

Comparison of 200% Overload NexGen Ultra Precision Torque Sensors with Earlier Shaft Models

		MCRT®48600V Series	MCRT®49000VB	MCRT®48000VB	MCRT®29000TB	MCRT®28000TB
Specifications	Torque Ratings (ozf-in)	10 to 200 ●	10 to 200 ●	100 to 400 ●	10 to 200 ●	100 to 400 ●
	Overload (% of Range)	1,000 to 200 ●	400 ●	200 ◐	400 ●	200 ◐
	Available Speed Ratings (rpm) - Code N/Code H	15,000 / 25,000 ●	15,000 / 25,000 ●	15,000 / 25,000 ●	15,000 / 25,000 ●	15,000 / 25,000 ●
	Combined Error (% of Rating) - Code N/Code C*	≤±0.1% / ≤±0.05% ●	≤±0.1% / NA ◐	≤±0.1% / NA ◐	≤±0.1% / NA ◐	≤±0.1% / NA ◐
	Nonrepeatability (% of Rating) - Code N/Code C*	≤±0.03 / ≤±0.02 ●	≤±0.05 / NA ◐	≤±0.05 / NA ◐	≤±0.05 / NA ◐	≤±0.05 / NA ◐
	Zero Drift (% of Rating /°F) - Code N/ Code C*	≤±0.002 / ≤±0.002 ●	≤±0.003 / NA ◐	≤±0.003 / NA ◐	≤±0.002 / NA ◐	≤±0.002 / NA ◐
	48 Hour Drift (% of Rating) - Code N/ Code C*	≤±0.04 / ≤±0.04 ●	Not Specified	Not Specified	Not Specified	Not Specified
Outputs	Power Calculation* Rate (Calculations/Second)	7,800	Not Available	Not Available	Not Available	Not Available
	Torque Analog Out (Volt)	±10 or ±5	±5	±5	±1.5mV/V Torque Only	±1.5mV/V Torque Only
	Speed* Analog Out (Volt)	+10 or +5	Pulse Train Only*	Pulse Train Only*	Pulse Train Only*	Pulse Train Only*
	Power* Analog Out (Volt)	±10 or ±5	Not Available	Not Available	Not Available	Not Available
	Overrange (% of Range)	150	Not Specified	Not Specified	Not Specified	Not Specified
	Torque, Speed*, Power* Digital Out	RS232, RS422, RS485	Not Available	Not Available	Not Available	Not Available
	Signal Filters	13: 0.1 to 1000 Hz ●	2: 1 & 500 Hz ◐	2: 1 & 500 Hz ◐	Not Available	Not Available
	Max/Min Capture Time (µS)	128	Not Available	Not Available	Not Available	Not Available
Features	Classify User Settable Limits	Yes	Not Available	Not Available	Not Available	Not Available
	Selectable Units/Measure Without Recalibration	33	Not Available	Not Available	Not Available	Not Available
	Rotor Side Torque Bridge Shunt Calibration	Yes	No	No	No	No
	Bipolar Calibration Circuitry	Yes	No	No	Yes	Yes
	Foot Mount - Option F*	Standard	Standard	Standard	Yes	Yes
Mechanical Characteristics	Shaft Stiffness (ozf-in/rad)	3,000 o 9,470	1,540 to 19,050	7,660 to 19,050	1,540 to 19,050	7,660 to 19,050
	Rotating Inertia (ozf-in s ²)	161 E-06 to 170 E-06	2 E-04 to 2.21 E-04	2.06 E-04 to 2.21 E-04	2 E-04 to 2.21 E-04	2.06 E-04 to 2.21 E-04
	Shaft Material	Titanium	Titanium	Titanium	Titanium	Titanium
	Housing Material	Stainless Steel	Aluminum & Stainless	Aluminum & Stainless	Aluminum & Stainless	Aluminum & Stainless
	Weight (lb)	2.4	1.5	1.5	1.5	1.5
	Specification Sheet	Bulletin 7411R	Bulletin 7402D	Bulletin 7402D	Bulletin 716E	Bulletin 716E

* Denotes Optional Feature

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