

T15 HEX DRIVE ROTARY TORQUE TRANSDUCER (US & METRIC)

FEATURES & BENEFITS

- Capacities from 0.2 to 20 Nm (1.77 to 177 lbf-in)
- Contactless - no slip rings
- High-level $\pm 5V$ output
- 12-28V supply
- Bearingless non-contact design
- Angle measurement option
- Quick-Connect chuck
- 16-bit resolution

SPECIFICATIONS

		STANDARD	ENHANCED
ACCURACY – (MAX ERROR)			
Combined Error – %FS		± 0.25	± 0.1
Non-repeatability – %		± 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	
	°F	+41 to +113	
Operating Range	°C	0 to +60	
	°F	+32 to +140	
ELECTRICAL			
Output – VDC		± 5	
Bandwidth – kHz – dB		1 –3	3 –3
Calibration Signal – % RO		100	
Supply Voltage – VDC		+12 to +28	
Supply Current – mA		60	
Electrical Connection – pin		8	
MECHANICAL			
Safe Overload – %RO		200	
Max Speed – rpm		See table	
Material		Aluminum	

ELECTRICAL CONNECTION

8-PIN T12 ELECTRICAL CONNECTION		
PIN	FUNCTION	DESCRIPTION
1	Supply (+)	12-28 VDC
2	Supply (GND)	0 VDC, TTL
3	Signal (+)	+5 VDC
4	Signal (GND)	0 VDC
5	Cal. Control	L < 2.0V / H > 3.5V
6	Option Angle A	TTL
7	Option Angle B	TTL
8	NC	–

STANDARD CONFIGURATION



MODEL T15 (Shown)

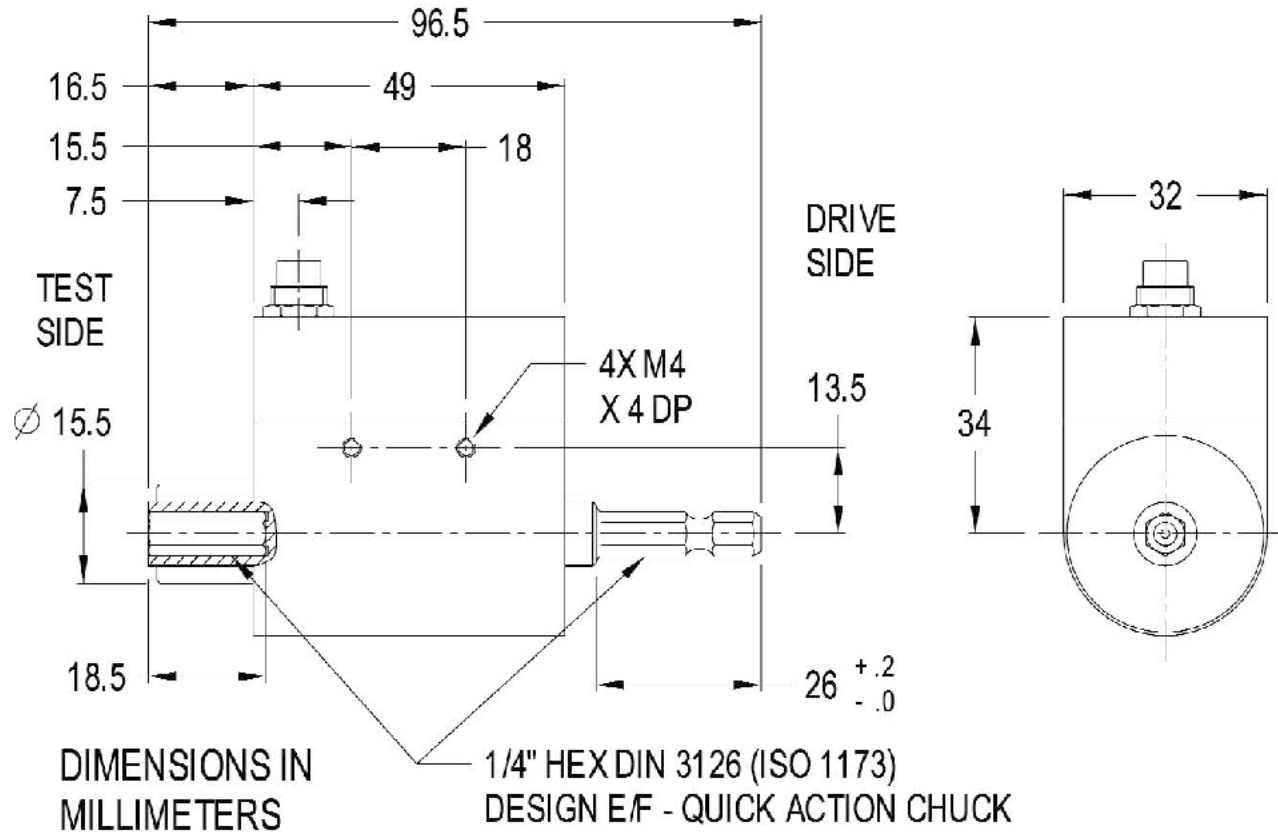
OPTIONS

- Angle measurement - 360 pulse TTL, 2-tracks 90° offset
- +10V torque output
- Enhanced accuracy - combined error +0.1%
- RS485 Output (Uses 12-pin connector, replaces +5 V)

T15 HEX DRIVE ROTARY TORQUE TRANSDUCER (US & METRIC)

PERFORMANCE PARAMETERS

CAPACITY		Hexagon		MAX RPM	SPRING RATE	MOMENT OF INERTIA – (Kg•m ²)		MAX THRUST LOAD	
Nm	lbf-in	mm	in			NM/rad	Drive Side	Test Side	N
0.1	0.89	6.35	0.25	3,000	1.0	2.5x10 ⁻⁶	2.9x10 ⁻⁷	15	3.37
0.2	1.77	6.35	0.25	3,000	1.0	2.5x10 ⁻⁶	2.9x10 ⁻⁷	20	4.5
0.5	4.43	6.35	0.25	3,000	5.8	2.5x10 ⁻⁶	2.9x10 ⁻⁷	30	6.74
1	8.85	6.35	0.25	4,000	2.3x10 ²	2.6x10 ⁻⁶	3.0x10 ⁻⁷	40	8.99
2	17.7	6.35	0.25	4,000	2.9x10 ²	2.6x10 ⁻⁶	3.0x10 ⁻⁷	50	11.2
5	44.3	6.35	0.25	4,000	4.6x10 ²	2.6x10 ⁻⁶	3.1x10 ⁻⁷	50	11.2
10	88.5	6.35	0.25	4,000	5.2x10 ²	2.6x10 ⁻⁶	3.3x10 ⁻⁷	50	11.2
15	133	6.35	0.25	4,000	5.2x10 ²	2.6x10 ⁻⁶	3.3x10 ⁻⁷	100	22.5
20	177	6.35	0.25	4,000	5.2x10 ²	2.6x10 ⁻⁶	3.3x10 ⁻⁷	100	22.5



DIMENSIONS

See Drawing	CAPACITY						
Metric (Nm)	0.2	0.5	1	2	5	10	20
U.S. (lbf-in)	1.77	4.43	8.85	17.7	44.3	88.5	177