

Model 5400 Series Flange Style Reaction Torque Transducer

- Capacities from 110 Nm to 55 kNm (1K to 500K lb-in)
- High torsional stiffness
- Flange mount
- Low deflection



SPECIFICATIONS

PARAMETERS	MODEL				
	5410	5411	5412	5413	5414
	CAPACITY				
Capacity (lb-in)	1K, 2K, 5K	10K, 20K	50K, 100K	200K	300K, 500K
(Nm)	110, 220, 550	1.1k, 2.2k	5.5k, 11k	22k	33k, 55k
ACCURACY – (MAX ERROR)					
Nonlinearity-% FS	±0.1	±0.1	±0.1	±0.1	±0.1
Combined Error-% FS	±0.1	±0.1	±0.1	±0.1	±0.1
Nonrepeatability-% RO	±0.02	±0.02	±0.02	±0.02	±0.02
TEMPERATURE					
Compensated Range-°F	+70 to +170	+70 to +170	+70 to +170	+70 to +170	+70 to +170
Compensated Range-°C	+21 to +77	+21 to +77	+21 to +77	+21 to +77	+21 to +77
Operating Range-°F	-65 to +200	-65 to +200	-65 to +200	-65 to +200	-65 to +200
Operating Range-°C	-54 to +93	-54 to +93	-54 to +93	-54 to +93	-54 to +93
Effect on Zero-%RO/°F-MAX	±0.002	±0.002	±0.002	±0.002	±0.002
Effect on Zero-%RO/°C-MAX	±0.004	±0.004	±0.004	±0.004	±0.004
Effect on Output-%/°F-MAX	±0.002	±0.002	±0.002	±0.002	±0.002
Effect on Output-%/°C-MAX	±0.004	±0.004	±0.004	±0.004	±0.004
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)	350	350	350	350	350
Electrical Connection	MS3102E-14S-5P	MS3102E-14S-5P	MS3102E-14S-5P	MS3102E-14S-5P	MS3102E-14S-5P
MECHANICAL					
Safe Overload-% CAP	±150	±150	±150	±150	±150
Deflection at Capacity-rad	.005	.004	.006, .005	.006	.005
Overhung Moment-lb-in MAX	500, 1K, 2K	5K, 10K	24K, 50K	90K	150K, 200K
Side load-lbf MAX	1K, 1.5K, 2K	4K, 6.5K	12K, 20K	30K	42K, 55K
Axial load-lbf MAX	1.5K, 2K, 3K	6K, 10K	18K, 30K	40K	60K, 80K

DIMENSIONS

MODEL	5410		5411		5412		5413		5414	
Capacity	lb-in	Nm	lb-in	Nm	lb-in	Nm	lb-in	Nm	lb-in	Nm
		1K, 2K, 5K	110, 220, 550	10K, 20K	1.1k, 2.2k	50K, 100K	5.5k, 11k	200K	22k	300K, 500K
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
(1)	3.00	76.2	3.50	88.9	7.38	187.5	8.50	215.9	10.50	266.7
(2)	4.00	101.6	5.00	127.0	8.00	203.2	9.75	247.7	14.00	355.6
(3)	3.25	82.6	4.25	108.0	6.50	165.1	8.00	203.2	11.00	279.4
(4)	1.500	38.10	2.000	50.80	3.500	88.90	4.000	101.60	6.000	152.40
(5)	0.13	3.3	0.25	6.4	0.31	7.9	0.31	7.9	0.31	7.9
(6)	0.50	12.7	0.75	19.1	1.50	38.1	1.50	38.1	2.00	50.8
(7)	0.328	8.33	0.390	10.41	0.650	16.51	0.781	20.65	1.031	24.64
Recommended mtg screw size	.313 - 24	M8 x 1.25	.375 - 24	M10 x 1.5	.625 - 18	M16 x 2	.750 - 16	M20 x 2.5	1.000 - 12	M24 x 3
Recommended mtg torque (lb-in) (Nm)	300	34	600	68	2400	270	4400	500	9000	1000

