INSTALLATION NOTES

This transducer is an absolute sensor that uses two resolvers to encode 1,000 turns. This transducer is IP67 rated and is suitable for outdoor or washdown applications. The HTT-425-F1S-1000 features a 5/8” stainless steel shaft and an oversized double row sealed bearing. Outside connections to the transducer are made through a watertight MS connector. The transducer connects to AMCI equipment using our standard CMT cables.

Because of the large shaft bearings used in the HTT-425-F1S-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-F1S-1000 is an absolute sensor it cannot "lose counts" as an incremental encoder 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.
### SPECIFICATIONS

**MECHANICAL**
- Shaft Loading: Radial: 100 lbs. max.  
  Axial: 50 lbs. max.  
  Bearing life rated at 2X10^9 revolutions minimum at maximum shaft load.  
- Starting Torque: 8 oz.in. @ 25°C  
- Weight: 4.75 lbs

**ELECTRICAL**
- Input Voltage: 7.0 V  
- Input Freq: 5000 Hz  
- Primary: Rotor  
- Input Current: 20.0 mA Max.  
- Trans. Ratio (TR): 0.95 ± 5%  
- Accuracy: ± 7 min. (max error)

The HTT425-F1S-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 are then geared together with a vernier ratio of 99:100. This gearing allows the HTT425-F1S-1000 to encode 1,000 turns of absolute position data.

**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

### PART NUMBERING SYSTEM

Base Part Number:

HTT-425-<blank>-<blank>-<blank>

**Mounting**
- "A" = A-B Series 1326 Motor Mount  
- "M" = Motor Mount w/ AMCI adapter plate.  
- "F" = Front (Face) Mount  
- "T" = Foot Mount

**Termination**
- "1" = MS Connector  
- "2" = 0.75" Conduit Fitting

**Connector**
- "blank" when Termination = "1"  
- "E" = MS Connector on End  
- "S" = MS Connector on Side

**Number of Turns**
- "100" = 100 turns  
- "1000" = 1,000 turns

### CABLES

Cables for the HTT-425-F1S-1000 transducer can be ordered from AMCI under the following part numbers. The mating connector is preinstalled and connections are factory tested. For all of the part numbers below, "x" equals the cable length in feet.

The AMCI part numbers are:
- CML-x: Standard cable with MS-20 straight mating connector  
- CML-x/MS22: Cable with MS-22 right angle mating connector  
- CML-x/MS201: Cable with MS-201 watertight mating connector

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