

# LVDT Converter

The A6500-LC Linear Variable Differential Transformer (LVDT) Converter is a single channel device for connection to inductive half-bridge sensors or LVDT sensors to the AMS 6500 ATG Advanced Turbo Guard. The converter powers the sensor with an excitation voltage and converts the displacement proportional sensor signal to an output voltage range that is suitable to the A6500-UM Universal Measuring Card of the AMS 6500 ATG.



Measurement Performance		
Measuring Range / absolute value	$\pm 12\text{mm}/24\text{mm}$ $\pm 25\text{mm}/50\text{mm}$ $\pm 50\text{mm}/100\text{mm}$ $\pm 75\text{mm}/150\text{mm}$ $\pm 100\text{mm}/200\text{mm}$ $\pm 150\text{mm}/300\text{mm}$ $\pm 20\text{mm}/40\text{mm}$	with PR 9350/01 with PR 9350/02 with PR 9350/04 with PR 9350/06 with PR 9350/08 with PR 9340/12 with PR 9314/41
Output voltage swing / range	app 4.8V/7.6 to 12.4V app 9.2V/5.4 to 14.6V app 9.2V/5.4 to 14.6V app 10.4V/4.8 to 15.2V app 11.0V/4.5 to 15.5V app 12.2V/3.9 to 16.1V app 3.2V/8.4 to 11.6V	with PR 9350/01 with PR 9350/02 with PR 9350/04 with PR 9350/06 with PR 9350/08 with PR 9340/12 with PR 9314/41 symmetrical around 10V
Temperature deviation	typical $\pm 5.0\%$ typical $\pm 2.5\%$	with PR 9350/01 with PR 9350/02 to /12
Measurement Accuracy	$< \pm 2\%$ /measuring range (4.8 to 12.2V)	Deviation from nominal straight line
Measurement error at A6500-LC replacement		$< 1\%$
Signal Output		
Standard signal voltage output range	+2 to +18V (protected against short circuit)	
Output voltage limits	app +1.1 to +23.3V @ +24V supply voltage	
Jitter	$< 10\text{mV}$ peak to peak	
Resistance	approximately $100\ \Omega$	
Switch on time	approximately 200ms	
Frequency range	0 to 10Hz (-3db)	



Power Supply		
Supply voltage range	+22.5V to +32V DC	
Current consumption	<30 mA	
Influence of supply voltage on output signal	<0.1%/V	
Overvoltage protection	<60V (Use SELV/PELV power supply)	
Sensor supply		
Voltage supply	app. 2.2Vrms , 5kHz	
Environmental, General		
Protection Class	IP20 IEC 60529	
Operating Temperature	-35°C to +75°C (-31°F to 167°F)	
Storage Temperature	-35°C to +85°C (-31°F to 185°F)	
Relative Humidity	5 to 95% (non-condensing)	
Vibration	0.35mm (0.014in), 10 to 55Hz 5g, 55 to 150Hz According to EN 60068-2-6	
Shock	15g according to EN 60068-2-27 6ms, 5000 shocks per axis	
EMC Resistance	according to IEC 61326-1 max. 30m (98.43ft) sensor cable length	
Current Consumption	<30 mA	
Housing material	PA 6.6	
Mounting	DIN-Rail	
Connections	Screw terminal. (max. 1.5mm <sup>2</sup> , wire-end sleeves)	
Dimensions		
Width	20.0mm (0.787in)	
Height	79.5mm (3.130in)	
Length	69.5mm (2.736in)	
Net weight	app 65g (0.143lbs)	
Gross weight	app 195g (0.430lbs) includes standard packing	
Packing volume	app 2.5dm <sup>3</sup> (0.08ft <sup>3</sup> )	
Compliance and Certifications		
CE	EMC – EN61326-1 2014/30/EU 2011/65/EU	
CSA	CAN/CSA-C22.2 NO. 61010-1-12 CAN/CSA-C22.2 NO. 61010-2-201-14 UL 61010-1 (3rd Edition) UL 61010-2-201 (1st Edition)	

## Ordering Information

Model Number	Product Description
A6500-LC	LVDT CONVERTER FOR A6500-UM, DIN-RAIL

## Product Accessories

Model Number	Product Description
BOX030	ACCESSORY WALL MOUNT ENCLOSURE FOR 6 CONVERTERS

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