

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

(6ES5 465-7LA13)

Technical Specifications		
Number of inputs	16 voltage/current inputs or 8 inputs for PT 100 nonfloating	Noise suppression for $f=n \times (50/60 \text{ Hz} \pm 1\%)$ $n=1, 2, \dots$ - common mode noise ($V_p < 1 \text{ V}$) min. 86 dB - series mode noise (peak noise value < rated value of the range) min. 40 dB
Type of inputs		
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)	
Input resistance	$\pm 50 \text{ mV}$: 10 M $\pm 500 \text{ mV}$: 10 M PT 100: 10 M $\pm 1 \text{ V}$: 90 k ; 2 % $\pm 5 \text{ V}$: 50 k ; 2 % $\pm 10 \text{ V}$: 50 k ; 2 % $\pm 20 \text{ mA}$: 25 ; 1 % ± 4 to 20 mA: 31.25 ; 1 %	Basic error limits $\pm 50 \text{ mV}$: $\pm 2 \%$ $\pm 500 \text{ mV}$: $\pm 1.5 \%$ 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 error limits (0°C to 55°C) $\pm 50 \text{ mV}$: $\pm 5 \%$ $\pm 500 \text{ mV}$: $\pm 4.5 \%$ PT 100 : $\pm 5 \%$ $\pm 1 \text{ V}$: $\pm 7.7 \%$ $\pm 5 \text{ V}$: $\pm 7.7 \%$ $\pm 10 \text{ V}$: $\pm 7.7 \%$ $\pm 20 \text{ mA}$: $\pm 6.7 \%$ + to 20 mA : $\pm 6.7 \%$
Digital representation of the input signal	12 bit+sign or 13 bits two's complement (2048 units = rated value)	
Measuring principle	integrating	Cable length - shielded maximum 200 m; 50 m for $\pm 50 \text{ mV}$
Conversion principle	voltage-time conversion (dual-slope)	Front connector 46 pin
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
Coding time (single coding for 2048 units)	maximum 60 msec. at 50 Hz 50 msec. at 60 Hz	Current consumption - from 5 V (internal) typically 0.15 A - from 24 V maximum 20 mA/transducer
Coding time - 8 inputs	0.48 sec. at 50 Hz	Power losses of the module typically 0.75 W
Coding time - 16 inputs	0.96 sec. at 50 Hz	Weight approx. 0.4 kg (0.88 lb.)
Permissible voltage maximum between inputs and between inputs and central grounding point (destruction limit)	18 V or 75 V for max. 1 msec. and a duty cycle of 1 : 20	
Permissible voltage maximum between the reference potential of a nonfloating sensor and the central grounding point	$\pm 1 \text{ V}$	
Error indication for - overranging	yes (exceeding 4095 units)	
- wire break of the sensor line	Can be designed for the ranges 50 mV, 500 mV (PT 100)	
Wire break test current disconnectable	configurable	¹ only required for two-wire transducers or for disconnecting the wire break test current