

# **Pressure Sensor SCP/SCPT Pressure Switches SCPS Adaptors**

*Sensors for the measurement of pressure and temperature in industrial instrumentation systems*

*Catalogue 4083/GB  
April 1998*



## Properties

- Robust Construction
- Stainless Steel Housing
- Relativ- and Absolut Pressure-Versions
- Measuring range from -1 up to 600 bar
- Several Output Signals
- Voltage supply 18...30 VDC
- Built-in amplifier
- Temperature Compensation

## Applications

- Hydraulics/ Pneumatics
- Conveying Machinery
- Mechanical Engineering
- Testbench
- Mobil Hydraulics, Vehicles, Farm machines
- Development and Laboratory
- Manufacturing Technology
- Ship Building Industry
- Aerospace
- Offshore

The **SensoControl**-program offers a wide range of pressure sensors for several applications and measuring ranges.

These sensors have been designed for the requirements of industrial instrumentation systems. Accordingly, the housings and all components in contact with the medium are made of stainless steel. Thus giving compatibility with a wide range of media. There is a choice of several plug connectors of either DIN or waterproof types.

For the input, three relative and nine absolute pressure-measuring ranges are available.

There is a choice of output signals in the form of either voltage or current signals. Sensors with output signals from 4...20 mA are available in two or three wire technology .

The built-in voltage regulator allows the sensors to be operated with a supply voltage of 18...30 VDC. The sensors are manufactured in own production facility, typical by Parker Hannifin's committment to flexibility and quality.



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DIN EN ISO 9001  
Reg. No. QA298

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This fully comprehensive catalogue includes the information of data sheets No. 4066, 4067, 4071, 4072, 4074 and 4084/GB and replaces them.

## Functional Descriptions

The pressure of the measuring fluid is exerted on the separating membrane of the piezoresistive pressure element. The separating membrane transmits the applied pressure via the separating liquid to the sensor silicon chip ①.

The piezoresistive, temperature compensated Wheatstone measuring bridge is fed by a constant-voltage source ②. The output signal of the measuring bridge is amplified in a difference amplifier having high input resistance ③ and good common-mode rejection. The signal is pre-processed in the subsequent amplifier and is then available as 0(4)...20 mA output signal at the U/I converter ④. The SCPT sensors also have a temperature output ⑤.

All **SensoControl**-sensors for diagnostic purposes are equipped with sensor recognition ⑥ thus ensuring automatic scaling on connection with the **SensoControl**-measuring devices (plug & play).

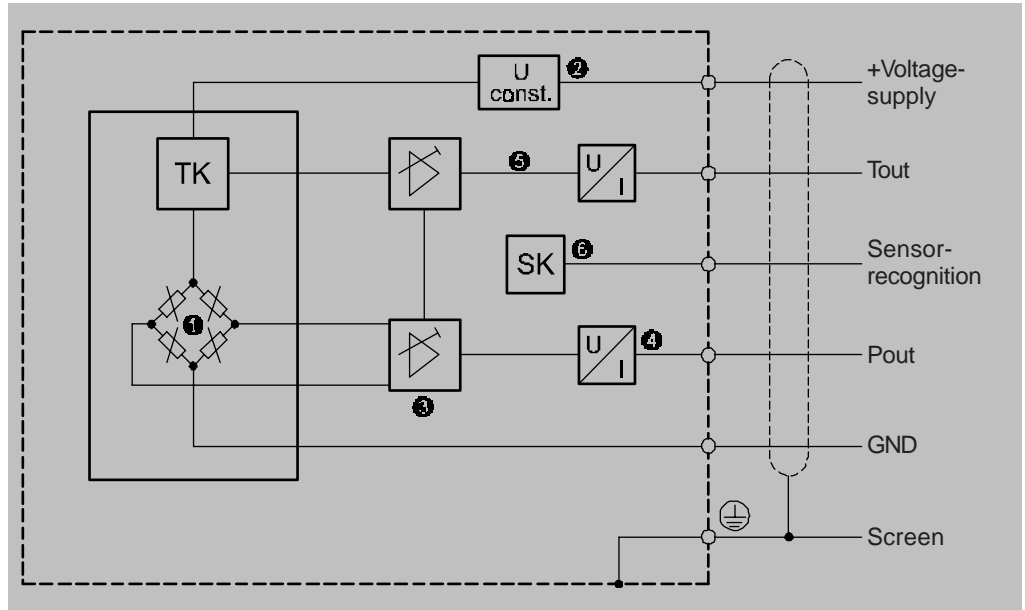


Fig. 1: Block-diagram (for example SCPT-XXX-0-02)

### Non-Conformity with Tolerance Band Setting

When the characteristic is known, the sensor is set so that the non-conformity of the actual characteristic with the ideal characteristic is minimal. The greatest difference is indicated as  $\pm$  non-conformity. The greatest errors occur at the beginning, the end and in the middle of the measuring range.

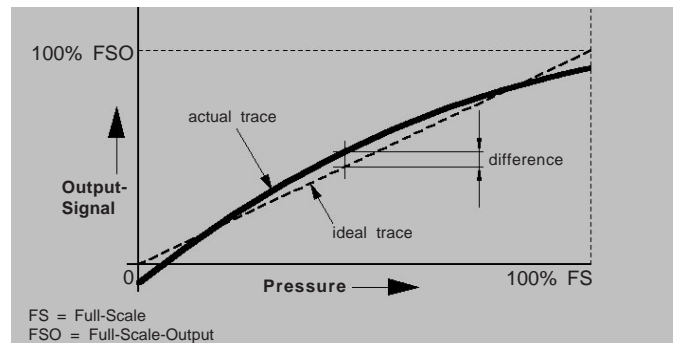


Fig. 2: Typical non linear trace

### Hysteresis

Hysteresis is the difference in the output signal of the sensor, if first an increasing and then a decreasing pressure cycle of short duration at constant temperature is applied. Hysteresis is indicated as a percentage of the full output signal (FSO) and represented as a % error.

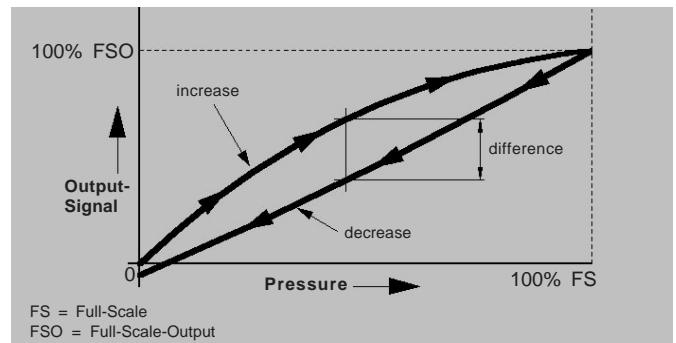


Fig. 3: Typical Hysteresis

### Repeat Accuracy (Reproducibility)

Reproducibility is the measure of approximation of the output signal, if a definite pressure is applied to a sensor in subsequent pressure cycles of short duration and under the same conditions, such as temperature and direction of the increasing or decreasing pressure. The reproducibility is determined by performing two short subsequent calibration cycles. Deviations from reproducibility are indicated as a percentage of the full output signal (FSO) and represented as a  $\pm$  error.

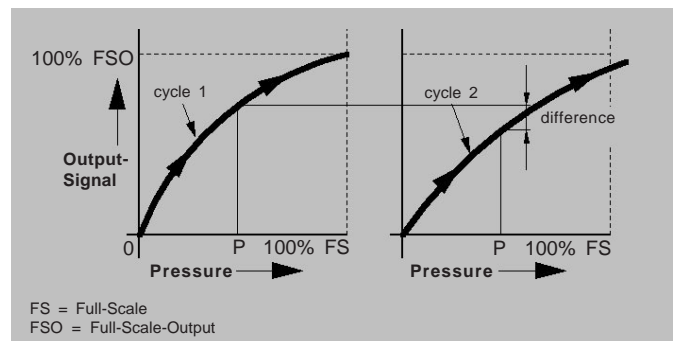


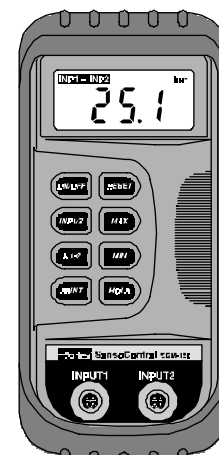
Fig. 4: Typical accuracy

# Sensors for Service and Diagnosis for connection to handmeter SCM-150

## Technical Data

SCP-	015-72-08	100-72-08	1000-72-08
Pressure range (bar)	-1...015 relative	0...100 absolute	0...1000 absolute
Overload pressure (bar) max.	- 20 -	150	1000
Burst-pressure	45	500	1800
Output signal (V)	+0,1...+3,3	+0,3...+3,3	+0,3...+3,3
Temperature error (<math>\pm</math>% FS)*/K	0,03	0,03	0,03
Hysteresis (% FS)*	typ. 0,1 max. 0,25	0,1 0,2	0,05 0,1
Repeatability (<math>\pm</math>% FS)*	typ. 0,08 max. 0,15	0,09 0,18	0,08 0,15
Characteristic curve deviation (<math>\pm</math>% FS)*Tolerance band adjustment max.	typ. 0,25 0,5	0,25 0,5	0,25 0,5

\* to 2/3 of measuring range



SCM-150

### Output

**Load**  
≥ 2 MOhms  
**Response time**  
< 1ms  
**Output signal noise**  
< 0,1% FS  
**Vibration resistance**  
IEC 68-2-6 at 10...500Hz  
**Long-term stability**  
< 0,5% FS/a  
**Shock resistance**  
according to IEC 68 part 2-29  
**Pressure peak rise time**  
15000 bar/sec.

### Voltage supply

**Auxiliary power Ub**  
+7V...+15V DC  
**Permissible residual Ub ripple**  
± 2% ss  
**Current requirement**  
≤ 5 mA

### Environmental conditions

**Working temperature range**  
-20...+85 °C  
**Fluid temperature range**  
-25...+105 °C  
**Temperature-compensated range**  
0...+85 °C  
**Storage temperature range**  
-40...+125 °C

### General

**Measuring media**  
Gases, liquids  
**Connection to measuring media**  
Threaded stud BSPP 1/2"  
**Seal**  
ED soft seal  
**Material - housing**  
Stainless steel, material no. 1.4301  
**Weight**  
approx. 200g  
**Service life/load alternating cycles**  
10 millions

### Electrical connection

Short-circuit protection of P-output  
**Fixed cable connection**  
with anti-kink sleeves, length: 2m  
**Plug connector**  
Subminiature circular plug connector, 4-pin  
**Degree of protection**  
IP 65

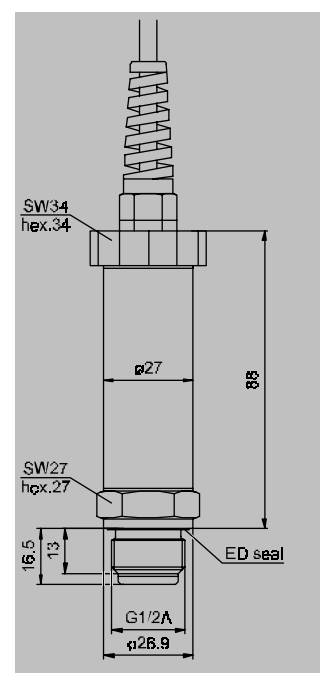


Fig. 5: Dimension drawing

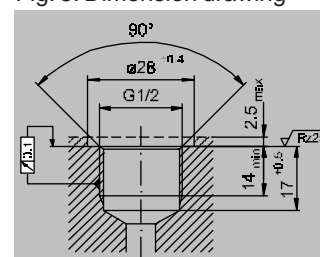
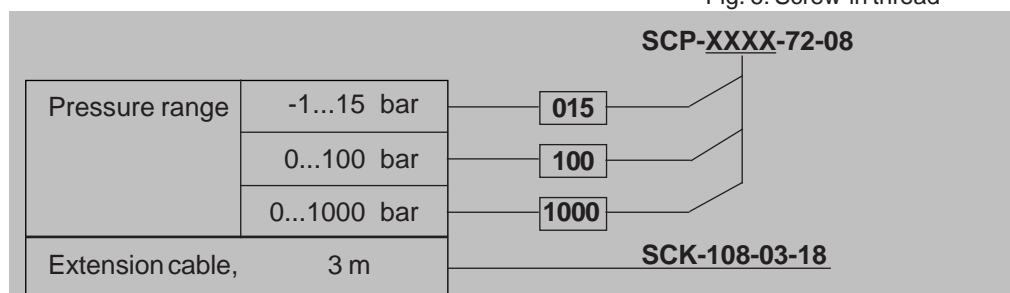


Fig. 6: Screw-in thread

## Order Code Pressure sensor

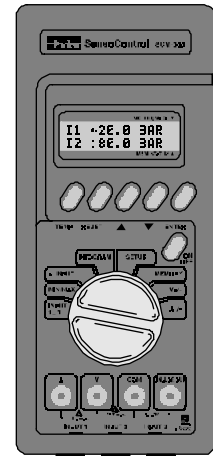


Subject to technical changes

# Sensors for service and diagnosis for connection to SensoControl-handmeters

## Technical data

SCPT-		010-0-02	060-0-02	150-0-02	600-0-02
Pressure range (bar)		-1...10 relative	0...60 absolute	0...150 absolute	0...600 absolute
Measuring range temp. (°C)		-25...+105	-25...+105	-25...+105	-25...+105
Overload pressure (bar) max.		20	150	250	1000
Burst-pressure		45	500	500	1800
Output signal (V)		-0,2...+2	0...3	0...3	0...3
Hysteresis (%FS)	typ.	0,1	0,05	0,1	0,05
	max.	0,25	0,1	0,2	0,1
Repeatability (±%FS)	typ.	0,08	0,13	0,13	0,1
	max.	0,15	0,25	0,25	0,2
Characteristic curve deviation(±%FS)	typ.	0,25	0,2	0,2	0,25
Tolerance band adjust.	max.	0,5	0,4	0,4	0,5



SCM (serie 200/300)

### Output

Load  
 ≥ 2 MOhms  
 TK-zero point  
 ± 0,012% FS/K  
 TK-sensitivity  
 ± 0,02% FS/K  
 Response time  
 < 1 ms  
 Output signal noise  
 < 0,1% FS  
 Vibration resistance  
 IEC 68-2-6 at 10...500Hz  
 Long-term stability  
 < 0,5% FS/a  
 Shock resistance  
 according to IEC 68 part 2-29  
 Pressure peak rise time  
 15000 bar/sec.  
 Temperature signal  
 0...2V = -50...+150°C  
 T-output at 0°C  
 0,5V

### Voltage supply

Auxiliary power  $U_b$   
 7...12V DC  
 Permissible residual  $U_b$  ripple  
 ± 2% ss  
 Current requirement  
 ≤ 5 mA

### Environmental conditions

Working temperature range  
 -20...+85 °C  
 Fluid temperature range  
 -25...+105 °C  
 Temperature-compensated range  
 0...+85 °C  
 Storage temperature range  
 -40...+125 °C

### General

Measuring media  
 Gases, liquids  
 Connection to measuring media  
 male thread M22x1.5  
 Seal  
 ED soft seal  
 Material - housing  
 stainless steel, material no. 1.4301  
 Weight  
 approx. 200g  
 Service life/load alternating cycles  
 10 millions

### Electrical connection

Short-circuit protection of P/T-output  
 Connector  
 Lemosa series S, size 1, 5-pin  
 Degree of protection  
 IP 54

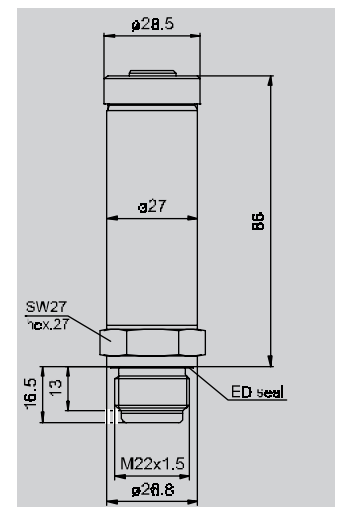


Fig. 7: dimensioned drawing

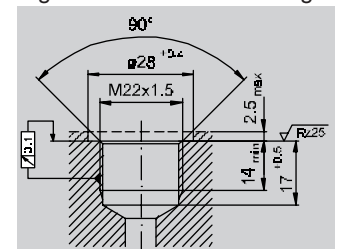
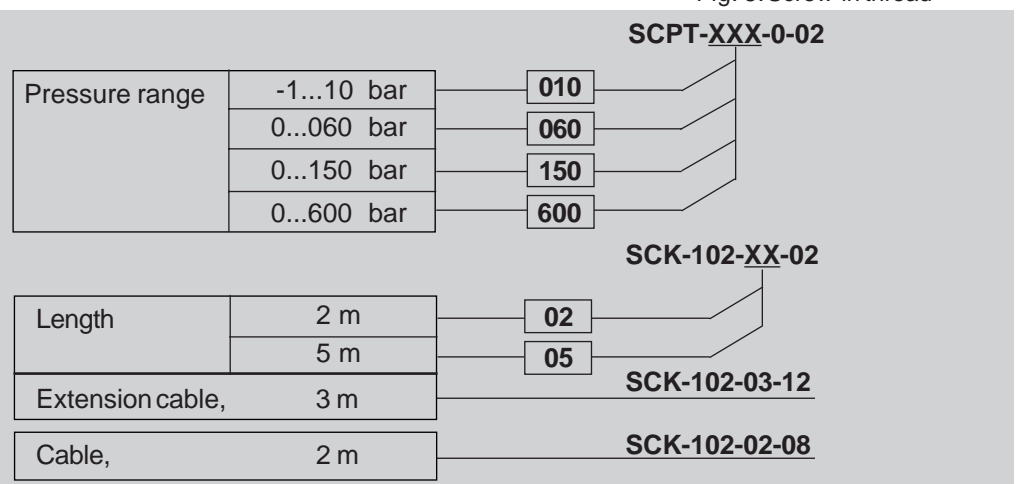


Fig. 8: Screw-in thread

## Order Code Pressure- and temperature sensor



Subject to technical modifications

### Connecting cable

Connection between sensor and SCM (serie 200 and 300)

Connection between sensor and SCM-150

## Sensors for industrial applications

Technical data type "pressure ranges"												
SCP/SCPT	004	006	010	016	025	040	060	100	160	250	400	600
Pressure range (bar)	0...4 relative	0...6 relative	0...10 relative	0...16 absolute	0...25 absolute	0...40 absolute	0...60 absolute	0...100 absolute	0...160 absolute	0...250 absolute	0...400 absolute	0...600 absolute
Overload pressure (bar)	20	20	20	150	150	150	150	250	250	1000	1000	1000
Burst pressure	45	45	45	500	500	500	500	500	500	1800	1800	1800
TK-zero point (%FS/K)	0,03	0,02	0,012	0,03	0,02	0,012	0,012	0,012	0,012	0,02	0,012	0,012
TK-sensitivity (%FS/K)	0,05	0,035	0,02	0,05	0,035	0,02	0,02	0,02	0,02	0,03	0,02	0,02
Hysteresis (%FS)	typ.	0,25	0,17	0,1	0,2	0,1	0,08	0,05	0,1	0,05	0,1	0,08
	max.	0,6	0,4	0,25	0,3	0,25	0,15	0,1	0,2	0,1	0,2	0,15
Repeatability (±%FS)	typ.	0,25	0,18	0,1	0,3	0,2	0,13	0,13	0,13	0,13	0,15	0,1
	max.	0,5	0,35	0,2	0,6	0,4	0,25	0,25	0,25	0,25	0,3	0,2
Characteristic curve deviation (±%FS) <sup>1)</sup>	typ.	0,4	0,33	0,25	0,4	0,3	0,2	0,2	0,2	0,2	0,33	0,28
	max.	0,8	0,65	0,5	0,8	0,6	0,4	0,4	0,4	0,4	0,65	0,55

<sup>1)</sup>Tolerance band adjustment

Technical data type "output signals"			
Output signal	0...20mA/4...20mA (3-wire)	4...20mA (2-wire)	0...10V
Auxiliary power Ub (V/DC)	18...30	15...35	18...30
Power consumption (mA)	<30	4...20	<6
Load impedance (Ohm)	<500	$RL_{max} = \frac{+UB-15V}{20mA}$	>10K
Temperature signal (SCPT only)	-50...+150° = 0...20mA -10...+150° = 4...20mA		-50...+150° = 0...10V

### Output-pressure

#### Response time

< 1 ms

#### Output signal noise

0,1 % / FS

#### Vibration resistance

IEC 68-2-6 bei 10...500Hz

#### Long-term stability

± 0,5% / a

#### Shock resistance

according to IEC 68 part 2-29

#### Pressure peak rise time

max. 15.000 bar/sec.

### Output-temperature

(SCPT only)

#### Temperature range

-25...+105°C

#### Characteristic curve deviation

± 1,5% / FS

#### Response time (t 0,5)

7 sec.

#### Response time (t 0,9)

22 sec.

### Voltage supply

#### Permissible residual ripple of Ub

10 % ss of Ub

#### Effect of voltage-supply fluctuation

< 0,08% FS / 10V Ub

### Environmental conditions

#### Working temperature range

-20...+85°C

#### Fluid temperature range

-25...+105°C

#### Temperature-compensated range

0...+85°C

#### Storage temperature range

-40...+125°C

### General

#### Mesuring media

Gases, liquids

#### Connection to measuring media

Male thread M22x1.5 or BSPP

1/2" with safety plate

(all sensors are available with hydraulic coupler "AD", too)

#### Seal

ED soft seal

#### Material - housing

Stainless steel,

material type 1.4301

#### Weight

200...230g

#### Service life/load alternating cycles

10 Mio.

### Electrical connection

#### Overvoltage protection

Polarity-reversal protection (Ub)

Short-circuit protection of P/T-output

#### Connector

Device plug according to DIN 43650,

IP 65

Round connector M12x1, IP 67

Subject to technical modifications

## SCP with Plug Connector DIN 43650

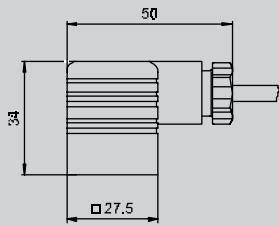


Fig. 9: Drawing DIN-plug

## SCP/SCPT with Round Connector M12x1

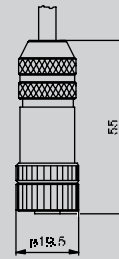


Fig. 12: Drawing Round Connector M12x1

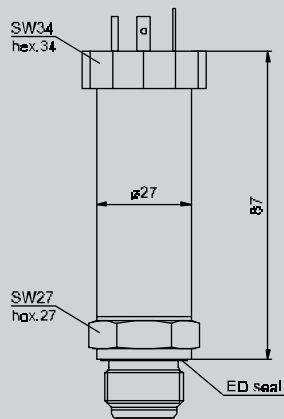


Fig. 10: Drawing SCP, DIN-Plug

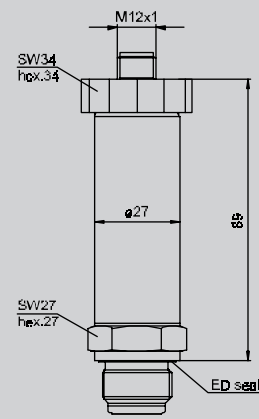
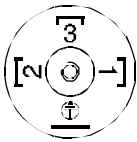


Fig. 13: Drawing SCP/SCPT, Round Connector M12x1

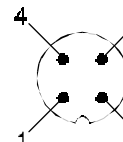
Pin Configuration Socket



Pin	SCP	SCP/2-wire	wire colour SCK-400-XX-06
1	Pout	Pout/GND	yellow
2	GND	n.c.	green
3	+Voltage supply		brown
⊕	Screen	Screen	

Fig. 11: Configuration DIN-Plug

Pin Configuration Socket



Pin	SCPT	SCP	SCP 2-wire	wire colour SCK-400-XX-07
1	+Voltage supply			brown
2	Pout	Pout	Pout/GND	yellow
3	GND	GND	n.c.	green
4	Tout	n.c.	n.c.	white

Fig. 14: Configuration M12x1-Round Connector

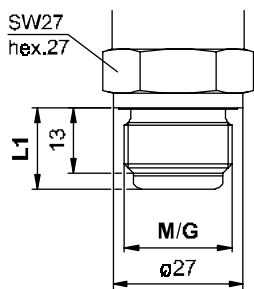


Fig. 15: threads

L1	Tapping port threads M/G	t1 <sup>+0.5</sup>
16.5	M22x1.5	17
19.5	M22x1.5-AD	20
16.5	1/2" BSPP	17
19.5	1/2"-AD BSPP	20

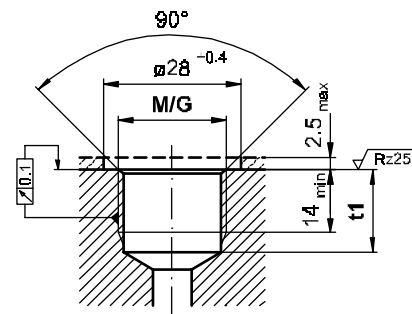


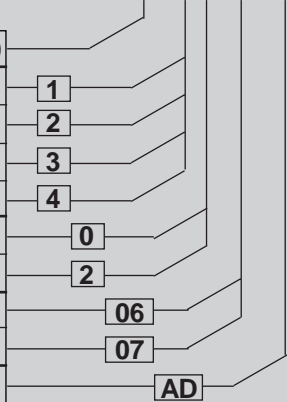
Fig. 16: tapping ports

## Order Code

### Pressure sensor SCP

pressure range (bar)	0...	004	006	010	016	025	040	060	100	160	250	400	600
Output-Signal	3-wire 0...20mA	●	●	●	●	●	●	●	●	●	●	●	●
	3-wire 4...20mA	●	●	●	●	●	●	●	●	●	●	●	●
	2-wire 4...20mA		●	●		●	●	●	●	●	●	●	●
	0...10V	●	●	●	●	●	●	●	●	●	●	●	●
Screw-Thread	M22x1.5	●	●	●	●	●	●	●	●	●	●	●	●
	BSPP 1/2"				●	●	●	●	●	●	●	●	●
Socket-Connector	DIN 43650	●	●	●	●	●	●	●	●	●	●	●	●
	M12x1	●	●	●	●	●	●	●	●	●	●	●	●
with hydraulic damping*		●	●	●	●	●	●	●	●	●	●	●	●

SCP-XXX-XX-XX-XX



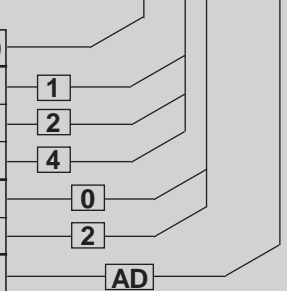
Order Example: Pressure sensor, 0...600 bar, 2-wire 4...20mA, M22x1.5, DIN-Connection, without damping  
= SCP-600-30-06

\*on request

### Pressure- and Temperature Sensor SCPT with Round Connection M12x1

pressure range (bar)	0...	004	006	010	016	025	040	060	100	160	250	400	600
Output-Signal	3-wire 0...20mA	●	●	●	●	●	●	●	●	●	●	●	●
	3-wire 4...20mA	●	●	●	●	●	●	●	●	●	●	●	●
	0...10V	●	●	●	●	●	●	●	●	●	●	●	●
Screw-Thread	M22x1.5	●	●	●	●	●	●	●	●	●	●	●	●
	BSPP 1/2"				●	●	●	●	●	●	●	●	●
with hydraulic damping*		●	●	●	●	●	●	●	●	●	●	●	●

SCPT-XXX-XX-07-XX



Order Example: Pressure- and Temperature sensor, 0...025 bar, 0...10V, BSPP 1/2", M12x1-Connection, with damping  
= SCPT-025-42-07-AD

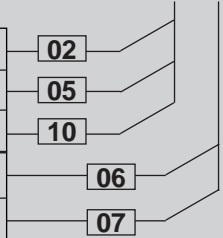
\*on request

### Connection Cable SCP/ SCPT

4 x 0,5 mm<sup>2</sup>  
screened  
blank wires

Cable length	2 m	02
	5 m	05
	10 m	10
Socket Connection	4-pin DIN 43650	06
	4-pin M12x1	07

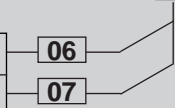
SCK-400-XX-XX



### Connector

Socket Connection	DIN 43650	06
	M12x1	07

SCK-0XX

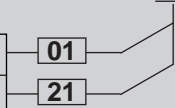


### Replacement Sealing EOLASTIC

Material Viton  
(other materials on request)

Screw-Thread	M22x1.5	01
	1/2" BSPP	21

SC-9XX



# Pressure switches SCPS

## Pressure Sensor with 2 switched outputs

- Piezoresistive Sensor element
- Adjustment range from 15 to 600 bar
- 2 switching points
- Small hysteresis
- Easy set point Setting
- Status display in plug
- Waterproof Designs
- Short circuit proof
- Reverse polarity protected

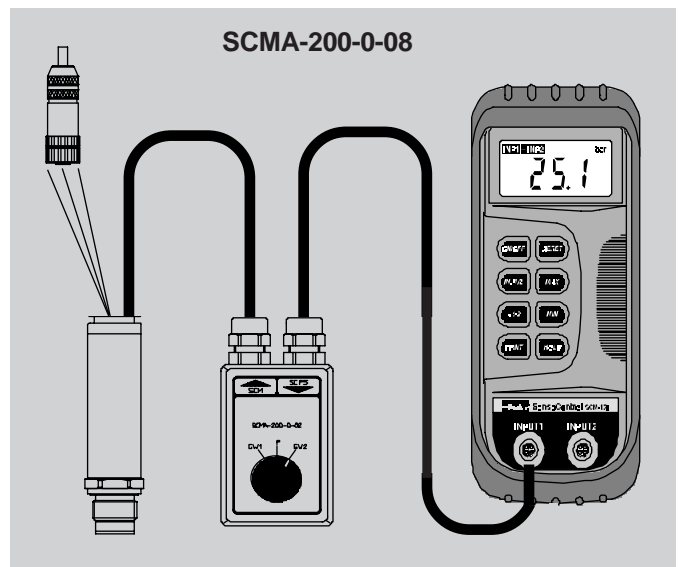


Fig. 17: Set point adjustment with SCM-150

### General description

The pressure switch SCPS is a piezoresistive sensor, with two adjustable comparators and their switching circuitry in a compact design.

High repeatability, reliability and low switching hysteresis are featured. Two separate inputs are available for separate or continuous monitoring of maximum permissible system pressures.

Both switching values are independently adjustable of each other over the full measuring range. The switching point hysteresis remains consistent.

It is also possible to adjust the switching points using the SensoControl handmeters. Both, the switching point values and the current pressure can be displayed.

The operational voltage for the pressure switch is supplied by the handmeter (see fig. 1). During installation, the pressure switch can be used as a sensor for the handmeter. To trace pressure peaks, or switching hysteresis the thermo printer can be used.

The switch output allows simple adjustment to adjust set points for normal open or normal closed operation. Currents up to 0.5A can be switched directly.

The status display at the plug connection shows the switch conditions of the respective outputs.

The pressure switch can operate equally effectively with supply voltages from 11 to 30 volts, and has over voltage as well as polarity protection. The electrical housing is filled with a semi setting gel to protect against damp penetration and vibration.

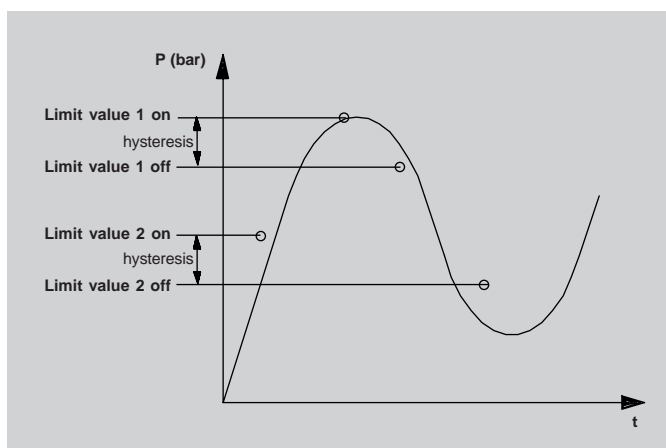


Fig. 18: Switching hysteresis

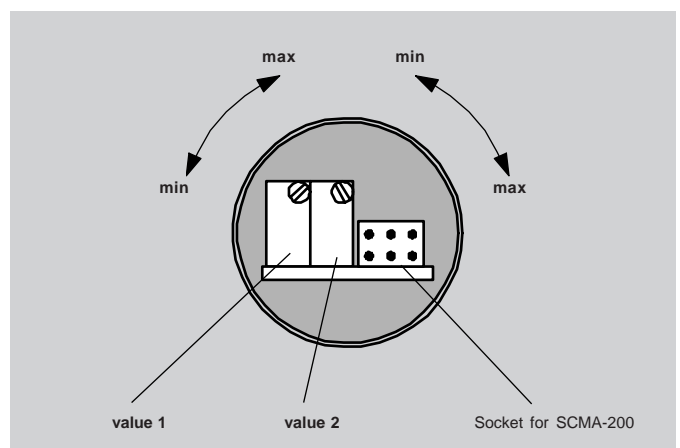


Fig. 19: Set point adjustment

# Pressure switches SCPS

## Technical data / Installation details

### Input

#### Adjustment range

-1...14 bar

1...60 bar

3...150 bar

10...600 bar

#### Overload limit

1,5 times

#### Measuring medium

Gases, liquids

### Output

#### Switching points

2, independent

#### Output voltage

Supply voltage-2V switch "ON"

GND +2V switch "OFF"

#### Switching current

0.5 A

2A short periods

#### Switching point hysteresis

1% of full scale

#### Reproducibility

0,2%

#### Input voltage effect on set point

0,008%/V

#### Thermal drift

0,025% full scale / K

#### Response time

approx. 1ms

### Supply voltage

11...30 volt

#### Allowable ripple

+/- 5% peak-peak

#### Current

10 mA (no load)

### Environmental conditions

#### Ambient temperature range

-20...+85°C

#### Medium temperature range

-25...+105°C

#### Compensated temperature range

range

0...+85°C

#### Storage temperature range

-40...+105°C

### General

#### Medium connection

Male thread

M 22x1.5 or 1/2 BSPP

#### Sealing

ED soft seal (Viton)

#### Housing material

Stainless Steel

#### Pressure rise rate

max. 15.000 bar/sec

#### Shock resistance

100 G

#### Long term stability

0,5% of FS/annum

### Electrical connection

Over voltage protection

Short circuit protection

Polarity protection

#### Plug connectors

Binder M 12, IP 67

### Weight

about 150 g

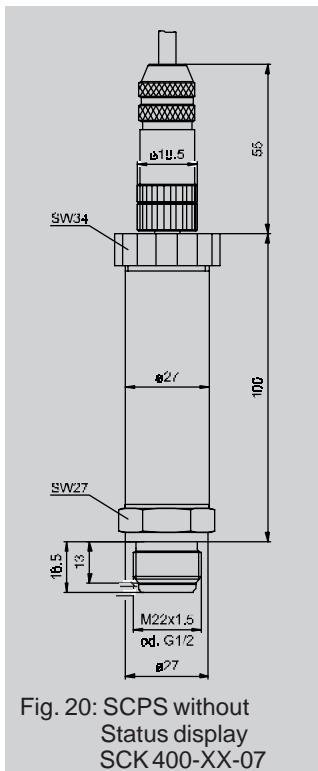


Fig. 20: SCPS without Status display SCK 400-XX-07

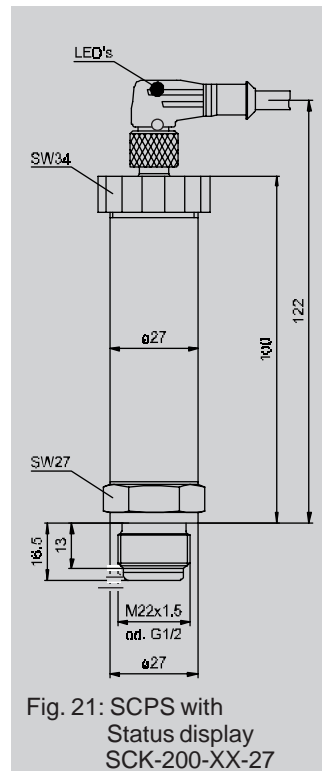


Fig. 21: SCPS with Status display SCK-200-XX-27

Pin	Designation	Colour
1	+ supply voltage	brown
2	value 1	yellow
3	GND	green
4	value 2	white

Fig. 22: Pin Configuration of SCK-400-XX-07 SCPS without Status display (see Fig. 20)

Pin	Designation	Colour
1	+ supply voltage	brown
2	value 1	white
3	GND	blue
4	value 2	black

Fig. 23: Configuration of SCK-200-XX-27 (see Fig. 21)

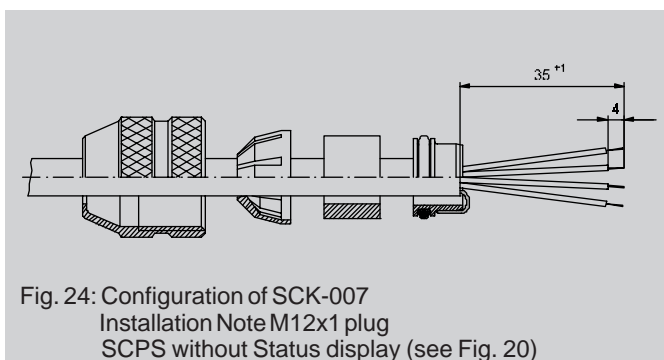


Fig. 24: Configuration of SCK-007 Installation Note M12x1 plug SCPS without Status display (see Fig. 20)

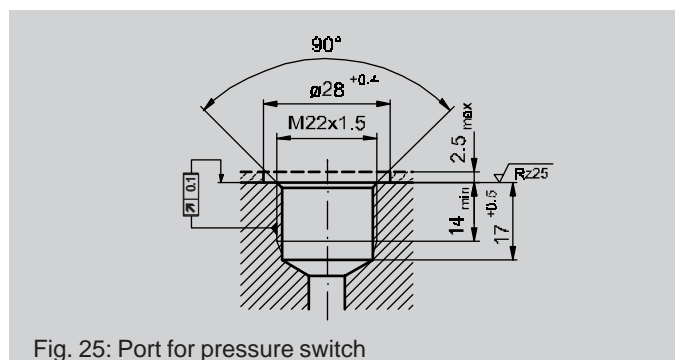
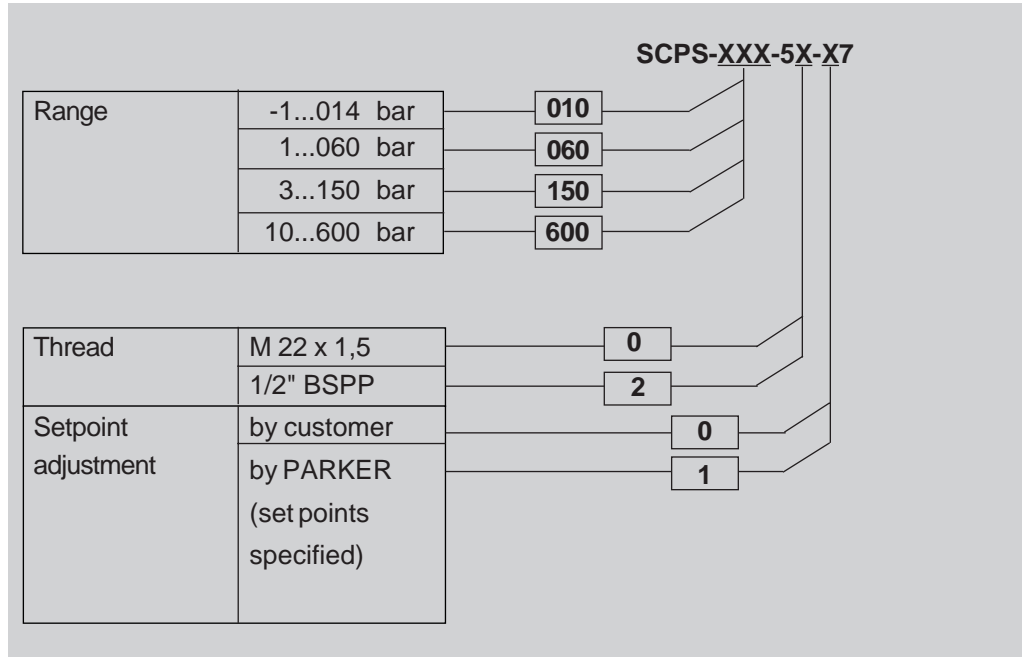


Fig. 25: Port for pressure switch

## Pressure switches SCPS

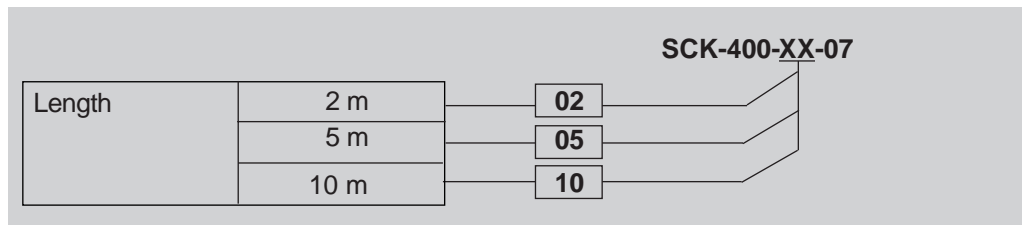
### Order Code Pressure Switch SCPS

2 setpoints with push-pull  
output  
Round Plug M 12, 4-pin



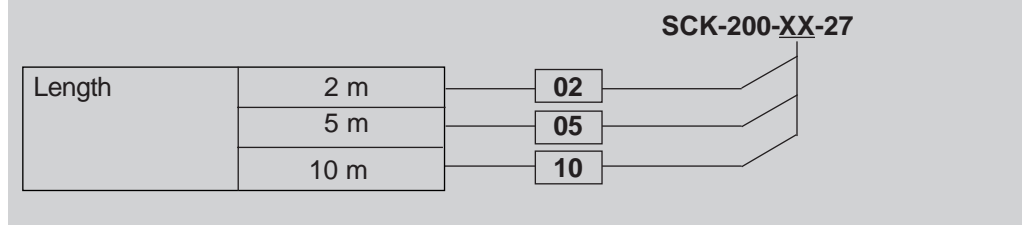
### Cable

screened / blank wires  
**without** Status display  
Round plug M12, 4-pin

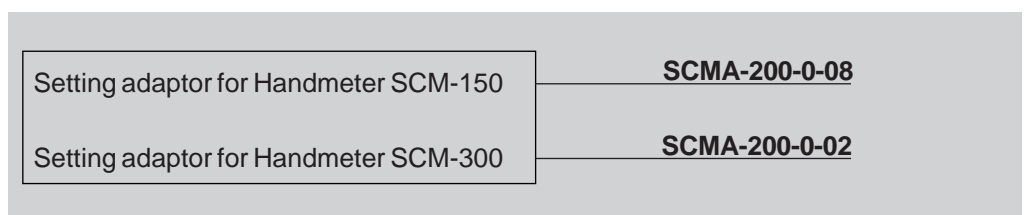


### Cable

angled plug / blank wires  
**with** Status display  
Round plug M12, 4-pin

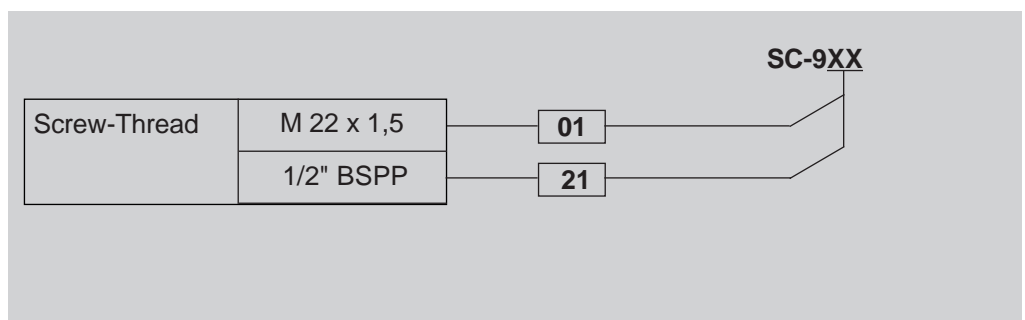


### Setting adaptor



### Spare Sealing Ring

EOLASTIC ED



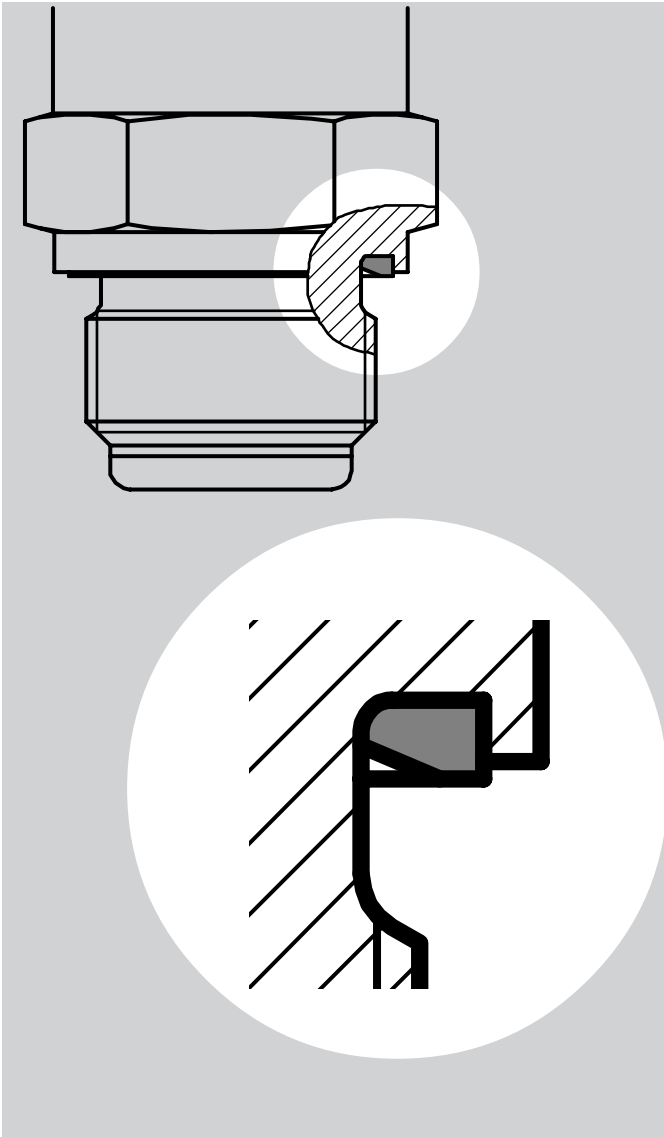


Fig. 26: Mounting position of the ED seal

To ensure proper earthing always connect metal casings with the ground reference. The PE terminal must be low-resistance grounding. The protective earth resistance must be measured according to VDE 0701.

### Supply Voltage:

The recommended supply voltage at which each standard sensor is to be operated, is indicated for the respective sensor series. We recommend using a low-noise, constant voltage source of high quality. Some specifications, such as sensitivity and thermal sensitivity shift, will change if a supply voltage other than the recommended supply voltage is used. Each sensor is designed for top performance. If the sensor is used with a supply voltage other than the one indicated, this will lead to a change in performance of the sensor. All polarity and earthing regulations should therefore be adhered to.



### Inappropriate connection of the lead wires may damage the sensor or the amplifier!

If one pole of the sensor supply voltage is automatically grounded by a signal processing system, simultaneous grounding of one of the sensor signal wires should be avoided as this may lead to a short circuit of the sensor and consequently damage it.



**Do not apply any supply voltage to the output wires as this will lead to permanent damage of the sensor!**  
**Exceeding the maximum supply voltage stated in the data sheet will also damage the sensor!**

### SensoControl-Sensors and EU-Conformity

As Parker feels responsible for the safety of their customers, and in accordance with the EU conformity concept, all our products bear the CE sign.



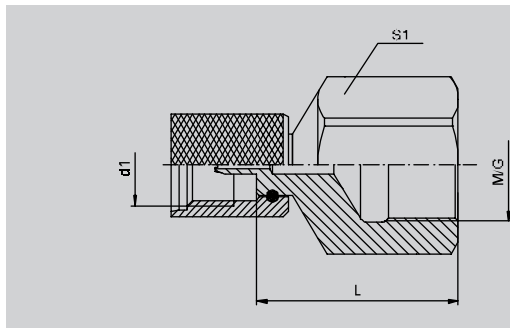
### EMC

- Electromagnetic emitted interference:  
EN 50081-1
- Electromagnetic noise immunity:  
EN 50082-2

### Important!

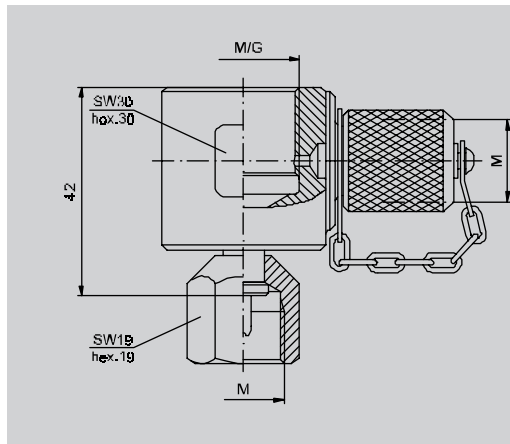
- Electromagnetic interference may affect the signal.
- Always apply standard EMC concepts machinery and equipment.
- Always use shielded connecting cables.
- Always lay analog or data lines, to protect in a safe distance from power cables.
- A good earthing avoids measuring errors.

## Adaptors for Diagnostics



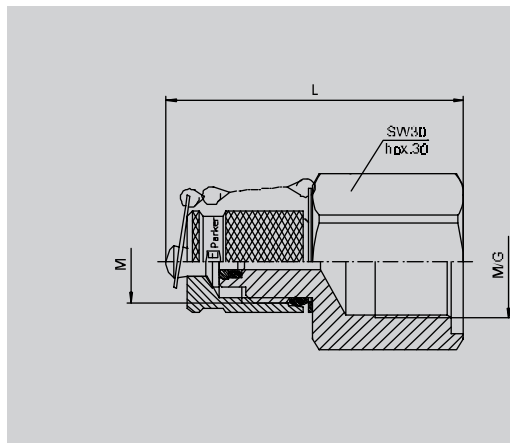
### Adaptor for sensor connections

PB	d1	S1	L	M/G	Order Code
630	M16	30	39	M22x1.5	<b>SCA-EMA-3</b>
	M16	30	44	M22x1.5	<b>SCA-EMA-3-AD</b>
	M16	27	36	BSPP 1/2"	<b>SCA-1/2-EMA-3</b>
	M16x1.5	30	39	M22x1.5	<b>SCA-EMA-4*</b>
					*on request



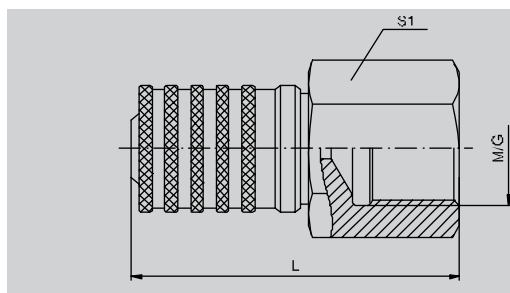
### Ventable sensor connections

PB	M/G	M	Order Code
630	M22x1,5	M16	<b>SCA-EMA-3-EL</b>
	M22x1,5	M16x1.5	<b>SCA-EMA-4-EL*</b>
	1/2" BSPP	M16	<b>SCA-1/2-EMA-3-EL</b>
			*on request



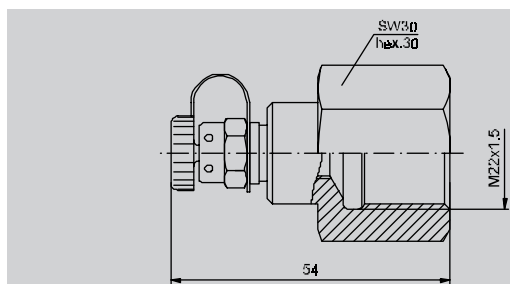
### Sensor connections for hoses

PB	M/G	M	L	Order Code
630	M22x1,5	M16	58	<b>SCA-EMA-3-S</b>
	M22x1,5	M16	77	<b>SCA-EMA-3-S-AD</b>
	M22x1,5	M16x1.5	73	<b>SCA-EMA-4-S*</b>
	1/2" BSPP	M16	60	<b>SCA-1/2-EMA-3-S</b>
				*on request



### Sensor connections for Parker-Diagnostic-quick couplings

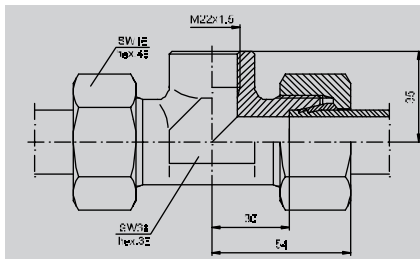
L	S1	M/G	Order Code
64	30	M22x1.5	<b>SCA-PQC</b>
64	30	1/2" BSPP	<b>SCA-1/2-PQC</b>



### Sensor connection for hose line

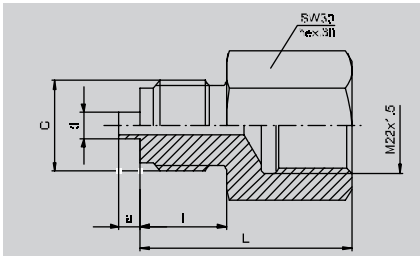
PB	L	Order Code
400	53	<b>SCA-EMA-1-S</b>

# Adaptor for pressure sensors at hydraulic systems



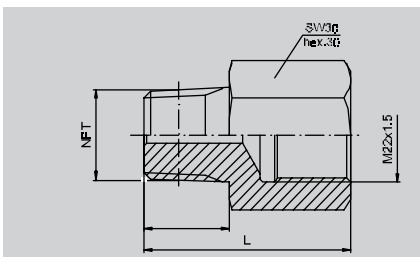
## Adaptor for Inline-tube assembly

Design	PB	Port dimensions Ø	Order Code
S	400	25	<b>SCA-G 25-S</b>



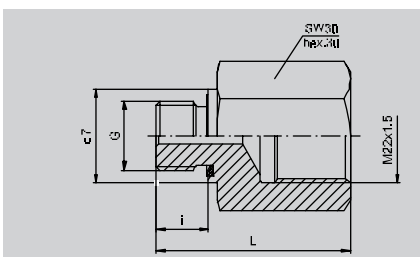
## Adaptor for pressure gauge connection

PB	G	i	a	D	L	Order Code
630	1/4	12	3	5	43	<b>SCA-MAZ-R1/4</b>
	1/2	20	5	6	49	<b>SCA-MAZ-R1/2</b>



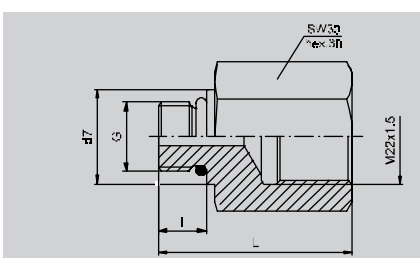
## Adaptor for NPT-female thread ports

PB	NPT	i	L	Order Code
630	1/4	15.10	46	<b>SCA-1/4-NPT</b>
	1/2	19.85	48	<b>SCA-1/2-NPT</b>



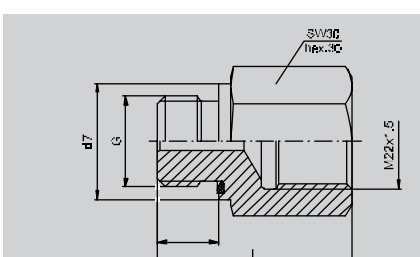
## Adaptor for metric female thread ports

PB	G	i	L	d7	Order Code
630	M12x1.5	12	50	17	<b>SCA-M12X1.5-ED-AD</b>
	M16x1.5	12	45	19	<b>SCA-M16X1.5-ED</b>
400	M22x1.5	14	49	27	<b>SCA-M22X1.5-ED-AD</b>
	M24x1.5	14	42	30	<b>SCA-M24X1.5-ED</b>



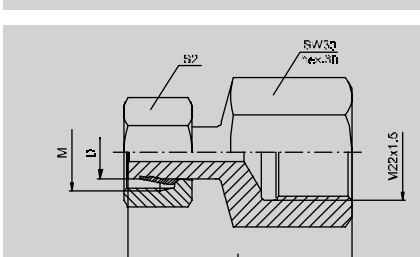
## Adaptor for metric female thread ports with O-ring packing to ISO 6149

PB	G	i	L	d7	Order Code
630	M12x1.5	11	49	17	<b>SCA-M12X1.5-OR-AD</b>
	M16x1.5	12.5	45.5	22	<b>SCA-M16X1.5-OR</b>
400	M22x1.5	15	50	27	<b>SCA-M22X1.5-OR-AD</b>



## Adaptor for inch-system female ports

PB	G	i	L	d7	Order Code
630	1/4	12	45	19	<b>SCA-R1/4-ED</b>
	3/8	12	45	22	<b>SCA-R3/8-ED</b>
	1/2	14	45	27	<b>SCA-R1/2-ED</b>
	1/2	14	45	27	<b>SCA-R1/2-ED/D10</b>
	1/2	14	50	27	<b>SCA-R1/2-ED-AD</b>
400	3/4	16	44	34	<b>SCA-R3/4-ED/D16</b>



## EO-fittings

Design	PB	D	M	L	S2	Order Code
L	250	10	M16x1.5	54	19	<b>SCA-10-L-EV</b>
		12	M18x1.5	52	22	<b>SCA-12-L-EV</b>
S	630	10	M18x1.5	54	22	<b>SCA-10-S-EV</b>
		12	M20x1.5	52	24	<b>SCA-12-S-EV</b>
	400	16	M24x1.5	54	30	<b>SCA-16-S-EV</b>

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