

**Overview**

- For voltage ±10 V, ±200 V or current ±20 mA
- For thermocouples J,K,T,N,Pt100,Pt1000
- For resistance or potentiometer
- Display range can be linearised
- LED display, 4-digits, programmable
- Min, Max functions
- DIN housing 96 x 48 mm



**Technical data**

**Technical data - electrical ratings**

Voltage supply	20...265 VAC 12...265 VDC
Nominal frequency	50 / 60 Hz
Power consumption	3 W
Sensor supply	24 V ±3 V / max. 30 mA
Display	LED, 7-segment display (with 100 unit stickers for front)
Display color	1 color - red
Number of digits	4-digits
Digit height	14 mm
Display range	-9999...9999 ("OuE" as overflow display)
Display refresh	50 ms
Function	Digital display of 1 analog measured value With Min/Max memory
A/D transformer	Principle $\Sigma\Delta$ Resolution 16 bit Measuring rate 20/s Measuring accuracy ±(0.1 % +3-digit) Temp. coeff. 100 ppm/°C
Analog input	Current, voltage, potentiometer, temperature, resistance measurement
Programmable parameters	Measuring range Display range can be linearised Decimal point Relay outputs with time delay or hysteresis Analog input
Limits	2
Inputs	Voltage ±10 V Voltage ±200 VDC Current ±20 mA Thermocouple J, K, T, N Temperature sensor Pt100 Temperature sensor Pt1000

**Technical data - electrical ratings**

Data memory	>10 years in EEPROM
Analog output	Without
Outputs relay	2 change-over contact, floating
Standard DIN EN 61010-1	ISO 16750-2 (Electrical loads)
Emitted interference	EN 61000-6-3
Interference immunity	EN 61000-6-2

**Technical data - mechanical design**

Ambient temperature	-10...+60 °C
Storage temperature	-25...+85 °C
Relative humidity	95 % non-condensing
Connection	Spring-loaded terminal connector, detachable
Core cross-section	1 mm <sup>2</sup> (Grid 5.08) 2.5 mm <sup>2</sup> (Grid 7.62)
Protection EN 60529	IP 65 (face)
Operation / keypad	Membrane with softkeys
Housing type	Built-in housing
Dimensions W x H x L	1/8 DIN 96 x 48 x 96 mm
Cutout dimensions	92 x 45 mm (+0.3)
Mounting depth	85 mm
Mounting type	Front panel installation by clip frame
Weight approx.	150 g
Material	Housing: Polycarbonate, UL 94V-0

**Inputs and outputs**
**Analog input**

Input	Range	Resolution	Accuracy	Specification
Current	±20 mA	2 µA	±0.1 % (+15 µA)	Input resistance <20 Ω
Voltage	±10 V	1 mV	±0.1 % (+6 mV)	Input resistance 1 MΩ
	±200 V	20 mV	±0.1 % (+0.1 V)	Input resistance 1 MΩ
Potentiometer	100 Ω...100 kΩ	0.01 %	±0.1 % (+0.05 %)	Measuring current max. <0.4 mA
Resistance measurement	999.9 Ω	0.1 Ω	±0.1 % (+0.7 Ω)	Measuring current max. 2.3 mA
	9999 Ω	1 Ω	±0.1 % (+6 Ω)	Measuring current max. 230 µA
	50.00 kΩ	10 Ω	±0.1 % (+35 Ω)	Measuring current max. 23 µA

**Temperature range thermo sensors**

Thermo sensors	Range	Resolution	Accuracy	Specification
Thermocouple J	-150.0...+1000.0 °C	0.1 °C	±(0.1 % +0.6 °C)	Cold junction compensation -10...+60 °C
	-150...+1100 °C	1 °C		
Thermocouple K	-150.0...+1000.0 °C	0.1 °C	±(0.1 % +0.6 °C)	
	-150...+1200 °C	1 °C		
Thermocouple T	-150.0...+400.0 °C	0.1 °C	±(0.2 % +0.8 °C)	
	-150...+400 °C	1 °C		
Thermocouple N	-150.0...+1000.0 °C	0.1 °C	±(0.1 % +0.6 °C)	
	-150...+1300 °C	1 °C		
Pt100 (3-wire)	-150.0...+800.0 °C	0.1 °C	±(0.15 % +0.5 °C)	Line resistance max. 40 Ω Measuring current 1 mA
	-150...+800 °C	1 °C		
Pt1000 (2-wire)	-150.0...+800.0 °C	0.1 °C	±(0.15 % +0.5 °C)	Measuring current 100 µA
	-150...+800 °C	1 °C		

**Relay outputs**

Relay	Switching voltage max.	Switching current max.	Switching performance max.
2x changeover	250 VAC / 110 VDC	1 A	150 VA / 30 W

**Terminal assignment**
**Voltage supply**

Pin	Assignment
1	Voltage supply -
2	Voltage supply +

**Analog inputs / process**

Pin	Assignment
1	Common 0 V
2	-
3	-
4	-
5	±20 mA
6	±24 sensor supply
7	±10 V, ±200 V

**Terminal assignment**
**Analog inputs / Pt100 / Pt1000 / thermocouple**

Pin	Assignment Pt100/Pt1000	Thermocouple
1	Pt100 Common / Pt1000	Thermocouple -
2	Pt100 / Pt1000	Thermocouple +
3	n.c.	n.c.
4	Pt100	n.c.
5	-	-
6	-	-
7	-	-

**Analog inputs / potentiometer / resistor**

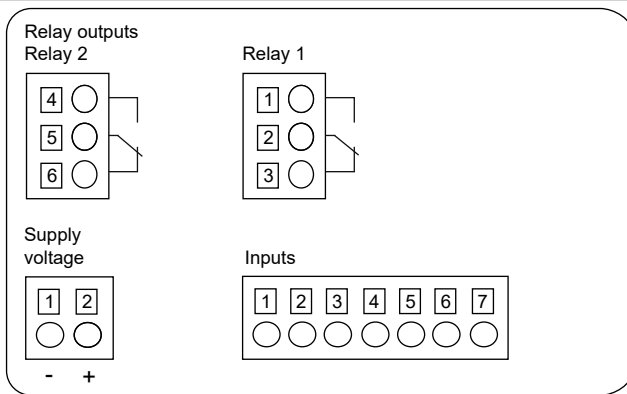
Pin	Potentiometer assignment	Resistor
1	Potentiometer -	Common
2	Potentiometer out	999.9...9999 Ω
3	Potentiometer +	50.00 kΩ
4	-	-
5	-	-
6	-	-
7	-	-

**Terminal assignment**

**Limit outputs / two relays**

Pin	Assignment	
1	Normally open	
2	Changeover	
3	Normally closed	
4	Normally open	
5	Changeover	
6	Normally closed	

**Connection diagram**

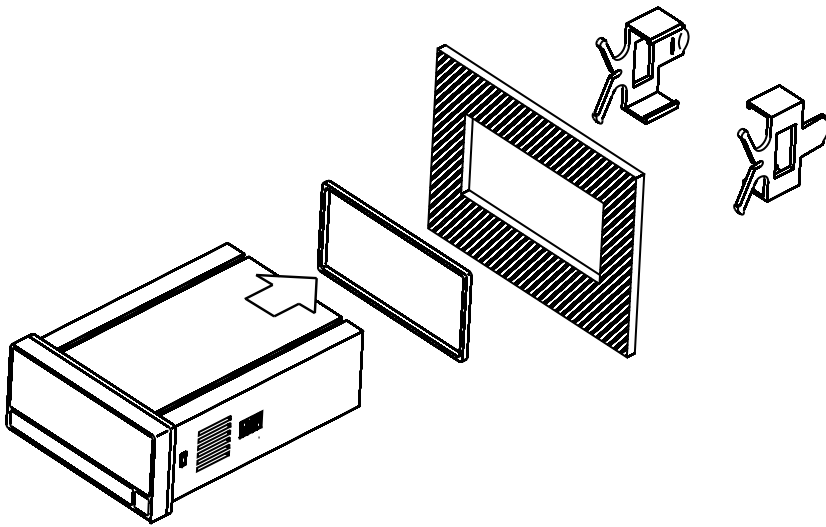
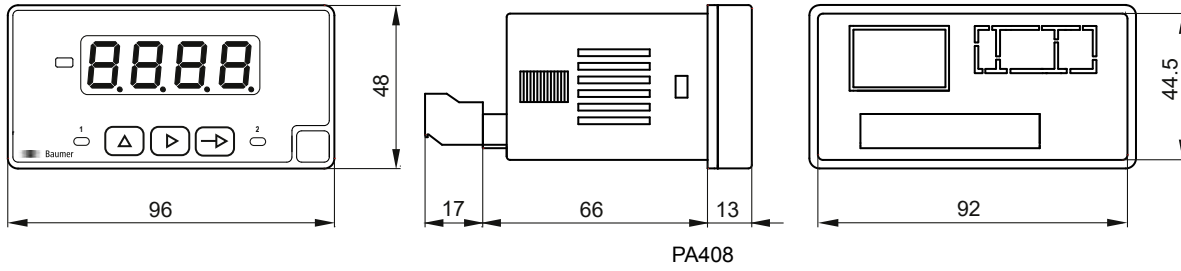


# PA408.018AX01

For standard signals, temperature, resistance, with 2 limits

Article number: 11094488

## Dimensions



Clip frame mounting