ADVANCED MICRO CONTROLS INC.
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HTT-425-F1S-1000 Specification Sheet

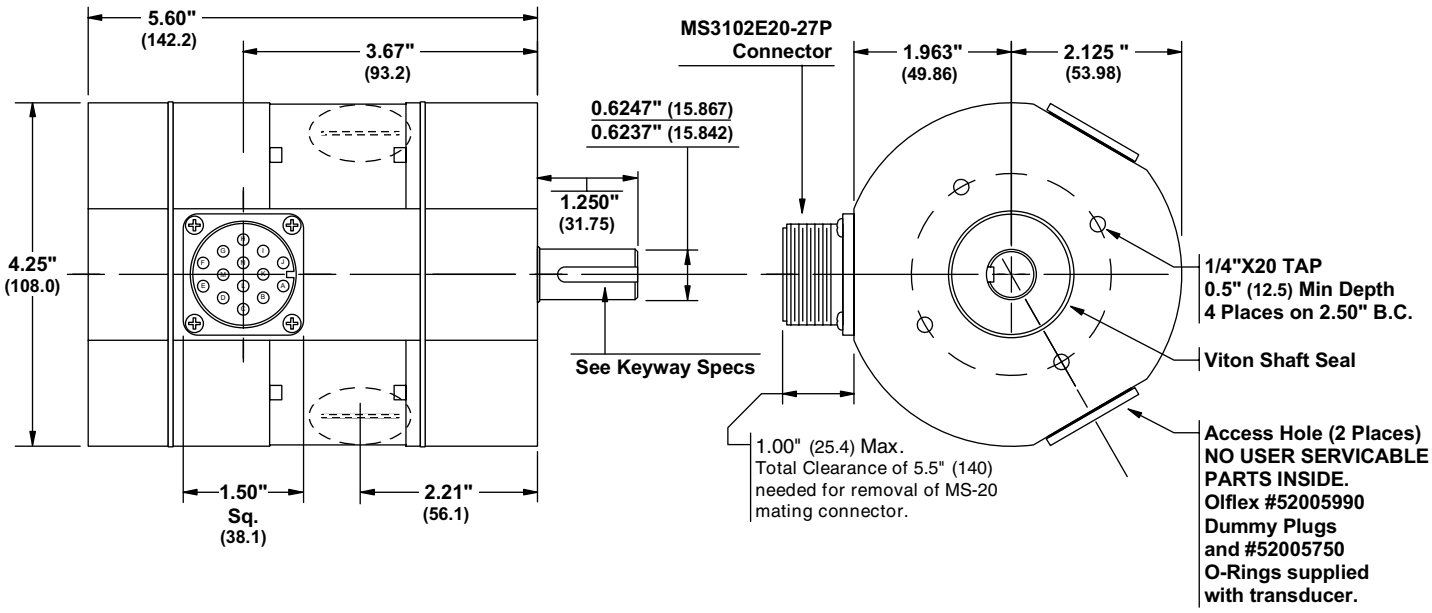
SHEET # 940-2T820

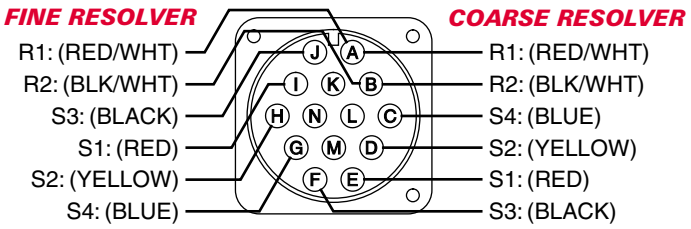
INSTALLATION NOTES

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.

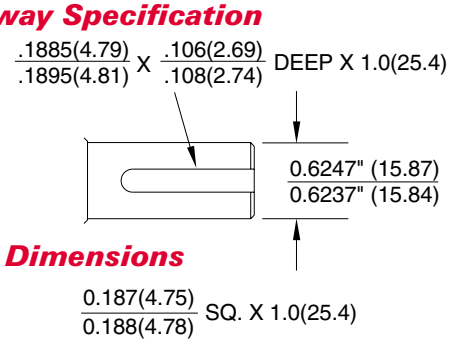
DIMENSIONAL DRAWING





Female Mating Connector	AMCI Part #
MS3106A20-27S STRAIGHT	MS-20
MS3108A20-27S RT. ANGLE	MS-22
MS3106F20-27S WATERTIGHT	MS-201

Keyway Specification



Key Dimensions

0.187(4.75)
0.188(4.78) 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 $2X10^9$ revolutions minimum at maximum shaft load.
Starting Torque:	8 oz.in. @ 25°C
Moment of Inertia:	$20X10^{-4}$ oz-in-sec² max.
Weight:	4.75 lbs

ENVIRONMENTAL

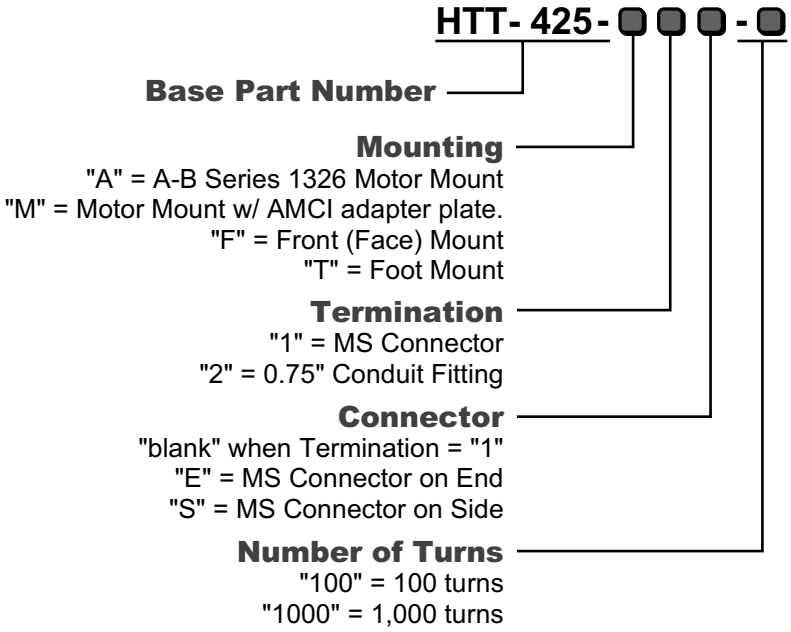
Shock:	50 g's for 11 mSec
Vibration:	15 g's to 2000 Hz
Operating Temp:	-20 to 125°C
Enclosure:	IP67 Hard Coat Anodized Body 303 Stainless Steel Shaft

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 ± 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 encoded 1,000 turns of absolute position data.

PART NUMBERING SYSTEM



CABLING

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