

Analog Input Module 8 x I / V / PT 100, Floating

(6ES5 460-7LA12)

Technical Specifications			
Number of inputs	8 voltage/current inputs or 8 inputs for PT 100	Wire-break test current (disconnectable)	configurable
Galvanic isolation	yes (not for PT 100)	Noise suppression for $f=n \times (50 / 60 \text{ Hz} \pm 1\%)$ n=1, 2, to	
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)	- common-mode noise min. ($V_P < 1 \text{ V}$)	100 dB
Input resistance	$\pm 50 \text{ mV}: 10 \text{ M}$ $\pm 500 \text{ mV}: 10 \text{ M}$ PT 100: 10 M $\pm 1 \text{ V}: 90 \text{ k}; 2 \%$ $\pm 5 \text{ V}: 50 \text{ k}; 2 \%$ $\pm 10 \text{ V}: 50 \text{ k}; 2 \%$ $\pm 20 \text{ mA}: 25; 1 \%$ $\pm 4 \text{ to } 20 \text{ mA}: 31.25; 1 \%$	- series-mode noise min. (peak noise value < rated value of the range)	40 dB
Type of connection for sensors	two-wire connection; four-wire connection for PT 100	Basic errors	$\pm 50 \text{ mV} : \pm 2 \%$ $\pm 500 \text{ mV} : \pm 1.5 \%$ PT 100 : $\pm 2 \%$ $\pm 1 \text{ V} : \pm 3.5 \%$ $\pm 5 \text{ V} : \pm 3.5 \%$ $\pm 10 \text{ V} : \pm 3.5 \%$ $\pm 20 \text{ mA} : \pm 2.5 \%$ $+ 4 \text{ to } 20 \text{ mA} : \pm 2.5 \%$
Digital representation of the input signal	12 bits plus sign or 13 bits two's complement (2048 units = rated value)	Operational errors (0°C to 55°C)	$\pm 50 \text{ mV} : \pm 5 \%$ $\pm 500 \text{ mV} : \pm 4.5 \%$ PT 100 : $\pm 5 \%$ $\pm 1 \text{ V} : \pm 7.7 \%$ $\pm 5 \text{ V} : \pm 7.7 \%$ $\pm 10 \text{ V} : \pm 7.7 \%$ $\pm 20 \text{ mA} : \pm 6.7 \%$ $+ 4 \text{ to } 20 \text{ mA} : \pm 6.7 \%$
Measuring principle	integrating	Cable length - shielded	max. 200 m (656 ft.); 50 m for $\pm 50 \text{ mV}$
Conversion principle	voltage-time conversion (dual-slope)	Front connector	46 pins
Integration time (adjustable for opt. noise suppression)	20 msec. at 50 Hz 16.6 msec. at 60 Hz	Isolation rating	according to VDE 0160
Coding time (Single coding for 2048 units) max.	60 msec. at 50 Hz 50 msec. at 60 Hz	Rated isolation voltage (channel to channel) - tested at	500 V
Scan time for - 8 inputs	0.48 sec. at 50 Hz	Rated isolation voltage (channel to $\underline{\underline{\quad}}$) - tested at	500 V
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 1 : 20	Current consumption - rated value	24 V DC
Permissible voltage between the reference potential of a nonfloating sensor and the central grounding point max.	75 V DC / 60 V AC	- ripple V_{pp}	3.6 V
Error indication for - range violation	yes (exceeding 4095 units)	- permissible range (including ripple)	20 to 30 V
- wirebreak in the sensor line	can be specified in the range 50 mV, 500 mV and PT 100 (only measuring circuits)	Current consumption - from 5 V (internal) typ.	0.15 A
		- from 24 V (external) typ.	0.1 A
		Power losses of the module typ.	3 W
		Weight	approx. 0.4 kg (0.88 lb.)