

## 5500 CALIBRATION GRADE REACTION TORQUE TRANSDUCER (U.S. & METRIC)

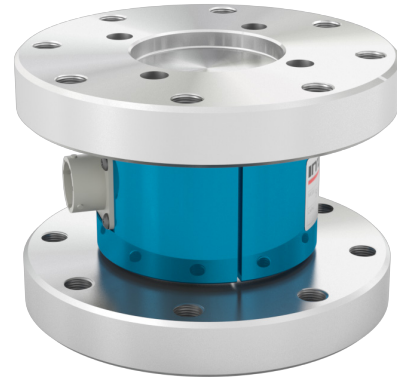
### FEATURES & BENEFITS

- Capacities from 2K to 300K lbf-in (220 to 33K Nm)
- High torsional stiffness
- Flange to flange mounting
- Low deflection
- Low overhang moment sensitivity
- Low axial force sensitivity

### OPTIONS

- ASTM E2428 Calibration (Some limitations apply, consult factory)
- Mating connector
- Mating cable

### STANDARD CONFIGURATION



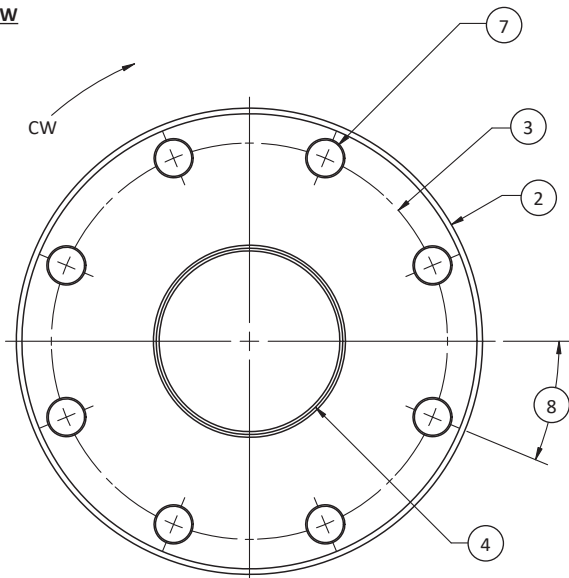
MODEL 5500 (Shown)

### SPECIFICATIONS

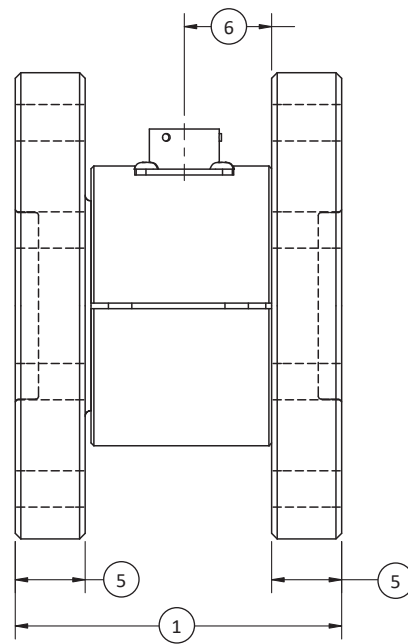
PARAMETERS	MODEL										
	5510		5511		5512		5513		5514		
	CAPACITY										
	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	
	2K, 5K	220, 550	10K, 20K	1.1K, 2.2K	50K, 100K	5.5K, 11K	200K	22K	300K	33K	
ACCURACY – (MAX ERROR)											
Nonlinearity – %FS	±0.05		±0.05		±0.05		±0.05		±0.05		
Hysteresis – %FS	±0.04		±0.04		±0.04		±0.04		±0.04		
Nonrepeatability – %RO	±0.01		±0.01		±0.01		±0.01		±0.01		
TEMPERATURE											
Compensated Range	°F	+50 to +150		+50 to +150		+50 to +150		+50 to +150		+50 to +150	
	°C	+10 to +65		+10 to +65		+10 to +65		+10 to +65		+10 to +65	
Operating Range	°F	-65 to +200		-65 to +200		-65 to +200		-65 to +200		-65 to +200	
	°C	-54 to +93		-54 to +93		-54 to +93		-54 to +93		-54 to +93	
Effect on Zero – %RO / deg	°F	±0.0008		±0.0008		±0.0008		±0.0008		±0.0008	
	°C	±0.0015		±0.0015		±0.0015		±0.0015		±0.0015	
Effect on Output – % / deg	°F	±0.001		±0.001		±0.001		±0.001		±0.001	
	°C	±0.002		±0.002		±0.002		±0.002		±0.002	
ELECTRICAL											
Rated Output – mV/V (Nominal)	2.0		2.0		2.0		2.0		2.0		
Excitation Voltage – VDC MAX	20		20		20		20		20		
Bridge Resistance – Ohm (Nominal)	700		700		700		700		700		
Electrical Connection	PT02E-12-8P		PT02E-12-8P		PT02E-12-8P		PT02E-12-8P		PT02E-12-8P		
MECHANICAL											
Safe Overload – %CAP	±150		±150		±150		±150		±150		
Deflection at Capacity – rad	0.005		0.004		0.006, 0.005		0.006		0.005		
Overhang Moment MAX	U.S. (lbf-in)	1K, 2K		5K, 10K		24K, 50K		90K		150K	
	Metric (Nm)	113, 226		565, 1.13K		2.71K, 5.65K		10.2K		16.9K	
Side load MAX	U.S. (lbf)	1.5K, 2K		4K, 6.5K		12K, 20K		30K		42K	
	Metric (kN)	6.67, 8.9		17.8, 28.9		53.4, 89		133		187	
Axial load MAX	U.S. (lbf)	2K, 3K		6K, 10K		18K, 30K		40K		60K	
	Metric (kN)	8.9		26.7, 44.5		80.1, 133		178		267	
Material	Alloy steel		Alloy steel		Alloy steel		Alloy steel		Alloy steel		

## 5500 CALIBRATION GRADE REACTION TORQUE TRANSDUCER (U.S. & METRIC)

TOP VIEW



SIDE VIEW



### DIMENSIONS

See Drawing	MODEL					
	5510		5511		5514	
	CAPACITY					
	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)
	2K, 5K	220, 550	10K, 20K	1.1K, 2.2K	300K	33K
	in	mm	in	mm	in	mm
(1)	3.0	76.2	3.5	88.9	10.5	266.7
(2)	∅ 4.0	∅ 101.6	∅ 5.0	∅ 127.0	∅ 14.0	∅ 355.6
(3)	∅ 3.25	∅ 82.55	∅ 4.25	∅ 107.95	∅ 11.0	∅ 279.4
(4)	∅ 1.5 +0.002, -0.00 ∩ 0.13	∅ 38.1 +0.05, -0.00 ∩ 3.3	∅ 2.0 +0.002, -0.00 ∩ 0.25	∅ 50.8 +0.05, -0.00 ∩ 6.4	∅ 6.0 +0.002, -0.00 ∩ 0.31	∅ 152.4 +0.05, -0.00 ∩ 7.9
(5)	0.5	12.7	0.75	19.1	2.0	50.8
(6)	0.94	23.9	0.94	23.9	3.5	88.9
(7)	8x ∅ 0.328	8x ∅ 8.33	8x ∅ 0.39	8x ∅ 9.91	8x ∅ 1.031	8x ∅ 26.19
(8)	22.5 °		22.5 °		22.5 °	
*1	5/16 - 24	M8 x 1.25	3/8 - 24	M10 x 1.5	1 - 12	M24 x 3
*2	300	34	600	68	9000	1000

\*1 - Recommended mounting screw size

\*2 - Recommended mounting torque – lbf-in/Nm

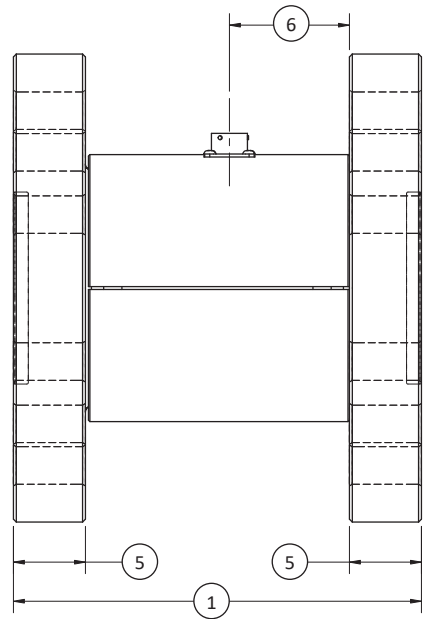
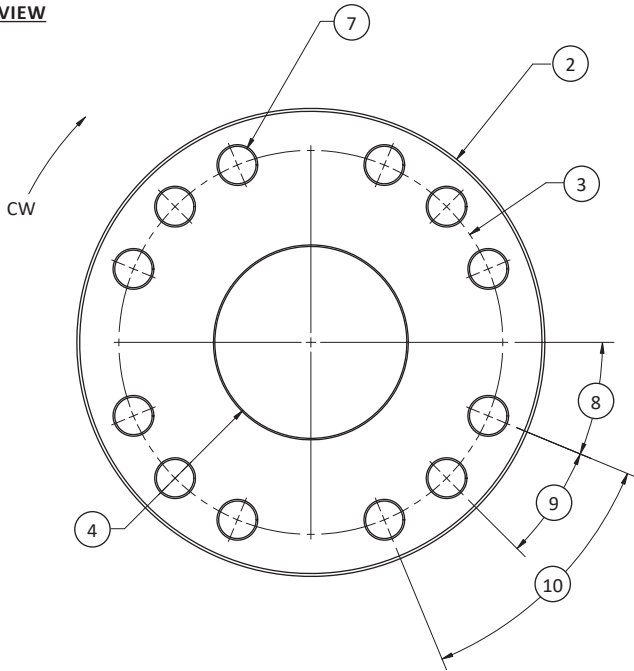
Datasheet 5500 v2.4 02-01-2021

International System of Units (SI) dimensions and capacities are provided for conversion only. Standard products have U.S. capacities and dimensions. SI capacities available upon special request and at an additional cost.

## 5500 CALIBRATION GRADE REACTION TORQUE TRANSDUCER (U.S. & METRIC)

TOP VIEW

SIDE VIEW



### DIMENSIONS

CAPACITY	5512		5513	
	U.S. (lbf-in)	Metric (Nm)	U.S. (lbf-in)	Metric (Nm)
	50K, 100K	5.5K, 11K	200K	22K
	in	mm	in	mm
(1)	7.38	187.5	8.5	219.5
(2)	∅ 8.0	∅ 203.2	∅ 9.75	∅ 247.65
(3)	∅ 6.5	∅ 165.1	∅ 8.0	∅ 203.2
(4)	∅ 3.5 +0.002, -0.00 ↓ 0.31	∅ 88.9 +0.05, -0.00 ↓ 7.9	∅ 4.0 +0.002, -0.00 ↓ 0.31	∅ 101.6 +0.05, -0.00 ↓ 7.9
(5)	1.5	38.1	1.5	38.1
(6)	2.5	63.5	2.5	63.5
(7)	12x ∅ 0.65	12x ∅ 16.51	12x ∅ 0.781	12x ∅ 19.8
(8)	22.5 °		22.5 °	
(9)	4x 22.5 °		4x 22.5 °	
(10)	8x 45 °		8x 45 °	
*1	⅜ - 18	M16 x 2	⅜ - 16	M20 x 2.5
*2	2400	270	4400	500

\*1 - Recommended mounting screw size

\*2 - Recommended mounting torque – lbf-in/Nm