

Series 605

General Purpose 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

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

PERFORMANCE SPECIFICATIONS

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

MECHANICAL SPECIFICATIONS

MOMENT OF INERTIA (SHAFT)	0.6 gm. cm ²	WEIGHT	6 oz. Max.
TORQUE	0.05 gm. cm. RUNNING 5.0 gm. cm. STARTING	MATERIAL - CASE	Aluminum
SHAFT LOADING	7lb. Max. AXIAL 10lb. Max. RADIAL	MATERIAL - SHAFT	Stainless Steel

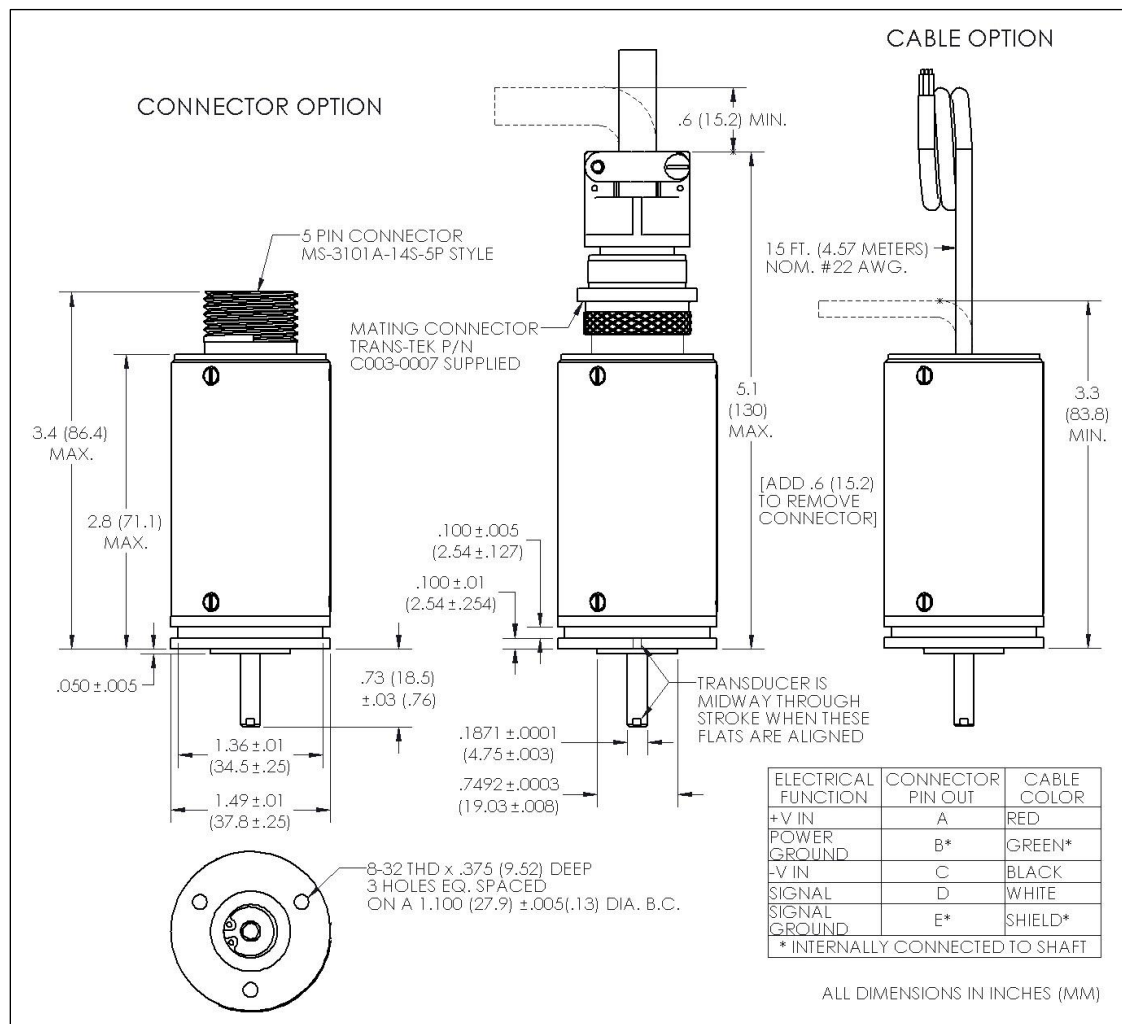
TEMPERATURE SPECIFICATIONS

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

ELECTRICAL SPECIFICATIONS

INPUT		OUTPUT	
VOLTAGE REVERSE POLARITY PROTECTED	±14.5 to ±26 VDC	VOLTAGE	0-5, 0-10, ±5, ±10 VDC; 4-20mA
		LOADING	5KΩ MIN. short circuit protected
CURRENT	40mA MAX.	RIPPLE	< 0.05% FS RMS; @ 500KHz
		IMPEDANCE	< 1Ω

DIMENSIONAL DRAWING



ORDERING INFORMATION

Model #	S-Number Description							
0605-S-			0		0		0	
<u>RANGE</u>	<u>ROTATION¹</u>		<u>TEMPERATURE²</u>			<u>TERMINATION</u>		
[1] 12°	[1] CW		[1] +32°F to +158°F			[1] MS Style Connection		
[2] 30°	[2] CCW		[2] -67°F to +257°F			[2] 15 FT. Cable		
[3] 60°			[9] Special ³			[9] Special ³		
[4] 90°	<u>OUTPUT</u>		<u>SEALING</u>					
[5] 120°	[1] 0-5VDC		[1] General Purpose					
[6] 180°	[2] 0-10VDC		[2] Splashproof					
[7] 270°	[3] ±5VDC		[9] Special ³					
[8] 300°	[4] ±10VDC							
[9] Special ³	[5] 4-20mA ⁴							
	[9] Special ³							

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.
- 4-20mA option is not available on units with over 120 degrees of rotation. Temperature range is +32°F to +158°F only.