# Model T15 Hex Drive Rotary Torque Transducer

## Why the Interface model T15 Hex Drive Rotary Torque Transducer is the best in class:

- **Capacities from 0.2 to 20 Nm (1.77 to 177 lbf-in)**
- **Contactless - no slip rings**
- **High-level ±5V output**
- **12-28V supply**
- **Angle measurement option**
- **Quick-Connect chuck**


*T15 Hex Drive Rotary Torque Transducer*

## OPTIONS

Angle Measurement - 360 Pulse TTL, 2-Tracks 90˚ Offset
±10 V Torque Output
Enhanced Accuracy - Combined Error ±0.1%
RS485 Output (Uses 12-pin connector, replaces ±5 V)

## SPECIFICATIONS

| ACCURACY – (MAX ERROR) | Standard | Enhanced |
|---|---|---|
| Combined Error–% FS | ±0.25 | ±0.1 |
| Nonrepeatability–% | ±0.05 | ±0.02 |
| **TEMPERATURE** | | |
| Effect on Zero–% RO/˚C | ±0.05 | ±0.02 |
| Effect on Output–%/˚C | ±0.02 | ±0.01 |
| Rated Range–˚C | +5 to +45 | +5 to +45 |
| Operating Range–˚C | 0 to +60 | 0 to +60 |
| **ELECTRICAL** | | |
| Output–VDC | ±5 | ±5 |
| Bandwidth, Hz | 1 kHz-3dB | 3 kHz-3dB |
| Calibration Signal–% RO | 100 | 100 |
| Supply Voltage–VDC | 12 to 28 | 12 to 28 |
| Supply Current–mA | 60 | 60 |
| Electrical Connection | 8-pin | 8-pin |
| **MECHANICAL** | | |
| Safe Overload–% RO | 200 | 200 |
| Cyclic Load Rating–% RO | ±70 peak | ±70 peak |
| Max Speed - rpm | See table | See table |
| Housing | Aluminum | Aluminum |

## T15 HEX DRIVE ROTARY TORQUE TRANSDUCER PERFORMANCE PARAMETERS

| CAPACITY (Nm) | HEXAGON (INCH) | MAX RPM | SPRINGRATE (Nm/rad) | MOMENT OF INERTIA (Kgxm²) | | MAX. THRUST LOAD (N) |
|---|---|---|---|---|---|---|
| | | | | Drive Side | Test Side | |
| 0.1 | 0.25 | 3,000 | 1.0 | $2.5x10^{-6}$ | $2.9x10^{-7}$ | 15 |
| 0.2 | 0.25 | 3,000 | 1.0 | $2.5x10^{-6}$ | $2.9x10^{-7}$ | 20 |
| 0.5 | 0.25 | 3,000 | 5.8 | $2.5x10^{-6}$ | $2.9x10^{-7}$ | 30 |
| 1 | 0.25 | 4,000 | $2.3x10^{2}$ | $2.6x10^{-6}$ | $3.0x10^{-7}$ | 40 |
| 2 | 0.25 | 4,000 | $2.9x10^{2}$ | $2.6x10^{-6}$ | $3.0x10^{-7}$ | 50 |
| 5 | 0.25 | 4,000 | $4.6x10^{2}$ | $2.6x10^{-6}$ | $3.1x10^{-7}$ | 50 |
| 10 | 0.25 | 4,000 | $5.2x10^{2}$ | $2.6x10^{-6}$ | $3.3x10^{-7}$ | 50 |
| 15 | 0.25 | 4,000 | $5.2x10^{2}$ | $2.6x10^{-6}$ | $3.3x10^{-7}$ | 100 |
| 20 | 0.25 | 4,000 | $5.2x10^{2}$ | $2.6x10^{-6}$ | $3.3x10^{-7}$ | 100 |

### T15 Hex Drive Rotary Torque Transducer -

Capacities 0.2 to 20 Nm

## DIMENSIONS

| Nominal Torque | | | | | | | |
|---|---|---|---|---|---|---|---|
| Capacity (Nm) | 0.2 | 0.5 | 1 | 2 | 5 | 10 | 20 |
| Equivalent (lb-in) | 1.77 | 4.43 | 8.85 | 17.7 | 44.3 | 88.5 | 177 |
| See Drawing | | | | | | | |