

PRD
PROXIMITY PROBE SYSTEMS
PROTECTION & RELIABILITY INSTRUMENTS

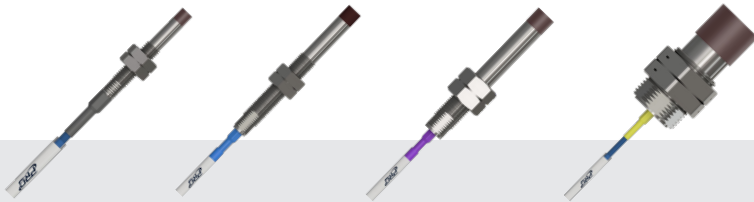


PROXIMITY PROBE SYSTEMS OVERVIEW

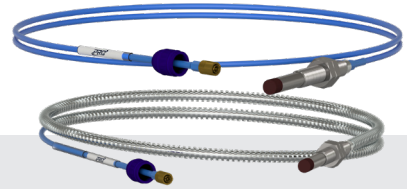
WHAT WE OFFER

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™ 5 mm, 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™ 5 mm, 8 mm, 11 mm, and 25 mm Probe Tips



Standard & Armor Jacketed Probes

Driver Options

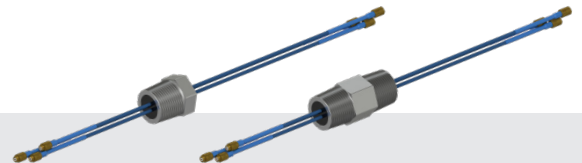


FFv™ 5 mm, 8 mm, 11 mm, and 25 mm Drivers

Extension Cable Options



Standard & Armor Jacketed Extension Cables

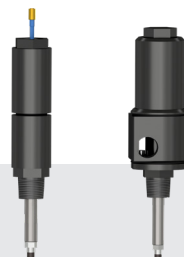


Single & Double-Sided NPT Fittings

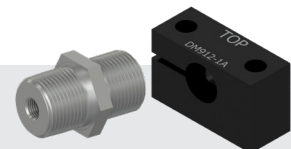
Proximity Probe Accessories



Enclosures



Reverse Mount Housings



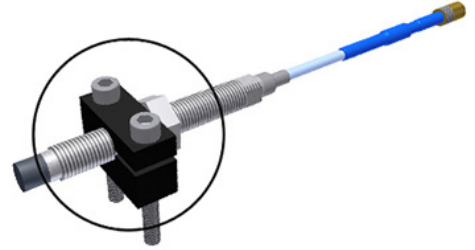
Mounting Bushings & Blocks

PROXIMITY PROBE MOUNTING OPTIONS

There are three primary ways to mount proximity probes:

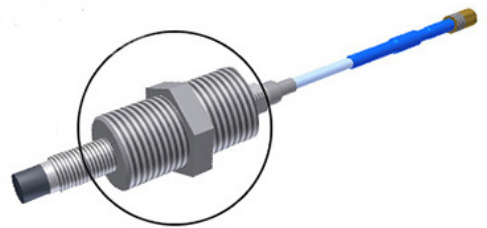
1 Internal Mounting

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™ 5 mm, 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

Feature	PRO Line Probes	Competitor's Probes
Warranty	Lifetime warranty on materials and workmanship	Three year limited warranty
Lead Time	Weeks	Months
API 670 Compliant	Yes	Yes
Probe Case Material	AISI 316L stainless steel	AISI 304 stainless steel
Probe Tip Rating	IP68	Specialty probes needed
Probe Tip Pressure Rating	Viton™ O-ring tested at 100 psi	Sealing material consists of a Viton™ O-ring
Cable Jacket	Thicker cable jacket for increased durability when pulling through conduit	Tears through when pulling through conduit
Reverse Mount FFv™ Probe Options	1/4-24 thread, M8x1 thread, 3/8-24 thread, M10x1 thread	3/8-24 thread, M10x1 thread
Temperature Ratings	51 to 177 °C (-60 to 350 °F)	51 to 177 °C (-60 to 350 °F)
Linear Range 5 mm (FFv™)	10 - 70 mils (60 mils)	10 - 70 mils (60 mils)
Linear Range 8 mm	10 - 90 mils (80 mils)	10 - 90 mils (80 mils)
Linear Range 11 mm	20 - 180 mils (160 mils)	20 - 180 mils (160 mils)
Recommended Gap 5 mm FFv™ Probe	40 mils	40 mils
Recommended Gap 8 mm Probe	50 mils	50 mils
Recommended Gap 11 mm Probe	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™ 5 mm, 8 mm, 11 mm, 25 mm	Not available
4-20 mA Radial and Axial Driver	FFv™ 5 mm, 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 200 nickel 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