Operating instructions
Pressure Transducer

SCPA

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content

Introductory remarks

The SCPA pressure sensor is a stand-alone device for measuring pressures in liquids. It is offered in two versions:

- With analogue output
- With network interface

In the first version, the measurement data is acquired via an analog input of a data system or a display unit. For the 2nd version a Windows driver is available for the software packages PrepCon, LaboChrom or PurityChrom.

SCPA offers the following variants of the pressure transducer:

SCPA-PT-10-1/4-PEEK-AN :	Pressure transducer head made of PEEK Pressure range 0-10 bar Voltage output 0-5 Volt Connections 1/4" tube fitting
SCPA-PT-10-1/8-PEEK-AN :	PEEK pressure transducer head Pressure range 0-10 bar Voltage output 0-5 Volt Connections 1/8" tube fitting
SCPA-PT-10-1/4-PEEK-ETH :	Pressure transducer head made of PEEK Pressure range 0-10 bar network connection Connections 1/4" tube fitting
SCPA-PT-10-1/8-PEEK-ETH :	PEEK pressure transducer head Pressure range 0-10 bar network connection Connections 1/8" tube fitting
SCPA-PT-10-1/4-AN :	Pressure sensor head made of stainless steel Pressure range 0-10 bar Voltage output 0-5 Volt Connections 1/4" tube fitting
SCPA-PT-10-1/8-AN :	Pressure sensor head made of stainless steel Pressure range 0-10 bar Voltage output 0-5 Volt Connections 1/8" tube fitting
SCPA-PT-400-1/4-AN :	Pressure sensor head made of stainless steel Pressure range 0-400 bar Voltage output 0-5 Volt Connections 1/4" tube fitting

SCPA-PT-400-1/8-AN :	Pressure sensor head made of stainless steel Pressure range 0-400 bar Voltage output 0-5 Volt Connections 1/8" tube fitting
SCPA-PT-10-1/4-ETH :	Pressure sensor head made of stainless steel Pressure range 0-10 bar network connection Connections 1/4" tube fitting
SCPA-PT-10-1/8-ETH :	Pressure sensor head made of stainless steel Pressure range 0-10 bar network connection Connections 1/8" tube fitting
SCPA-PT-400-1/4-ETH :	Pressure sensor head made of stainless steel Pressure range 0-400 bar network connection Connections 1/4" tube fitting
SCPA-PT-400-1/8-ETH :	Pressure sensor head made of stainless steel Pressure range 0-400 bar network connection Connections 1/8" tube fitting

Product description

Technical data:

Pressure range	Optional 0 -10 bar, 0 - 100 bar, 0 - 250 bar or 0 - 400 bar
Analog output	0 – 5.0 V
Ports	1/8 " or 1/4" tube fittings, other connections on request
Dead volume	approx. 0.5 to 1 ml depending on the pipe diameter of the connections
Wetted materials	Stainless steel DIN 1.4571 or PEEK, other stainless steel types on request, PTFE
Dimensions (H x W x D)	11 x 15 x ca.18 cm
Weight	approx. 1.3 kg
Pressure measurement	Ceramic pressure sensor
Data output	Ethernet or Analog
Power consumption	Max. 60 W
Power supply	230 V AC

Scope of delivery

- pressure transducer
- operating instructions
- power cords
- Network cable (only version with network interface)
- Signal cable with Cinch plug (only version with analogue output)

Safety and security

When working on the device, the protective measures prescribed for the place of installation apply. In general, the following protective measures must be taken when working with solvents:

- safety goggles
- protective gloves
- protective apparel

For power supply, the devices may only be connected to suitable voltage sources with the indicated permissible voltage of the device. Furthermore, the maximum permissible current consumption of the connected devices, e.g. when using socket strips, must be observed.

Installing the pressure transducer

Connecting the cables

The pressure transducer has two connections with 1/4" or 1/8" pipe fittings

Fig. 1: Eluent connections

The following elements are located on the rear panel of the device:

1. Power supply connection
2. Fuse of the power supply
3. Power switch
4. Analog output
5. Network connection

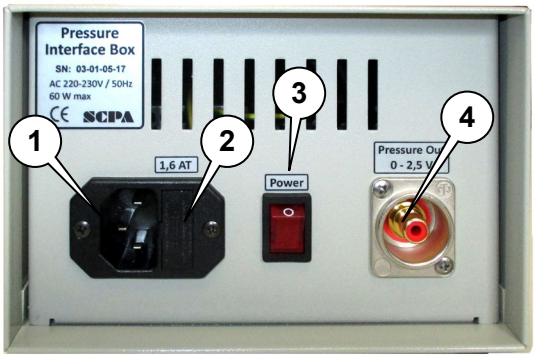

Fig. 2: Rear panel with analogue output

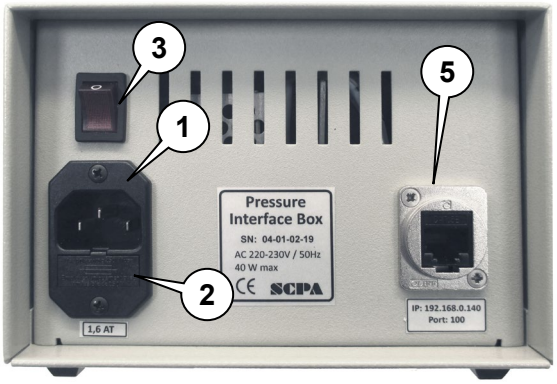

Fig. 3: Rear panel with network connection

Configuration of the pressure sensor

(Applies only to the version with network connection)

To open the configuration page of the pressure transducer, start a browser (e.g. Mozilla Firefox, Google Chrome, Microsoft Edge, etc.) and enter http://PRESS_SENSOR or the current IP address of the device. (on delivery 192.168.0.140).
It appears:

The following settings can be configured:

- The network address: Either you activate *"DHCP", which* automatically assigns an address to the pressure transducer, or you enter the desired address for *"IP Address"*. If DHCP is selected, it is guaranteed that no conflicts with other devices in the network have occurred, but it is not guaranteed that the same address will be retained for a longer period of time. This must be taken into account, as the address must be entered as a parameter in the programs that process the pressure transducer signal. When entering a fixed IP address, it must be ensured that this address has not yet been assigned in the network. Furthermore, it must be ensured that the first 3 blocks of the IP address match the addresses of the other devices in the network (as shown in Figure *192.168.0*), otherwise the pressure transducer in this network can no longer be addressed.
- ADC-Offset can be used for the zero adjustment of the pressure transducer.
- Pressure Factor can be used to adjust the pressure transducer. Since the devices are adjusted on the hardware side before delivery, adjustment via the *"Pressure Factor" is* not recommended.
- Pressure Range: Pressure range of the pressure sensor used. This parameter should never be changed except after the installation of a new pressure sensor.

To save the changes click on the button "Save Configuration and Reboot".

Maintenance and cleaning

The pressure transducer is largely maintenance-free when used as intended.

Housing

As a general rule, care should be taken to ensure that no liquids penetrate into the housing and that the devices are placed in a dust-free environment and the ventilation openings are not blocked.
The housing can be wiped off with a mild detergent.

HPLC pipe connections

The connections can become dirty and damaged due to leaks. Leaks should therefore be eliminated immediately and the leaking liquid absorbed by suitable means without leaving any residue.

Wear and spare parts

Name	Description	Article number / Manufacturer
Cutting rings, Ferrules	For pipes 1/8" AD, stainless steel	SS-200-SET / Swagelock
Screw connections	For pipes 1/8" AD, stainless steel	SS-202-1 / Swagelock
Cutting rings, Ferrules	For pipes 1/4" AD, stainless steel	SS-400-SET / Swagelock
Screw connections	For pipes 1/4" AD, stainless steel	SS-402-1 / Swagelock

Document

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SCPA
Software for Chromatography
and Process-Analytics GmbH

SCPA

CE Declaration of conformity

The SCPA company certifies that the

SCPA pressure transducer

With the following type designations:

SCPA-PT-10-1/4-PEEK-AN
SCPA-PT-10-1/8-PEEK-AN
SCPA-PT-10-1/4-AN
SCPA-PT-10-1/8-AN
SCPA-PT-400-1/4-AN
SCPA-PT-400-1/8-AN
SCPA-PT-10-1/4-PEEK-ETH
SCPA-PT-10-1/8-PEEK-ETH
SCPA-PT-10-1/4-ETH
SCPA-PT-10-1/8-ETH
SCPA-PT-400-1/4-ETH
SCPA-PT-400-1/8-ETH

complies with the following guidelines:

EMC:	DIN IEC 60127; DIN IEC 60939-2; DIN EN 60730
Electrical safety:	DIN EN 61010-1:2011; DIN EN 61010-2-010:2016
Disposal:	RoHS Directive 2011/65/EU

Weyhe, 15. 1. 2019

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