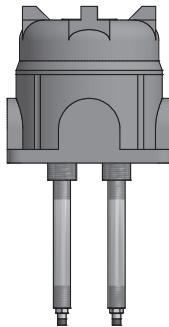
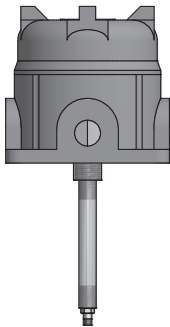
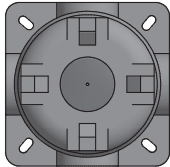


## 5497DTPH Dual Thrust Probe Housing Installation Manual



Plexiglass for Display Only



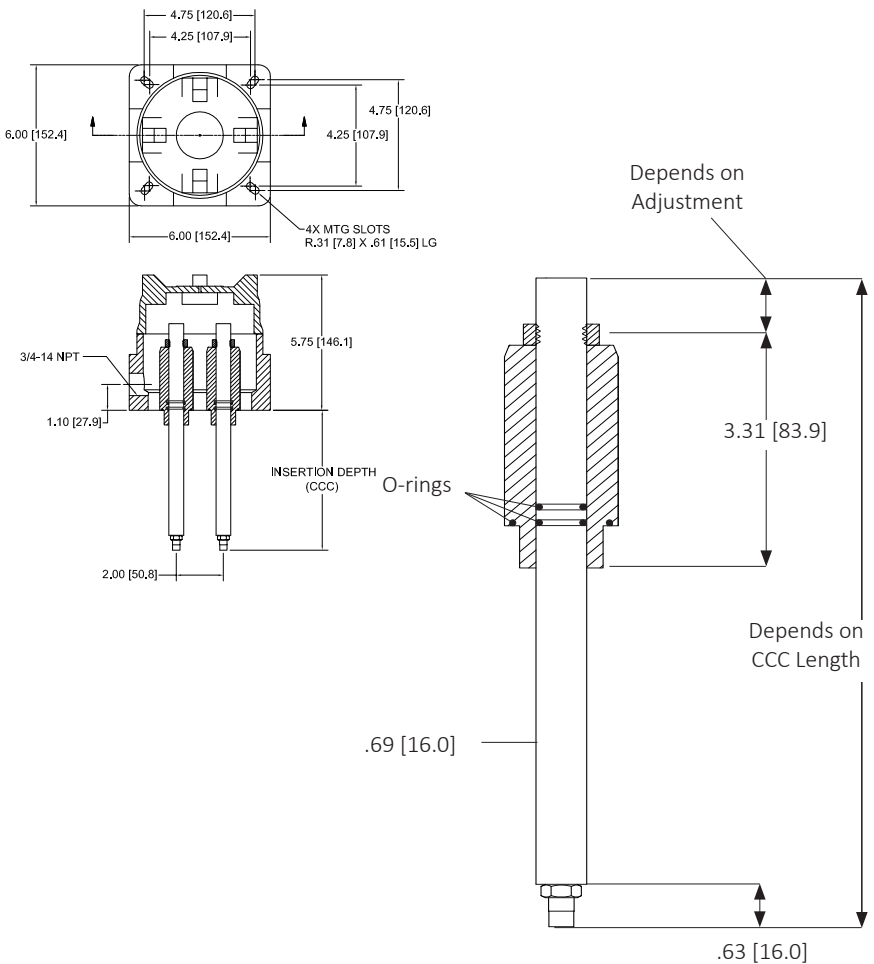
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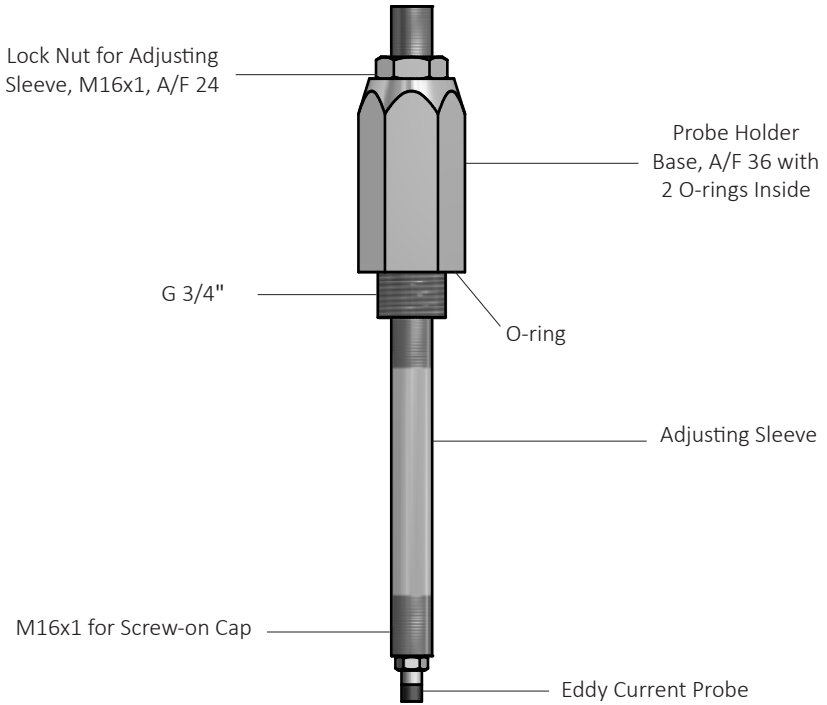
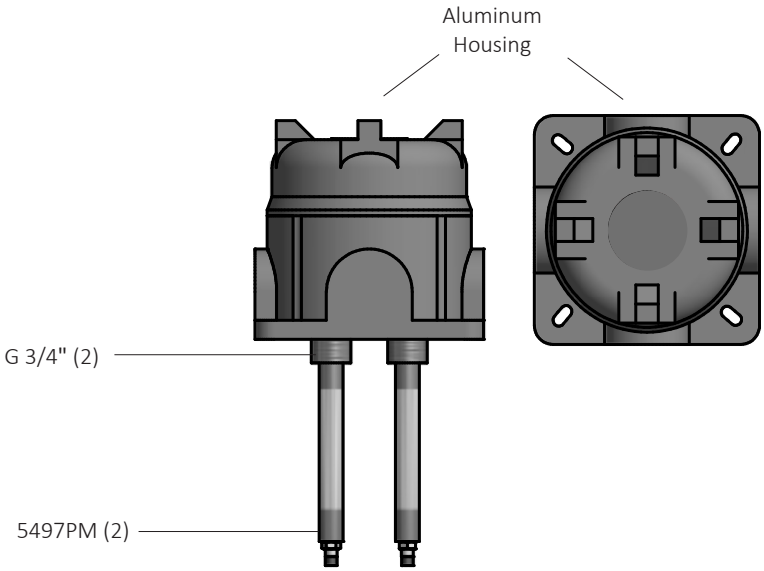
## Scope of Delivery

- 2x **Probe Holder Bases** (stainless steel), each including an O-ring (28 x 2.0 mm) with G 3/4" male mounting stud
- 2x **Adjusting Sleeve** (stainless steel) for proper length with M16 x 1 mm male threads, including 2 protective screw-on caps for the highly-sensitive probe tips, 2 O-rings for each sleeve (13.4 x 1.8 mm), and 2 lock nuts (A/F 24)
- 1x **Aluminum Housing**

## Outline and Dimensions



**Design**



## In General

Eddy-current proximity probes are used for the contactless measurement of vibration, axial position, absolute and relative motion and the detection of rotation pulses. The probes have to be adjusted to the proper gap away from the measured object. In thrust applications it is recommended that the shaft be placed with maximum displacement towards the probes for initial gap, and then maximum displacement away from the probes to ensure the entire thrust movement is within the proximity probe range.

The Metrix Probe Mount is designed for a fast, convenient and beneficial installation and adjustment of sensors with a tip diameter of 8 mm. Standard reverse mount threads are M10 x 1 mm and 3/8" - 24 UNF.

The Probe Holders within the 5497DTPH Dual Thrust Probe Holder system should be mounted directly on a plane machined surface of the machine housing.

## Installation

1. Insure there is a suitable, plane machined surface on the housing available for Probe Holders and Housing Bolts:

Machine two threaded G3/4" holes at 2" (50mm) apart, within the housing, exactly positioned to the thrust measuring point.

The next step is to measure the required installation length (distance from plane machined surface on the housing to the rotor).

Select the standard Adjusting Sleeve with the proper adjustable range:

Adjusting Sleeve	Installation Length		Total Length (mm)
	MIN (mm)	MAX (mm)	
CCC=090 "S"	40	90	171
CCC=140 "M"	90	140	221
CCC=190 "L"	140	190	271
CCC=240 "XL"	190	240	321

2. Roll the 2 O-rings (13.4 x 1.8 mm) along the Adjusting Sleeve into the prepared notches.
3. Now insert the probe cable into the Adjusting Sleeve and screw in the reverse-mount probes considering the manufacturer-recommended torque. Assure that the O-ring of the probe is placed between thread and hexagon nut.
4. Insert the Adjusting Sleeve through the mounting stud of the Probe Holder Base and preadjust it to the measured insertion depth less 1.5 mm (~40 mils). Then fix it with the lock nut.

**Note that all parts are made of stainless steel and it's highly recommended to use a suitable anti-seize lubricant before assembling. The machine must be positioned at the maximum displacement towards the probes for initial gap.**

With this adjustment you can be sure that, when fully screwing in the Probe Holder Base, the probe doesn't touch the rotor and it should already be within the linear range of the driver or transmitter.

5. Place the O-ring (28 x 2.0 mm) into the groove on the bottom of the Probe Holder Base.

6. Screw in the preadjusted unit directly into the housing with a torque of maximum 100 Nm (~75 ft lbs).

**Note that all parts are made of stainless steel and it's highly recommended to use a suitable anti-seize lubricant before assembling.**

The GAP between probe and rotor should now be near 1.5 mm (~40 mils).

7. At first commissioning the GAP has to be adjusted by sensitive turning of the Adjusting Sleeve.

Connect probe cable and extension cable outside and power the driver / transmitter. At the corresponding terminals you will measure the distance-proportional GAP signal.

Use a wrench in the other hand for loosening and retightening the lock nut of the sleeve at the final position.

8. Release the connection between probe and extension cable.
9. Perform the same steps above for the second probe holder.
10. Install the Housing on the machined surface of the machine housing. Four 3/8" or M10 bolts hold the Housing to the machine. Orient the Housing to align the conduit with the conduit hole.
11. Wind the excess length of the probe cable into the Housing.
12. Install a cable gland or conduit fitting into the 3/4" NPT conduit penetration into the Housing.

Connect the extension cable with the probe cable considering the manufacturer-recommended torque.

13. Close the screw cap of the Housing. After the cap is installed the cables should continue to have a minimum of a 1" (25mm) turn radius.

Herewith, the installation and adjustment of the Dual Thrust Probe Holder is completed.

### **Disassembling / Reassembling**

1. Screw off the screw cap of the Housing.
2. Release the connection between extension cable and probe cable.
3. Release the cable fitting and pull out the extension cable from the Housing.
4. Unbolt the 5497DTPH Housing from the machine.
5. Screw out the complete unit Probe Holder by means of the Probe Holder Base.  
**Attention: Do not touch the lock not of the Adjusting Sleeve. As long as the Adjusting Sleeve is kept in the same position, the GAP will be the same at reassembling.**
6. Screw the supplied screw-on caps onto the Adjusting Sleeve to protect the probe tips.
7. For reassembling remove the screw-on caps, renew the O-ring (28 x 2.0 mm) at the bottom of the Probe Holder Base and reinstall the whole unit back into the machine. Check whether the GAP voltage is still within the recommended range. **Normally no readjustment is necessary.**

## **Warning**

The enclosure is manufactured from ALUMINUM OR STAINLESS STEEL. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.

L'enclos est fabriqué à partir de ALUMINUM OR STAINLESS STEEL. Dans de rares cas, des sources d'inflammation dues à l'impact et aux étincelles de friction peuvent se produire. Ceci doit être pris en compte lors de l'installation.

info@metrixvibration.com

www.metrixvibration.com

8824 Fallbrook Dr. Houston, TX 77064, USA

Tel: 1.281.940.1802 • Fax: 1.713.559.9421

After Hours (CST) Technical Assistance: 1.713.452.9703