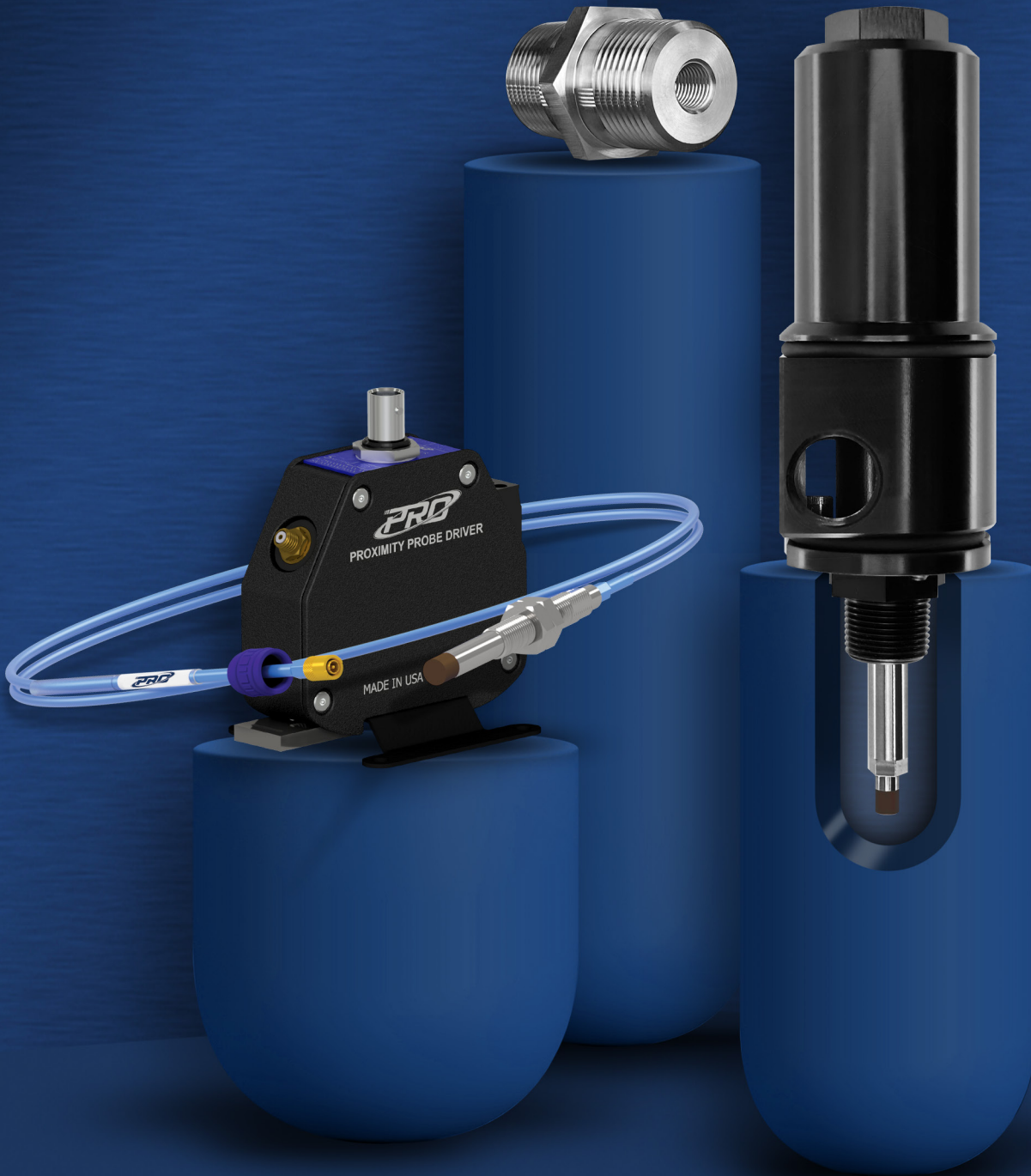


**PRD**  
PROXIMITY PROBE SYSTEMS  
PROTECTION & RELIABILITY INSTRUMENTS

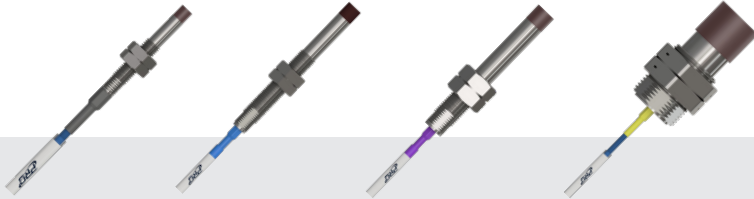


PROXIMITY PROBE SYSTEMS OVERVIEW

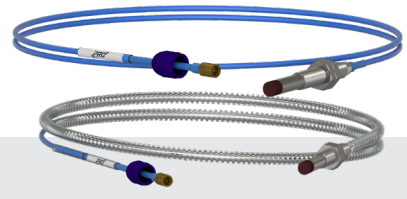
# WHAT WE OFFER

CTC offers a complete line of proximity probe solutions designed, built, and tested to endure prolonged use in the harshest industrial environments. PRO Line proximity probe sets are available in standard and hazardous-area approved FFV™, 8 mm, 11 mm, and 25 mm systems. The variety of probe sizes offered allows for accurate and precise machinery measurements for applications involving radial dynamic, axial rotor position, 4-20 mA, and precise displacement readings that can measure both dynamic vibration or the static position of a conductive material for radial or axial applications. Complete PRO proximity probe systems are compatible with all standard condition monitoring software and machine protection systems, including Bently Nevada™ racks and software.

## Probe Options



FFV™, 8 mm, 11 mm, and 25 mm Probe Tips



Standard & Armor Jacketed Probes

## Driver Options

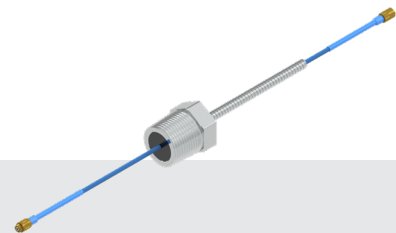


FFV™, 8 mm, 11 mm, and 25 mm Drivers

## Extension Cable Options



Standard & Armor Jacketed Extension Cables

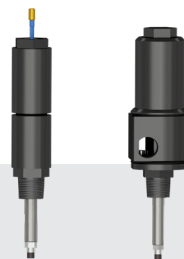


Single-Sided NPT Fittings

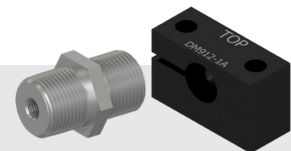
## Proximity Probe Accessories



Enclosures



Reverse Mount Housings



Mounting Bushings & Blocks

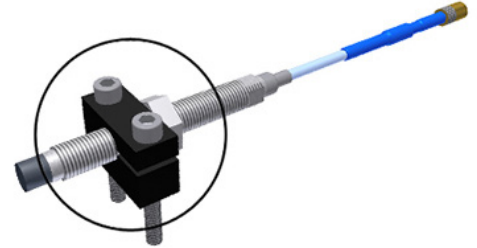
# PROXIMITY PROBE MOUNTING OPTIONS

There are three primary ways to mount proximity probes:

1

## Internal Mounting

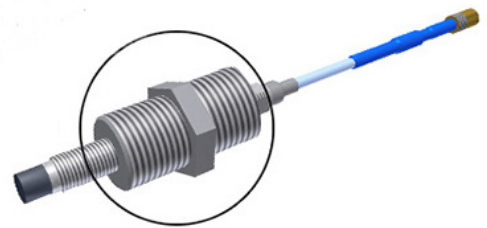
Internal mounting refers to the mounting of proximity probes, also known as eddy current probes, completely inside the machine or bearing housing with PRO Line DM902 series brackets (or with custom manufactured brackets). Internal mounting allows the probe to measure the shaft surface, minimizes installation costs, and offers very precise measurement of the shaft position and vibration.



2

## Through Mounting

Through mounting, also known as 'internal / external' mounting, is where the probe is mounted through the bearing casing using a mounting adapter bushing like PRO Line DM901 and DM903, and the casing is counter-bored to prevent the probe from side sensing or providing false readings from the bearing housing. This allows external access to the probe while also allowing the probe tip to be internal to the bearing housing or machine.



3

## Reverse Mount Housing

External proximity probe mounting is typically used when other methods are not available. Special care must be given to the quality of the shaft surface, and mechanical protection of the exposed probes and cables is required. This method offers easy access to the probes and low installation costs. However, exposed areas of the shaft may experience scuffing, scratching, or rust which limits the measurement quality of the probes.



# PRO LINE HIGHLIGHTS

PRO Line Proximity Probes offer you industry-leading quality and the best selection of hardware on the market. See why customers choose PRO Line products time and time again:



## Industry's Best Lead Times



## Enhanced Durability

- » AISI 316L stainless steel probe case
- » IP68 rated
- » Aluminum driver case design ensures robust driver mounting



## Driver Calibration Options for a Variety of Target Materials

- » AL7075-T6 aluminum alloy
- » 360 brass alloy
- » 4140 steel
- » 1045 carbon steel
- » 200 nickel
- » 17-4 stainless steel
- » 304 stainless steel
- » 316L stainless steel
- » 420 stainless steel
- » 410 stainless steel



## Comprehensive Offerings

- » FFV™, 8 mm, 11 mm, and 25 mm options
- » Variety of thread sizes
- » Intrinsically safe offerings
- » Mounting hardware, enclosures and drivers available to complete your system



## Built to Last. Protected for Life.

PRO Line products are the industry's best quality and are backed by an industry-leading warranty.

# COMPETITIVE COMPARISON - PROBES

<b>Feature</b>	<b>PRO Line Probes</b>	<b>Competitor's Probes</b>
<b>Warranty</b>	Lifetime warranty on materials and workmanship	Three year limited warranty
<b>Lead Time</b>	Weeks	Months
<b>API 670 Compliant</b>	Yes	Yes
<b>Probe Case Material</b>	AISI 316L stainless steel	AISI 304 stainless steel
<b>Probe Tip Rating</b>	IP68	Specialty probes needed
<b>Probe Tip Pressure Rating</b>	Viton™ O-ring tested at 100 psi	Sealing material consists of a Viton™ O-ring
<b>Cable Jacket</b>	Thicker cable jacket for increased durability when pulling through conduit	Tears through when pulling through conduit
<b>Reverse Mount FFv™ Probe Options</b>	1/4-24 thread, M8x1 thread, 3/8-24 thread, M10x1 thread	3/8-24 thread, M10x1 thread
<b>Temperature Ratings</b>	51 to 177 °C (-60 to 350 °F)	51 to 177 °C (-60 to 350 °F)
<b>Linear Range 5 mm (FFv™)</b>	10 - 70 mils (60 mils)	10 - 70 mils (60 mils)
<b>Linear Range 8 mm</b>	10 - 90 mils (80 mils)	10 - 90 mils (80 mils)
<b>Linear Range 11 mm</b>	20 - 180 mils (160 mils)	20 - 180 mils (160 mils)
<b>Recommended Gap 5 mm FFv™ Probe</b>	40 mils	40 mils
<b>Recommended Gap 8 mm Probe</b>	50 mils	50 mils
<b>Recommended Gap 11 mm Probe</b>	100 mils	100 mils

# COMPETITIVE COMPARISON - DRIVERS

Feature	PRO Line Drivers	Competitor's Drivers
Warranty	Lifetime warranty on materials and workmanship	Three year limited warranty
Lead Time	Weeks	Months
API 670 Compliant	Yes	Yes
Driver Outputs	BNC isolated output and terminal block	Terminal block
Driver Input Connections	Four position, screw clamp, pluggable terminal block	Spring cage connections
4-20 mA Gap Driver	FFV™, 8 mm, 11 mm, 25 mm	Not available
4-20 mA Radial and Axial Driver	FFv™, 8 mm, 11 mm, 25 mm	Probes only
Robust Driver Mounting	Aluminum mounting hardware	Plastic mounting hardware
Material Specifications	Standard offerings of: AL7075-T6 aluminum alloy 360 brass alloy 4140 steel 1045 carbon steel 17-4 stainless steel 304 stainless steel 316L stainless steel 420 stainless steel 410 stainless steel	4140 stainless steel
4-20 mA Radiated Immunity* * tested frequencies of 103 MHz - 180 MHz	Maximum increase of 3.13% of 16 mA current range	Maximum increase of 54.38% of 16 mA current range
Temperature Ratings	51 to 177 °C (-60 to 350 °F)	51 to 177 °C (-60 to 350 °F)
Frequency Response 5 mm	0 - 10 kHz: +0, -3 dB typical with up to 1000 ft. of field wiring	0 - 10 kHz: +0, -3 dB typical with up to 1000 ft. of field wiring
Frequency Response 8 mm	0 - 10 kHz: +0, -3 dB typical with up to 1000 ft. of field wiring	0 - 10 kHz: +0, -3 dB typical with up to 1000 ft. of field wiring
Frequency Response 11 mm	0 - 10 kHz: +0, -3 dB typical with up to 1000 ft. of field wiring	0 - 8 kHz: +0, -3 dB typical with up to 1000 ft. of field wiring