Large display of the PAX series LPAX

- realizes ISO 9000 in production
- Easy to read from 20 m, LED display with 38 mm high digits
- integrated functions: counter/tachometer, display for voltage, current, temperature, remote display, strain gauge, standard signals, True RMS
- Programmable function keys
- Front protection class IP65
- **With the exception of the display size, the devices have the same features as the basic device in the PAX series.**

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

Description

As part of the implementation of ISO 9001, it is necessary in many industries for a group of employees to constantly have the same information in front of them in order to avoid errors and ensure consistent production results. The LPAX makes this very easy to achieve. The large display can be easily read from 20 m and has an intense red glow. The functionality is achieved via a plug-in card in the device, which means that, for example, a voltage, a current or a frequency can be applied directly. The LPAX takes over the signal processing. This makes the LPAX a device that can also be used for demanding tasks and can work together with higher-level computers, for example in production data acquisition. The LPAX can be universally installed and mounted. With its all-round IP65 housing, it is fully protected even in the harshest operating conditions and can be suspended from the ceiling, mounted on the wall or (without the housing) installed directly. All options of the PAX series are available for all modules, i.e. in addition to sensor supply, summation, linearization, taring, min. and max. values, as well as optional 2/4 alarm outputs, serial interface and an analogue output. The detailed technical features can be found on the page of the basic device of the PAX series.

Product details

LPAX 5-digit	• Front protection class IP 65 • realizes ISO 9000 in production • Easy to read from 20 m • integrated function: display for voltage, current, temperature, strain gauge, standard signals, True RMS • programmable function keys • Indicators: MAX, MIN, TOT, SP1, SP2, SP3, SP4 • All commercially available units can be displayed
LPAX 6-digit	• Front protection class IP 65 • realizes ISO 9000 in production • Easy to read from 20 m • integrated functions: counter/ tachometer, remote display, real time timer, counter/up-counter • Programmable function keys • Indicators: A, B, C SP1; SP2; SP3; SP4 • Additional indicators (LPAXCK only): TMR, CNT, DAT
LPAX 5-digit for 2 analog signals	• Front protection class IP65 • realizes ISO 9000 in production • Easy to read from 20 m • integrated function: 2-channel display for voltage and current • Programmable function keys • Indicators: A, B, C SP1, SP2, SP3, SP4 • All commercially available units can be displayed
Inputs	**5-digit:** Universal display with DC input LPAXD Standard signal display LPAXP 2-channel standard signal display LPAXDP Digital display for strain gages LPAXS Temperature display LPAXT TRUE RMS display LPAXH **6-digit:** Counter/tachometer LPAXI Counter/preset counter LPAXC Tachometer LPAXR Timer/real-time clock LPAXCK
Display	5- or 6-digit **red** LED display. 38 mm high digits. Easy to read from a distance of 20 m.
Display area	**5 digits:** -19999 to 99999 for analog input variables **6-digit:** -99999 to 999999 Counter/tachometer. LPAXCK00: 0 to 999999
Backlit unit (except LPAX 6-digit):	A physical unit can be attached to the display very easily. The unit foil required for this is ordered individually. The backlighting can be switched on or off.

Indicators	**5 digits:** 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 **6-digit** A = Counter A B = Counter B C = CounterC SP1 = Output 1 is active SP2 = Output 2 is active SP3 = Output 3 is active SP4 = Output 4 is active **6-digit LPAXCK** TMR = Timer is displayed CNT = Cycle counter is displayed DAT = Timer real time clock / time real time clock is displayed SP1 = Output 1 is active SP2 = Output 2 is active SP3 = Output 3 is active SP4 = Output 4 is active
Keys	The device is programmed and operated using the membrane buttons integrated in the front. **Button in operation:** DSP = Display change MIN/MAX/TOT PAR = Parameterization key F1, F2 = Freely definable function keys RST = Reset or function key
User inputs	3 programmable inputs (LPAXDP only 2 inputs) are available, e.g. programming lock, reset, taring, pressure call, reset MIN/MAX values, etc. They can be set to PNP or NPN switching via jumpers.
Outputs	LPAX 5-digit and LPAX 6-digit: Equipped with a relay or transistor output card and/or analog output.
Setting	LPAX 5-digit and LPAX 6-digit: The device is operated and programmed via front keys or software (RS232 option)*.
Supply	LPAX 5-digit and LPAX 6-digit: AC version: 85 VAC to 250 VAC 50/60 Hz, 18 VA85 VAC to 250 VAC 50/60 Hz, 21 VA(LPAXDP) DC version: 11 VDC to 36 VDC, 11 W or 24 VAC ±10 %, 50/60 Hz, 14 VA 18 VDC to 36 VDC, 13 W or 24 VAC ±10 %, 50/60 Hz, 16 VA (LPAXDP)
Protection class	LPAX 5-digit and LPAX 6-digit: IP65 (front side)
Relative humidity	Max. 85 % rH, non-condensing. Can be used up to 2,000 m altitude.

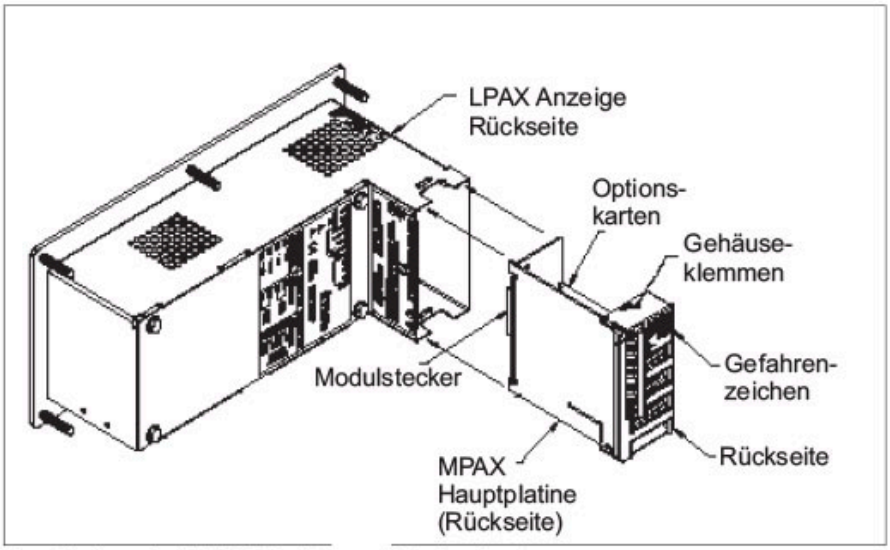
Ambient conditions	Operating temperature: 0 °C to +50 ° C. 0 °C to +45 °C when equipped with 3 expansion cards. Storage temperature: -40 °C to +60 ° C.
Electromagnetic compatibility	CE-compliant
Dimensions (W x H x D)	LPAX 5-digit and LPAX 6-digit: 254 mm x 121 mm x 118 mm Panel cut-out: 236 mm x 92.2 mm
Weight	1.5 kg With all-round housing 6.5 kg.
Assembly	Panel mounting or wall/ceiling mounting via mounting kit. The LPAX is designed as a built-in device and achieves protection class IP65 when installed correctly from the front. LPAX can also be mounted on a wall or suspended from the ceiling using the mounting kits. The all-round IP65 housing allows the device to be fully protected. It can then also be mounted on the wall or suspended from the ceiling.
Housing	Black sheet steel housing with scratch-resistant polyurethane front film.
Accessories Notes	**The interface cards:** PAXCDC10 Plug-in interface card RS 485 (terminal strip) PAXCDC1C RS 485 plug-in interface card with 2 x RJ11 plugs PAXCDC20 Plug-in interface card RS232 PAXCDC2C Plug-in interface card RS 232 with 9-pin SUB-D connector PAXCDC30 Plug-in interface card DeviceNet with terminal strip PAXCDC40 Plug-in interface card Modbus programmable PAXCDC50 Profibus DP plug-in interface card with 9-pin SUBD connector PAXUSB00 Plug-in interface card USB can be used with all LPAX devices except LPAXC and LPAXR. **The output card:** PAXCDL10 Plug-in analog output card can be used with all LPAX devices except LPAXC, LPAXR, LPAXCK. **The interface card:** PAXRTC00 Plug-in real-time clock card can be used with the LPAX device LPAXCK. The Crimson 2.0 programming software and the SFCRUSB1 starter package do not apply to the LPAXC and LPAXR devices.
Plug-in modules	The functionality is achieved using plug-in cards. The cards have the function of certain devices, which is why they are only briefly described below. The device ordered is supplied with a plug-in card already installed.

Universal display with DC input LPAXD	Freely digitally scalable 5-digit digital display for signals 0 to 300 VDC, 0 to 2 ADC, 0 to 10 kOhm, easy scaling and programming via the 5 front buttons, up to 20 measurements/ second, 16-bit resolution, 16-point linearization, sensor supply: 24 VDC regulated, max. 50 mA. 16-step linearization, MIN/MAX value memory and summing function.
Standard signal display LPAXP	Freely digitally scalable 5-digit digital display for signals 0 to 10 VDC or 0/4 to 20 mA, easy scaling and programming via the 5 front buttons, up to 20 measurements/second, 16-bit resolution, sensor supply: 24 VDC regulated, max. 50 mA. 16-step linearization, MIN/MAX value memory and summing function.
Digital display for DMS LPAXS	Freely digitally scalable 5-digit digital display with 2 input ranges: +/- 24 mVDC, +/- 240 mVDC. Easy scaling and programming via the 5 front keys, up to 20 measurements/second, 16-bit resolution, bridge supply selectable via jumper: 5 VDC, max. 65 mA; 10 VDC, max. 125 mA. 16-step linearization, MIN/MAX value memory and summing function.
Temperature display LPAXT	Freely digitally scalable 5-digit digital display for thermocouples type T, E, J, K, R, S, B, N, C, resistance thermometer Pt100, DC voltage signals 10 to 65 mV or resistors 0 to 400 Ohm. Easy scaling and programming via the front buttons, up to 20 measurements/second, 16-bit resolution. 16-step linearization, MIN/ MAX value memory and summing function. OPEN sensor and short-circuit detection.
TRUERMS display LPAXH	Freely digitally scalable 5-digit digital display for signals 0 to 300 VDC/VAC, 0 to 5 A DC/AC. The display has 2 measurement evaluations: RMS value of the AC variable or measurement of the input variable including the DC component. Easy scaling and programming via the 5 front keys, up to 20 measurements/second, 16-bit resolution, 16-point linearization. 16-step linearization, MIN/MAX value memory and summing function.
Preset counter/tachometer LPAXI	Freely digitally scalable 6-digit counter/tachometer designed for the connection of all commercially available sensors. 2 independent counting inputs, 1 tachometer and a 3rd counter for sum/difference or remote display (optional) up to max. 34 kHz cut-off frequency, counting direction detection for both counting inputs. Simple scaling and programming via the front keys. MIN/ MAX value memory and totalizing function for the tachometer display. Sensor supply: 12 VDC regulated, max. 100 mA.
Counter/preset counter LPAXC	6-digit counter/preset counter, switchable for counter 1, counter 2 and counter 3. The LPAXC has 2 independent inputs for NPN, PNP, TTL, contact, NAMUR sensors or rotary encoders. Up and down counter, phase discriminator x1, x2, x4. Difference and summation, start actual value or preset value. Continuous, limit or wipe signal output possible. Sensor supply: 12 VDC, max. 100 mA.
Speedometer LPAXR	6-digit tachometer, switchable for tachometer, min. and max. value. period duration measurement. NPN, PNP, TTL, contact, NAMUR. Sensors or encoders adaptable via DIP switch. tachometer with min. & max. value memory. continuous, limit, wipe signal output possible. sensor supply: 12 VDC, max. 100 mA.
Timer real-time clock LPAXCK	6-digit red LED. hr/min/sec display in 24- or 12-hour format. day/month/year display. counting range: 0 - 999999, Resolution: 1 cycle, maximum count rate: 50 Hz, 23 adjustable time ranges. 2 programmable inputs (start and stop function), can be set to PNP or NPN switching via jumper. Protection: max. 30 volts.
2-channel standard signal display LPAXDP	Freely digitally scalable 5-digit digital display for two signals 0 to 10 VDC or 0/4 to 20 mA. Easy scaling and programming via the 5 front keys, up to 105 measurements/second. 16 bit resolution, sensor supply: twice 18 VDC, max. 70 mA. 16-step linearization, MIN/MAX value memory and summing function.
Option cards	Each MPAX module can be 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. (see drawings)
Pluggable interface card	1. half-duplex RS232, programmable 2. multipoint RS485, programmable 3. modbus, programmable 4. DeviceNet, programmable 5. PROFIBUS-DP, programmable Isolation 500 V from the signal input, not isolated from the earth of the other outputs.
Pluggable relay output cards	• 2 x relay changeover contact 5 A at 120/240 VAC or 28 VDC (resistive load), at 120 VAC (80 VAinductive load). Service life of the relays is 100,000 cycles at max. load. The service life increases with lower loads. • 4 x NO relay 3 A at 250 VAC or 30 VDC (resistive load), at 120 VAC (80 VA inductive load). Service life of the relays is 100,000 cycles at max. load. The service life increases with lower loads.

Pluggable transistor output cards	• 4 x NPN-OC transistors: max. 100 mA at Vsat = 0.7 V, Vmax = 30 V, galvanic isolation of 500 V against the signal input. • 4 x PNP-OC transistors: Internal supply 24 VDC ±10 %, max. 30 mA for all 4 transistors. External supply: max. 30 VDC, 100 mA for each individual transistor.
Pluggable analog output card	**Selectable output signal:** 0 mA to 20 mA, 4 mA to 20 mA, 0 VDC 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:** 1/3500. **Load:** 10 VDC min. 10 KOhm 20 mA: max. 500 Ohm Loop impedance
Customs tariff number:	LPAX0500 & LPAX0600: 8531 20 20 LPAXxxxx: 8531 20 95
Manufacturer:	Red Lion

Drawings

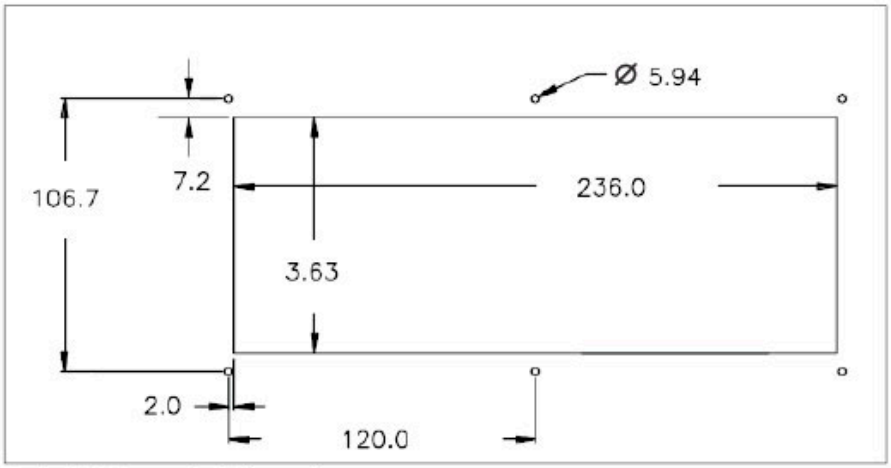
Installing the MPAX modules and option cards



Installation der MPAX-Module und Optionskarten

Drawings

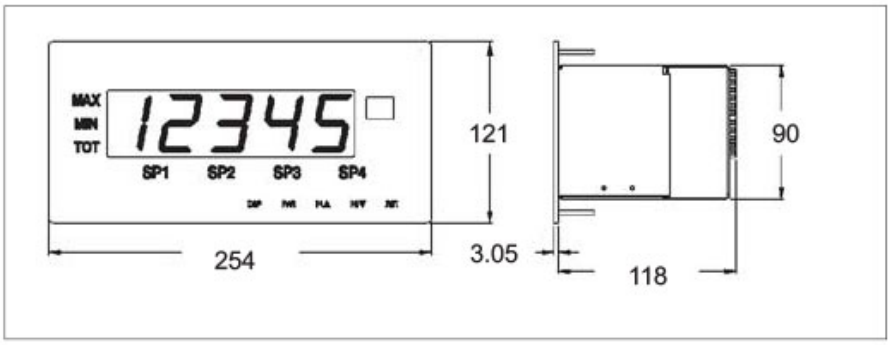
Panel cut-out



Schalttafelausschnitt (in mm)

Drawings

Dimensions (mm)



Abmessungen (in mm)

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