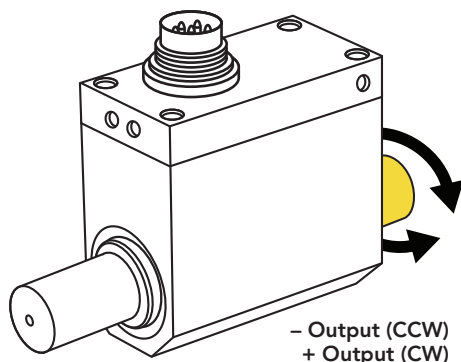




FEATURES

- Utilizes strain gauge technology
- Angle speed feedback
- Compact size
- Can operate up to 7000 RPM

 Active end



SPECIFICATIONS

PERFORMANCE

Nonlinearity	±0.2% of RO
Hysteresis	±0.1% of RO
Nonrepeatability	±0.2% of RO
Rotational Speed	7000 Max

ELECTRICAL

Rated Output (RO)	±5 VDC
Excitation (VDC or VAC)	11–26 VDC, 1 Watt
Connection	12 pin Binder Series #581 (09-0331-90-12)

MECHANICAL

Weight (approximate)	0.7 lb [0.30 kg] (9-89 in-lb) 1.3 lb [0.60 kg] (177-443 in-lb)
Safe Overload	150% of RO
Material	Aluminum (Housing) 17-4 PH stainless-steel (Shaft)
IP Rating	IP40

TEMPERATURE

Operating Temperature	–13 to 176°F (–25 to 80°C)
Compensated Temperature	41 to 122°F (5 to 50°C)
Temperature Shift Zero	±0.01% of RO/°F (±0.02% of RO/°C)
Temperature Shift Span	±0.01% of RO/°F (±0.02% of RO/°C)

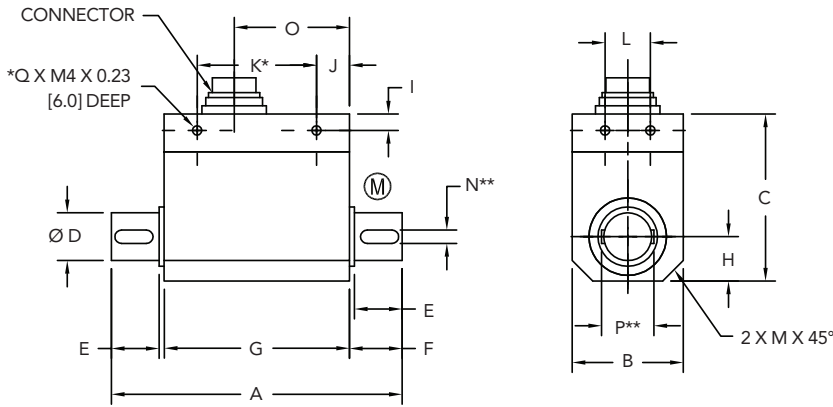
CALIBRATION

Calibration Test Excitation	12 VDC
Calibration (standard)	Certificate of Conformance
Calibration (available)	5-pt CW & CCW
Shunt Calibration Value	With sensor fully connected apply 11–26 VDC to Pins A & K to generate 5 VDC nom output

CONFORMITY

RoHS	2014/30/EU
CE	EN 61000-6-4:2011-09; EN 55011:2011-04 Criteria A Certification for Equipment, EMC Emission EN 61000-6-2:2006-03; EN 61000-4-2:2009-12; EN 61000-4-3:2011-04; EN 61000-4-4:2013-04; EN 61000-4-5:2015-03; EN 61000-4-6:2014-08 Criteria A Certification for Equipment, EMC Immunity

DIMENSIONS inches [mm]



(M) = MEASURING SIDE

* ANTI-ROTATION HOLES, NOT TO BE USED TO SUPPORT LOAD

** FEATHER KEYWAYS APPLY TO 20 AND 50 N m PER DIN 6885, KEYWAYS COME PRE-INSTALLED

CONNECTOR CODE (CABLE PACKAGE WIRING CODE)

PIN	WIRING CODE
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TORQUE CONNECTIONS

F	POWER/RED
E	GROUND/BLACK
C	SIGNAL OUTPUT/GREEN
D	GROUND/WHITE

ANGLE CONNECTIONS

H	POWER/ORANGE
E	GROUND/BLACK
B	SIGNAL (ANGLE 1)/BLUE
G	SIGNAL (ANGLE 2)/BROWN

SHUNT CAL CONNECTIONS

K	POWER/PURPLE
A	GROUND/YELLOW

SHIELD CONNECTION

M	SHIELD (FLOATING)
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ENCODER SPECIFICATIONS

ELECTRICAL

Output	Impulse (TTL)
Pulses/Rev	2 x 360
Excitation	5 VDC
Angle 1	Leading Pulse
Angle 2	Trailing Pulse (90°)

CAPACITIES

ITEM #	in-lb	Nm	Ø D	A	B	C	E	F	G	H	I	J	K*	L	M	N**	O	P**	Q*	*** Max Axial Force lb [N]	*** Max Radial Force lb [N]	Weight lb [kg]
FSH02052	9	1	0.394 [10] g6	3.62 [92]	1.10 [28]	2.04 [52]	0.63 [16]	0.67 [17]	2.28 [58]	0.55 [14]	0.19 [5]	0.43 [11]	-	0.31 [8]	0.31 [8]	N/A	1.46 [37]	N/A	6	4.5 [20]	1 [5]	0.7 [0.30]
FSH02053	18	2																		11 [50]	1 [5]	
FSH02054	44	5																		2 [10]	2 [10]	
FSH02055	89	10	0.630 [16] g6	4.09 [104]	1.49 [38]	2.28 [58]	0.78 [20]	0.90 [23]	2.32 [59]	0.75 [19]	0.19 [5]	0.47 [12]	1.38 [35]	0.55 [14]	0.40 [10]	0.197 [5]	1.50 [38]	0.787 [20]	8	34 [150]	4.5 [20]	1.3 [0.60]
FSH02056	177	20																		7 [30]	7 [30]	
FSH02057	443	50																		45 [200]	11 [50]	

Drawing Number: FI1029-I

FUTEK reserves the right to modify its design and specifications without notice.

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RoHS



U.S. Manufacturer