

## MRT MINIATURE REACTION TORQUE TRANSDUCER (U.S. & METRIC)

### FEATURES & BENEFITS

- Low capacity – 0.2 to 20 Nm (1.77 to 177 lbf-in)
- Proprietary Interface temperature compensated strain gages
- Small size – 41 x 33 mm (1.6 in OD x 1.25 in)
- Excellent linearity & repeatability
- Low deflection – high torsional stiffness

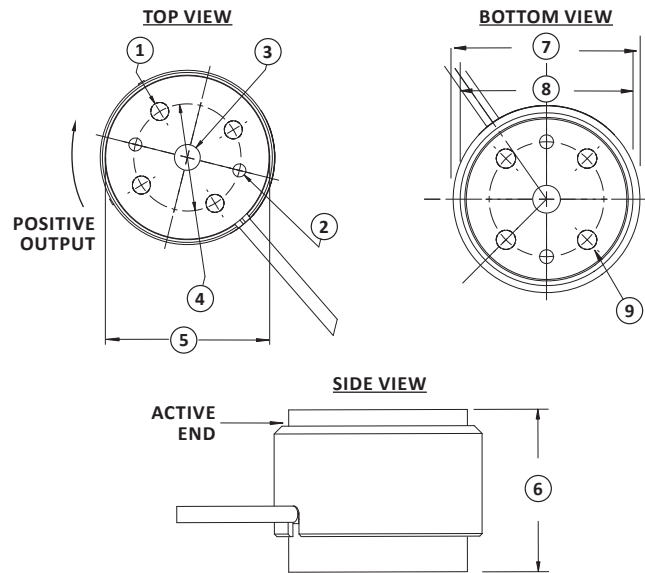
### SPECIFICATIONS

ACCURACY – (MAX ERROR)		
Nonlinearity – %FS		± 0.10
Hysteresis – %FS		± 0.10
Nonrepeatability – %RO		± 0.05
Creep, in 20 min – %		± 0.10
TEMPERATURE		
Effect on Zero – %RO / deg	°F	±0.20
Effect on Output – % / deg	°F	±0.001
Compensated Range	°C	-10 to +45
	°F	+15 to +115
Operating Range	°C	-55 to +90
	°F	-65 to +200
ELECTRICAL		
Rated Output – mV/V		2.00 ± 0.30
Zero Balance – %RO		±1.0
Input Resistance – Ohms		700 +100/-7
Output Resistance – Ohms		700 ±7
Insulation Resistance – Megohm		> 5000
Excitation – VDC NOM		10
Excitation – VDC MAX		20
MECHANICAL		
Overload:		
Safe Torsion – %CAP		±150
Ultimate Torsion – %CAP		±400
Safe Side Load	N	13, 110, 160, 280, 400
	lbf	3, 25, 36, 63, 90
Safe Overhung Moment – %CAP		100
Safe Mounting Torque	Nm	0.3, 3, 5, 6, 9
	lbf-in	2.7, 27, 44, 55, 80
Deflection at Capacity – Radian		0.007, 0.003, 0.003, 0.003, 0.003
Cable Length	m	1.5
	ft	5
Material		Aluminum

### STANDARD CONFIGURATION



MODEL MRT (Shown)



### DIMENSIONS

See Drawing	CAPACITY	
	Metric (Nm)	U.S. (lbf-in)
	0.2, 2, 5, 10, 20	1.77, 17.7, 44, 89, 177
	mm	in
(1)	M5x0.8 - 6H x √ 5.1	M5x0.8 - 6H x √ 0.20
(2)	∅3.02 <sup>+0.03</sup> √ 3.0	∅0.119 <sup>+0.001</sup> √ 0.12
(3)	∅6.02 <sup>+0.03</sup> THRU	∅0.237 THRU
(4)	∅25.0	∅0.984
(5)	∅34.93	∅1.375
(6)	31.8	1.25
(7)	40.6	1.60
(8)	38.1	1.50
(9)	M5x0.8 - 6H x √ 5.1	M5x0.8 - 6H x √ 0.20

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.