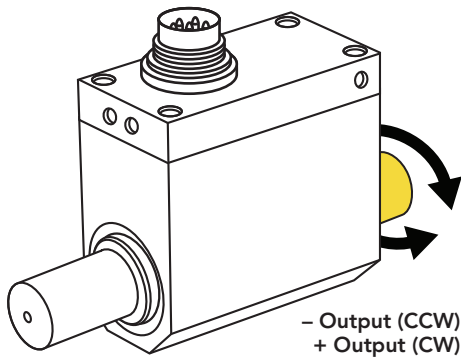




FEATURES

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

Active end



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

| | |
|-------------------------|---|
| 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) |
|----------------------|---|

| | |
|---------------|------------|
| Safe Overload | 150% of RO |
|---------------|------------|

| | |
|----------|---|
| Material | Aluminum (Housing) Alloy 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

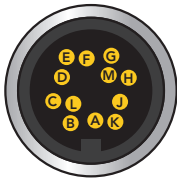
| | |
|-----------------------------|--|
| Calibration Test Excitation | 12 VDC |
| Calibration (standard) | Certificate of Conformance |
| Calibration (available) | 5-pt CW & CCW |
| Shunt Calibration Value | With sensor fully connected apply 11–26 VDC to Pins A & K to generate 5 VDC nom output |

CONFORMITY

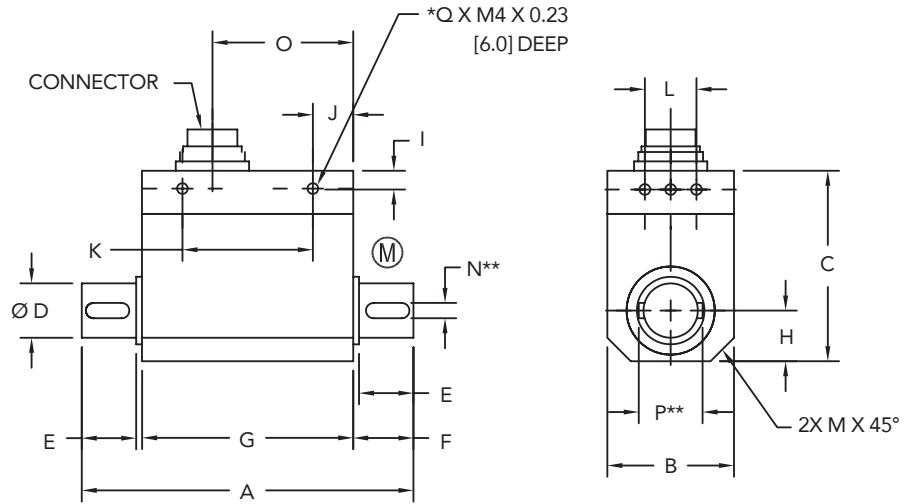
| | |
|------|---|
| RoHS | 2014/30/EU |
| CE | Declaration of Conformity |

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]

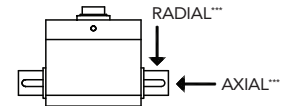


MASS MOMENT OF INERTIA (kg × cm²)

| 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



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] | | | | | | | | | | | | | | | | | | 34 [150] | 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 | 7 [30] | 5450 | |
| FSH01999 | 50 [443] | | | | | | | | | | | | | | | | | | 45 [200] | 11 [50] | 9500 |
| FSH02730 | 100 [885] | 4.92 [125] | 2.28 [58] | 2.99 [76] | 1.102 [28] g6 | 1.06 [27] | 1.20 [30.5] | 2.52 [64] | 1.14 [29] | 0.19 [5] | 0.55 [14] | 1.97 [50] | 1.18 [30] | - | 0.315 [8] p9 | 1.57 [40] | 1.34 [34] | 8 | 90 [400] | 56 [250] | |

Drawing Number: FI1406-B

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RoHS



U.S. Manufacturer