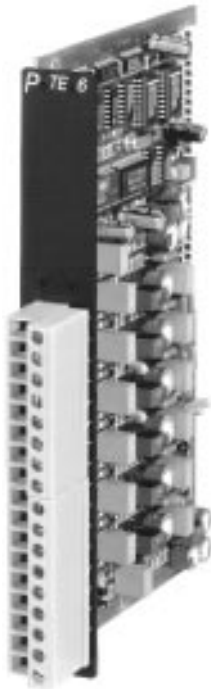
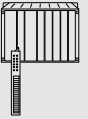


ANALOG INPUT/OUTPUT MODULES, PTE6 - 6 INPUTS FOR THERMOELEMENTS

PLC SYSTEMS
MINICONTROL COMPONENTS

A4



PTE6

- 8 Analog Inputs for Temperature Sensors
- 6 Channels for FeCuNi- (Types F and J), NiCrNi Sensor (Type K), PtRh-Rt, PtRh-El etc.
- 2 Channels for KTY10 Sensors (Compensation)
- 2 Internal KTY10 Sensors (Compensation)
- Temperature Range -150 to +1800 °C (Depending on sensors)
- Resolution 16 Bit
- Conversion Time ca. 62 msec per Channel (User Definable)
- Software Linearization with TINF Function Block

SLOTS

		0	1	2	3	4	5
PTE6	Base Unit C (CP32)		●	●			

ORDER DATA

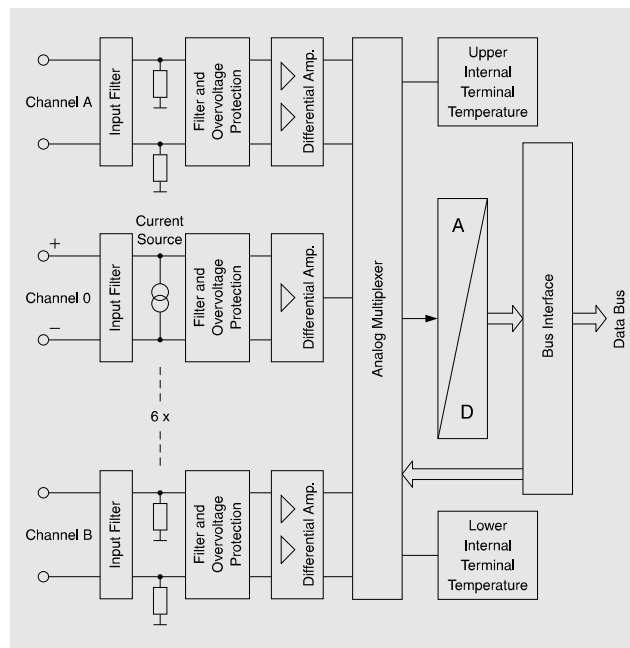
MCPTE6-0	Analog Input Module for temperature measurement, 8 channels (6 for temperature measurement, 2 for compensation), 16 bit resolution, measurement range -150 to +1800 °C (depending on the sensor), conversion time per channel- ca. 62 msec (user definable), without galvanic isolation
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TECHNICAL DATA

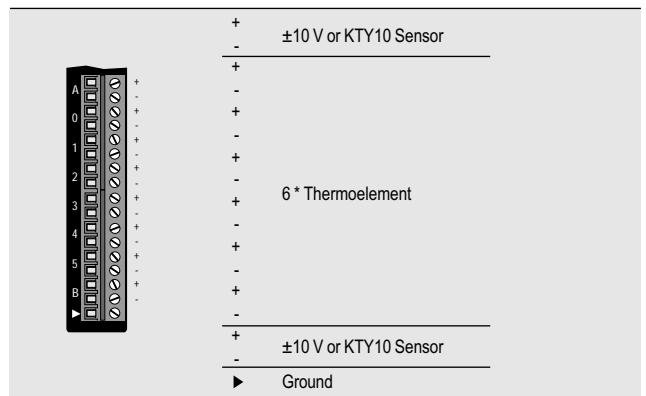
PTE6

Number of Inputs	6 for Temperature Measurement (Thermoelement) 2 for Compensation (KTY10 or ±10 V)			
Temperature Sensor	KTY	NiCrNi	FeCuNi	FeCuNi
Sensor Type	K	K	F	J
Temperature Range	-50 to +150 °C	-150 to +1200 °C	-100 to +850 °C	-100 to +870 °C
Precision	0.1 °C	0.1 °C	0.1 °C	0.1 °C
KTY10 Sensor				
Measurement Range	-50 to +150 °C			
Precision	±2 °C			
Resolution	0.01 °C			
Module Temperature	Measurement over 2 Internal KTY10 Sensors			
Measurement Range	-50 to +150 °C			
Precision	±5 °C (compared to external KTY10 Sensor)			
Resolution	0.01 °C			
Comparison Voltage	1 mV (±10 V = ±100 °C)			
Resolution	±10 V			
Measurement Range	±10 mV (Environmental Temperature 22 °C)			
Precision	100 µV/°C			
Offset Drift	0.025 %/°C			
Gain Drift	0.02 %/V = 0.02 °C			
Common Mode Error	±10.5 V			
Common Mode Range				
Thermoelement Input				
Resolution	2 µV			
Measurement Range	-65.536 mV to +65.534 mV Use half range only for disturbance suppression (±35 mV)			
Precision	±10 µV (Environmental Temperature 22 °C)			
Offset Drift	2.5 µV/°C			
Gain Drift	800 ppm/°C			
Common Mode Error	10 µV/V			
Common Mode Range	±10 V			
Conversion Times				
10 Hz Notch	302 msec			
50 Hz Notch	62 msec			
200 Hz Notch	16.2 msec			
1 kHz Notch	4.1 msec			
Calibration Times ¹⁾				
10 Hz Notch	902 msec			
50 Hz Notch	183 msec			
60 Hz Notch	48 msec			
1 kHz Notch	11.7 msec			
Resolution				
10 Hz Notch	0.01 °C (16 Bit)			
50 Hz Notch	0.01 °C (16 Bit)			
200 Hz Notch	0.02 °C (15 Bit)			
1 kHz Notch	0.6 °C (10 Bit)			

DIAGRAM



CONNECTIONS



SOFTWARE OPERATION

The analog inputs are controlled through standard function block TINF. This function block is a standard component of software package SWSPSTD01-0 (see section A7 "PLC Programming" as well).

¹⁾ The calibration is made automatically after a change in the notch frequency and after a reset. After a reset, the notch frequency is set to 50 Hz.