

S-DIAS Analog Input Module AI 0812



with 8 analog inputs

The S-DIAS analog input module AI 0812 has eight PT1000/KTY inputs with 16-bit resolution.

As temperature sensors PT1000, KTY10-62, KTY11-62, KTY81-110, KTY81-120, KTY81-150, KTY81-121, and KTY81-122 are supported.

Analog Input Specifications Resistance/Temperature

Number of inputs	8	
Measurement range	see the following measurement range table	
Resolution	0.1°C or 0.1 Ω	
Conversion time for all channels	1 ms	
Input resistance	> 30 KΩ	
Typical input current	< 0.33 ms	
Input filter hardware	typically 1 kHz	Low pass 3rd order
Input filter software	configurable (10, 25, 50, 100 Hz, or switched off)	
Measurement precision	0.75 % of maximum measurement value	
Potential isolation S-DIAS bus to inputs	no	

Measurement Range of Temperature Inputs

Type	Temperature range	Resistance range	Measurement value
Pt1000	-150 ... +850 °C	397.2-3904.8 Ω	-1500 ... +8500
KTY10-62 KTY11-62	-50 ... +150 °C	1035.9-4575.3 Ω	-500 ... +1500
KTY81-110 KTY81-120 KTY81-150	-55 ... +150 °C	490.0-2211.0 Ω	-550 ... +1500
KTY81-121	-55 ... +150 °C	485.1-2189.1 Ω	-550 ... +1500
KTY81-122	-55 ... +150 °C	494.9-2233.0 Ω	-550 ... +1500

Electrical Requirements

Voltage supply from S-DIAS bus	+24 V		
Current consumption on the S-DIAS bus (+24 V power supply)	typically 24 mA at +18 V typically 22 mA at +24 V typically 20 mA at +30 V	maximum 27 mA at +18 V maximum 24 mA at +24 V maximum 23 mA at +30 V	

Article Number and Miscellaneous

Article number	20-009-0812		
Dimensions	12.5 x 104.2 x 72 mm (W x H x D)		
Normung	UL 508 (E247993)		
Approvals	UL, cUL, CE, UKCA		

Environmental Conditions

Storage temperature	-20 ... +85 °C		
Environmental temperature	0 ... +60 °C		
Humidity	0-95 %, non-condensing		
Operating conditions	pollution degree 2 altitude up to 2000 m		
EMC resistance	in accordance with EN 61000-6-2 (industrial area)		
EMC noise generation	in accordance with EN 61000-6-4 (industrial area)		
Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz	
Shock resistance	EN 60068-2-27	15 g	
Protection type	EN 60529	IP20	