

# Series 605

## High Accuracy ADTs

The Model 0605 is an absolute rotary position transducer based upon differential capacitance. It has been designed to provide a simple means of inputting angular position into analog or digital systems. Internal voltage regulation along with a factory set full scale output allows the direct interchanging of units without system recalibration. The Model 0605 allows great flexibility in supporting individual customer's requirements. With eight different full scale ranges from 12° to 300°, five different outputs, termination choices, and other options, there are over 640 available versions of this design. For each range the user can be supplied with one of five specified outputs. For unique applications, when the normal configurations are not suitable, custom ranges or outputs can be specified.



### KEY FEATURES

<b>Ranges from 12° to 300°</b>	<b>DC Voltage/4-20 mA Output</b>
<b>Non-linearity &lt; 0.25%</b>	<b>3 KHz Frequency Response</b>

### PERFORMANCE SPECIFICATIONS

<b>ACCURACY</b> Includes: Non-linearity, Hysteresis, Repeatability and unit to unit variation at reference temperature.	< ±0.25% specified range < ±1% FS on 300° units	<b>RANGES</b>	12°, 30°, 60°, 90°, 120°, 180°, 270°, 300°
		<b>ROTATION</b>	CW or CCW
		<b>FREQUENCY RESPONSE</b>	3 KHz Min., -3 db.
		<b>RESOLUTION</b>	Infinite

### MECHANICAL SPECIFICATIONS

<b>MOMENT OF INERTIA (Shaft)</b>	0.6 gm. cm.2	<b>WEIGHT</b>	6 oz. Max.
<b>TORQUE</b>	0.05 gm. cm. Running 5.0 gm. cm. Starting	<b>MATERIALS</b>	
<b>SHAFT LOADING</b>	7 lb. Max. Axial 10 lb. Max. Radial	<b>Case</b>	Aluminum
		<b>Shaft</b>	Stainless Steel

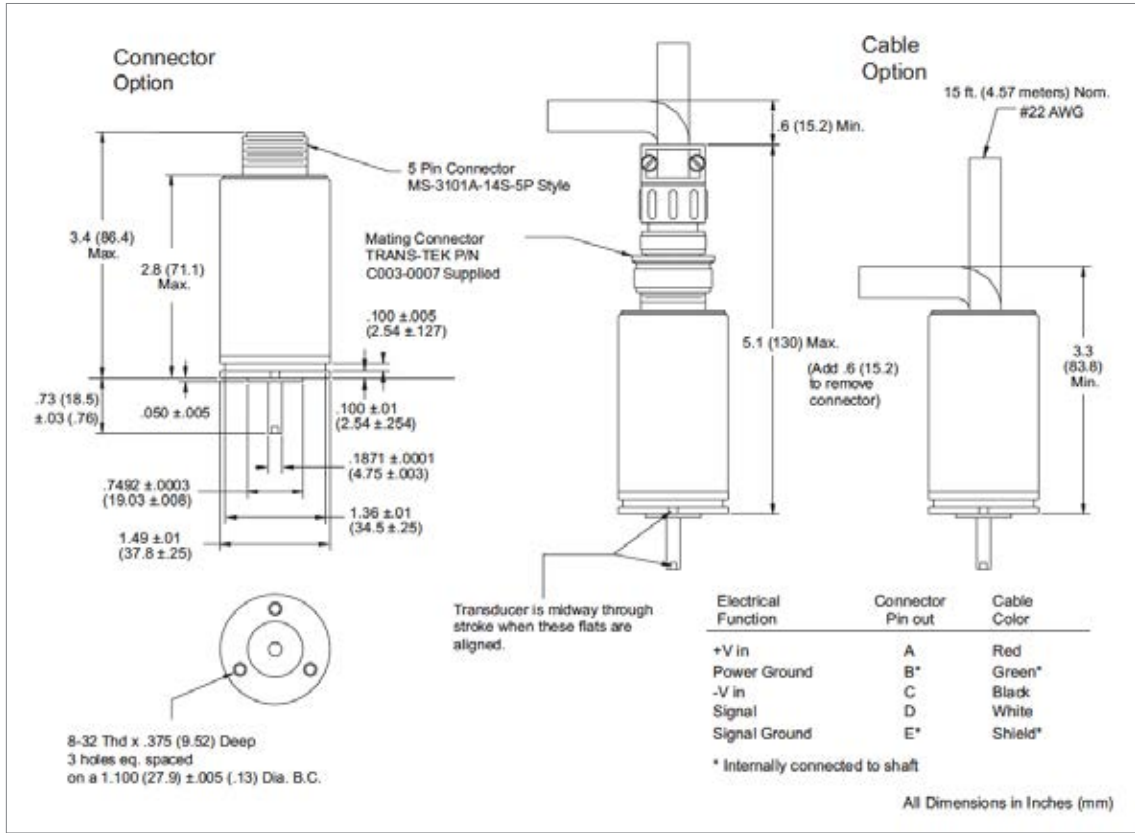
### TEMPERATURE SPECIFICATIONS

<b>REFERENCE</b>	+72°F to +75°F (+22°C to +24°C)	<b>OPERATING</b>	+32°F to +158°F (0°C to +70°C)
<b>TEMPERATURE COEFFICIENT OF SPAN</b>	< ±0.01% output/°F Typ. < ±0.02% output/°F Max.	<b>OPERATING</b>	-67°F to +257°F (-55°C to +125°C) available for units up to and including 120° of rotation
		<b>STORAGE</b>	-67°F to +257°F (-55°C to +125°C)

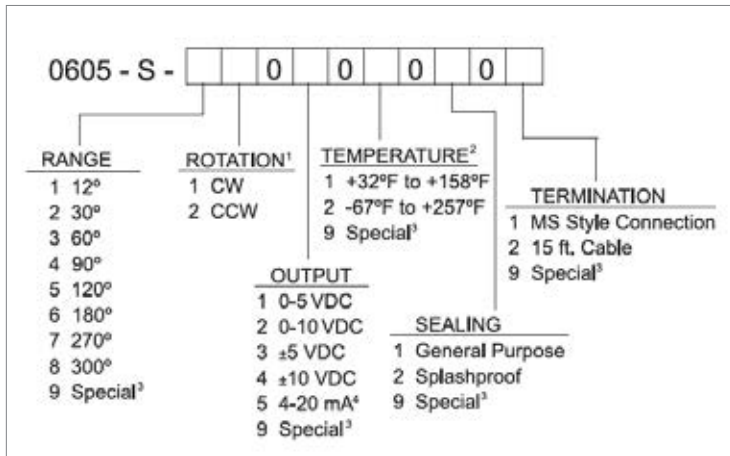
# ELECTRICAL SPECIFICATIONS

INPUT		OUTPUT	
<b>VOLTAGE REVERSE POLARITY PROTECTED</b>	±14.5 to ±26 VDC	<b>VOLTAGE</b>	0-5, 0-10, ±5, ±10 VDC; 4-20 mA
<b>CURRENT</b>	40 mA Max.	<b>LOADING</b>	5 KOhm Min. short circuit protected
		<b>RIPPLE</b>	< 0.05% FS RMS; @500 KHz
		<b>IMPEDANCE</b>	< 1 Ohm

# DIMENSIONAL DRAWING



# ORDERING INFORMATION



### Notes:

- Direction of rotation which produces a more positive output voltage, as viewed from the shaft end.
- The extended temperature range option is not available on units with over 120 degrees of rotation.
- Consult the factory for additional options.
- 4-20 mA option is not available on units with over 120 degrees of rotation. Temperature range is +32°F to +158°F only.