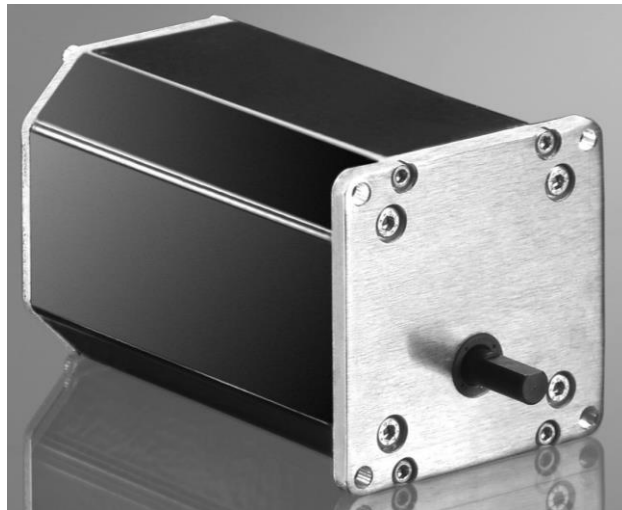


# Instruction Manual PSE 172 Positioning System



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## Table of Contents

1 Safety precautions .....	4
1.1 Appropriate use.....	4
1.2 Shipping, assembly, electrical connections and start-up .....	4
1.3 Troubleshooting, maintenance, repairs, disposal .....	4
1.4 Symbols .....	5
2 Instrument description .....	6
2.1 Features.....	6
2.2 Installation.....	6
2.3 Pin assignment .....	6
2.4 Start-up .....	6
3 Technical data.....	7
4 Dimension drawings.....	8

## Purpose of instruction manual

This instruction manual describes the features of the PSE 172 positioning system and provides guidelines for its use.

Improper use of this instrument or failure to follow these instructions may cause injury or equipment damage. All individuals responsible for operating this instrument must therefore be properly trained and aware of the hazards, and must carefully follow these operating instructions and the safety precautions detailed within. **Contact the manufacturer if you do not understand any part of this instruction manual.**

Handle this manual with care:

- It must be readily available throughout the lifecycle of the instrument.
- It must be provided to any individuals who assume responsibility for operating the instrument at a later date.
- It must include any supplementary materials provided by the manufacturer.

The manufacturer reserves the right to continue developing this instrument model without documenting such development in each individual case. The manufacturer will be happy to determine whether this manual is up-to-date.

## Conformity

This instrument corresponds to the state of the art and meets all legal requirements set forth in EC directives as evidenced by the CE label.



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The manufacturer owns the copyright to this instruction manual. This manual contains data, instructions and drawings pertaining to the features and usage of this instrument; copying this manual in part or in full or distributing it to third parties is prohibited.

# 1 Safety precautions

## 1.1 Appropriate use

The PSE 172 positioning system is a complete unit consisting of an actuator and a closed loop for positioning rotating machine components. The system is especially suitable for use in textile machinery, packing lines, printing machines and wood-processing equipment.

**The PSE 172 is not a stand-alone instrument and may only be used if coupled to another machine.**

Always observe the operating requirements—particularly the permissible supply voltage—indicated on the rating plate and in the “Technical data” section of this manual.

The instrument may only be handled as indicated in this manual. Modifications to the instrument are prohibited. The manufacturer is not liable for damages caused by improper use or failure to follow these instructions. Violations of this type render all warranty claims null and void.

## 1.2 Shipping, assembly, electrical connections and start-up

Only technical personnel who are appropriately trained and authorized by the operator of the facility may assemble the instrument and set up its electrical connections.

The instrument may only be operated by appropriately trained individuals who have been authorized by the operator of the facility.

Specific safety precautions are given in individual sections of this manual.

## 1.3 Troubleshooting, maintenance, repairs, disposal

The individual responsible for the electrical connections must be notified immediately if the instrument is damaged or if errors occur.

This individual must take the instrument out of service until the error has been corrected and ensure that it cannot be used unintentionally.

This instrument requires no maintenance.

Only the manufacturer may perform repairs that require the housing to be opened.

The electronic components of the instrument contain environmentally hazardous materials and materials that can be reused. For this reason the instrument must be recycled in accordance with the environmental guidelines of the jurisdiction in question once it has been taken permanently out of service.

## 1.4 Symbols

The symbols given below are used throughout this manual to indicate instances when improper operation could result in the following hazards:



**WARNING!** This warns you of a potential hazard that could lead to bodily injury up to and including death if the corresponding instructions are not followed.



**WARNING:** This warns you of a potential hazard that could lead to significant property damage if corresponding instructions are not followed.



**INFORMATION:** This indicates that the corresponding information is important for operating the instrument properly.

## 2 Instrument description

### 2.1 Features

The PSE 172 positioning system is used for controlling positioning sequences by adjusting the angle of rotation of its output shaft by a predefined value and within a specific amount of time. The instrument operates on an AC motor.

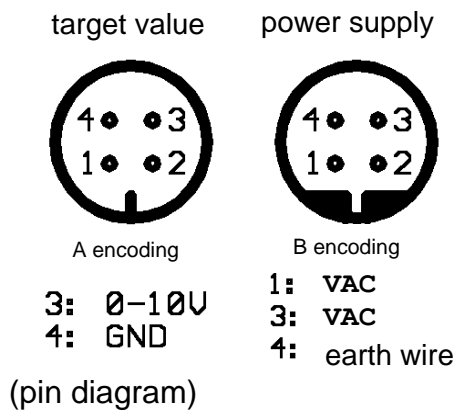
### 2.2 Installation

Four bores ( $\varnothing = 4.5$  mm) are located on the output-shaft side of the PSE 172 positioning system; these bores are to be used for mounting the instrument onto the machine in question. The connection of the output shaft must be friction locked.



**Never apply force to the housing, e.g., for supporting weight.**

### 2.3 Pin assignment



**WARNING: Danger! High voltage!**

**Electrical connections should only be set up by qualified personnel.  
Disconnect power from all feed cables before connecting the instrument.**




### 2.4 Start-up

Connect the required operating voltage (see rating plate) to the B encoded connector. Connect the target signal (between 0...10 V and/or 0/4...20 mA) to the A encoded connector.

At the maximum target value, the output shaft will rotate by the maximum positioning range value (see rating plate), i.e., 0...10 V corresponds to 0...180°.

### 3 Technical data

<b>Physical data</b>	
output shaft	8 H 8 solid circular shaft
output torque	0.75 Nm, 1.5 Nm, 3.5 Nm
nominal rated speed	10 min <sup>-1</sup> , 5 min <sup>-1</sup> , 2 min <sup>-1</sup>
positioning range	max. 15 revolutions
maximum axial thrust	20 N
maximum radial force	30 N
dimensions (w x h x l)	72 x 72 x 120 mm
<b>Electrical data</b>	
nominal power output	0.8 VA (100 % OT)
nominal voltage	24 VAC +6 % / -15 % / 50 Hz 115 VAC +6 % / -15 % / 50 Hz 230 VAC +6 % / -15 % / 50 Hz
nominal current	0.03 A
no-load current	0.03 A
analogue target value	0...10 VDC ( $R_L \geq 2 \text{ k}\Omega$ ) 0...20 mA ( $R_L = 500 \Omega$ ) 4...20 mA ( $R_L = 500 \Omega$ )
positioning resolution	0.5 % of positioning range
positioning accuracy	2 % of positioning range
<b>Ambient conditions</b>	
ambient temperature	0 ...+50 °C
storage temperature	-10 °C to +70 °C
protection class	IP 65
resistance to EMC interference	CE
resistance to vibration as stipulated in DIN IEC 68-2-6	10...55 Hz 1.5 mm / 55...1000 Hz 10 g / 10...2000 Hz 5 g
shock resistance as stipulated in DIN IEC 68-2-6	50 g 11 ms
weight	800 g
conformity	 declaration of conformity available upon request

# 4 Dimension drawings

