

COMPUTER CONVERSIONS CORPORATION

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GT TRANSDUCERS BRUSHLESS-ELECTROMAGNETIC POSITION AND VELOCITY SENSORS

FEATURES

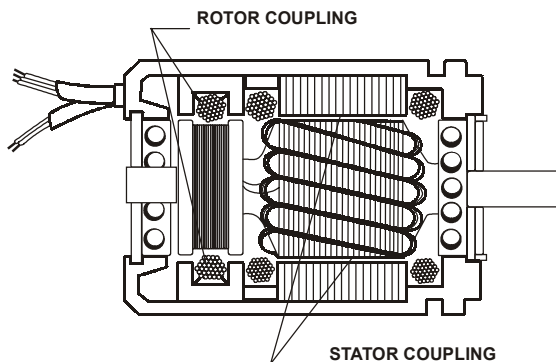
- Highest Reliability Obtainable
- Absolute Position Feedback
- Infinite Resolution
- Excellent Repeatability
- Wide Temperature Spans
- Long Transducer Cable Runs
- Velocity and Tachometer Feedback
- High Speed Operation
- Field Proven Technology
- Electronically Passive Device
- Inherent Transformer Isolation

HIGH RESISTANCE TO

- Shock
- EMI
- Magnetic Interference
- Vibration
- RFI

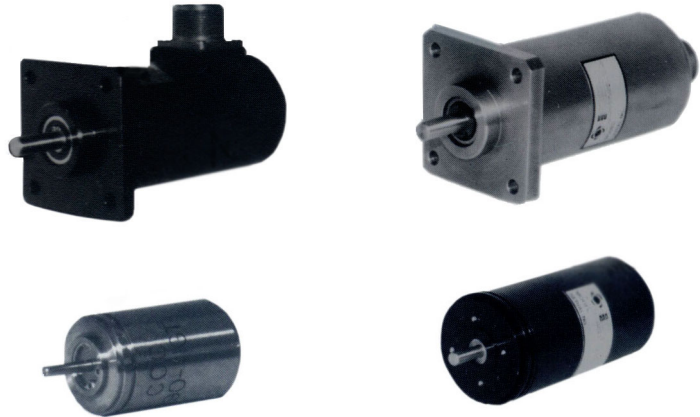
APPLICATION

Computer Conversions GT Transducers are brushless, Electromagnetic, Rotary Sensors used to provide Precise Absolute or Incremental Position, and Velocity feedback in harsh environments. All Computer Conversions Transducers are continuous rotation, bidirectional, and electronically passive devices (no electronic components to degrade or fail), that require zero maintenance, and may be installed in virtually inaccessible locations.



ROTARY TRANSFORMER CONSTRUCTION DOES NOT CONTAIN

- Glass
- Optics
- LED's
- Ferrites
- Wipers
- Brushes
- Pin-Contacts
- Electronics



AVAILABILITY

- Standard Sizes 11 and 23
- Nema 12, 13, and 4
- Pinion or Keyed Shaft
- Stainless Steel
- Radiation Resistant
- Submersible

DESCRIPTION

The GT transducer is basically a two stage, air-coupled rotary transformer, having precision shielded ball bearings as the only physical contact between the casing (stator), and the rotary shaft input (rotor). The transducer biases AC signals used as inputs to either stator or rotor windings; providing outputs that are proportionate in phase, or ratiometrically proportionate in amplitude, to the angular position of the shaft. Because transformer couplings are used both to excite and retrieve data; slip rings, brushes, or contacts, are neither used or required. Without brushes; brush bounce, misalignment, and wear related problems do not exist, and infinite repeatable feedback can be expected.

The GT transducer's low output impedance, high signal to noise ratio, moderate frequency range, and open winding configuration; facilitates long transducer cable runs in harsh electrical environments.

MECHANICAL

All transducer assemblies feature double shielded ball bearings, selected Mil-Grade lubricants and stainless 303 shaft inputs. All Industrial Grade Transducers (Nema 12+) feature flex-coupling isolated shaft inputs supported by dual sets of precision sealed and shielded ball bearings. The Industrial Grade construction offers high axial and radial rigidity, secured environmental protection, and extended life without compromising accuracy. The Nema 12 grade transducers exterior is available with black anodized aluminum finish (standard) or stainless steel.

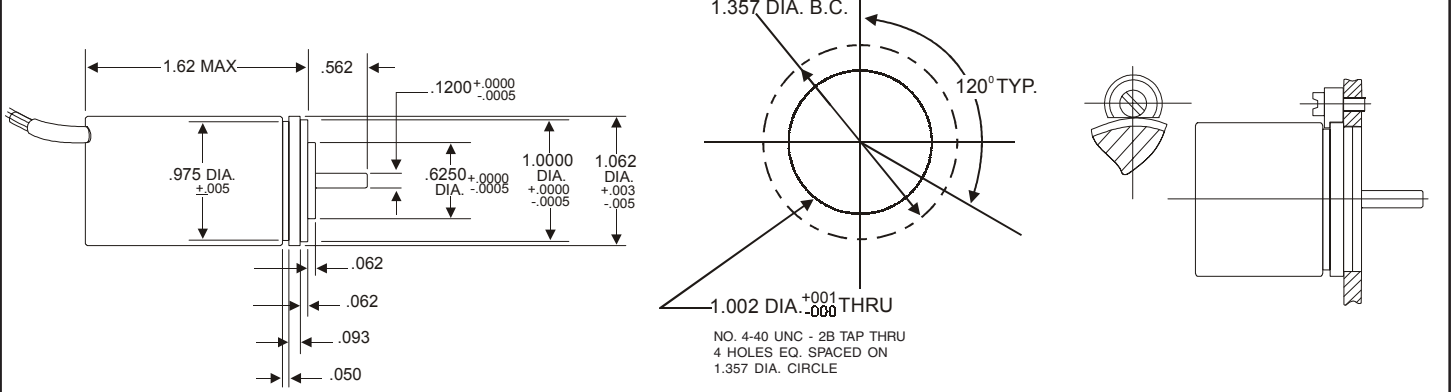
ELECTRICAL INTERFACE

Computer Conversions offers GT compatible decoder electronics as discrete modules, printed circuit card assemblies, snaptraks, readouts, and sub systems. A large variety of decoders are available to obtain virtually any position or velocity feedback criteria required. Dependent on the particular decoding technique employed; the

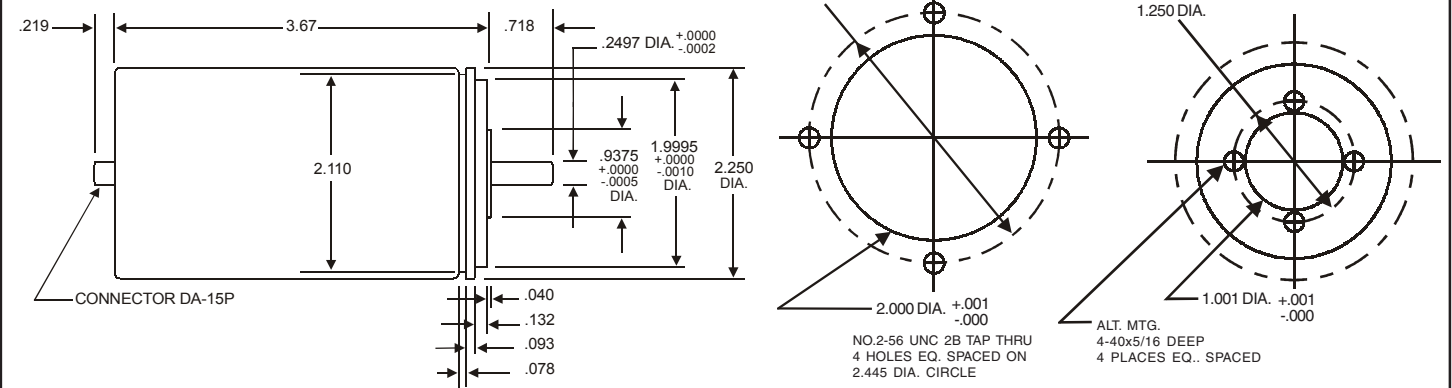
transducer outputs may be scaled in an analog or digital format to indicate direct degrees, inches, meters, percentage, inches per second, or RPM's etc. Direct compatibility is offered for many motion, servo, programmable, and process controllers used in industry today.

OUTLINE DIMENSIONS

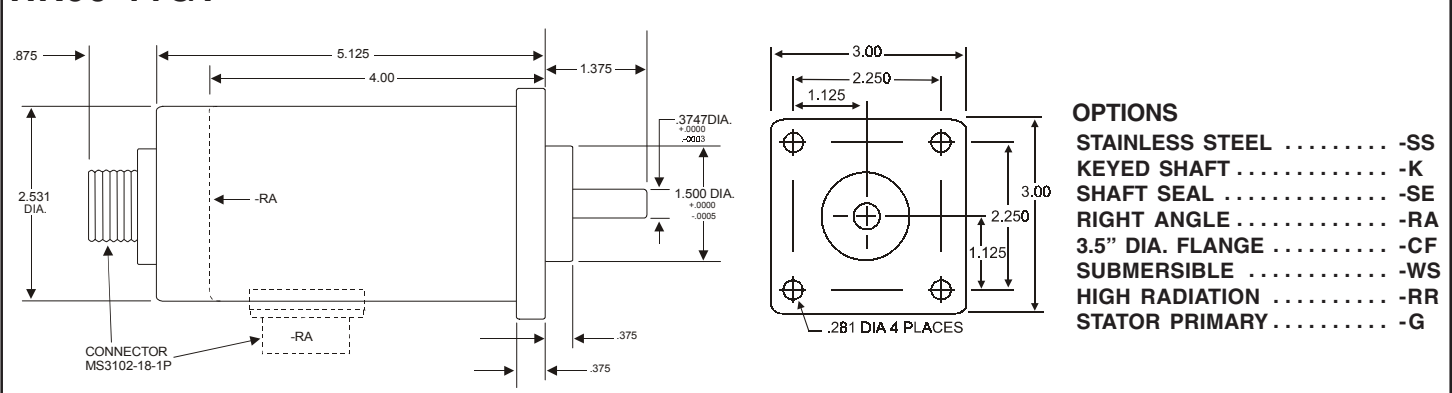
R90-11GT SIZE 11 TRANSDUCER



R90-23GT SIZE 23 TRANSDUCER



HR90-11GT NEMA 12 TRANSDUCER



SPECIFICATIONS

MECHANICAL	SIZE 11	SIZE 23	NEMA 12	ENVIRONMENTAL (ALL UNITS)
MAX. STARTING TORQUE	.07 oz./in.	0.1 oz./in.	1.0 oz./in.	SHOCK
MOMENT OF INERTIA	3 gm/cm ²	5.0 gm/cm ²	15 gm/cm ²	VIBRATION
MAX. SLEW SPEED	3000 RPM	3000 RPM	3000 RPM	OPERATING TEMPERATURE
MAX. SHAFT LOAD:				RADIATION
AXIAL	.3lbs.	8 lbs.	35 lbs.	Size 11
RADIAL	.7 lbs.	10 lbs.	75 lbs.	Others
WEIGHT	4 oz	1.2 lbs.	3 lbs.	50g for 11 msec.
				15g to 2000 cps.
				-40°C to + 125°C
				10 ⁵ RAD
				10 ⁶ RAD

