




## Signal Conditioners Comparison



Model	DEMOD-DVRT <sup>®</sup>	DEMOD-DVRT <sup>®</sup> -TC	DEMOD-DC <sup>®</sup>
<b>Application</b>	Used with MicroStrain DVRT <sup>®</sup> sensors for: miniature control elements for automotive and robotic systems · process control for production-line monitoring · dimensional gauging for quality control applications · measuring strain and deflection in materials science and civil structures · linear/angular positioning of optical components · miniature force, torque, acceleration sensors · measuring strain, micromotion and deformation in bone and tissue		
<b>Sensor types</b>	inductive (DVRT <sup>®</sup> )	inductive (DVRT <sup>®</sup> )	inductive (DVRT <sup>®</sup> )
<b>Excitation</b>	regulated sinewave, 70 KHz typical	regulated sinewave, 70 KHz typical	regulated sinewave, 150 kHz standard other frequencies available on request
<b>Demodulation</b>	synchronous, DC output	synchronous, DC output	asynchronous, DC output
<b>Output</b>	± 4.5 volts typical	± 4.5 volts typical	0 to 5 V typical, digitally trimmed
<b>Gain</b>	Factory adjustable 10-10,000	Factory adjustable 10-10,000	Factory adjustable 10-10,000
<b>Low pass filter</b>	2 pole, active Butterworth, 3 dB down @ 1 KHz standard; factory adjustable 10 Hz-8 KHz	2 pole, active Butterworth, 3 dB down @ 1 KHz standard; factory adjustable 10 Hz-8 KHz	2 Pole, 3 dB down @ 800 Hz standard factory adjustable 10 Hz – 20 kHz
<b>Supply voltage</b>	motherboard supplies power (typical), ± 6.5 volts min, ± 16 volts max (when used without motherboard)	motherboard supplies power (typical), ± 6.5 volts min, ± 16 volts max (when used without motherboard)	+ 6.0 to + 16 volts DC
<b>Supply current</b>	30 mA per rail	30 mA per rail	22 mA typical (15 mA when modified for use with MicroStrain V-Link <sup>®</sup> or DVRT-Link <sup>™</sup> wireless nodes)
<b>Warm-up time</b>	15 minutes recommended	15 minutes recommended	30 seconds recommended
<b>Operating temperature</b>	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C
<b>PC board size</b>	12 mm x 48 mm x 20 mm (thick)	12 mm x 48 mm x 20 mm (thick)	
<b>Enclosure size</b>			65.7 mm x 19.9 mm x 8.3 mm
<b>Connections</b>			power, ground, analog output
<b>Connectors</b>	10 pin, 0.1" pitch header (power, ground); LEMO 4 pin receptacle (bridge points); BNC (analog output)	10 pin, 0.1" pitch header (power, ground); LEMO 4 pin receptacle (bridge points); BNC (analog output)	micro-D (MIL-C-83513/5) mating connector included
<b>Trimmers</b>	offset (standard)	offset (standard)	
<b>Weight</b>			12.02 g

## Motherboard Comparison

Specifications	 MB-STD-4 MB-SMT-4		 MB-STD-8 MB-SMT-8		 MB-SMT-D
Model	MB-STD-4	MB-STD-8	MB-SMT-4	MB-SMT-8	MB-SMT-D
Application	Used with MicroStrain DVRT® sensors for: miniature control elements for automotive and robotic systems • process control for production-line monitoring • dimensional gauging for quality control applications • measuring strain and deflection in materials science and civil structures • linear/angular positioning of optical components • miniature force, torque, acceleration sensors • measuring strain, micromotion and deformation in bone and tissue				
Number of DEMOD® cards	1 – 4	1 – 8	1 – 4	1 – 8	1 – 2
Supports all DVRT®	X	X	X	X	X
110 VAC power supply	X	X	X	X	X
220 VAC power supply	X	X	X	X	X
110 VAC medical grade power supply	X	X	X	X	X
Power indicator LED	X	X	X	X	X
Analog Output	X	X	X	X	X
LCD display					X
RS-232 output (digital)			X	X	X
RS-232 interface cable			X	X	X
Software XP/Vista/Win7			X	X	X
Software development kit			X	X	X
Dimensions 8" x 6-1/4" x 2-1/2"	X	X	X		X
Dimensions 8" x 6-1/4" x 3-1/4"				X	
Operating temperature -40 to +85 °C	X	X	X	X	X

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