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# STS Series Torque Sensors for DFS-R-ND Series

**Specification Sheet**  
SS-FM-3025-0105  
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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      | N-cm       | in-lb      | kg-cm        | N-m            |
|----------|------------|------------|------------|--------------|----------------|
| STS-0003 | 50 x 0.001 | 35 x 0.001 | 3 x 0.0001 | 3.5 x 0.0001 | 0.35 x 0.00001 |
| STS-0012 | 192 x 0.01 | 125 x 0.01 | 12 x 0.001 | 12.5 x 0.001 | 1.25 x 0.0001  |
| STS-0050 | 800 x 0.1  | 500 x 0.01 | 50 x 0.001 | 55 x 0.001   | 5.5 x 0.0001   |
| STS-0100 | -          | 1000 x 0.1 | 100 x 0.01 | 115 x 0.01   | 11 x 0.001     |
| STS-0200 | -          | 2000 x 0.1 | 200 x 0.01 | 230 x 0.01   | 22.5 x 0.001   |



DFS-R shown with STS Series torque sensor.

### Specifications

- Input Resistance:** 1100 ohms  $\pm 100$
- Output Resistance:** 1000 ohms  $\pm 100$
- 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)

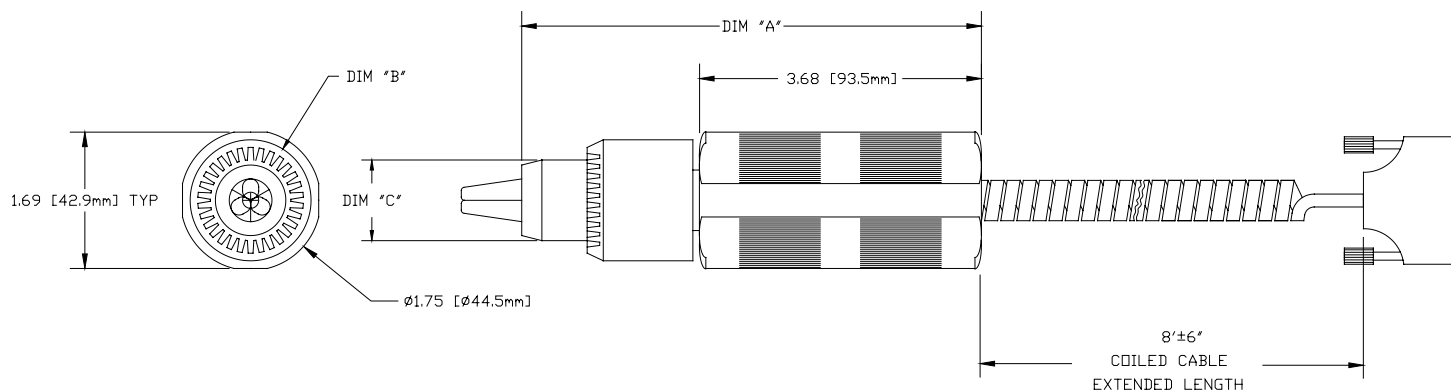


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# Dimensions - STS Torque Sensor



|           |                |                 |                 |             |               |
|-----------|----------------|-----------------|-----------------|-------------|---------------|
| 200 IN-LB | 6.00 [152.4mm] | Ø1.62 [Ø41.1mm] | Ø1.20 [Ø30.5mm] | 5/64 TO 1/2 | NO            |
| 100 IN-LB | 6.00 [152.4mm] | Ø1.62 [Ø41.1mm] | Ø1.20 [Ø30.5mm] | 5/64 TO 1/2 | NO            |
| 50 IN-LB  | 6.00 [152.4mm] | Ø1.62 [Ø41.1mm] | Ø1.20 [Ø30.5mm] | 5/64 TO 1/2 | NO            |
| 12 IN-LB  | 6.00 [152.4mm] | Ø1.62 [Ø41.1mm] | Ø1.20 [Ø30.5mm] | 5/64 TO 1/2 | YES           |
| 50 OZ-IN  | 5.62 [142.7mm] | Ø1.25 [Ø31.8mm] | Ø1.00 [Ø25.4mm] | 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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