

Model 501 Dual Channel Amplifier

PRODUCT SUMMARY

The Model 501 dual channel position sensing amplifier was designed with a 1.5 MHz frequency bandwidth with auto polarity, auto range selection, and an external control port. Maximum output voltage range is 10 volts. The range indicators are four range LED illuminated for HI-LO sum levels. The current model uses quadrant or tetralateral position sensing detectors.

Number of channels	2 (X and Y)
Input Current Range	Gain at sum output (V/A)
Range 1: 1.0mA to 10 mA	500 ohms
Range 1: 250 μ A to 2.5 mA	2K
Range 1: 60 μ A to 600 μ A	8.4K
Range 1: 15 μ A to 150 μ A	33.6K
Range Selector	Auto range
Detector Polarity	Auto polarity
External Port Control	Permits external selection of range and polarity
Output Voltage	
Sum	Gain x ($I_D + I_E$)
Position	10V x ($I_D - I_E$) / ($I_D + I_E$)
Output Voltage Range	
Sum	0 to 10 V
Position	± 10 V
Output Connectors	BNC
Detector Input Connector	6 contact circular DIN
External Port Connector	8 contact circular DIN
Frequency Bandwidth	DC to 1.5 MHz
DC drift	TBD
Noise, rms	TBD
Output Impedance	50 ohms
Range Indicators	HI/LO signal-level LEDs and four range LEDs
Output Adjustments	
Span	Adjustable scale factor for position output.
Zero	± 0.33 V offset for position output
Operating Temperature	0 to 50°C
Accessories Supplied	External CE power supply included.

UDT INSTRUMENTS

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