

HTT-425-F1E-1000 Specification Sheet

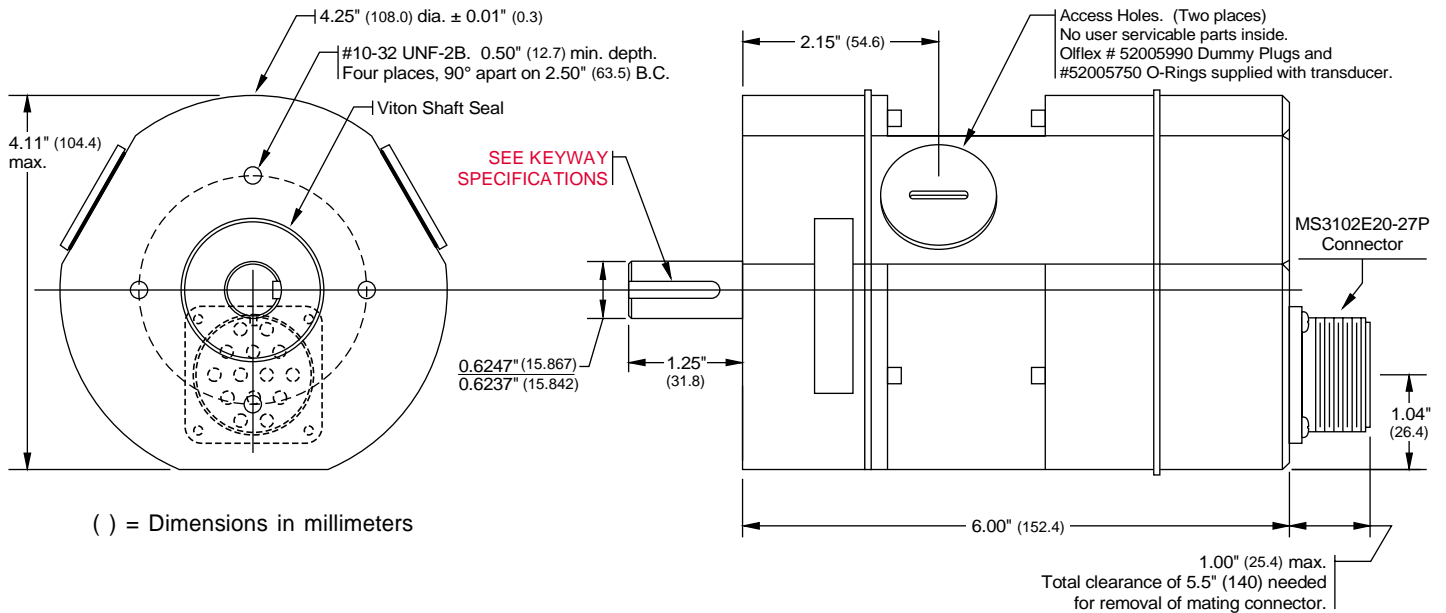
SHEET # 940-2T561

INSTALLATION NOTES

Designed as a dual resolver transducer, this package has a 5/8" stainless steel shaft and an oversized double row sealed bearing. This transducer is an absolute position sensor that encodes 1000 turns. Outside connections to the transducer are made through a watertight MS connector. The transducer connects to AMCI equipment using our standard CMT cables. The transducer is IP67 rated and is suitable for outdoor or washdown applications.

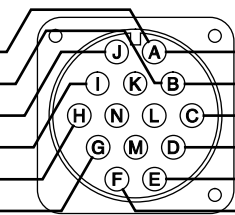
Because of the large shaft bearings used in the HTT-425-1000, gears or pulleys can be directly mounted onto the shaft. However, use a flexible coupler when attaching the transducer to a machine shaft. Because the HTT-425-1000 is an absolute sensor it cannot "lose counts" when rotating as an incremental transducer can. If the transducer appears to be losing counts when operating, the usual cause is a shaft slipping in a loose coupler. If you are losing counts, check all mechanical couplings and use shaft keys whenever possible.

DIMENSIONAL DRAWING



FINE RESOLVER

- R1: (RED/WHT)
- R2: (BLK/WHT)
- S3: (BLACK)
- S1: (RED)
- S2: (YELLOW)
- S4: (BLUE)



COARSE RESOLVER

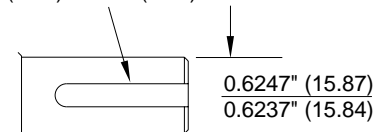
- R1: (RED/WHT)
- R2: (BLK/WHT)
- S4: (BLUE)
- S2: (YELLOW)
- S1: (RED)
- S3: (BLACK)

Female Mating Connector AMCI Part #

- | | | | |
|---------------|------------|-------|--------|
| MS3106A20-27S | STRAIGHT | | MS-20 |
| MS3108A20-27S | RT. ANGLE | | MS-22 |
| MS3106F20-27S | WATERTIGHT | | MS-201 |

Keyway Specification

$$\begin{matrix} .1885(4.79) \\ .1895(4.81) \end{matrix} \times \begin{matrix} .106(2.69) \\ .108(2.74) \end{matrix} \text{ DEEP X } 1.0(25.4)$$



Key Dimensions

$$\begin{matrix} 0.187(4.75) \\ 0.188(4.78) \end{matrix} \text{ SQ. X } 1.0(25.4)$$

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SPECIFICATIONS

MECHANICAL

Shaft Loading: Radial: 100 lbs. max.
Axial: 50 lbs. max.
Bearing life rated at 2×10^9 revolutions minimum at maximum shaft load.
Starting Torque: 8 oz.in. @ 25°C
Moment of Inertia: 20×10^{-4} oz-in-sec² max.
Weight: 4 lbs

ENVIRONMENTAL

Shock: 50 g's for 11 mSec
Vibration: 15 g's to 2000 Hz
Operating Temp: -20 to 125°C
Enclosure: IP67
Hard Coat Anodized Body
303 Stainless Steel Shaft

ELECTRICAL

Input Voltage: 7.0 V
Input Freq: 5000 Hz
Primary: Rotor
Input Current: 20.0 mA Max.
Output Voltage: 6.65 V Nom.
Trans. Ratio (TR): $0.95 \pm 5\%$
Accuracy: ± 7 min. (max error)

The HTT425-F1E-1000 contains two resolvers, called Fine and Coarse, that have the electrical specifications listed above. There is a 10:1 gear ratio between the input shaft and the Fine resolver. The two resolvers geared together in a vernier ratio of 99:100. This arrangement allows the HTT425-F1E-1000 to encoded 1000 turns of absolute position data.

FOR MORE INFORMATION

If you need more information on the HTT-425-F1E-1000 use these three resources:

- * If you have internet access, check our website at <http://www.amci.com>. We've worked hard to make our site the repository of information you need to specify and use AMCI products. New product news, product specifications, compatibility tables, application notes, and PDF manuals are all available 24 hours a day.
- * You can also call AMCI for sales or technical support at (860) 585-1254 from 8AM to 5PM EST, Monday through Friday. An applications engineer will be available to assist you.
- * Finally, you can e-mail us at sales@amci.com or techsupport@amci.com.