Industry - Temperature display PAXT

- 5-digit, 14 mm high LED, indicators, backlit unit
- Display readable in sunlight
- 20 measurements/sec, thermocouples, Pt 100 and Ohm 0-10 V, serial interface: PROFIBUS-DP, RS232, RS485,
- Easy programming on the device or via PC
- summation, min/max value, 16-step linearization
- High degree of protection IP 65, dimensions: 48 x 96 x 104 mm

https://www.wachendorff-prozesstechnik.de/en/PAXT

Description

The PAX T industrial temperature indicator can of course also be used as a very flexible and accurate laboratory device. However, with its robust plastic housing and high IP 65 protection rating, it has been designed for harsh industrial use. The device is configured quickly and safely either via the PC or directly using 5 keys. The operator is pleased with the clear user interface with which he can easily record all parameters at a glance and easily change values. Devices can also be retrofitted using the plug-in options.

Product details

Inputs:	The following sensors are accepted: **Thermocouples:** Type S, T, J, N, K, E, R, B, N, C **Pt100 sensors:** 3 wire, 2 wire can be compensated, Power supply: 100 Ohm range: 165 µ A, 10 Ohm range: 2.6 mA 100 Ohm PT a = 0.00385, 100 Ohm PT a = 0.003919, 120 Ohm nickel, 10 Ohm copper a = 0.00427 **mV or Ohm:** 16 linearization points, scaling via programming or actual value transfer. Display range: -19999 to 99999. -10,000...+65,000 mV, 0...400,00 Ohm , 0...25,00 Ohm ***For accuracy tables see drawings.***
Display:	5-digit, 14 mm high red LED. Dimmable via keypad or user inputs.
Buttons:	The device is programmed and operated using the 5 push buttons on the front.
Housing:	Dark red, impact-resistant plastic housing. The electronic slide-in unit can be pulled out from the rear. One unit can be inserted. The plug-in cards can be installed very easily.
Supply:	PAXT0000: 85 VAC to 250 VAC PAXT0010: 11 VDC to 36 VDC / 24 VAC
Backlit unit:	A physical unit can easily be attached behind the display. With the label sheet, which contains all the usual units, the user can easily realize his desired unit backlit. Unit "°C" or "°F" is supplied.
User input:	3 programmable inputs are available. They can be set to PNP or NPN switching via jumpers.
Totalizer:	The totalizer can create a product from the input signal and time. It can either totalize automatically over a time or with a user input. A time base and a factor make the unit flexible. It has 9 digits and it is possible to change between the first 4 and the second 5 digits. The accuracy of the time base is typically 0.01 %.
Indicators:	MAX Maximum value is displayed MIN Minimum value is displayed TOT Total is displayed, flashes on overflow SP1 Output 1 is active SP2 Output 2 is active SP3 Output 3 is active SP4 Output 4 is active
Panel cut-out according to DIN:	92 mm x 45 mm. Fastening via mounting frame with clamping screws.
Measuring rate:	20 measurements/second. A/D converter with 16 bit resolution.
Response times:	200 ms for display of 99 % of the final value, max. 700 ms (increases with increase in digital filtering).
Dimensions:	W 97 mm x H 50 mm x D 104 mm. Panel cut-out according to DIN: 92 mm x 45 mm.
Protection class:	Jet-proof and dust-tight to IP 65 from the front.
Power supply:	PAXT000 0/B: 85 to 250 VAC 50/60 Hz, 15 VA. PAXT001 0/B: 11 to 36 VDC, 11 W or 24 VAC +/-10 %, 15 VA.
Relative humidity:	max. 85 %. rH, non-condensing.
Ambient temperature:	Operation: 0 °C to +50 °C. With all 3 cards fitted: 0 °C to 45 °C. Storage: -40 °C to +60 °C
Programming:	Programming is possible if the programming lock input is not activated. All the necessary parameters can then be set using the 5 front buttons

Programming with PC software:	With the free Windows software Crimson 2, all project data can be easily created, managed, copied and transferred to the PAX device on the PC. Every user who frequently uses PAX devices can save the individual projects here and use existing knowledge for similar tasks. A starter package consisting of software, USB interface card and PC/PAX connection cable makes it easy to decide in favor of this programming.
Approvals:	UL approval (Underwriters Laboratories) for the USA and Canada
Fastening	via mounting frame with clamping screws.
Scope of delivery:	Device, fixing material, seal, operating instructions.
Weight:	approx. 300 g (without plug-in options).
Output cards:	The device can be very easily upgraded with different output cards. Each device can be equipped with a maximum of one interface card, one relay or transistor output card and one analog output card. You can easily install the cards yourself.
Customs tariff number:	9032 89 00
Manufacturer:	Red Lion Controls, USA.
Pluggable interface card:	1. half-duplex RS232, programmable 2. multipoint RS485, programmable 3. DeviceNet, programmable 4. PROFIBUS-DP, programmable 5. ModBus, programmable (via RS485 or RS232 interface)
Pluggable relay output cards:	**1.** 2x relay changeover contact 5 A at 120/240 VAC or 28 VDC (ohmic load), at 120 VAC (90 VA inductive load). Service life of the relays is 100,000 cycles at max. load. The service life increases with lower loads. **2.** 4x NO relay 3 A at 240 VAC or 30 VDC (resistive load), at 120 VAC (70 VA inductive load). The service life of the relays is 100,000 cycles at max. load. The service life increases with lower loads.
Pluggable transistor output cards:	**1.** 4x NPN-OC transistors: max. 100mA at Vsat = 0.7 V, Vmax 30 V, galvanic isolation of 500 V against the signal input. **2.** 4x PNP-OC transistors: Internal supply: 24 VDC +/-10 %, max. 30 mA all 4 transistors. External supply: max. 30 VDC, 100 mA for each individual transistor.
Pluggable analog output card:	Selectable output signal: 0 to 20 mA, 4 to 20 mA, 0 to 10 VDC. Digitally scalable, offset. Accuracy: 0.17 % of range at 18 °C to 28 °C operating temperature; 0.4 % of range at 0 °C to 50 °C operating temperature. Resolution: 1/3,500 Load: 0 VDC to 10 VDC at min. 10 kOhm; 0/4 to 20 mA at max. 500 Ohm. Galvanically isolated from the signal input up to 500 V.
Programming on the device:	Programming is possible if the programming lock input is not activated. All the necessary parameters can then be set using the 5 front buttons. This possibility of quick project planning is one of the main advantages of all PAX devices.

Products Order no.	
PAXT0000	Industrial temperature display PAX T, 85 to 250 VAC supply
PAXT0010	Industrial temperature display PAX T, 11 to 36 VDC/24 VAC supply

Accessories Order no.	
BMK90000	Top-hat rail adapter for mounting the PAX series on a top-hat rail (WxHxD) 114 mm x 63.5 mm 133 mm
ENC5A000	All-round IP65 steel housing for one device (WxHxD) 140 mm x 83 mm x 120 mm
ENC5B000	All-round IP65 plastic housing for one device (WxHxD) 188 mm x 188 mm x 130 mm
ENC5C000	All-round IP65 plastic housing for two devices (WxHxD) 188 mm x 188 mm x 130 mm
GEH0IP65	All-round IP65 aluminum housing for one device, finished with black powder coating, (WxHxD) 168 mm x 83 mm x 220 mm
PAXCDC1C	Plug-in RS 485 interface card with 2 x RJ11 plugs
PAXCDC2C	Plug-in RS 232 interface card with 9-pin SUB-D connector
PAXCDC10	Plug-in RS485 interface card (terminal strip)
PAXCDC20	Plug-in interface card RS232
PAXCDC30	Plug-in DeviceNet interface card with terminal strip
PAXCDC40	Programmable plug-in Modbus interface card
PAXCDL10	Pluggable analog output card
PAXCDS10	Pluggable relay output card 2 x changeover contact
PAXCDS20	Pluggable relay output card 4 x NO contact

PAXCDS30	Pluggable transistor output card 4 x NPN
PAXCDS40	Pluggable transistor output card 4 x PNP
PAXLBK10	Label sheet with all standard units
PAXUSB00	Pluggable interface card USB
KABUSB11	USB programming cable, 1.5 m

Drawings

Thermocouple tables: (type/sensor/display range/accuracy)

Tabelle Thermoelemente:

Typ	Sensor	Anzeigebereich	Genauigkeit bei	
			18 °C bis 28 °C	0 °C bis 50 °C
T	Cu-CuNi	-200°C bis +400°C -270°C bis -200°C	1,2°C	2,1°C
E	NiCr-CuNi	-200°C bis +871°C -270°C bis -200°C	1,0°C	2,4°C
J	Fe-CuNi	-200°C bis +760°C	1,1°C	2,3°C
K	NiCr-Ni	-200°C bis +1372°C -270°C bis -200°C	1,3°C	3,4°C
R	PtRh 13-Pt	-50°C bis +1768°C	1,9°C	4,0°C
S	PtRh 10-Pt	-50°C bis +1768°C	1,9°C	4,0°C
B	PtRh 30-PtRh 6	100°C bis +300°C +300°C bis +1820°C	3,9°C 2,8°C	5,7°C 4,4°C
N	NiCrSilicon-NiSilicon	-200°C bis +1300°C -270°C bis -200°C	1,3°C	3,1°C
C	W5-W26	0°C bis +2315°C	1,9°C	6,1°C

Drawings

PT100 sensors: (sensor/display range/accuracy)

Tabelle PT100-Sensoren:

Sensor	Anzeigebereich	Genauigkeit bei	
		18°C bis28°C	0°C bis 50°C
100 Ohm PT a = 0,00385	-200°C bis +850°C	0,4°C	1,6°C
100 Ohm PT a = 0,003919	-200°C bis +850°C	0,4°C	1,6°C
120 Ohm Nickel a = 0,00672	-80°C bis +260°C	0,2°C	0,5°C
10 Ohm Kupfer a = 0,00427	-100°C bis +260°C	0,4°C	0,9°C

Drawings

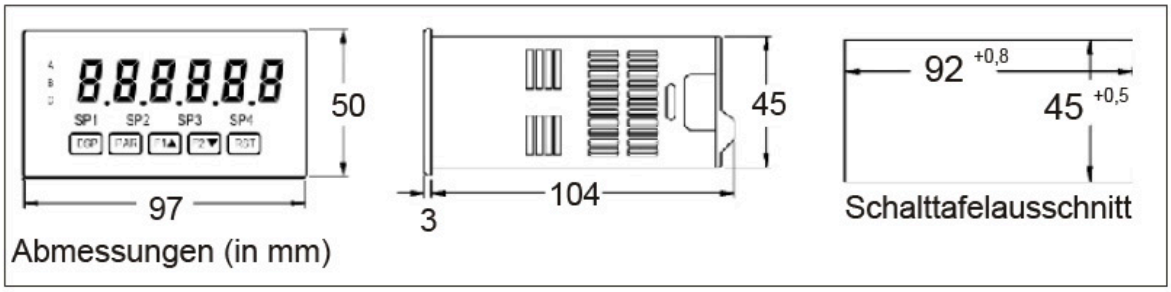
Table mV Ohm: (type/resolution/accuracy)

Tabelle mV oder Ohm:

Typ	Auflösung	Genauigkeit (der Anzeige) bei	
		18 °C bis 28 °C	0 °C bis 50 °C
-10 bis +65 mV	1 µV	0,02 % +4 µV	0,12 % +5 µV
0 bis 400 Ohm	10 mOhm	0,02 % +0,04 Ohm	0,12 % +0,05 Ohm
0 bis 25 Ohm	1 mOhm	0,04 % +0,005 Ohm	0,20 % +0,007 Ohm

Drawings

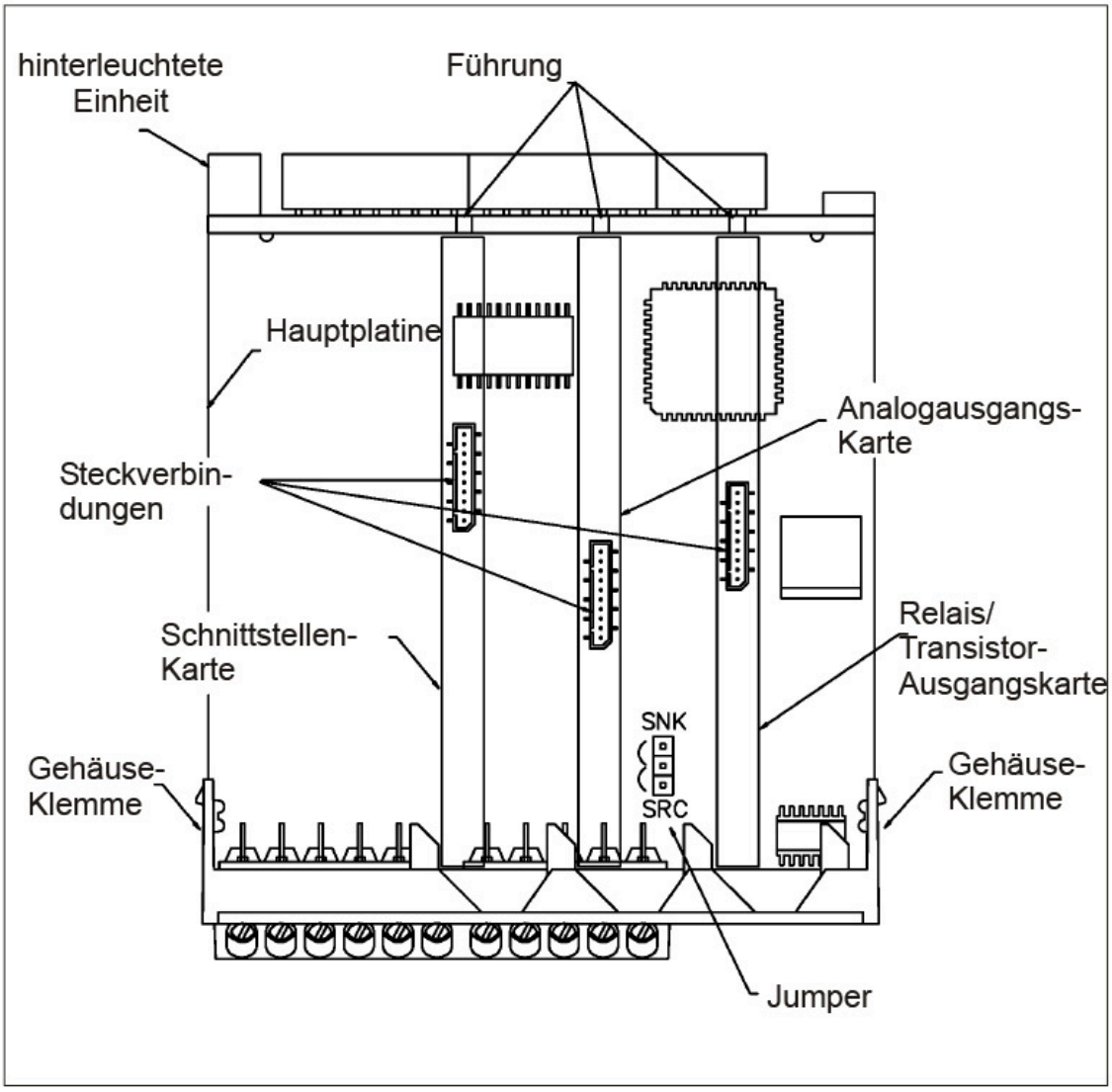
Dimensions (mm):



Abmessungen (in mm)

Drawings

Mechanical structure:



Mechanischer Aufbau

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