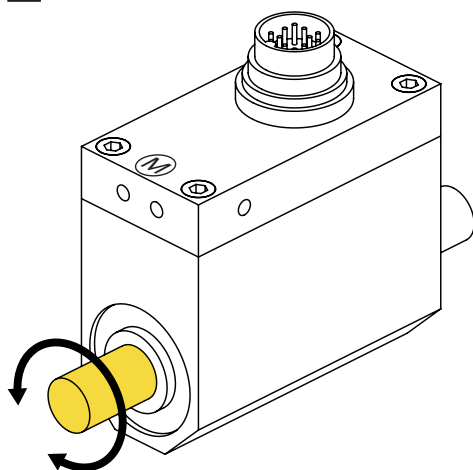




FEATURES

- Utilizes strain gauge technology
- Compact size
- Can operate up to 12000 RPM (9-89 in-lb)

 Active end



– Output (CCW)
+ Output (CW)

(M) = Measuring Side

SPECIFICATIONS

PERFORMANCE

Nonlinearity	±0.2% of RO
Hysteresis	±0.1% of RO
Nonrepeatability	±0.2% of RO
Rotational Speed	12000 Max (9-89 in-lb) 9000 Max (177-885 in-lb)

ELECTRICAL

Bandwidth	3 kHz
Typical Noise	<50 mV p-p
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)	0.6 lb [0.28 kg] (9-89 in-lb) 1.1 lb [0.50 kg] (177-443 in-lb) 2.3 lb [1.06 kg] (885 in-lb)
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Safe Overload	150% of RO
Material	Aluminum (Housing) Alloy Steel (Shaft)

IP Rating	IP40
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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

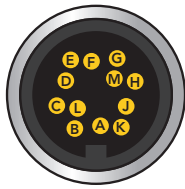
CONFORMITY

RoHS	2014/30/EU
CE	Declaration of Conformity

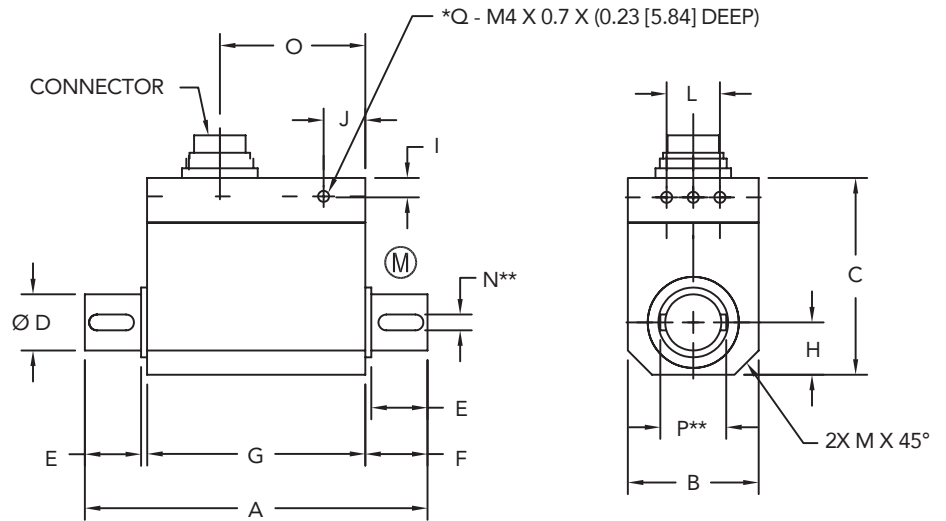
WARNING: DO NOT CONNECT OR DISCONNECT WITH THE POWER ON.

CONNECTOR CODES

PIN	COLOR	DESCRIPTION
A	Yellow	Shunt Cal (gnd)
C	Green	Signal
D	White	Return (Signal)
E	Black	Ground
F	Red	Power
K	Purple	Shunt Cal
M	Floating	Shield



DIMENSIONS inches [mm]



MASS MOMENT OF INERTIA (kg × cm²)

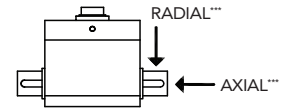
ITEM #	Measuring End	Drive End
FSH01994	0.0146	0.0147
FSH01995	0.0146	0.0147
FSH01996	0.015	0.015
FSH01997	0.015	0.015
FSH01998	0.061	0.073
FSH01999	0.062	0.075

(M) = MEASURING SIDE

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

** FEATHER KEYWAYS PER DIN 6885, KEYWAYS COME PRE-INSTALLED

*** MAXIMUM LOAD ALLOWED, NOT FOR MEASUREMENT



CAPACITIES

ITEM #	Nm [in-lb]	A	B	C	Ø D	E	F	G	H	I	J	K	L	M	N**	O	P**	Q*	*** Max Axial Force lb [N]	*** Max Radial Force lb [N]	Torsional Stiffness Nm/rad
FSH01994	1 [9]																		4.5 [20]	1 [5]	317
FSH01995	2 [18]	3.62 [92]	1.10 [28]	2.04 [52]	0.394 [10] g6	0.63 [16]	0.67 [17]	2.28 [58]	0.55 [14]	0.19 [5]	0.43 [11]	-	0.31 [8]	0.32 [8]	-	1.46 [37]	-	6	11 [50]	1 [5]	317
FSH01996	5 [44]																			2 [10]	855
FSH01997	10 [89]																			4.5 [20]	855
FSH01998	20 [177]	4.25 [108]	1.49 [38]	2.28 [58]	0.748 [19] g6	1.18 [30]	1.26 [32]	1.73 [44]	0.75 [19]	0.24 [6]	0.86 [22]	-	-	0.40 [10]	0.236 [6]	0.87 [22]	0.945 [24]	3	45 [200]	7 [30]	5450
FSH01999	50 [443]																			11 [50]	9500

Sensor Solution Source

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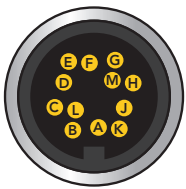
RoHS



U.S. Manufacturer

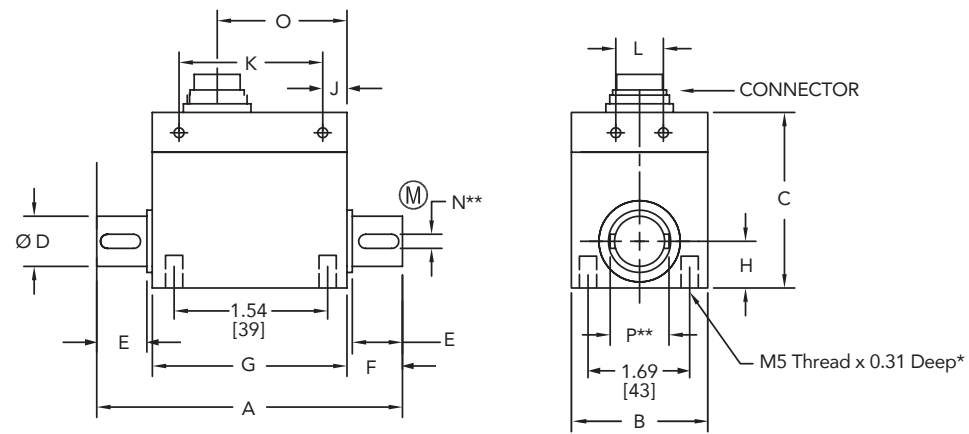
WARNING: DO NOT CONNECT OR DISCONNECT WITH THE POWER ON.

CONNECTOR CODES		
PIN	COLOR	DESCRIPTION
A	Yellow	Shunt Cal (gnd)
C	Green	Signal
D	White	Return (Signal)
E	Black	Ground
F	Red	Power
K	Purple	Shunt Cal
M	Braided	Shield connected to Chassis (for FSH02730)



DIMENSIONS inches [mm]

SPECIFICATIONS APPLY FOR FSH02730 MODEL ONLY



(M) = MEASURING SIDE
* ANTI-ROTATION HOLES. NOT TO BE USED TO SUPPORT LOAD.
** FEATHER KEYWAYS PER DIN 6885, KEYWAYS COME PRE-INSTALLED
*** MAXIMUM LOAD ALLOWED, NOT FOR MEASUREMENT

MASS MOMENT OF INERTIA (kg × cm ²)		
ITEM #	Measuring End	Drive End
FSH02730	0.665	0.605

CAPACITIES																					
ITEM #	Nm [in-lb]	A	B	C	Ø D	E	F	G	H	I	J	K	L	M	N**	O	P**	Q*	*** Max Axial Force lb [N]	*** Max Radial Force lb [N]	Torsional Stiffness Nm/rad
FSH02730	100 [885]	4.92 [125]	2.28 [58]	2.99 [76]	1.102 [28] g6	1.06 [27]	120 [30.5]	2.52 [64]	1.14 [29]	0.19 [5]	0.55 [14]	1.42 [36]	1.18 [30]	-	0.315 [8] p9	1.57 [40]	1.34 [34]	8	90 [400]	56 [250]	28600

Drawing Number: FI1406-D
FUTEK reserves the right to modify its design and specifications without notice.

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