

# Model 5400 Series Flange Style Reaction Torque Transducer



5412 50K Reaction Torque Transducer

Why the Interface model 5400 Series Flange Style Reaction Torque Transducer is the best in class:

- Capacities from 226 to 565K Nm (2K to 500K lb-in)
- High torsional stiffness
- Flange mount
- Low deflection

## SPECIFICATIONS

PARAMETERS	MODEL				
	5410	5411	5412	5413	5414
Capacity (lb-in)	CAPACITY				
Equivalent (Nm)	2K, 5K	10K, 20K	50K, 100K	200K	300K, 500K
	226, 565	1.13K, 2.26K	5.6K, 11K	23K	34K, 56K
<b>ACCURACY – (MAX ERROR)</b>					
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
<b>TEMPERATURE</b>					
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
<b>ELECTRICAL</b>					
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
<b>MECHANICAL</b>					
Safe Overload-% CAP	±150	±150	±150	±150	±150
Deflection at Capacity/rad	.005	.004	.006, .005	.006	.006, .005
Overhung Moment-lb-in MAX	1K, 2K	5K, 10K,	24K, 50K	90K	150K, 200K
Shear-lb MAX	1.5K, 2K	4K, 6.5K	12K, 20K	30K	42K, 55K
Thrust-lb MAX	2K, 3K	6K, 10K	18K, 30K	40K	60K, 80K

5400 Series Flange Style Reaction Torque Transducer

**DIMENSIONS**

Model	5410		5411		5412		5413		5414	
Capacity (lb-in)	2K, 5K		10K, 20K		50K, 100K		200K		300K, 500K	
Equivalent (Nm)	226, 565		1.13K, 2.26K		5.6K, 11K		23K		34K, 56K	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
①	3.00	76.2	3.50	88.9	7.38	187	8.50	216	10.5	267
②	4.00	102	5.00	127	8.00	203	9.75	248	14.0	356
③	3.25	82.6	4.25	108	6.50	165	8.00	203	11.0	279
④	1.50	38.1	2.00	51	3.50	88.9	4.00	102	6.00	152
⑤	0.13	3.30	0.25	6.35	0.31	7.87	0.31	7.87	0.31	7.87
⑥	0.50	12.7	0.75	19.5	1.50	38.1	1.50	38.1	2.00	50.8
⑦	0.33	8.38	0.39	9.90	0.65	16.5	0.77	19.6	1.02	25.9

