

Analog Input Module 16 x I / V or 8 x PT 100, Nonfloating

(6ES5 465-7LA12)

Technical Specifications		
Number of inputs	16 voltage / current inputs or 8 inputs for PT 100	Noise suppression for $f=n \times (50 / 60 \text{ Hz} \pm 1\%)$ $n=1, 2, \text{ to}$ - common-mode noise ($V_p < 1 \text{ V}$) min. 86 dB - series-mode noise min. 40 dB (peak noise value < rated value of the range)
Galvanic isolation	no	
Input ranges (rated values)	$\pm 50 \text{ mV}; \pm 500 \text{ mV};$ PT 100; $\pm 1 \text{ V}; \pm 5 \text{ V};$ $\pm 10 \text{ V}; \pm 20 \text{ mA};$ +4 to 20 mA (can be selected for four channels at a time using range cards)	Basic errors
Input resistance	$\pm 50 \text{ mV}: 10 \text{ M}$ $\pm 500 \text{ mV}: 10 \text{ M}$ PT 100: 10 M $\pm 1 \text{ V}: 90 \text{ k}; 2 \%$ $\pm 5 \text{ V}: 50 \text{ k}; 2 \%$ $\pm 10 \text{ V}: 50 \text{ k}; 2 \%$ $\pm 20 \text{ mA}: 25; 1 \%$ $\pm 4 \text{ to } 20 \text{ mA}: 31.25; 1 \%$	$\pm 50 \text{ mV} : \pm 2 \%$ $\pm 500 \text{ mV} : \pm 1.5 \%$ PT 100 : $\pm 2 \%$ $\pm 1 \text{ V} : \pm 3.5 \%$ $\pm 5 \text{ V} : \pm 3.5 \%$ $\pm 10 \text{ V} : \pm 3.5 \%$ $\pm 20 \text{ mA} : \pm 2.5 \%$ + 4.. to 20 mA: $\pm 2.5 \%$
Type of connection for sensors	two-wire connection; four-wire connection for PT 100	Operational errors (0°C to 55°C)
Digital representation of the input signal	12 bit + sign or 13 bits two's complement (2048 units = rated value)	$\pm 50 \text{ mV} : \pm 5 \%$ $\pm 500 \text{ mV} : \pm 4.5 \%$ PT 100 : $\pm 5 \%$ $\pm 1 \text{ V} : \pm 7.7 \%$ $\pm 5 \text{ V} : \pm 7.7 \%$ $\pm 10 \text{ V} : \pm 7.7 \%$ $\pm 20 \text{ mA} : \pm 6.7 \%$ + 4 to 20 mA : $\pm 6.7 \%$
Measuring principle	integrating	Cable length - shielded max. 200 m; 50 m for $\pm 50 \text{ mV}$
Conversion principle	voltage-time conversion (dual-slope)	Front connector 46 pins
Integration time (adjustable for optimum noise suppression)	20 msec. at 50 Hz 16.6 msec. at 60 Hz	Power supply - rated value 24 V DC ¹ - ripple V_{pp} 3.6 V - permissible range (including ripple) 20 to 30 V
Scan time (single coding for 2048 units)	max. 60 msec. at 50 Hz 50 msec. at 60 Hz	Current consumption - from 5 V (internal) typically 0.15 A - from 24 V max. 20 mA / transducer
Coding time - 8 inputs - 16 inputs	0.48 sec. at 50 Hz 0.96 sec. at 50 Hz	Power losses of the module typically 0.75 W
Permissible voltage between inputs and between inputs and central grounding point (destruction limit)	max. 18 V or 75 V for max. 1 msec. and a duty factor of 1 : 20	Weight approx. 0.4 kg (0.88 lb.)
Permissible voltage between the reference potential of a nonfloating sensor and the central grounding point	max. $\pm 1 \text{ V}$	
Error indication for - range violation - wirebreak in the sensor line	yes (exceeding 4095 units can be specified in the range 50 mV, 500mV (PT 100))	
Wirebreak test current disconnectable	configurable	¹ only required for two-wire transducers or for disconnecting the wirebreak test current