

TRS—TORQUE TRANSDUCER



FEATURES

- Ratings 0.5—1000Nm
- Sealed to IP40.
- Accuracy $\pm 0.2\%$ FS.

APPLICATIONS

- Test Machines
- Process Control.

DESCRIPTION

The TQ-TRS provides a small device for measuring torsion. The TRS is produced from stainless steel construction.

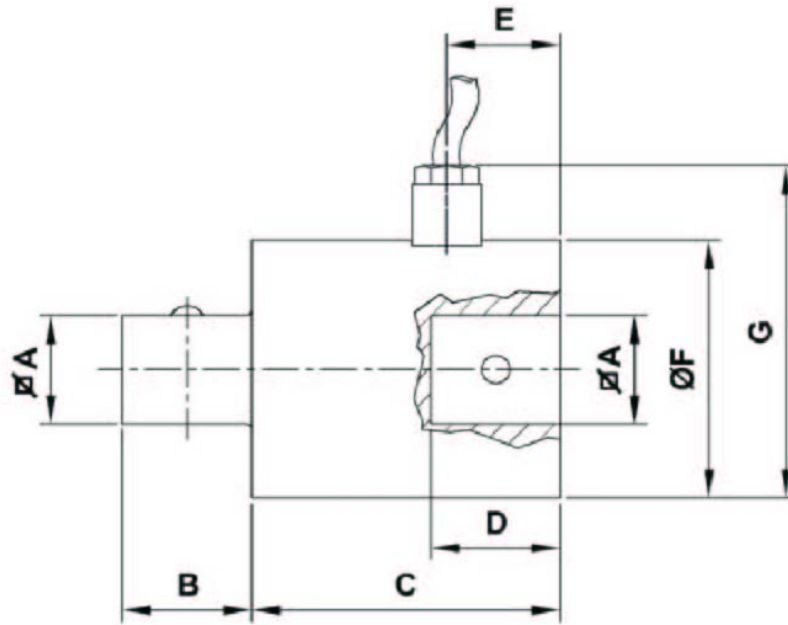
The load cell has been designed for test rig applications where static and dynamic measurement is required.

TYPICAL SPECIFICATION

| PARAMETER | VALUE | UNITS |
|--|---|--------------------------------|
| Static Torque | 0.. 0.5, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 | Nm |
| Rated Output | 0.5-25Nm = 1mV/V $\pm 0.5\%$ 50-1000Nm = 2mV/V $\pm 0.5\%$ | mV/V |
| Linearity & Hysteresis | $\pm 0.2\%$ | $\pm\%$ of Rated Output |
| Zero Return after 30 minutes | 0.1 | $\pm\%$ of Applied Load |
| Zero Balance | ± 0.5 | % |
| Temperature Range: Operating Temperature Range: Compensated | -10 to +70 -10 to +40 | $^{\circ}\text{C}$ |
| Temperature Effect: On Output Temperature Effect: On zero | 0.02 0.02 | $\pm\%$ of FS $\pm\%$ of FS |
| Safe Overload | 150 | % of Rated Capacity |
| Ultimate Overload | 300 | % of Rated Capacity |
| Excitation: Recommended Excitation: Maximum | 10 15 | Volts DC |
| Input Resistance | 440 nom | Ohms |
| Output Resistance | 350 nom | Ohms |
| Insulation Resistance | >2 | G Ω at 50VDC |
| Deflection at Rated Capacity | NA | mm |
| Weight (approximate) : | NA | kg |
| Construction | Stainless Steel | |
| Environmental Protection | NA | |
| Cable | 5m 4 core screened | |

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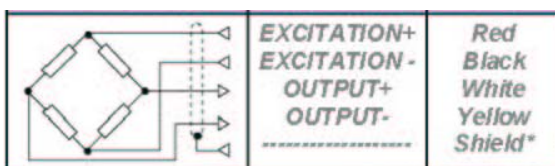
OUTLINE DIMENSIONS in millimeters



| CODE | LOAD | ∅A | B | C | D | E | F | G |
|-----------|---------|------|------|------|----|------|----|----|
| MTRS05NM | 0.5 Nm | 1/4" | 7.5 | 44 | 8 | 10 | 45 | 59 |
| MTRS2.5NM | 2.5 Nm | 1/4" | 7.5 | 44 | 8 | 10 | 45 | 59 |
| MTRS5NM | 5 Nm | 1/4" | 7.5 | 44 | 8 | 10 | 45 | 59 |
| MTRS10NM | 10 Nm | 1/4" | 7.5 | 44 | 8 | 10 | 45 | 59 |
| MTRS25NM | 25 Nm | 3/8" | 10.5 | 44 | 11 | 10 | 45 | 59 |
| MTRS50NM | 50 Nm | 3/8" | 10.5 | 44 | 11 | 10 | 45 | 59 |
| MTRS100NM | 100 Nm | 1/2" | 15.0 | 44 | 16 | 10 | 45 | 59 |
| MTRS250NM | 250 Nm | 1/2" | 15.0 | 44 | 16 | 10 | 45 | 59 |
| MTRS500NM | 500 Nm | 3/4" | 22.5 | 53.5 | 24 | 19.5 | 51 | 65 |
| MTRS1KNM | 1000 Nm | 3/4" | 22.5 | 53.5 | 24 | 19.5 | 51 | 65 |

NOTE: If the dimensions or specification do not suit, PCM have an in-house design and build service that should satisfy your requirements.

WIRING DETAIL



LOADING MODE

