded Length	Case Length	Total Length
1.25-12 UNF; without armor; standard	-02	Standard: 00 (0.0 in) Increment: 01 (0.1 in)	Standard: 30 (3.0 in) Increment: 01 (0.1 in)	10 (1.0m) 50 (5.0m) 90 (9.0m)
1.25-12 UNF; with armor; standard	-03	Maximum: case length- 1.0 in	Minimum: 24 (2.4 in) Maximum: 95 (9.5 in)	
M30×2; without armor; standard	-00	Standard: 00 (0 mm) Increment: 01 (10 mm)	Standard: 07 (70 mm) Increment: 01 (10 mm)	
M30×2; with armor; standard	-01	Maximum: case length- 20 mm	Minimum: 06 (60 mm) Maximum: 25 (250 mm)	
Smooth body, side exit; without armor	-04	Standard: 30 (3.0 in) Increment: 01 (0.1 in)	Same as unthreaded length	
Smooth body, side exit; with armor	-05	Minimum: 30 (3.0 in) Maximum: 95 (9.5 in)		
Smooth body, rear exit; without armor	-06	Standard: 30 (3.0 in) Increment: 01 (0.1 in)	Same as unthreaded length	
Smooth body, rear exit; with armor	-07	Minimum: 20 (2.0 in) Maximum: 95 (9.5 in)		



TM0120 Probe 25mm

ProvibTech's Case Mount Sensors Selection Guide

Model Number	TM0782A TM0783A TM0786A	TM0784A	TM0793V TM0796V	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 TM0796V: Side	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 5 years	•	•	•	•

Accelerometer TM0782A

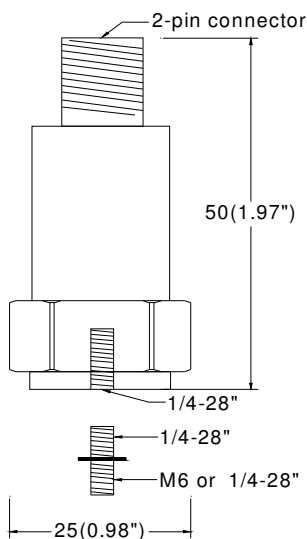
General Purpose, Industrial Piezoelectric Accelerometers

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
PCEC:	Ex ia IIC T4
GOST R:	0ExialICT4X

Connection

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

Order Information

TM0782A-M

Accelerometer with mounting screw 1/4-28" to M6x1

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 M6x1)
- ✓ TM0702-05

TM0782A-K-E

Accelerometer kit includes:

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

TM0782A-M-S

Accelerometer with mounting screw 1/4-28" to M6x1

Hazardous area approval

TM0782A-E-S

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

Hazardous area approval

Accessories:

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



TM0702-XX: Aluminum MIL connector with XX meters cable, 6.35mm diameter. < 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter. < 120°C (250°F)



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



TM0705-XX: Cornered MIL connector with XX meters cable, 6.35mm diameter. < 120°C (250°F), Maximum Length is 10 meters.

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

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 M6x1)
- ✓ 3m cable

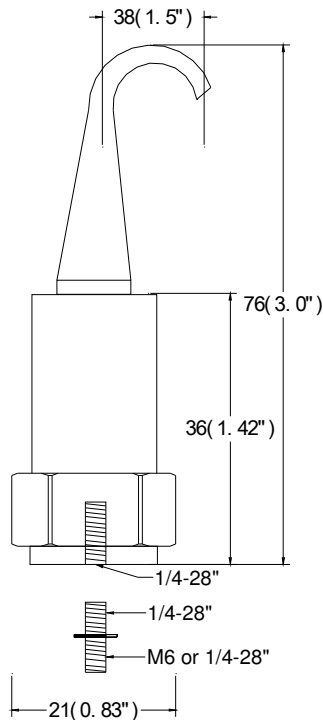
TM0783A-E

Accelerometer Includes:

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

Accessories

TM0710: Mounting screw 1/4-28" - M6x1
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 TM0784A

General Purpose Portable Meter Accelerometers

The TM0784A 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

Order Information

TM0784A-K

- Accelerometer kit includes:
- ✓ TM0784A Accelerometer
 - ✓ PT908-CB

Accessories

- PT600-TP: accelerometer tip, 50mm
- PT600-MG: magnet for accelerometer
- PT908-CB: cable from accelerometer to PT908

Hi-Temperature Accelerometer TM0785A

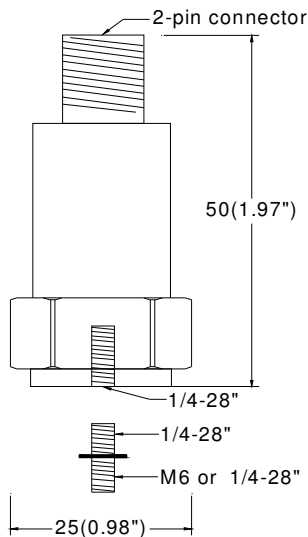
Hi-Temperature, Internally Amplified Piezoelectric Accelerometers

The TM0785A accelerometer is designed for high temperature applications up to 150°C (302°F).

Specifications

Electrical

Sensitivity:	100mV/g, @ 25°C, ±10%
Frequency Response:	1.0 -10,000Hz (±3dB)
Acceleration Range:	50g
Isolation:	Fully isolated
Power Requirement:	2 - 4 mA constant current 18 - 30VDC
Bias Voltage:	10 - 14VDC
Resonance Frequency:	20 kHz
Maximum Transmission Distance:	300 meters (1,000 feet)



Environmental and Physical

Range:
+150°C

Temperature
-50°C to



Environmental Protection:	IP67
Weight:	135 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

TM0785A-M

Accelerometer kit includes:

- ✓ TM0785A accelerometer
- ✓ Mounting screw (1/4-28" to M6x1)

TM0785A-E

Accelerometer kit includes:

- ✓ TM0785A accelerometer
- ✓ Mounting screw (1/4-28" to 1/4-28")

Accessories:

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



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

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

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

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

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

Side-Exit Accelerometer TM0786A

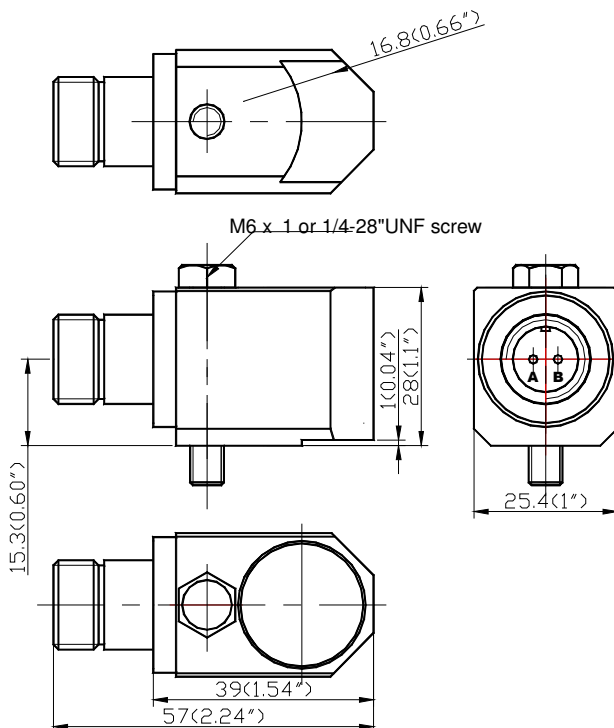
The TM0786A accelerometer is a side-exit connector and multi-purpose accelerometer.

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:	Class I, Div. 1, Group A,B,C,D and T4, Class I, Zone 0, Ex ia IIC T4
PCEC:	Ex ia IIC T4
GOST R:	0ExialICT4X

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

Proximity Transducers, Seismic Sensors and Accessories

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

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

TM0786A-E-S

Side-exit accelerometer with English mounting screw

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. < 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter. < 120°C (250°F)



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



TM0705-XX: Cornered MIL connector with XX meters cable, 6.35mm diameter. < 120°C (250°F) , Maximum Length is 10 meters.

Velocity Transducer TM0793V

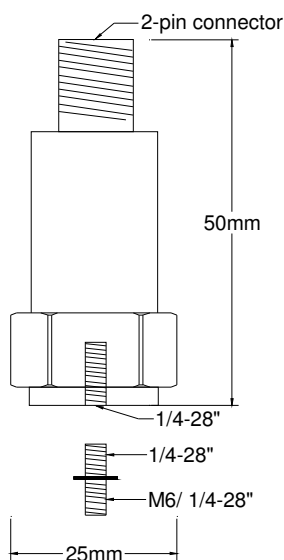
Piezoelectric Velocity Transducer

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: Class I, Div. 1, Groups A, B, C & D;

PCEC: Ex ia IIC T4X

GOST R: 0ExialICT4X

Connection

A: Power (red)

B: COM (white)

Order Information

TM0793V-M

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

TM0793V-E

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

TM0793V-E-S

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

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

TM0793V-M-S

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

Hazardous area approval

- ✓ 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.
< 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F)



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



TM0705-XX: Cornered MIL connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F) , Maximum Length is 10 meters.

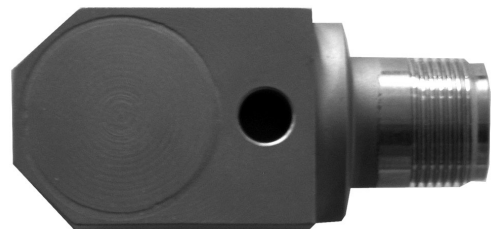
TM0710: Mounting screw 1/4-28" - M6x1

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

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

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

Side-Exit Velocity Sensor TM0796V



The TM0796V velocity sensor is a side-exit connector multi-purpose transducer.

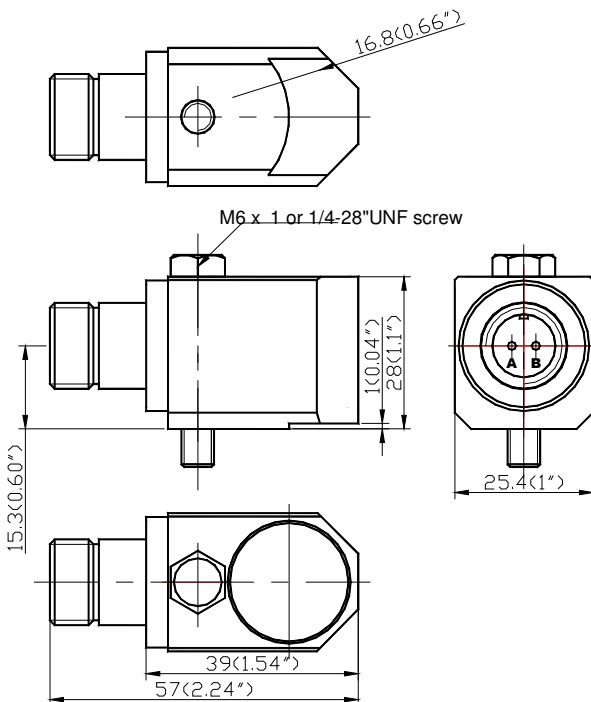
Specifications

Electrical

Sensitivity:	4.0mV/mm/sec (100mV/in/sec), @ 25°C, ±10%
Dynamic Range:	1,000 mm/sec pk
Frequency Response:	2 - 7,000Hz (±3dB)
Isolation:	Fully isolated
Electrical Noise:	100 uin/ sec
Transverse Sensitivity:	< 5% or axial
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 sealed
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:	Class I, Div. 1, Groups A, B, C & D;
PCEC:	Ex ia IIC T4
GOST R:	0ExialICT4X

Order Information

TM0796V-M

Side-exit velocity sensor with metric mounting screw

- ✓ TM0796V velocity sensor
- ✓ Mounting screw M6×1

TM0796V-E

Side-exit velocity sensor with English mounting screw

- ✓ TM0796V velocity sensor
- ✓ Mounting screw 1/4-28"

TM0796V-M-S

Side-exit velocity sensor with metric mounting screw

- ✓ TM0796V velocity sensor
- ✓ Mounting screw M6×1
- ✓ Hazardous Area Approvals

TM0796V-E-S

Side-exit velocity sensor with English mounting screw

- ✓ TM0796V velocity sensor
- ✓ Mounting screw 1/4-28"
- ✓ Hazardous Area Approvals

Accessories

TM0714: Mounting screw M6×1

TM0715: Mounting screw 1/4-28"

Proximity Transducers, Seismic Sensors and Accessories

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



TM0702-XX: Aluminum MIL connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F)



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



TM0705-XX: Cornered MIL connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F) , Maximum Length is 10 meters.

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 or displacement
- ✓ 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%

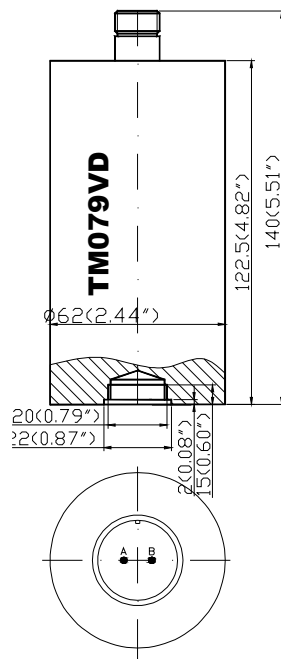
Displacement:

3.94mV/μm (100mV/mil), pk-pk, @ 25°C, ±10%

Maximum Amplitude:

Velocity: 100 mm/s pk

Displacement: 2000μm pk-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.
< 120°C (250°F)



TM0703-XX: Seal tight boot connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F)



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



TM0705-XX: Cornered MIL connector with XX meters cable, 6.35mm diameter.
< 120°C (250°F), Maximum Length is 10 meters.

Case Expansion Transducer TM0602

For steam turbine applications, the relative case expansion due to thermal effect should be monitored. Case expansion is the thermal growth of the machine case as it expands during machine start-up and on-line operations. The TM0602 is typically mounted on the foundation at the opposite end from where the turbine casing is attached to the foundation. The case expansion transducer system provides information on the growth of the machine case relative to the foundation.

LVDTs (linear variable differential transformers) are used to measure the case expansion. Three different linear ranges are available: 25mm (1.0"), 50mm (2.0") and 100mm (4.0"). The case expansion transducer assembly consists of an LVDT that is housed in a weatherproof protective enclosure.

Specifications

Electrical

Sensitivity:

TM0602-A01: 0.4V/mm (10V/in)
TM0602-A02: 0.2V/mm (5V/in)
TM0602-A03: 0.1V/mm (2.5V/in)

Linearity:

+/- 0.5% full-scale

Stability:

0.125% full-scale



Environmental and Physical

Temperature Range: -18°C to +71°C (0°F to +160°F)
Storage Temperature: -54°C to +93°C (-65°F to +200°F)
Dimensions: See drawing
Weight: 4 kilograms
Case Material: Stainless steel

Order Information

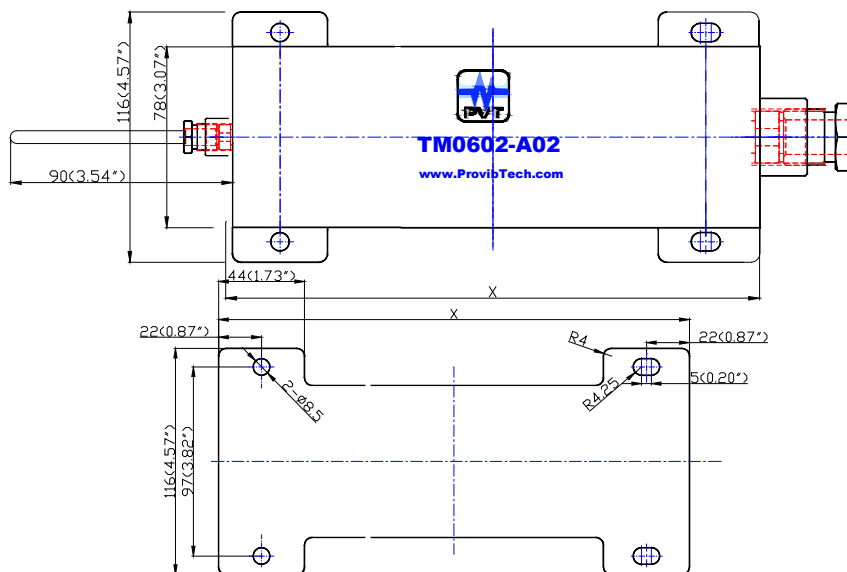
TM0602-AXX

AXX: Linear range

A01: 25mm (1.0")

A02: 50mm (2.0")

A03: 100mm (4.0")



Accessories Selection Guide

Model Number	Description	Approval
KS01	Probe holding system for reverse-mount probes	
KS02	GAP tester for comfortable setting of probe distance	
KS04	LoopChecker for dynamic testing of complete circuit	
KS05	SensiChecker for easy determination of loop sensitivity	
TM0396	Hi-Pressure Probe Mount	•
TM0540	Static Calibrator	
TM0541	Shaft Calibrator	
TM0901	Hi-Pressure Cable Feed Through	
TM0902	Low-Pressure Cable Seal	
TM0903-A01	Junction Box 1	•
TM0903-A02	Junction Box 2	•
TM0904	Flexible Conduit	•

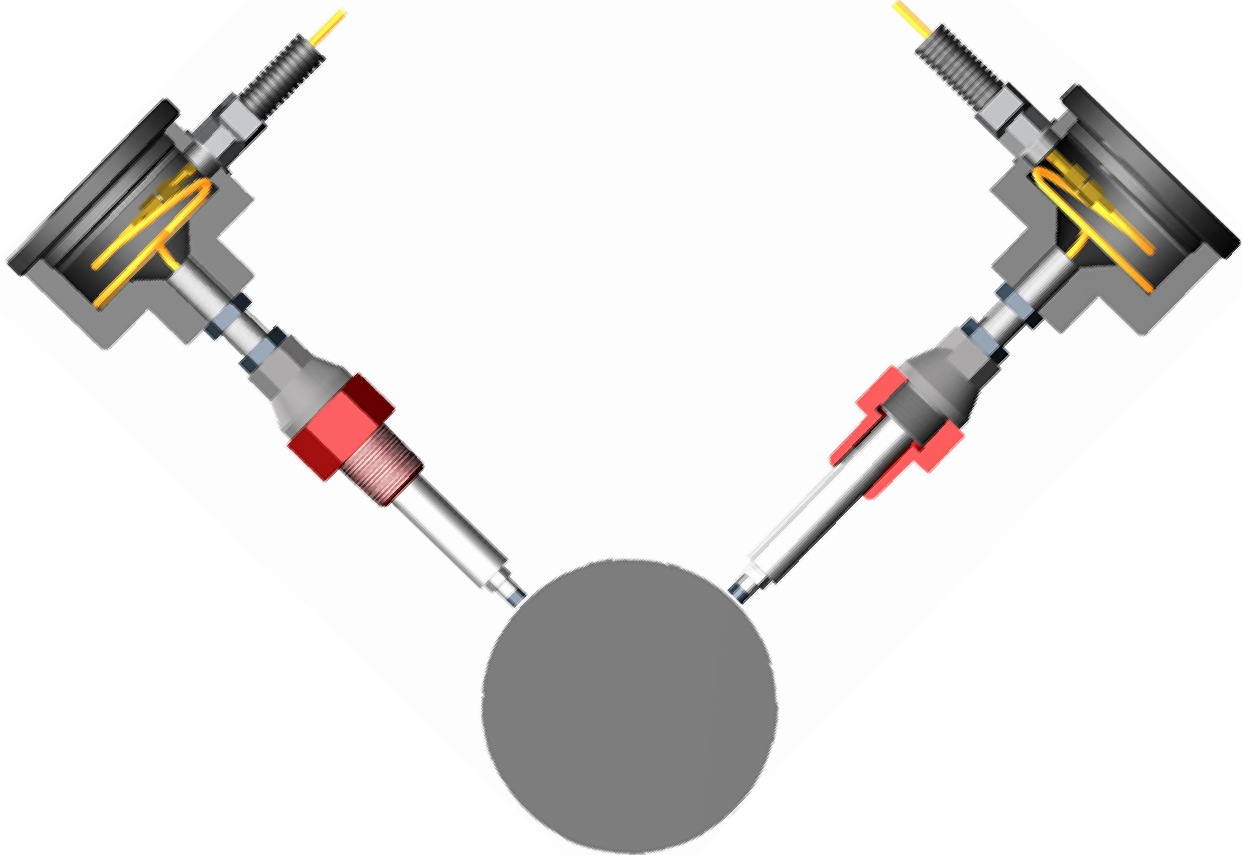
Probe Holding System KS01

The probe mounting system KS01 is designed for reverse mount probes equipped with M10 x 1 mm or 3/8"-24 UNF mounting thread. The system mounts on the machine surface for easy installation. The connection head is made of the high-quality plastic POM-C. For higher temperatures alternatively use the stainless steel adapter.

The KS01 probe mounting system can be used in potentially explosive atmospheres with explosion proof electrical equipment (e.g. probe, cable, galvanic isolator, transmitter) for maximum surface temperatures of up to 100 °C / 212 °F (with POM-C connection head) resp. 200 °C / 392 °F (with stainless steel adapter).

Benefits

- ✓ Easy mounting, dismounting and remounting
- ✓ Once-for-all probe gap adjustment due to a fix reference face
- ✓ Reliably oil-tight
- ✓ Sufficient space for winded cable inside connection head
- ✓ Cable output of the connection head can be fixed in any sideways direction
- ✓ Connection head is non-conductive and protects against ground fault
- ✓ A standard conduit can be fixed by a screwed cable fitting
- ✓ Rugged POM-C sleeves to protect the probes in temporarily dismantled probe holders



Order Information

KS01-A-B-CCC

KS01: Stainless steel probe mounting system for eddy current reverse mount probes, including protection sleeve for dismounted probe holders.

-A: Connection head or connection adapter

A=1: POM-C housing with screw cap and laterally female thread (M16 x 1.5 mm) for protective sleeve adapter (not included), suitable for operation temperatures of up to 100°C / 212°F.

A=2: Stainless steel hexagon adapter (wrench size 27 mm, height 36 mm) with female thread (M16 x 1.5 mm) for protective sleeve adapter (not included), suitable for operation temperatures of up to 200°C / 392°F. **A=X:** None

-B: Tip of adjustment sleeve

B=0: Untreated tip for individual customization

B=1: M10 x 1 mm female thread

B=2: 3/8"-24 UNF female thread

B=X: No adjustment sleeve: requires separate order (see CCC=XXX)

-CCC: Installation length

(= required distance from upper edge of machine housing down to shaft surface)

In case of B=1 or 2, CCC: Installation length in mm (e.g. for 115 mm: CCC=115). Minimum: 45 mm. Order in increments of 5 mm. Installation lengths > 210 mm on special request.

In case of B=0, CCC=110: Adjustment sleeve for individual customization, suitable for installation lengths of 45 to 110 mm

In case of B=0, CCC=210: Adjustment sleeve for individual customization, suitable for installation lengths of 45 to 210 mm. Installation lengths > 210 mm on special request.

In case of B=X, CCC=XXX: Requires separate order of adjustment sleeve: see following ordering code KS01E1-B-CCC.

Accessories

KS01E1-B-CCC

KS01E1: Adjustment sleeve for probe holder system KS01

-B: Tip of adjustment sleeve

B=0: Untreated tip for individual customization

B=1: M10 x 1 mm female thread

B=2: 3/8"-24 UNF female thread

-CCC: Installation length

(= required distance from upper edge of machine housing down to shaft surface).

In case of B=1 or 2, CCC: Installation length in mm (e.g. for 115 mm: CCC=115). Minimum: 45 mm. Order in increments of 5 mm. Installation lengths > 210 mm on special request.

In case of B=0, CCC=110: Adjustment sleeve for individual customization, untreated tip, suitable for installation lengths of 45 to 110 mm

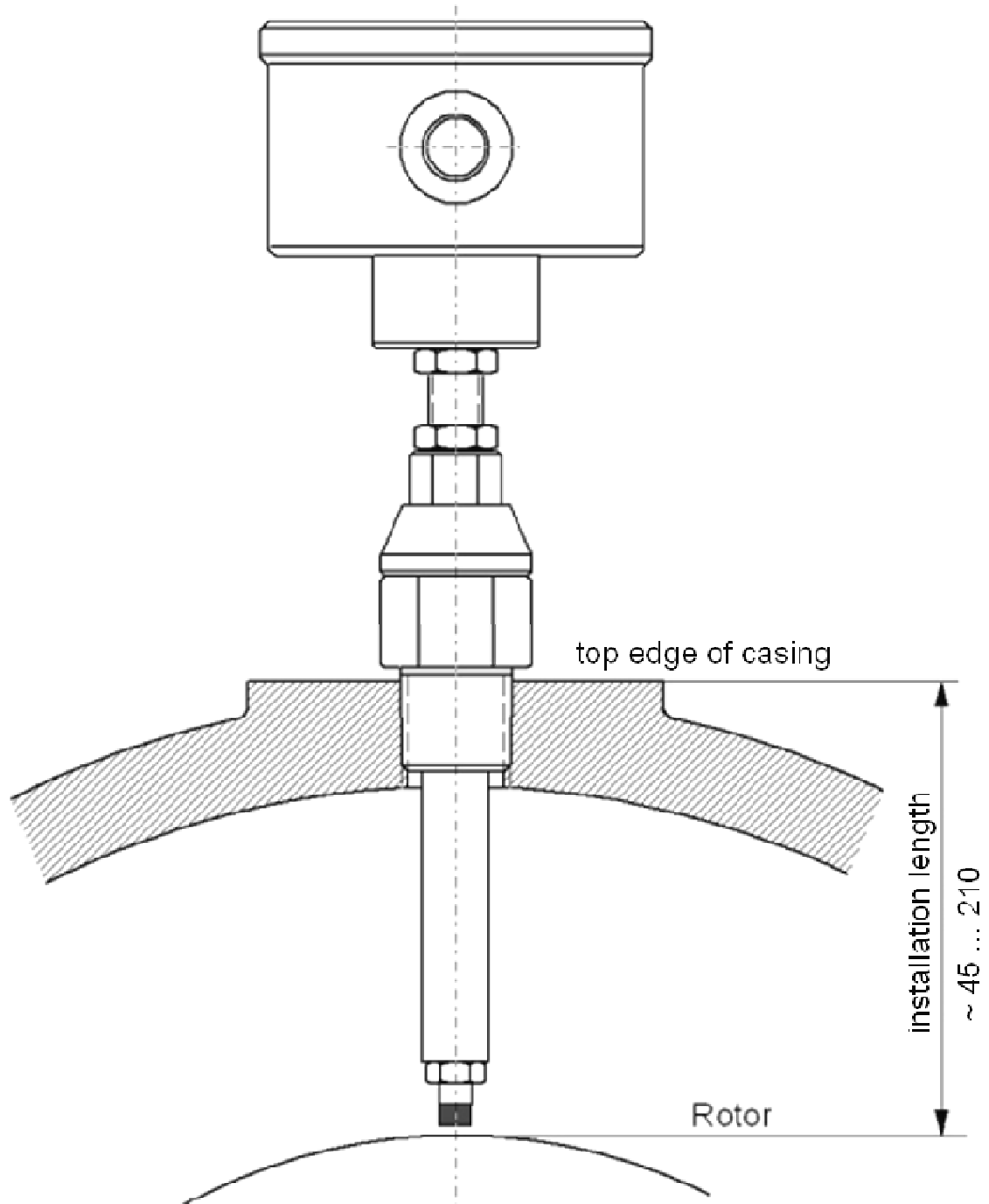
In case of B=0, CCC=210: Adjustment sleeve for individual customization, untreated tip, suitable for installation lengths of 45 to 210 mm. Installation lengths > 210 mm on special request.

KS01E2

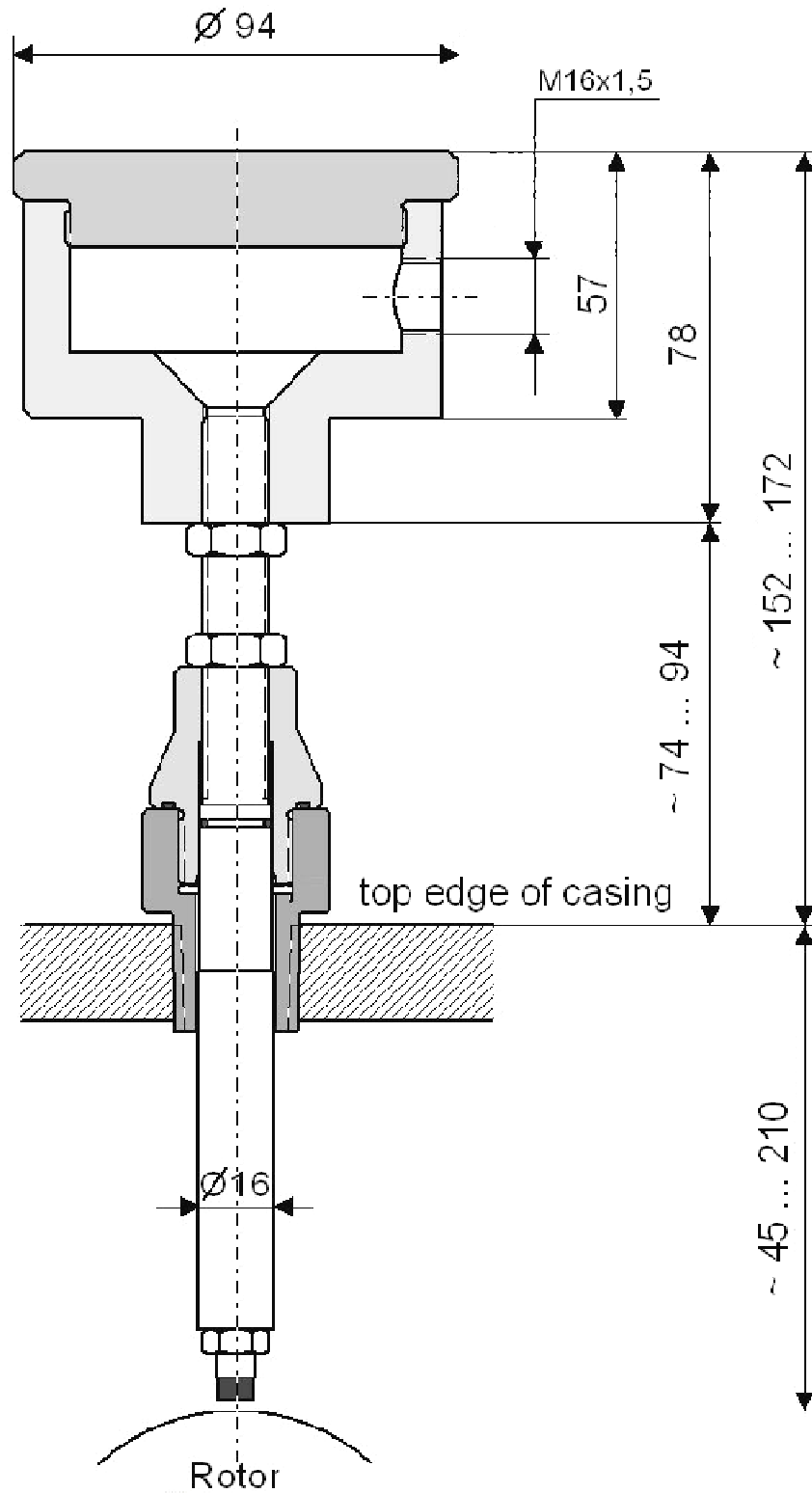
Measuring device for probe holder system KS01 consisting of a scale disc and a turnable pointer

- ✓ **Easy testing of the measuring loop sensitivity**
- ✓ **No need for dismounting the probe holder**
- ✓ **Measuring against the original shaft material**
- ✓ **Printable evaluation sheets**

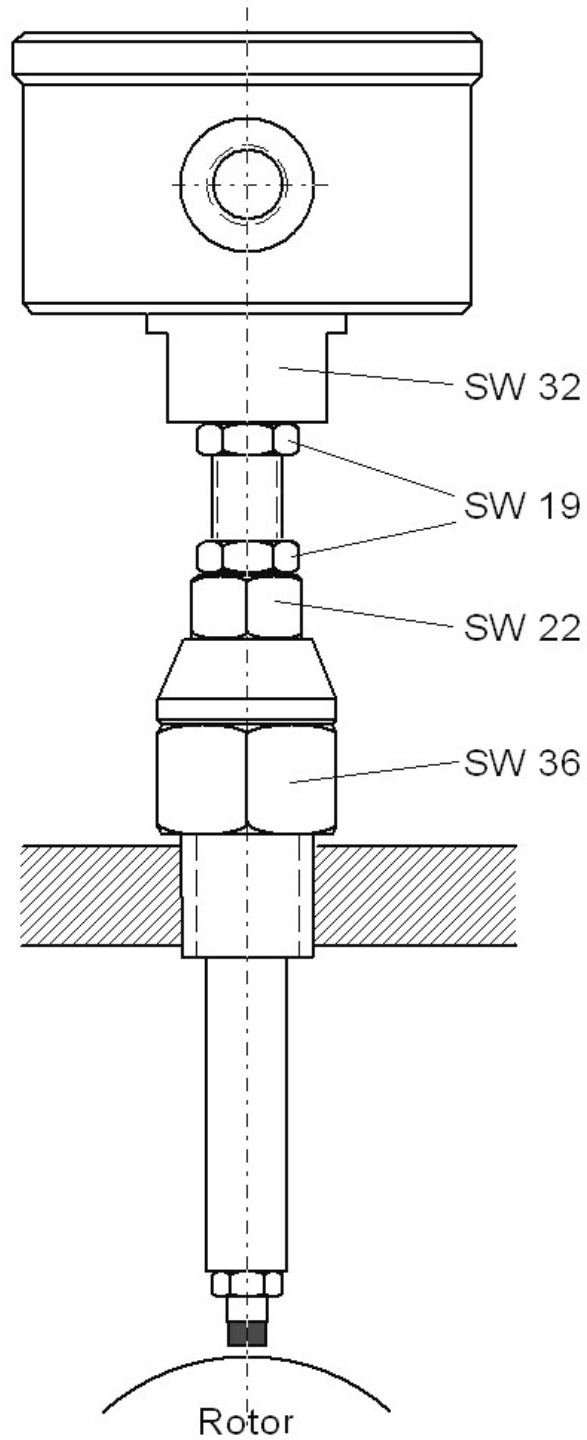
Determination of installation length



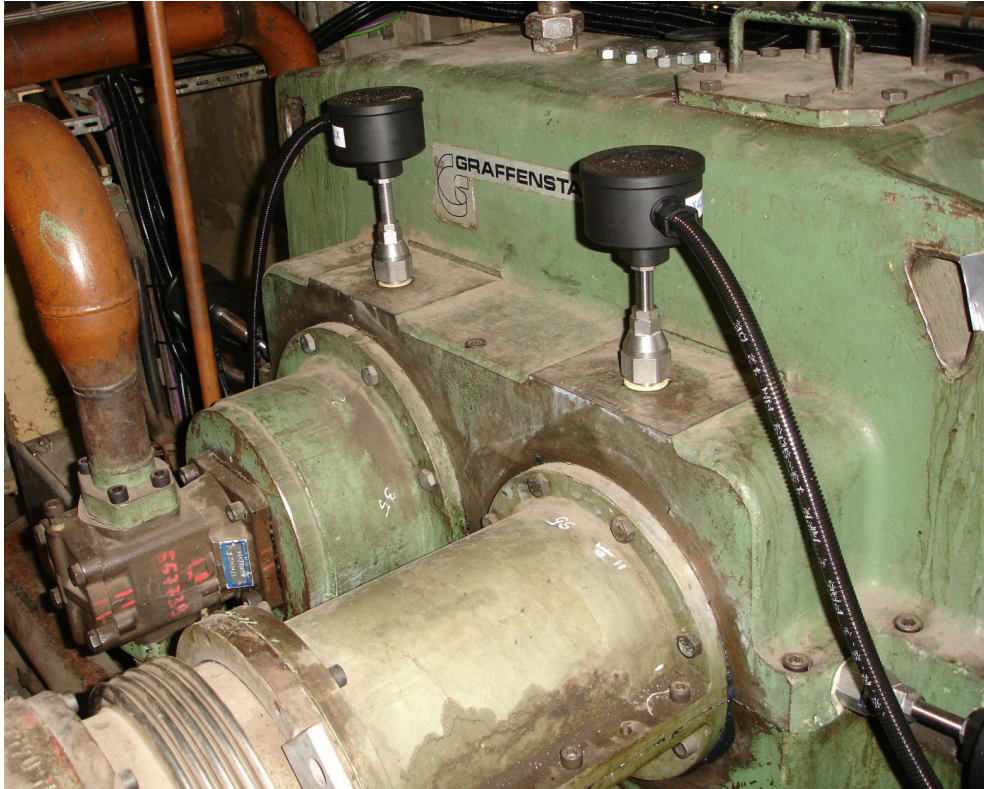
Dimensions



Wrench Sizes



Mounting Examples



GAP Tester KS02 for convenient setting of the probe distance

Systems for measuring shaft vibrations operate according to the eddy current principle; non-contact measurement of the distance between the pickup sensor and the rotor surface. The probe has to be set to a distance or GAP of approx. 1.2 mm. A direct current signal proportional to the distance, the GAP voltage, can be measured at the outlet of the transmitter / oscillator / proximator. Depending on the manufacturer, a value of 8, 9 or 10 VDC is recommended.

The setting process can be speeded up considerably with the aid of the **kmo turbo** GAP Tester. The GAP voltage is displayed via LEDs in the traffic light colors of red - yellow - green. Arrows below the LEDs indicate the required direction of rotation. When adjusting the distance, the LEDs initially change from red to yellow and then to green, until three green LEDs light up to indicate the optimum distance.

The times in which the adjustment of the shaft vibration probes occupied two men over a longer period are over at last. These adjustments can now be performed by one person in just a fraction of the time: Thanks to the magnet on the back of the device, the GAP Tester can be attached to a convenient position of good visibility; the brightly illuminated LEDs can also be easily read from a distance.

Many of the transmitters / oscillators / proximators on the market also provide the distance signal via a BNC connector. **kmo turbo** supplies the GAP Tester with a BNC-to-measuring-cable adapter or a measuring cable with a BNC connection.



LoopChecker KS04 for dynamic testing of the complete measuring circuit

Installed within the compact housing is a measuring surface consisting of the shaft material; as opposed to the clamped probe, this is forced to oscillate at a defined value. The LoopChecker is controlled by a compact handheld device. Thanks to a holding magnet on the back, the device can be conveniently mounted at practically any position. The installed battery allows several hours of operation. Alternatively, the LoopChecker can also be operated via the provided power adapter.

The system oscillates at 100 Hz. Amplitudes of 25 / 50 / 75 / 100 μm_{ptp} can be set via the handheld device.

The LoopChecker™ enables testing of the entire loop or measuring circuit, i.e. probe, wiring, evaluation unit, indication and monitoring unit! It can be used for both standard probes and for reverse-mount probes in probe holders.



SensiChecker KS05 for easy determination of the loop sensitivity

In order to determine the loop sensitivity, the probe is inserted into the SensiChecker™ and clamped. By turning from one snap-in position to the next, the distance is respectively altered by 0.2 mm. If the respective GAP voltage is entered into a diagram, the loop sensitivity can be read directly.

The SensiChecker™ can be used for both standard probes and for reverse-mount probes in probe holders.



High-Pressure Probe Mount TM0396

The high-pressure probe mount, TM0396, works with ProvibTech's TM0180 and TM0110 reverse mount probes. The housing mounts on the machine surface for easy installation. The housing is made of aluminum (copper free) and stainless steel which sustains harsh environments. The high-pressure probe mount, TM0396, can be used for up to 150 psi (1.0 Mpa).

The TM0396 probe housing is explosion proof:
Class I, Groups B, C & D
Class II, Groups E, F & G
Class III

Order Information

TM0396-AA-BBB-CDE

AA: stand off adapter

AA=00: No stand off adapter required

Starting from 40mm (1.57 in) to 200 mm (7.87 in)

Order in increments of 10 mm (0.39 in)

For example: AA= 15 = 150 mm.

BBB: probe penetration depth

The depth starts from 25 mm (1.0 in)

AXX+BXXX < 700 mm (27.6 in)

Order in increments of 5mm

For example: BBB=075 = 75mm

C: probe thread

C=0: M10×1

C=1: 3/8-24"

Order Information Continued

TM0396-AA-BBB-CDE

D: Pressure Option

D=0: Not required

D=1: High-pressure probe mount

E: Seals

E=0: No seals

E=1: One explosion proof seal

E=2: Two explosion proof seals

Accessories



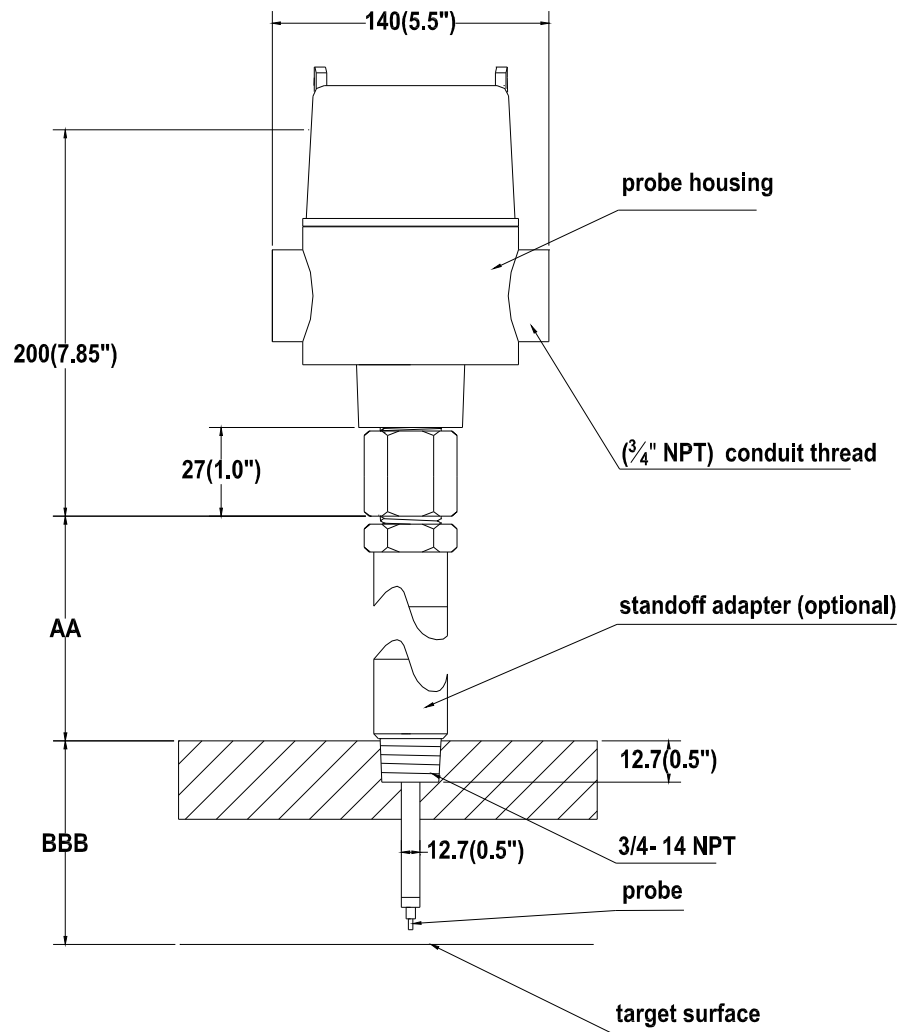
PT500-18

3/4" NPT seal; explosion proof

PT500-19

Cable seal grip





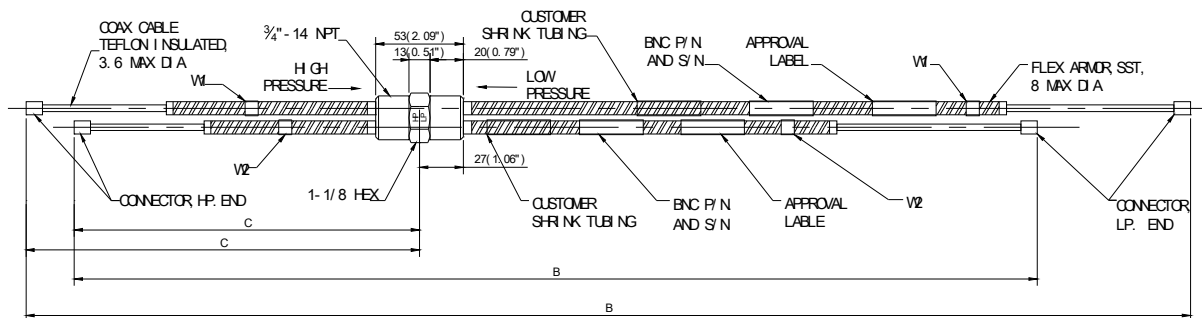
High-Pressure Extension Cables Feed Through TM0191

The high-pressure extension cable feed through can be used in pressurized machine areas. The hi-pressure extension cable feed through is sealed for up to 150 psi (1.0 Mpa).

There are three versions of the high-pressure feed through (single, dual and triple cables) which allows for a maximum of three cables to pass through the machine case. The high-pressure end is supplied with female connectors and the low-pressure end with male connectors.

Specifications

Seal pressure: maximum 150 psi (1.0 Mpa)
 Operation temperature: -40°C to +177°C
 Thread on both ends: 3/4" NPT
 Gas sealed: Air, nitrogen, and propane



Order Information

TM0191-AXX-BXX-CXX

AXX: Type and Armor

- A01: Single cable without armor
- A02: Single cable with armor at low-pressure end
- A03: Single cable with armor at high-pressure end
- A04: Single cable with armor at both ends
- A05: Dual cable without armor
- A06: Dual cable with armor at low-pressure end
- A07: Dual cable with armor at high-pressure end
- A08: Dual cable with armor at both ends
- A09: Triple cable without armor
- A10: Triple cable with armor at low-pressure end
- A11: Triple cable with armor at high-pressure end
- A12: Triple cable with armor at both end

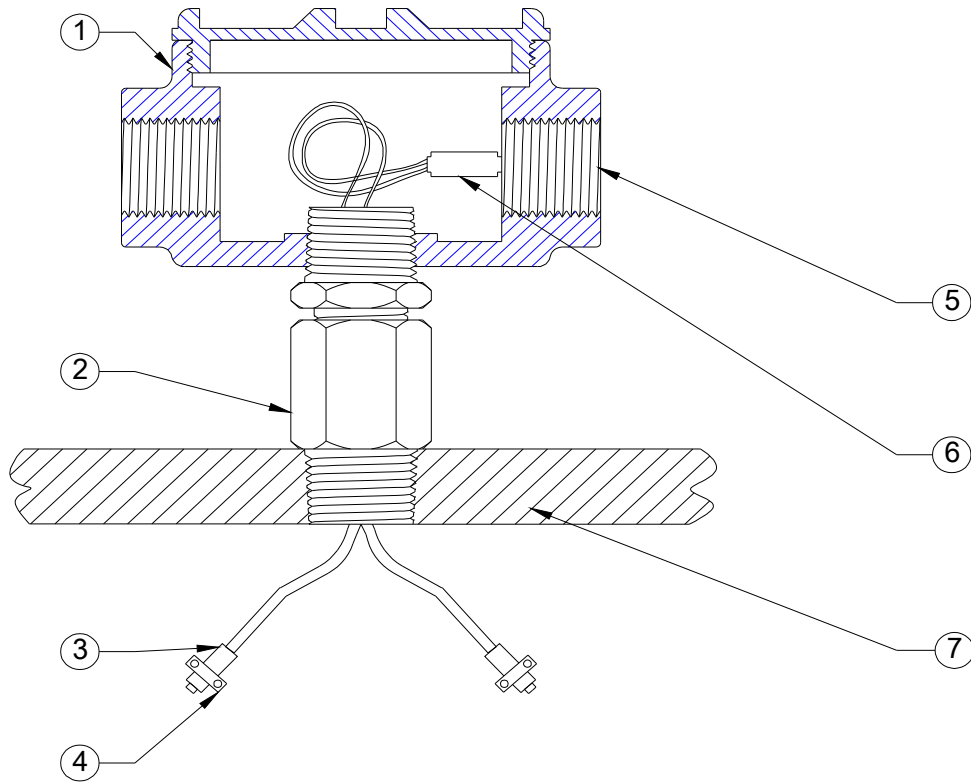
BXX: Total Length

- B40: 4.0 meters
- B45: 4.5 meters
- B80: 8.0 meters
- B85: 8.5 meters

CXX: High-Pressure Length

- Order in increments of 0.1 meter
- Minimum length = 0.5 meter
- Maximum length = 8.0 meters

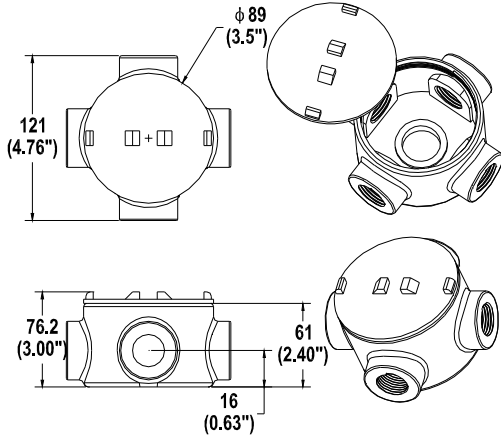
TM090X Probe Mounting Accessories Kit



1. TM0903: Junction Box
2. TM0902: Low-Pressure Cable Seal
3. Probe
4. TM0906: Probe Bracket
5. TM0904 Flexible Conduit/ PT500-19 Cable Seal/ PT500-18 Seal
6. TM0920-BOOT: Connector Protector
7. Machine Case

Order Information

TM0903-A01-BX-CX



Junction box 1 with blank cover

Fitting Size: 3/4-14 NPT, 5 holes
 Class I, Div.1 & 2, Groups C & D
 Class II, Div.1 & 2, Groups E, F & G
 Class III

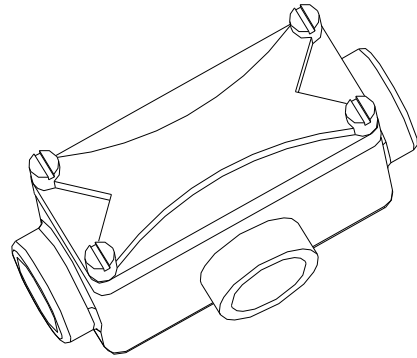
BX: PT500-18. 3/4"NPT Plug
 X = Number of plugs
 CX: PT500-19. Cable Seal
 X = Number of cable seals

PT500-18

3/4" NPT Plug



TM0903-A02-BX-CX



Junction box 2

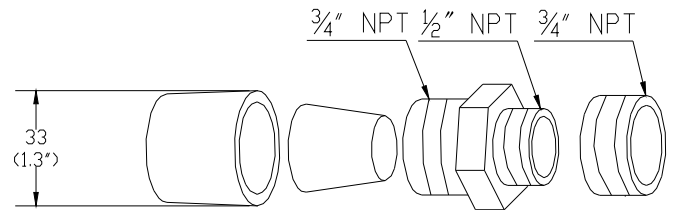
Class I, Div.1 & 2, Groups C & D
 Class II, Div.1 & 2, Groups E, F & G
 Class III

Conduit size: 3/4-14 NPT, 3 holes
 Depth: 28 mm (1.1")
 Width: 38 mm (1.5")
 Length: 95 mm (3.75")

BX: PT500-18. 3/4"NPT Plug
 X = Number of plugs
 CX: PT500-19. Cable Seal
 X = Number of cable seals

PT500-19

Cable Seal



Order Information Continued

TM0904-AXX-BXX

Flexible Conduit
 Class I, Div.1 & 2, Groups A, B, C & D
 Class II, Div.1 & 2, Groups E, F & G
 Class III



AXX: Fitting size

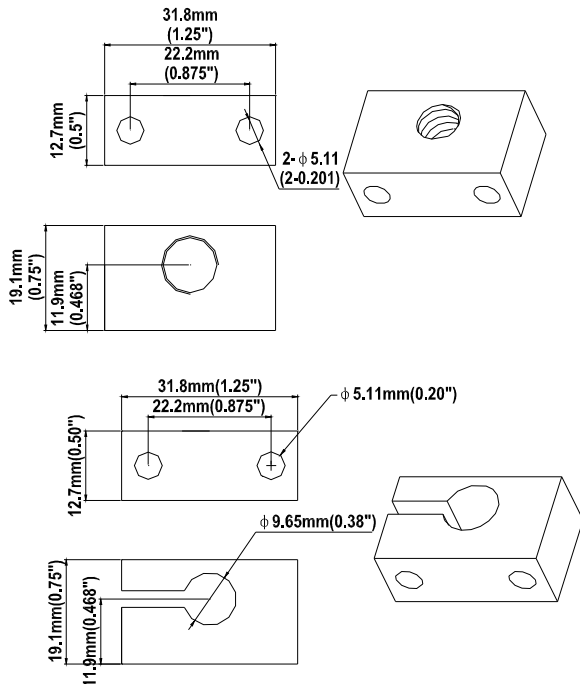
- A01: 1/2"-14 NPT assembly
- A02: 3/4"-14 NPT assembly

BXX: Length

- BXX: XX feet
 (XX = 4, 6, 8, 10, 12, 15, 18, 21, 24, 30, 36)

TM0906-AXX-BXX

Aluminum probe mounting bracket



TM0906-AXX

AXX: Probe thread size

- A01: 3/8-24 UNF
 (with two 10-24 UNC mounting screws)
- A02: 1/4-28" UNF
 (with two 10-24 UNC mounting screws)
- A03: M8×1
 (with two M5 mounting screws)
- A04: M10×1
 (with two M5 mounting screws)
- A05: Clamp for M10 or 3/8-24
 (with two M5 mounting screws)
- A06: Clamp for M10 or 1/4-28
 (with two 10-24 UNC mounting screws)

TM0902-AXX

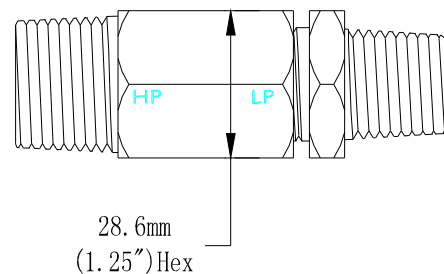
Low-pressure Cable Seal



AXX: Thread size on both ends

- A01: 1/2"-14 NPT
- A02: 3/4"-14 NPT

The same thread size must be used on both ends. The grommet will hold up to four cables. One hole is punched and the other three are partially pre-drilled.



Standard Static Calibrator TM0540

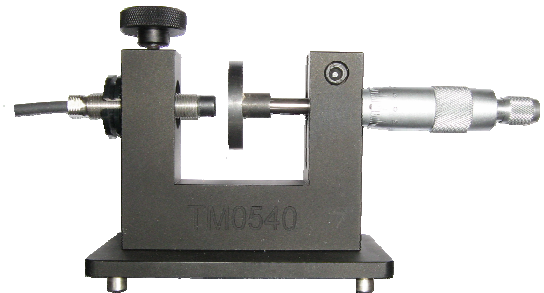
The TM0540 is specifically designed for proximity probe static calibration for 5mm, 8mm, and 11mm proximity probe systems. The TM0540 is equipped with a special magnetic holder which mounts to the machine case and allows for quick and easy calibration of the proximity probe system. It also includes 10 proximity probe mounting adapters.

Specifications

Display:	English or metric
Resolution:	TM0540-K-M: 0.01 mm TM0540-K-E: 0.001 in
Accuracy:	TM0540-K-M: 0.003 mm TM0540-K-E: 0.0001 in
Range:	TM0540-K-M: 0 - 25 mm TM0540-K-E: 0 - 1.0 in
Target Material:	AISI 4140 Steel

Physical

Size:	400mm x 200mm x 250mm
Weight:	About 2.0kg
Probe Mounting Adaptors:	M5, 1/4", M8, M10, 3/8", M11, 1/2", M14, 5/8", M16
Calibrator Mounting:	Magnetic holder on the four stands



Environmental

Operation Temperature:	0°C to 60°C
Humidity:	95%, non-condensing

Order Information

TM0540-K-E

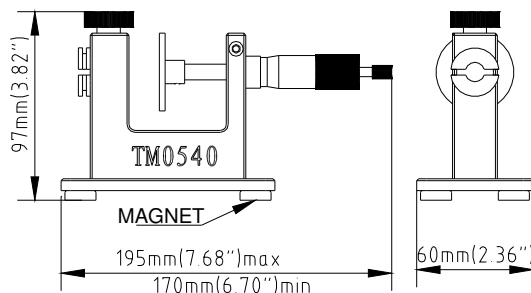
Portable static calibrator with English unit includes:

- ✓ TM0540 calibrator
- ✓ 8mm/5mm/11mm accessories
- ✓ Case

TM0540-K-M

Portable static calibrator with metric unit includes:

- ✓ TM0540 Calibrator
- ✓ 8mm/5mm/11mm accessories
- ✓ Case



Connector Protector Kit TM0920

The TM0920 supplies 10 sets of proximity probe connector boots. The connector boots protect the connection between the proximity probes and extension cables from oil and dirt penetration (which is a leading cause of inaccurate proximity probe readings) as well as preventing ground loops by isolating the probe from the machine case. The TM0920 connector protection kit provides customers with an easy way of mounting connector protectors in the field.

Note: ProvibTech's probes and extension cables come standard with connector protectors.



Physical:

Carrying case size: 400mm x 200mm x 250mm
Weight: About 2.0kg
Connector protector: 10 sets
Silicone lubricant: 1 tube
Connector protector mounting tools:
1 set of male and 1 set of female
Probe and cable connector:
Connector protector works with any 5mm, 8mm, 11mm, and 25mm probe and cable connector

Environmental

Operation temperature: -50°C to +177°C

Order Information

TM0920-K

Connector protector kit

Accessories

TM0920-BOOT

10 sets of connector protectors (rubber boots)