LP-Series General Specifications

Conforming with IEC 60688

Inputs	Current	: 1A, 5A (others on request)
	Voltage	: All ac systems voltages to 440V
	Frequency	: 50Hz, 60Hz (400Hz on request)
Analogue output	Load independent dc current or voltage	
		: 0 to 10mA dc < 1500**S** load
		: -10 to 0 to +10mA dc < 1500**S** load
		: 0 to 20mA dc < 750**S** load
		: -20mA to 0 to +20mA < 750**S** load
		: 4 to 20mA dc < 750**S** load
		: 0 to +5V dc > 2k**S** load
		: -5 to 0 to +5V dc > 2k**S** load
		: 0 to +10V dc > 2k**S** load
		: -10 to 0 to +10V dc > 2k**S** load
	Response time	: <250ms (0 - 99%) at full load (faster times on special request)
	Ripple	: <1% peak to peak (of full output span)
	Load influence	: <0.25% of full span for specific load range
Digital output	RS485 twisted pair cable up to 1200m long	
	Format	: Baud rate 9600 or 19200 no parity 8 bit
	Bus load	: up to 32 nodes on a bus
	Protocol	: MODBUS RTU with node addressing 1 to 32, others on request
	Data register	: Unsigned or signed word at location 40001
Pulse output	Relay	: 2A 110V <10W dc non inductive
	Opto-coupler	: NPN 30V 5mA
Overload	Current input	: 2 x nominal continuous
		: 20 x nominal for 3 seconds
	Voltage	: 1.2 x nominal continuous
		: 1.5 x nominal for 10 seconds
	S/C output	: continuous
	O/C output	: continuous, $V_{O/C}$ <30V
	Maximum output	: 2 x nominal output
Accuracy	Class	: 0.5 (0.5% of full output span)
	Range	: 20 to 120% (LP-VS, LP-VSX3)
		: 0 to 120% (all others)
	Drift	: < ±0.5% over the range 0° to ±23° to +60°C
		: 0.1% per annum non cumulative
Influences affecting Accuracy -Watt and var transducers (transducers to Class 0.2 (±0.2% of span) can be manufactured to order)		
	Input voltage	: <±0.25% (V_{in} 80% to 100% to 120%)
	Input waveform distortion	: <1.0% distortion factor 0 to 0.2
	Unbalanced input currents	: <0.5% (balanced types)
	Interaction in elements	: <0.25%
	Variation due to power factor	: <±0.25% (PF 0.5 - 1 - 0.5)
Auxiliary supply (specify on ordering)		: 24V, 110V, 230V or 240V ac ±20% 1.5VA
		: 24V or 110V dc ±20% 2W
	Other auxiliary supply voltages made to order	
Isolation	Galvanic isolation between inputs, output and auxiliary supply (where specified)	
	Test voltage	: 4kV 50Hz ac for 1 minute
	Impulse	: 5kV 1.2/50Fsec waveform
Temperature	Operating	: 0°C to ±23°C to +60°C
	Storage	: -25°C to +70°C long term
		: -55°C to +85°C short term