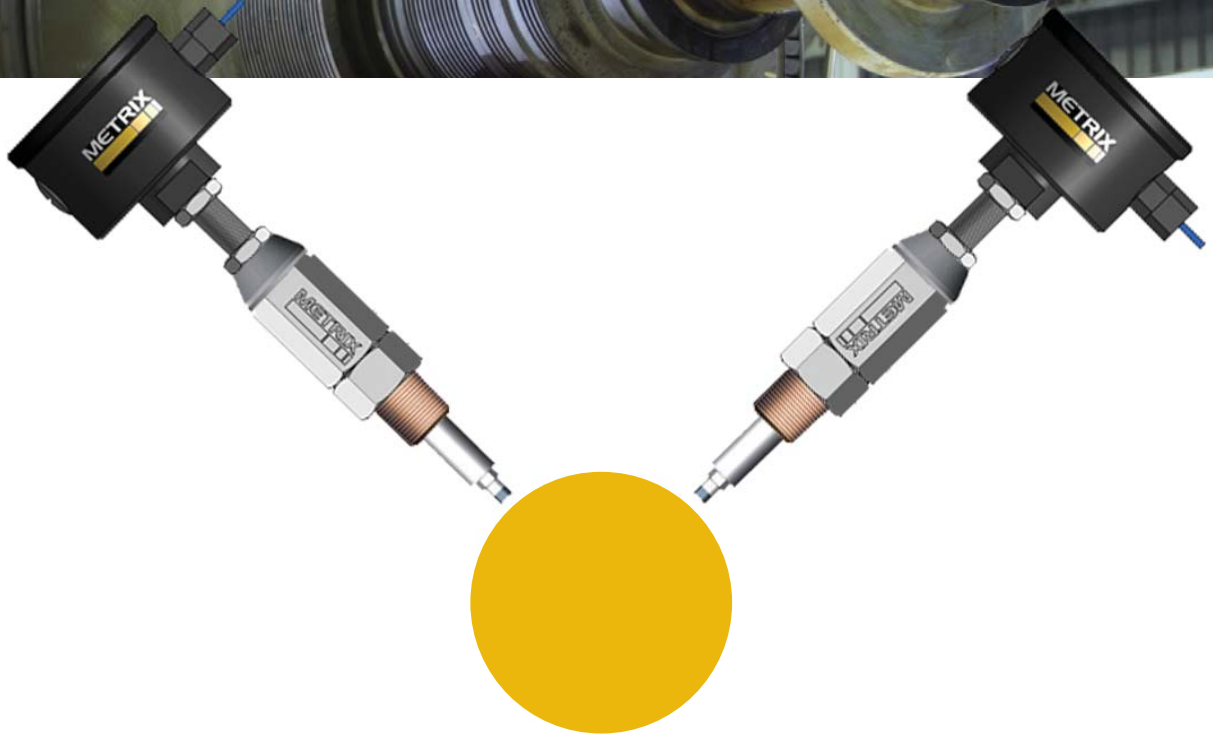
METRIX

Metrix Probe Mounting System - 5497PM

Oil-tight, with Insulating Connection Head and Gap Adjustment



Metrix Reverse Probe Mount

Eddy Current probes are used in rotating equipment to monitor speed, vibration, axial position, or absolute and relative expansion.

Basically there are two different types: “standard mount probes” which are screwed directly into the machine housing or bracket, and “reverse mount probes,” which are installed by means of a mounting sleeve.

The reverse mount type has several advantages:

- Since there is only one type of 5497PM, and only the length varies, the spares management for reverse mount probes becomes very easy.
- The reverse mount probes are properly installed by using the right length of the mounting sleeve. Using the standard mount probes you would have to consider the installation location by using a certain probe length or thread length each time.

Disadvantages of Conventional Probe Holder Systems

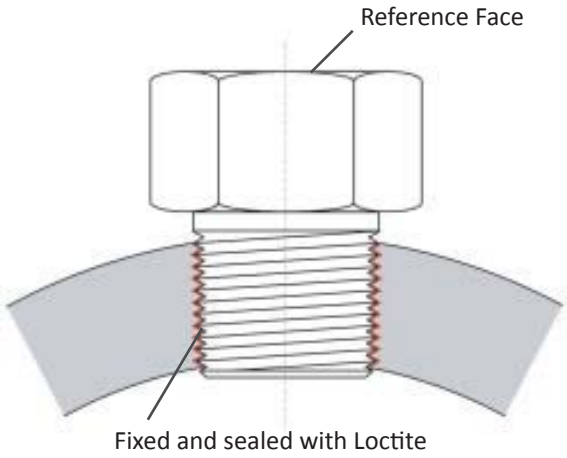
- It is common practice to completely readjust the probe gap after each disassembly.
- The probe is usually connected to a driver or transmitter via an extension cable. Humidity at the contacts as well as ground fault caused by touching the housing leads to measurement errors. Conventional connection heads are made out of aluminum or other conductive material.
- Common connection heads offer little volume to store the excess length of the probe cable. These cables often get squeezed and damaged during installation.
- The crimped connection between cable and plug sometimes breaks if the tensile load causes an incorrect bend radius. Without special tools the crimp connection cannot be repaired.
- Shaft vibration sensors are typically installed in bearing housings with hot oil inside. Oftentimes, the threads are not oil tight.

Conventional connection ends with stuffed-in cables.

Probe Mounting System - Key Features

1. Easy Mounting due to a Reference Face Adapter

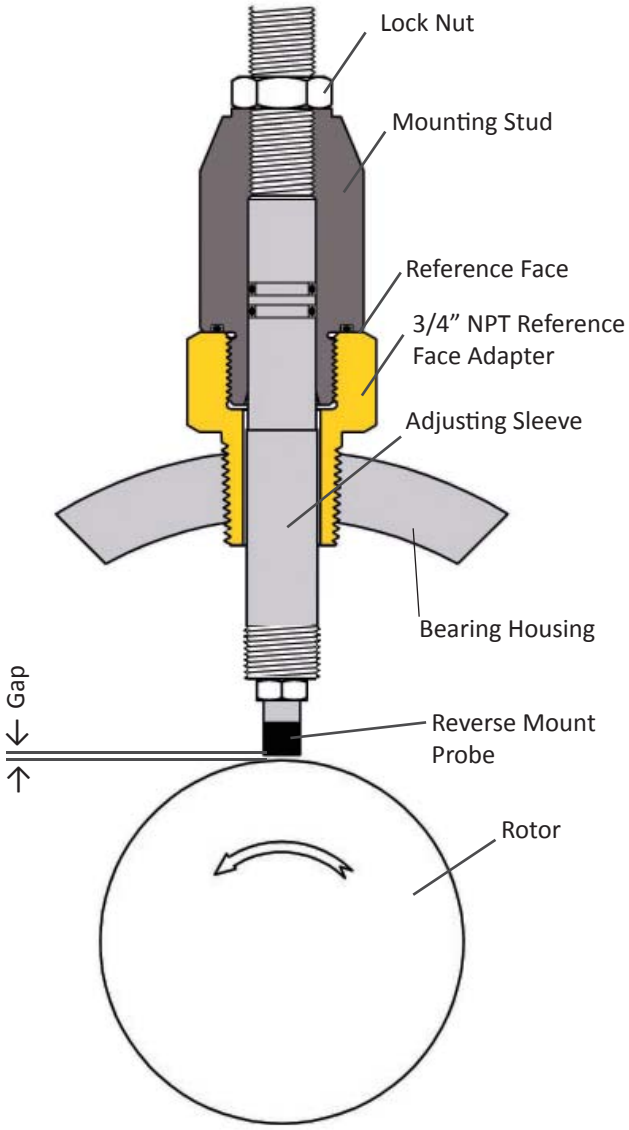
Even a thin-walled casing is sufficient for the installation of the 3/4” NPT reference face adapter. Due to the conical NPT thread and the additional sealing with Loctite, the reference face adapter will be oil tight.



2. Once-And-For-All Gap Adjustment

The reverse mount probe is screwed into the the adjusting sleeve. The adjusting sleeve is screwed into the adapter screw. The adapter screw is screwed into the insert. The flat top of the 3/4” NPT reference face adapter is the reference face.

The gap between probe and shaft surface is adjusted for the first time by turning the adjusting sleeve and then fixing its location with a lock nut. At future disassemblies, the adapter screw is released, thereby, freeing the assembly. This ensures exactly the same gap after reassembling without any need for readjustment.

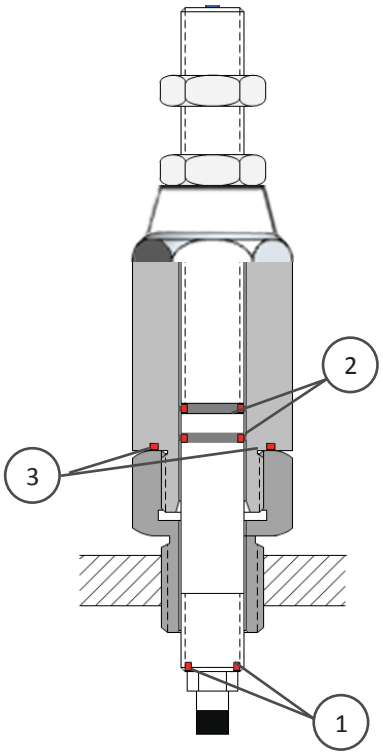


Probe Mounting System - Key Features continued

3. Reliably Oil-Tight

The reverse mount probe which is screwed into the adjusting sleeve is sealed with an 0-ring (1). Two 0-rings seal between the adjusting sleeve and adapter screw (2). Last but not least the adapter screw is sealed axially with an 0-ring against the flat top of the insert (3).

Even if there is hot oil mist and even overpressure inside the bearing housing, the 0-rings provide an oil tight seal.



4. Connection Head with Many Advantages

- Sufficiently dimensioned for safe winding of the cable without exceeding the minimum allowable bending radius.
- The connection head is adjusted so the extension cable points to the correct direction. This position then is fixed with a lock nut.
- The connection head is made of non-conductive material. Even if the connection touches the wall of the housing there is no ground fault.
- A standard conduit is fixed by a screwed cable fitting.

Connection between probe cable and extension cable (shown without protective cover).

5. Rugged Protective Sleeve for Disassembled Probe

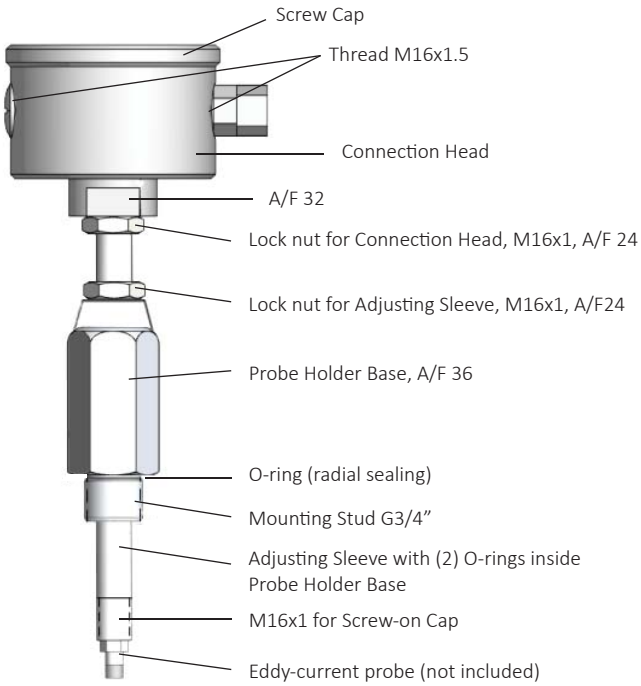
From experience, probes are often damaged after disassembling the probe holder due to inappropriate handling. The Metrix Probe Mounting System comes with a rugged protective sleeve cover to safeguard the probe and the mounting stud.

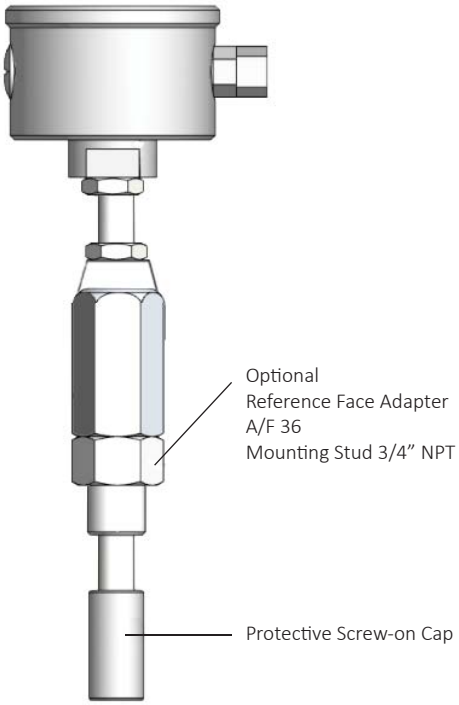
The Probe Mounting System

The Metrix Probe Mounting System is superior to conventional probe holder systems.

- Due to the reference face on a special insert the gap between probe and shaft has to be adjusted only once.
- Due to three 0-ring seals the system is oil tight.
- A big volume connection head protects against damaging the cable by inappropriate handling.
- A non-conductive material for the connection head protects reliably against ground fault.
- Disassembled probes are protected by a rugged sleeve cover.

Note: With the Metrix Static Calibrator and Dynamic Signal Generator, one can check the entire measurement loop. See Proximity Probe Accessories on the Metrix website.





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