Programmable Position Indicator
Model PAS 96 B
for Sensors with SSI interface

PAS 11524 CE

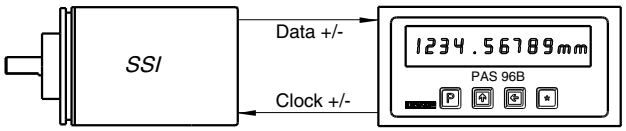
05 / 2005

- **Display range: 12 decades**
- **Input: synchronous, serial interface SSI**
- **With power supply for the connected absolute encoder**
- **Standard housing 96 x 48 mm**
- **Succeeding model for PAS 96 A**

Function

In combination with a sensor (shaft encoder or linear transducers), the PAS 96B position indicator forms an electronic system for acquiring and displaying displacement data.

The information supplied by the sensor in gray or natural binary code is converted by the position indicator into BCD code and is shown in the dotmatrix.



Special features

- Programmable parameters for matching the position display to different applications
- Programming of all parameters with the keys on the front panel
- Programmable chain function
- Storing of the parameters in E²PROM (non volantile)
- Options: serial output interface RS 232 or RS 485 or switches for limit values

Technical data

Input:	*SSI* interface (acc.to RS 485)
Display:	Dotmatrix, 10 mm high, blue, position of decimal point pro grammable
Display range:	12 digit incl. sign
Supply voltage: (to be selected when ordering)	230 VAC (- 10 % ... +10 %), 110 VAC (- 15 % ... +10 %) or 24 VAC (- 15 % ... +10 %) at in each case 50/60 Hz or 24 VDC (± 20 %)
Power consumption:	< 9 VA (without encoder)
Power supply for encoder:	ca. 24 V DC, max. 200 mA
Connections:	2 screw terminal strips, 13-pin, plug-in type
Interfaces (optional):	RS 232 or RS 485 (point to point)
Mass:	250 g approx.

Environmental data

Operating temperature range:	0 ... + 50 °C (without condensation)
Storage temperature range:	- 20 °C ... + 85 °C
Permissible rel. humidity:	95 % without condensation
Housing material:	Noryl GFN 2 SE 1 with panel clips as snap-in module
Protection grade for	
☐ Complete device:	IP 40
☐ Front panel installation:	IP 65

Operating modes

The following two modes can be selected via the keys on the front panel:

- Programming mode: Programming in accordance with the application.
- Input mode: Functions which are needed during the application (e.g. reset function, incremental function and changing of calibration or offset value)

Selection of parameters

Before the device is put into operation, the following parameters can be set (programming mode):

- **Value to be displayed per revolution:** The display can be matched to the particular variable being measured.Thus, for example, the information coming from a CRE encoder (resolution 4096 positions per revolution, measuring range 4096 revolutions) can be changed and displayed in the form of 1500 positions per revolution. If the encoder is connected to a shaft with a spindle pitch of 1.5 mm, this would correspond to a resolution of 1 / 1000 mm.
- **Display divisor:** The value displayed can be changed by factors of 10, 100 and 1000. Thus, in the case described above, the display could be set to display only changes in position in excess of 1 / 10 mm with the aid of the 100s divisor.
- **Code sense:** The value displayed can be selected to either increase or decrease when the encoder rotates CW or CCW.
- **Decimal point:** This can be set within the range 0.0000 to 0000.0 or no decimal point.

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Selection of parameters (cont`d)

- **Enabling of resetting via the keypad:** When resetting via the keypad has been enabled, the display can be reset in input mode with the store key to the calibration and offset value.
- **Enabling of incremental function:** When this function has been enabled, one can change over in input mode from absolute position indication to incremental position indication with the display being first displayed. There after positions are displayed relative to the position the encoder was in at the moment the display was zeroed.
- **Progamming of calibration value:** Facility for entering and changing the calibration value as an absolute reference value for the measuring system. The value is set when calibration is carried out.
- **Programming of offset value:** Facility for entering and changing the offset.
- **Data format:** Form of the position data. Differentiation is made between “tree” format and “no”

  “tAnnE” The position data are accepted in tree format; 12 bit multiturn, 13 bit monoturn; see also SSI protocol.

  “no” The position data are transferred without leading and trailing zeroes.
- **Total number of bits of the encoder:** Statement of the total number of positions of the encoder (total number of positions = resolution x measuring range) as 2^n value.
- **Number of bits of the singleturn part:** Statement of the resolution of the encoder, i.e. the number of positions per revolution as 2^n value.
- **Output code:** Programming of the output code as Gray or natural binary.
- **Baud rate:** Selection of the baud rate when using the RS 232 interface at the output.
- **Language:** Selection as to whether the menu texts should be displayed in German or English.

Documentation

- User manual: PAS 11530
- Connector arrangement: PAS 11531

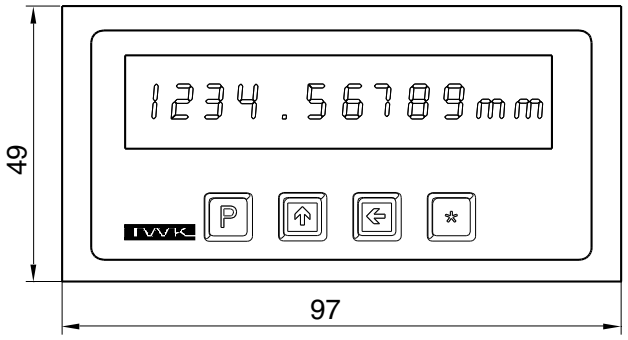
The plug of the preceding version PAS 96A is compatible.

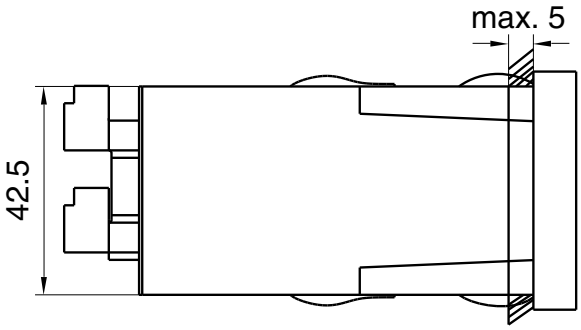
Order code format:

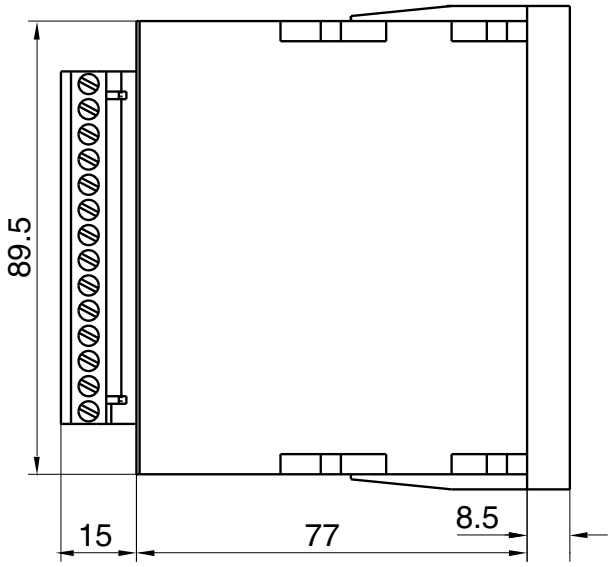
PAS 96B 1 P * V1 * E01

- Electrical or mechanical variant
- Preprogramming (option)
- Interface (option)
  - P = RS 232
  - R = RS 485
  - G = limit values
- Supply voltage: 50/60 Hz
  - 1 = 230 V AC, 2 = 110 VAC
  - 3 = 24 V AC, 4 = 24 VDC
- Model

Dimensions in mm







Dimensions of cut-out required in front panel