

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

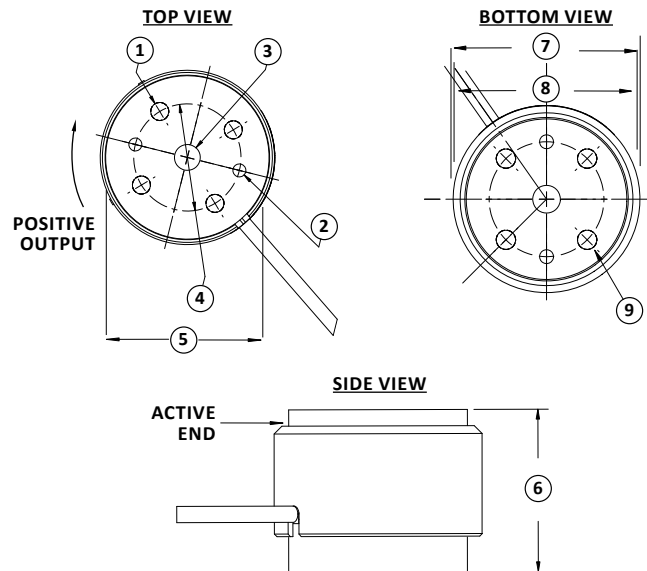
SPECIFICATIONS

ACCURACY – (MAX ERROR)		
Nonlinearity – %FS		± 0.10
Hysteresis – %FS		± 0.10
Non-repeatability – %RO		± 0.05
Creep, in 20 min – %		± 0.10
TEMPERATURE		
Effect on Zero – %RO / 100F°		±0.20
Effect on Output – % / 100F°		±0.10
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
	in-lbf	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)	M5 x 0.8 - 6H x \downarrow 5.1	M5x0.8 - 6H x \downarrow 0.20
(2)	\varnothing 3.02 ^{+0.03}	\varnothing 0.119 ^{+0.001}
(3)	\varnothing 6.02	\varnothing 0.237 thru
(4)	\varnothing 24.99	\varnothing 0.984
(5)	\varnothing 34.95	\varnothing 1.375
(6)	31.8	1.25
(7)	40.6	1.60
(8)	38.1	1.50
(9)	M5x0.8 - 6H x \downarrow 5.1	M5x0.8 - 6H x \downarrow 0.20

* U.S. dimensions and capacities are provided for conversion only. Standard product will be sold in kN and Metric dimensions. U.S. capacities available upon special request and at an additional cost.