

**Programmable Industry-Digital Built-In Measuring Device****Type PAX**

- Display Freely Scaleable
- Expandable with up to  
3 Output Cards
- 20 Measurements/s
- Min.-Max. Value Display
- Short Length Design  
(104 mm Depth)
- Level of Protection IP 65  
on Front Side

**DESCRIPTION:**

PAX is a very flexible and accurate laboratory device which is also excellently qualified for rough industrial applications due to its very robust synthetic housing and the high IP 65 level of protection.

The device is programmed either by PC or by 5 keys, directly. Additional functions e.g. Minimum-Maximum memory, tare, delete memory....., can be performed by keys or 3 programmable inputs. The programmable inputs can be adjusted by jumpers PNP- or NPN.

For **PAXD and PAXS** a linearization of up to 16 steps is possible. In addition, PAXD and PAXS include a summation counter. Both device have an easy to be changed backlit physical unit display.

**PAXD** processes a wide range of DC voltage-, DC current- and resistance signals. The range is being adjusted by jumpers and in the programming. Therewith, the unit is especially applicable for sensors with an active output signals.

**PAXS** processes input signals in the range of  $\pm 24$  mV DC (dissolution 1  $\mu$ V) or  $\pm 240$  mV DC (dissolution 10  $\mu$ V) and is mainly used with passive sensors.

**PAXI** is a counter-tachometer unit. It processes impulses in the range of 0.01 Hz up to 34 kHz. Input signals of NPN-, PNP-sensors, CMOS, TTL, potential-free contacts and permanent magnetic sensors can be processed. The device has 3 counters and a tachometer which are scaleable independently from each other.

The decimal point can be selected freely. By a rounding factor and digital filtration the display is being soothed if necessary.

The device can be equipped, or at a later time upgraded, with various output cards. At the Max., the device can be provided with each one limit value-, an analog output- and an interface slot.

Each PAX unit is also available as a LPAX-model. LPAX has a large display (38 mm height LED-unit) which is legible from a distance of 20 m. LPAX can be delivered either as an assembly kit or already mounted in a 28 TE-table housing. (See PAX-TG data sheet).

**TECHNICAL DATA:**

| Type           | PAXD0000                                                                                         | PAXD0010                                                     | PAXS0000                           | PAXS0010                                                     | PAXI0000                                                                                                                                                                                    | PAXI0010                                                     |
|----------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Art. No.       | 100859                                                                                           | 100860                                                       | 100857                             | 100858                                                       | 104884                                                                                                                                                                                      | 105422                                                       |
| Supply         | 85...250 V AC<br>50/60 Hz<br>15 VA                                                               | 11...36 V DC<br>11 W or<br>24 V AC ±10%<br>50/60 Hz<br>15 VA | 85...250 V AC<br>50/60 Hz<br>15 VA | 11...36 V DC<br>11 W or<br>24 V AC ±10%<br>50/60 Hz<br>15 VA | 85...250 V AC<br>50/60 Hz<br>15 VA                                                                                                                                                          | 11...36 V DC<br>11 W or<br>24 V AC ±10%<br>50/60 Hz<br>15 VA |
| Measuring Rate | 20 Measurements/s                                                                                |                                                              |                                    |                                                              |                                                                                                                                                                                             |                                                              |
| Reaction time  | 0.2 s for display of 99% of final value, max. 0.7 s (prolongs at increase of digital filtration) |                                                              |                                    |                                                              | Max. 0.6 s; at reset, gate and cache memory, the device reacts 25 µs after the next active flank of the assigned counter. After max. 100 ms a new flank will be detected at the user input. |                                                              |
| Display        | 5-digit, height 14 mm (LPAX: 38 mm), red LED, unit free definable                                |                                                              |                                    |                                                              | 6-digit, height 14 mm (LPAX: 38 mm), red LED                                                                                                                                                |                                                              |

**Sensor Side**

|                             |                                                                           |                                     |                    |
|-----------------------------|---------------------------------------------------------------------------|-------------------------------------|--------------------|
| Excitation                  | 24 V DC 50 mA                                                             | 10 V DC 125 mA (5 V 65 mA)          | 12 V DC 100 mA     |
| Signal Input / Impedance    | ±2 V / 1.066 MΩ<br>±20 V / 1.066 MΩ<br>±20 mA / 11.1 Ω<br>±200 mA / 1.1 Ω | ±24 mV / 100 MΩ<br>±240 mV / 100 MΩ | 0...34 kHz 5 V TTL |
| Disturbance Rejection NMR   | >60 dB at 50/60 Hz ±1% (can be enhanced by digital filtration)            |                                     | -                  |
| Common Mode Suppression CMR | >100 dB, DC to 120 Hz                                                     |                                     | -                  |

**Miscellaneous**

|                                  |                                                             |
|----------------------------------|-------------------------------------------------------------|
| Service Temperature Range        | 0...+45 °C                                                  |
| Storage Temperature Range        | -40...+85 °C                                                |
| Operating and Storage Humidity   | max. 85%, non-condensing                                    |
| Electro-Magnetical Compatibility | Emissions: EN 50081-2, Immunity: EN 50082-2, CE conformable |
| Dimensions (W x H x D)           | 97 x 50 x 104 mm (LPAX: 254 x 121 x 118 mm)                 |
| Switch-Board Segment             | 92 x 45 mm (LPAX: 186 x 92 mm)                              |
| Weight                           | approx. 0.3 kg (LPAX approx. 1.5 kg)                        |
| Level of Protect. Front Side     | IP 65                                                       |

| Options  | Art. No.   | Function                                                           |
|----------|------------|--------------------------------------------------------------------|
| CDC10    | 100861     | Interface Module RS485                                             |
| CDC20    | 100862     | Interface Module RS232                                             |
| CDL10    | 100863     | Analog Output 0...10 V or 0...20 V, 4...20 mA                      |
| CDS10    | 100864     | 2 Limit Value Relay Change-Over Contacts                           |
| CDS20    | 100865     | 4 Limit Value Relay Closing Contacts                               |
| CDS30    | 100866     | 4 Limit Value Transistor Outputs NPN                               |
| CDS40    | 100867     | 4 Limit Value Transistor Outputs PNP                               |
| EVK      | 101014     | Mounting, Wiring and Calibration                                   |
| SFPAX100 | on request | Programming Software for WINDOWS                                   |
| LPAX     | on request | PAX-Unit with Large Display (38 mm Height LED-Display)             |
| PAX-XLS  | 106872     | Measurement Software for Excel, applicable with option RS232, only |