PTAI216
Temperature Input Module

Das PTAI216 verfügt über 4 analoge Eingangskanäle sowie 12 Eingänge für Pt100/Pt1000-Fühler.

- 4 analoge Eingänge ±10 V / ±1 V / 0 bis 20 mA
- 12 Eingänge für Pt100/Pt1000-Fühler
- Single-ended oder differenzielle Eingänge für Analogsignale
- 2-Leiter Eingänge für Pt100/Pt1000-Fühler
- Auflösung 14 Bit (AI)/12 Bit (Pt100/Pt1000)
- Abtastwiederholzeit 2,5 ms (AI)/480 ms (Pt100/Pt1000)
- Kanäle gegen System isoliert
- Kabelbrucherkennung für die Eingänge
- Überwachung der externen Spannungsversorgung

Item	Item-No.
PTAI216	00010708-00
PTAI216 CC	00017456-00

PTAI216	
Voltage inputs	
Quantity	Max. 4
Input type	Single-ended or differential
Input voltage	±1 V or ±10 V
Input impedance	> 33 kΩ
Input filter	170 Hz (low pass 1st order)
Digital resolution	14 bit
Allowed common mode voltage	Max. ±1 V
Error at operating temperature	±1 V: 25 °C → ±0.5 %
	±1 V: 0 to +60 °C → ±0.5 %
	±1 V: -30 to +60 °C → ±0.5 %
	±10 V: 25 °C → ±0.1 %
	±10 V: 0 to +60 °C → ±0.15 %
	±10 V: -30 to +60 °C → ±0.3 %
Cross-talk attenuation	> 60 dB
Sample time	2.5 ms
Current inputs	
Quantity	Max. 4
Input current	0 to 20 mA
Input impedance	243 Ω
Digital resolution	14 bit
Max. input current	35 mA (destruction limit)
Error at operating temperature	0 to 20 mA: 25 °C → ±0.2 % [1]
	0 to 20 mA: 0 to +60 °C → ±0.2 % [1]
	0 to 20 mA: -30 to +60 °C → ±0.3 % [1]
Sample time	2.5 ms
Pt100/Pt1000* inputs	
Quantity	12
Input type	2-wire technology
Temperature range	-100 to +300 °C
Constant current via sensor	Pt100: 3 mA
	Pt1000: 0.3 mA
Digital resolution	12 bit
Value of the LSB	0.1 K
Averaging	Over 16 values per 480 ms
External power supply	
Galvanic isolation from system	500 V
Voltage range	18 to 34 VDC
Current consumption internal	Normally 70 mA at 24 VDC

1) Only applies for DC in the input current range 20 mA

PTAI216		
Approvals / Certificates		
General	CE, cULus, CCC	
Marine	DNV GL, LR, ABS, BV	
Ambient conditions	**Standard**	**ColdClimate (❄)**
Operating temperature	-30 to +60 °C	
Rel. humidity operation	5 to 95 % without condensation	5 to 95 % with condensation
Storage temperature	-40 to +85 °C	
Rel. humidity storage	5 to 95 % with condensation	
Pollution degree	2 (without condensation; according to IEC 60664-1)	2 (according to IEC 60664-1)

Order Codes		
Item	**Item No.**	**Description**
PTAI216	00010708-00	Temp.-recording module; 12x Pt100/1000; 4x In ±10V ±1V 20mA; 14bit; 0.25 %; isolated
PTAI216 CC	00017456-00	Like PTAI216; ColdClimate (❄)
Accessories		
KS-PTAI216 B+C [1]	00012599-50	Terminal set cage clamp small (1x KZ 51/02; 4x KS 35/14) with labeling strip and coding elements → **not for new developments**
KZ-PTAI216 B+C	00026126-00	Terminal set Phoenix cage clamp (1x KZ 51/02; 4x KZ 35/14) with labeling strip and coding elements
SS-PTAI216 B+C	00012010-50	Terminal set Phoenix screw side (1x KZ 51/02; 4x SS 35/14) with labeling strip and coding elements
SV-PTAI216 B+C	00010870-50	Terminal set Phoenix screw frontside (1x SV 51/02; 4x SS 35/14) with labeling strip and coding elements

[1] Item is discontinued and replaced by KZ-AIO288 B+C (00026126-00)