



STS Series Torque Sensors for DFS-R-ND Series

Specification Sheet
SS-FM-3025-0904
September 2004

The CHATILLON® STS Series torque sensors are full-bridge strain gauge sensors complete with 15-pin plug. These sensors are used exclusively with the Chatillon DFS-R-ND Series digital indicator. The sensor's torque values and sensitivity factors are stored in memory within the sensor plug. When connected to a DFS-R-ND indicator, the capacity and calibration points are automatically recognized by the instrument. The instrument then becomes a full-featured torque measurement instrument. The STS Series torque sensor meets ASTM E4 and BS EN ISO 7500 part 1 for a $\pm 0.25\%$ accuracy sensor. The sensors are connected to the DFS-R-ND with a retractable cord that extends fully to nearly 9 ft. (3 m).

Remote Sensors- Torque Measurement

| Model | in-oz | g-cm | in-lb | kg-cm | N-m |
|----------|------------|-------------|------------|--------------|---------------|
| STS-0003 | 50 x 0.01 | 3600 x 0.5 | 3 x 0.0005 | 3.6 x 0.0005 | 0.35 x 0.0005 |
| STS-0012 | 192 x 0.05 | 13,830 x 3 | 12 x 0.002 | 13.9 x 0.003 | 1.36 x 0.0003 |
| STS-0050 | 800 x 0.2 | 57,600 x 10 | 50 x 0.01 | 57.6 x 0.01 | 5.7 x 0.001 |
| STS-0100 | 1600 x 0.3 | - | 100 x 0.02 | 115.2 x 0.02 | 11.3 x 0.002 |
| STS-0200 | 3200 x 0.6 | - | 200 x 0.04 | 230.4 x 0.05 | 22.6 x 0.005 |

Specifications

| | |
|---------------------------|-----------------------------|
| Input Resistance: | 1100 ohms ± 100 |
| Output Resistance: | 1000 ohms ± 100 |
| Rated Output: | 2.0 mV/V |
| Safe Overload: | 150% Full Scale |
| Non-Linearity: | $\pm 0.1\%$ Full Scale |
| Hysteresis: | $\pm 0.1\%$ Full Scale |
| Zero Balance: | $\pm 1.0\%$ Full Scale |
| Operating Temp: | 30° to 120°F (-40° to 82°C) |



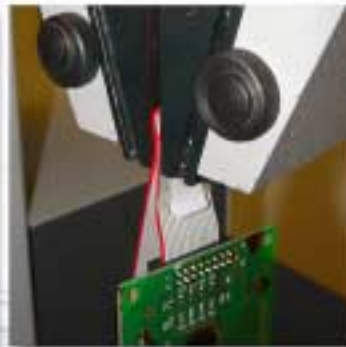
DFS-R shown with STS Series torque sensor.

Medical Devices

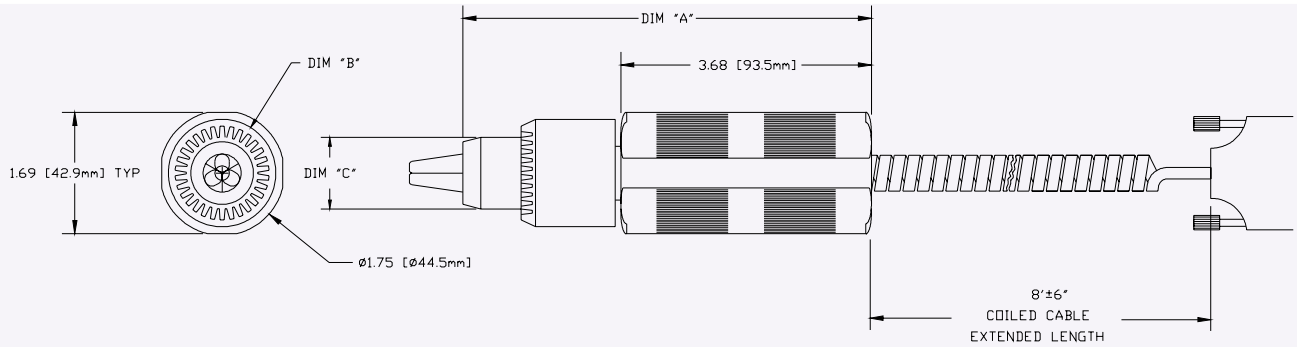
Pharmaceuticals

Springs & Components

General Purpose Force



Dimensions



| | | | | | |
|-----------|----------------|-----------------|-----------------|-------------|---------------|
| 200 IN-LB | 6.00 [152.4mm] | 0.162 [041.1mm] | 0.120 [030.5mm] | 5/64 TO 1/2 | NO |
| 100 IN-LB | 6.00 [152.4mm] | 0.162 [041.1mm] | 0.120 [030.5mm] | 5/64 TO 1/2 | NO |
| 50 IN-LB | 6.00 [152.4mm] | 0.162 [041.1mm] | 0.120 [030.5mm] | 5/64 TO 1/2 | NO |
| 12 IN-LB | 6.00 [152.4mm] | 0.162 [041.1mm] | 0.120 [030.5mm] | 5/64 TO 1/2 | YES |
| 50 OZ-IN | 5.62 [142.7mm] | 0.125 [031.8mm] | 0.100 [025.4mm] | 1/16 TO 3/8 | YES |
| CAPACITY | DIM "A" | DIM "B" | DIM "C" | SAMPLE SIZE | OVERLOAD STOP |

E96-356

AMETEK TEST AND CALIBRATION INSTRUMENTS

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