

WIDEBAND OUTPUT, OPTION K

For MCRT[®] DC Operated Torquemeters

- **Dual & Quad* 1 Hz & 1100 Hz Analog Outputs**
* MCRT[®] 79000V Series only
- **NIST Traceable Calibration Performed In Our NVLAP Accredited¹ Calibration Laboratory** (NVLAP Lab Code 200487-0)
- **Single Supply Operation**
- **Retains All Standard Features And Dimensions**

The Code K Option increases the bandwidth of any **MCRT[®] shaft end, splined end, flanged, wheel pulley or dual range DC Operated Torquemeter**. Available for all torque ranges. Option K retains the torquemeter pinout,

dimensions and other specifications. Each torquemeter type differs in dimensions, overload capacity and available ranges. See Bulletins 7400, 7401, 7402, 7403, 7590, 7700, 7800 and 7801 for details.

| Specification Summary ² | MCRT [®] 27000V MCRT [®] 48000V MCRT [®] 49000V Code N Performance | MCRT [®] 48000V MCRT [®] 49000V Code C Performance | MCRT [®] 59000V MCRT [®] 79000V Code N Performance |
|--|--|--|--|
| Nonlinearity (end point, % of F.S.) | ≤ ±0.10 | ≤ ±0.05 | ≤ ±0.07 |
| Hysteresis (% of F.S.) | ≤ ±0.10 | ≤ ±0.05 | ≤ ±0.07 |
| Nonrepeatability (% of F.S.) | ≤ ±0.05 | ≤ ±0.03 | ≤ ±0.03 |
| Accuracy (combined nonlinearity, hysteresis, & repeatability, % of F.S.) | ≤ ±0.15 | ≤ ±0.08 | ≤ ±0.1 |
| Rotational Effect on Zero (% of F.S.) | ≤ ±0.05 | ≤ ±0.02 | ≤ ±0.03 |
| Calibration Accuracy (% of F.S. @ 75 deg. F., traceable to NIST) | ≤ ±0.05 | ≤ ±0.03 | ≤ ±0.04 |
| Output Tracking (Difference between dual outputs, % of F.S.) | ≤ ±0.1 | ≤ ±0.05 | ≤ ±0.1 |
| Zero Drift (% of F.S./deg. F.) | ≤ ±0.003 | ≤ ±0.0015 | ≤ ±0.0025 |
| Span Drift (% of Rdg./deg. F.) | ≤ ±0.003 | ≤ ±0.0015 | ≤ ±0.0025 |
| Temperature Range (deg. F.) | Compensated range: +75 to +175, Usable range: -25 to +185, Storage limits: -65 to +225 | | |
| Full Scale Output | CW ³ is +5 Volts and CCW ³ is -5Volts at each output | | |
| Allowable Electrical Loads | 10,000 Ω minimum resistive; 0.05 uF maximum capacitive | | |
| Nominal Overrange ⁴ (% of F.S.) | 133 | | |
| Measurement Bandwidth ⁵ | Two outputs are simultaneously available; bandwidths are dc to 1100 Hz and dc to 1 Hz | | |
| Output Noise (rms, % of F.S.) | 0.01% on 1 Hz output and 0.15% on 1100 Hz output | | |
| Zero and Span Control Ranges (nominal % of F.S.) | ±5% for each | | |
| Power Supply ⁶ | 10.5 to 24 Volts dc @ 100mA (nominal). Supply Voltage Effect is <0.01% of F.S. per Volt | | |

Notes

- For a copy of the NVLAP Certification and the Accreditation Scope, visit our website or, use the "Laboratory Accreditation" link at www.nist.gov.
- See listed Bulletins for the complete torquemeter specification.
- CW torque causes the torquemeter shaft to turn CW when viewed from its driven end. CCW torque causes the opposite rotation.
- Electrical outputs remain linear to the overrange level. See Bulletin 705 for an explanation of mechanical overload ratings.
- Bandwidth is determined by integral, Constant Group Delay, Bessel response filter. Filter overshoot is less than 0.01% for a step input.
- Fused and reverse polarity protected.
- "F.S." denotes "Full Scale". "Rdg." denotes "Reading".
- "deg. F." denotes "degree Fahrenheit".
- Specifications are subject to change without notice.

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