

# FUTEK MODEL TRH605

# NON CONTACT HEX DRIVE ROTARY TORQUE SENSOR w/ ENCODER

Drawing Number: FI1031-A

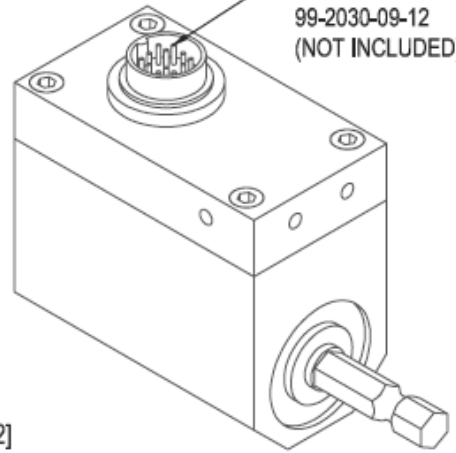
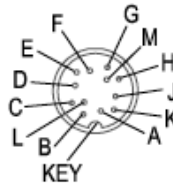
CE COMPLIANT

INCH [mm] R.O.= Rated Output

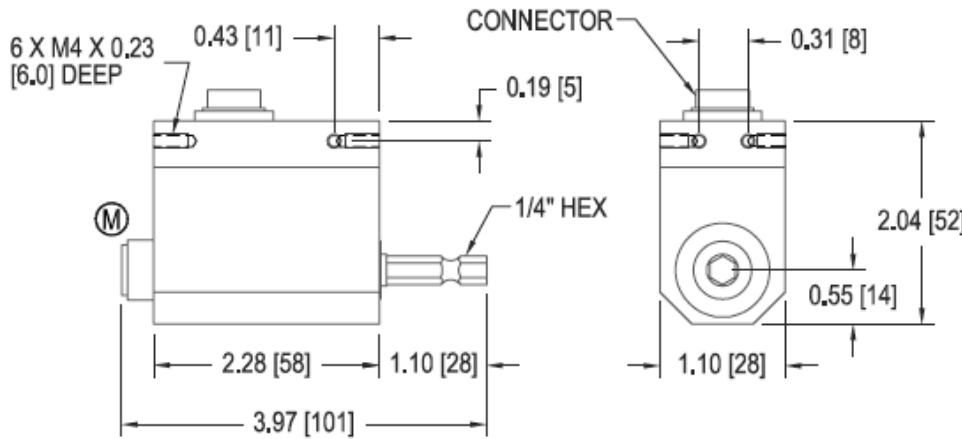
CONNECTOR CODE (CABLE PACKAGE WIRING CODE)

GND (Shunt Cal)	Signal (Angle 1)	Signal (Torque)	GND (Torque)
PIN 'A' (YELLOW)	PIN 'B' (BLUE)	PIN 'C' (GREEN)	PIN 'D' (WHITE)
GND (Sensor, Angle)	Power (Sensor)	Signal (Angle 2)	Power (Angle)
PIN 'E' (BLACK)	PIN 'F' (RED)	PIN 'G' (BROWN)	PIN 'H' (ORANGE)
N/C	Power (Shunt Cal)	N/C	Shield (Floating)
PIN 'J'	PIN 'K' (PURPLE)	PIN 'L'	PIN 'M'

BINDER RECEPTACLE  
09-0331-90-12  
MATING CONNECTOR  
99-2030-09-12  
(NOT INCLUDED)



+OUTPUT  
(CW)



(M)=MEASURING SIDE

STOCK #	Capacity		MAX AXIAL FORCE		MAX RADIAL FORCE	
	in-lb	N m	lb	(N)	lb	(N)
FSH02037	4.5	0.5	4.5	20	1	5
FSH02038	9	1	11	50	2	10
FSH02039	18	2	11	50	4.5	20
FSH02040	53	6	34	150	9	40
FSH02041	106	12	34	150	9	40
FSH02042	159	18	45	200	9	40

### TORQUE SPECIFICATIONS:

RATED OUTPUT	±5VDC
SAFE OVERLOAD	150% of R.O.
ZERO BALANCE	±1% of R.O.
EXCITATION	11-26 VDC
NONLINEARITY	±0.2% of R.O.
HYSTERESIS	±0.1% of R.O.
NONREPEATABILITY	±0.2% R.O.
TEMP. SHIFT ZERO	±0.01% of R.O. / °F [±0.02% of R.O. / °C]
TEMP. SHIFT SPAN	±0.01% of R.O. / °F [±0.02% of Load / °C]
OPERATING TEMP.	-13 to 176°F [-25 to +80°C]
ROTATIONAL SPEED	7000 RPM MAX
CONNECTOR:	12 pin Binder Series #581 (09-0331-90-12)
ACCESSORIES AND RELATED INSTRUMENTS AVAILABLE	
CALIBRATION (STD)	Certificate of Conformance
CALIBRATION (AVAILABLE)	5pt CW and CCW
CALIBRATION TEST EXCITATION	12 VDC
SHUNT CALIBRATION	With sensor fully connected apply 11-26 VDC to Pins A & K to generate 5VDC nom output.

### ENCODER SPECIFICATIONS:

OUTPUT	IMPULSE (TTL)
PULSES / REV	360
EXCITATION	5 VDC
ANGLE 1- LEADING PULSE	
ANGLE 2- TRAILING PULSE (90°)	

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