2-channel standard signal display PAXDP

- 5-digit, 14 mm high LED, indicators, backlit unit
- 2 galvanically isolated input channels
- Input signals 0 to 20 mA or 0 to 10 VDC
- Measuring rate adjustable from 5.3 to 105.3 measurements/sec.
- Plug-in options: 2 or 4 limit values, analog output: 0/4-20 mA, 0-10 V, serial interface (PROFIBUS-DP, RS232, RS485, DeviceNet)
- Mathematical linking of the two input channels
- Easy programming on the device
- Summation, min/max value, 16-step linearization

https://www.wachendorff-prozesstechnik.de/PAXDP

Description

The PAX DP industrial 2-channel standard signal indicator offers a wide range of features to cover many industrial applications. The display accepts two input signals from the 0-20 mA or 0-10 VDC ranges. In addition, the channels can be mathematically linked (A+B,A-B,AxB,A/B or k-(A+B)) and displayed. The PAXDP was designed with a robust plastic housing and the high protection class IP 65 for rough industrial use. The device is configured quickly and safely via 5 buttons. Devices can also be retrofitted using the plug-in options.

Product details

Entrance area:	Current: 0 to 20 mA Voltage: 0 to 10 VDC
Display:	5-digit, 14 mm high red LED. Readable in sunlight and dimmable via keypad or user inputs.
Backlit unit:	A physical unit can easily be attached behind the display by opening the device from behind. With the label sheet, which contains all the usual units, the user can easily realize his desired unit backlit. The backlighting is switched on or off in program section 4.
Indicators:	- A: Programmable display channel A - B: Programmable display channel B - C: Programmable display channel C - SP1: Output 1 is active - SP2: Output 2 is active - SP3: Output 3 is active - SP4: Output 4 is active
Buttons:	The device is programmed and operated using the 5 push buttons on the front.
Operation:	The clear user interface with the display of all relevant values, the indicators and the unit enable quick operation. The device is operated via 5 front buttons. During programming, it is determined which displays and inputs are possible or remain locked after activation of the programming lock. The PAR button is used to scroll through the individual setpoints, which can be changed using the F1 and F2 buttons. The F1 and F2 function keys can each be assigned 2 functions. The second function is activated by pressing the button for 3 seconds
User inputs:	2 programmable inputs are available. They can be set to PNP or NPN switching via jumpers. Protection: max. 30 volts. - NPN: Active Vin < 0,7 VDC, Inaktiv Vin > 2.5 VDC - PNP: Active Vin > 2.5 VDC, Inactive Vin < 0.7 VDC.
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%.
Power supply:	PAXDP00 0/B: 85 to 250 VAC 50/60 Hz, 15 VA. PAXDP01 0/B: 18 to 36 VDC, 11W or 24 VAC +/-10 %, 15 VA.
Sensor supply:	18 VDC, +/-20%, unregulated, max. 70 mA per input channel input channel
Measuring rate:	Adjustable from 5.3 to 105 measurements/second. A/D converter 16 bit resolution.
Response times:	60 ms for display of 99 % of the final value, up to max. 770 ms (increases with reduction of the measuring rate).
Interference signal suppression NMR:	>60 dB at 50/60Hz +/-1 % (can be increased by digital filtering).
Common mode rejection CMR:	> 100 dB, DC up to 120 Hz.

Housing:	Dark red, impact-resistant plastic housing. The electronic slot can be pulled out to the rear and a unit can be inserted. The plug-in cards can be installed very easily.
Protection class:	Jet-proof and dust-tight to IP 65 from the front.
Dimensions:	W 96 mm x H 48 mm x D 104 mm.
Panel cut-out according to DIN:	92 mm x 45 mm.
Fastening:	Via mounting frame with clamping screws.
Connection:	fixed terminal strips.
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
Approvals:	UL approval (Underwriters Laboratories) for the USA and Canada.
Weight:	approx. 300 g (without plug-in options).
Scope of delivery:	Device, fixing material, seal, operating instructions.
Customs tariff number:	9030 33 70
Manufacturer:	Red Lion Controls, USA.
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.
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 for 1 minute 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 for 1 minute.
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.
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. Any user who frequently uses PAX devices can save the individual projects here and use existing knowledge for similar tasks. You will need the USB interface card "PAXUSB00" and the USB programming cable "KABUSB11".

Products Order no.	
PAXDP000	PAX DP industrial 2-channel standard signal display 85 to 250 VAC supply
PAXDP010	PAX DP industrial 2-channel standard signal display 18 to 36 VDC 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
PAXCDC10	Plug-in RS485 interface card (terminal strip)
PAXCDC20	Plug-in interface card RS232
PAXCDC30	Plug-in DeviceNet interface card with terminal strip
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
WTEST300	Calibrator / measuring device

Drawings

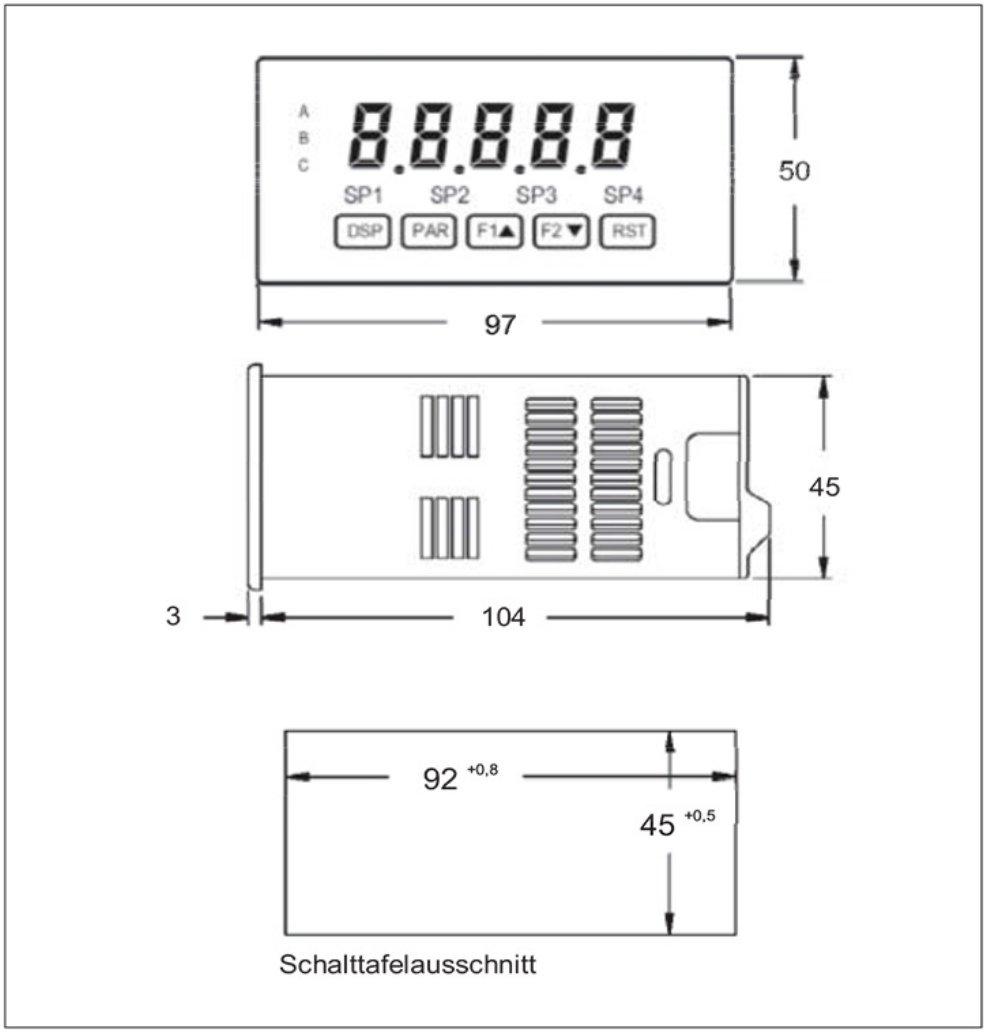
Standard signals table

Folgende Standardsignale werden gemäß Tabelle akzeptiert.
Der Bereich wird in der Programmierung eingestellt.
Jeder Eingangskanal kann mit max. 16 Schritten linearisiert werden.
Die Genauigkeit in der folgenden Bereichstabelle ist in Prozent des Anzeigewertes angegeben.
Der Schutz entspricht dem max. zulässigen Eingangssignal.

Bereich	Genauigkeit		Impedanz	Schutz	Auf-lösung
	bei 18°C bis 28°C	bei 0°C bis 50°C			
±20 mA (-26 bis 26 mA)	0,03 % + 2 µA	0,12 % + 3 µA	24,6 Ohm	90 mA	1 µA
±10 VDC (-13 bis 13 VDC)	0,03 % + 2 mV	0,12 % +3 mV	500 kOhm	50 V	1 mV

Drawings

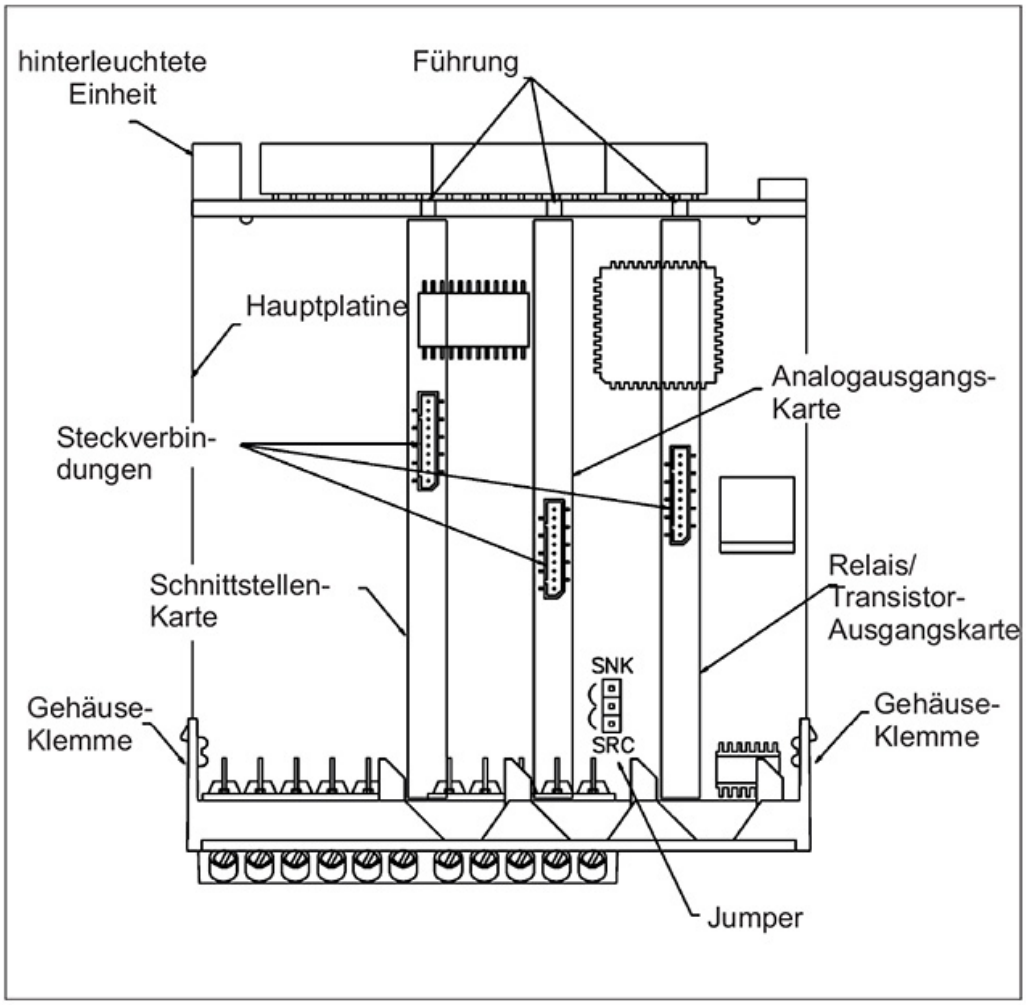
Dimensions (mm):



Abmessungen (in mm)

Drawings

Mechanical structure



Mechanischer Aufbau

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