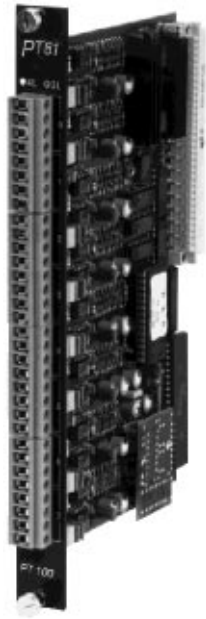


# A6

## ANALOG INPUT MODULES PT81 - 8 INPUTS FOR PT100 TEMPERATURE SENSORS

PLC SYSTEMS  
MULTICONTROL COMPONENTS



### PT81

- 8 Analog Inputs for PT100 Temperature Sensors
- Direct connection to DIN 43760 Standard Temperature Sensors
- Temperature Range optionally -25 to +75 °C or -25 to +475 °C (software adjustable)
- Resolution 10 Bit
- Conversion Time ca. 3 msec per Channel
- Automatic Linearization (Hardware)
- Optional Three Wire or Four Wire Connection (Two Module Versions)
- Software Operation with Standard Function Blocks

#### SLOTS

The analog input module PT81 can be operated in the following slots of racks MULTI, MIDI and M264.

Rack	Slot	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
MULTI Base Rack		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MULTI Expansion Rack		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
MIDI		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M264		●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○

● The module can be operated in this slot  
 ○ The module cannot be operated in this slot

#### ORDER DATA

Analog Input Module for Temperature Measurement, 8 Channels, 10 Bit Resolution, For Direct Connection of PT100 Temperature Sensors, Measurement Range -25 to +475 °C, Not Galvanically Isolated

ECPT81-0	Three Wire Connection
ECPT81-1	Four Wire Connection

TECHNICAL DATA	PT81-0	PT81-1
Number of Inputs	8	
Galvanic Isolation	NO	
Sensor Type Standard	PT100 DIN 43760	
Type of Connection	Three Wire	Four Wire
Measurement Range	-25 to +75 °C or -25 to +475 °C (software adjustable)	
Resolution	10 Bit	
Conversion Time	ca. 3 msec per Channel	
Measurement Precision in range -25 to +475 °C		
Basic Precision at 20 °C	±0.3 % + 0.011 % / R <sup>1)</sup>	±0.5 % + 0.0022 % / R <sup>1)</sup>
Offset Drift	±0.039 % / °C + 0.00008 % / R · °C	±0.039 % / °C + 0.00008 % / R · °C
Gain Drift	±0.017 % / °C	±0.017 % / °C
Measurement Precision in Range -25 to +75 °C		
Basic Precision at 20 °C	±0.5 % + 0.055 % / R <sup>1)</sup>	±0.5 % + 0.0006 % / R <sup>1)</sup>
Offset Drift	±0.2 % / °C + 0.0004 % / R · °C	±0.2 % / °C + 0.0004 % / R · °C
Gain Drift	±0.022 % / °C	±0.022 % / °C
Linearization	YES / Hardware	
Measurement Current	2 mA	
Power Consumption		
At +8 V	1.4 W	
At +15 V	0.9 W	
At -30 V	1.5 W	
Documentation	Hardware Manual MULTICONTROL	
German	MAHWMULTI-0	
English	MAHWMULTI-E	
French	MAHWMULTI-F	
Italian	MAHWMULTI-I	
Spanish	MAHWMULTI-S	

#### CONNECTIONS

+ and - PT100 Sensor Connections  
 S+ and S- Sense Line Connections  
 S+ remains free with three wire connections.

#### SOFTWARE OPERATION

The analog inputs are controlled with standard function block TINB. This function block is a standard component of software package SWSPSTD01-0 (see A7 "PLC Programming" for more information).

<sup>1)</sup> R ... Line Resistance