Performance Specifications

Part Number Example: DMD301 - xx - yyy

Family | Pressure | Temperature

Pressure Performance

Pressure (kpsi)	5	10	16	20	25
Sensor	Thickness Shear Mode Quartz Resonator				
Pressure Range[1] (psia / bar)	0 to 5,000 / 0 to 344	0 to 10,000 / 0 to 690	0 to 16,000 / 0 to 1,100	0 to 20,000 / 0 to 1,380	0 to 25,000 / 0 to 1,725
Available Calibration Temperature Ranges (°C)	25 to 150	25 to 150	25 to 150, 177, 200	25 to 177, 200	25 to 177, 200
Accuracy[2] (% FS)	0.02	0.015	0.02	0.02	0.02
Typical Accuracy[2] (% FS)	0.015	0.012	0.015	0.015	0.015
Achievable Resolution[3] (psi/sec)	< 0.006	< 0.006	< 0.008	< 0.008	< 0.010
Repeatability (% FS)	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Nominal Sensitivity (counts/psi)	1700	1700	1500	1500	1300
Nominal Counts Range	$6x10^6$ to $6x10^7$	$6x10^6$ to $6x10^7$	$6x10^6$ to $6x10^7$	$6x10^6$ to $6x10^7$	$6x10^6$ to $6x10^7$
Response time to FS step (for 99.5% FS)	< 1 sec	< 1 sec	< 1 sec	< 1 sec	< 1 sec
Gravity / Orientation Effect	Negligible	Negligible	Negligible	Negligible	Negligible
Acceleration Sensitivity (psi/g - any axis)	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Drift at 14 psi and 25°C (% FS/year)	Negligible	Negligible	Negligible	Negligible	Negligible
Drift at Max. Pressure and Temperature (% FS/year)	0.02	0.02	0.02	0.02	0.02

-xx = "05", "10", "16", etc.

Temperature Performance

Temperature (°C)	C85	150	177
Sensor	Thickness Shear Mode Quartz Resonator		
Calibration Temperature Range (°C/°F)	-40 to 85 / -40 to 185	25 to 150 / 77 to 302	25 to 177 / 77 to 350
Accuracy (°C)	0.5	0.5	0.5
Typical Accuracy (°C)	0.15	0.15	0.15
Achievable Resolution[3] (°C/sec)	< 0.005	< 0.005	< 0.005
Repeatability (°C)	< 0.01	< 0.01	< 0.01
Average Sensitivity (counts/°C)	83000	107000	107000
Nominal Counts Range	$6x10^6$ to $6x10^7$	$6x10^6$ to 6x108	$6x10^6$ to $6x10^7$
Drift at 100°C (°C/year)	< 0.05	< 0.05	< 0.05

-yyy = "C85", "150" or "177"

Notes: 1. Units meet performance specifications from 14 psi to FS. Operating range is from 0 to FS.
2. Combined effects of repeatability, hysteresis, and corrected linearity over the calibrated temperature range. Some transducers require fourth-order coefficients to satisfy accuracy specifications. Consult factory for details.
3. Resolution scales directly with gatetime.
4. Valid over calibrated temperature range; see Temperature Performance table.