



# SENSOCONTROL<sup>®</sup> DIAGNOSTICS

Test Equipment for Hydraulics.

# Diagnostic Test Equipment for Hydraulics

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All the instruments meet the guidelines of the European Community (EU).  
It is confirmed that these products are approved acc. to following standards.



DIN/EN 61000-6-2  
DIN/EN 61000-6-3

## **Note!**

This document and other information from Parker Hannifin GmbH, provide product or system options for further investigation by users having technical expertise. Before you select or use any product or system it is important that you analyse all aspects of your application and review the information concerning the product or system in the current product catalogue. Due to the variety of operating conditions and applications for these products or systems, the user, through his own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance and safety requirements of the application are met. The products are subject to change by Parker Hannifin GmbH at any time without notice.

Technical subject to change. January 2026.

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# 18 Hydraulic tester SCLV analogue and CAN

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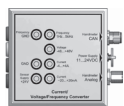
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# Product overview

## Measuring device and test kit

|                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ServiceJunior</b> <ul style="list-style-type: none"> <li>✓ Easy to use, robust and reliable</li> <li>✓ Measurement ranges up to 1000 bar</li> <li>✓ Accuracy up to 0.1%</li> <li>✓ Data logger function optional</li> </ul>                               | <b>Parker Serviceman Plus</b> <ul style="list-style-type: none"> <li>✓ Easy to use, robust and reliable</li> <li>✓ Automatic sensor recognition</li> <li>✓ Up to 3 sensors</li> <li>✓ PC connection</li> <li>✓ SensoWin® 7.1 PC software</li> </ul>                                                        |
| Page 8                                                                                                                                                                                                                                                                                                                                        | Page 14                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>The Parker Service Master COMPACT</b> <ul style="list-style-type: none"> <li>✓ Easy to use, robust and reliable</li> <li>✓ 3 versions for up to 6 sensors with sensor recognition and 2 auxiliary sensors</li> <li>✓ SensoWin 7.6 PC software</li> </ul>  | <b>The Parker Service Master CONNECT</b> <ul style="list-style-type: none"> <li>✓ Intuitive operation, robust and reliable</li> <li>✓ Modular system with individually exchangeable measuring modules</li> <li>✓ Record, save and analyse measurement data</li> <li>✓ SensoWin 7.6 PC software</li> </ul>  |
| Page 19                                                                                                                                                                                                                                                                                                                                       | Page 24                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>SensoWin® PC software</b> <ul style="list-style-type: none"> <li>✓ Data analyses</li> <li>✓ Online measurements</li> <li>✓ Creating measurement protocols</li> </ul>                                                                                     | <b>ServiceJunior Test kit</b> <ul style="list-style-type: none"> <li>✓ Easy generation of pressures for testing and adjusting pressure gauges and sensors</li> </ul>                                                                                                                                      |
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## Sensors

|                                                                                                                                                                                                                      |                                                                                                                                                                                          |                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Measurement of electrical signals</b>  <p>Frequency, current and voltage measurement, e.g. for connecting external sensors</p> | <b>Pressure sensors SCP analogue</b>  <p>Pressure measurement with a compact analogue sensor</p>      | <b>Pressure sensors SCP CAN</b>  <p>Pressure measurement with compact Parker CAN bus sensor</p>                      |
| Page 34                                                                                                                                                                                                              | Page 44                                                                                                                                                                                  | Page 48                                                                                                                                                                                                   |
| <b>Pressure/temperature sensors SCPT Analogue</b>  <p>Pressure/temperature sensors analogue</p>                                   | <b>Pressure/temperature sensors SCPT CAN</b>  <p>Pressure/temperature sensors with Parker CAN bus</p> | <b>Temperature sensors SCT analogue</b>  <p>High pressure-resistant temperature sensors and rod sensors analogue</p> |
| Page 52                                                                                                                                                                                                              | Page 56                                                                                                                                                                                  | Page 60                                                                                                                                                                                                   |



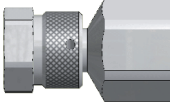
## Sensors continued

| Temperature sensors SCT CAN                                                       | Tachometer SCRPM analogue                                                         | Turbine flow meter SCFT analogue                                                    |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |
| High pressure-resistant temperature sensors with CAN bus                          | Contactless rev. counter                                                          | Turbine flow meter analogue                                                         |
| Page 66                                                                           | Page 70                                                                           | Page 74                                                                             |

| Turbine flow meter SCFTT CAN                                                      | Hydraulic tester SCLV                                                             |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |  |
| Turbine flow meter CAN with integrated temperature sensor                         | Hydraulic tester in analogue and CAN design                                       |
| Page 79                                                                           | Page 84                                                                           |

## Accessories

| Connection cables SCK                                                               | Diagnostic adapters SCA                                                             | SMA measuring hoses                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |
| Cable for CAN bus and analogue sensors                                              | Adapter for various connection systems                                              | Measuring hoses for connecting sensors to measuring connections EMA3                  |
| Page 88                                                                             | Page 90                                                                             | Page 92                                                                               |

# Measuring devices

## Measuring instruments

- Long-term stability
- Robust designs
- Easy handling
- Flexible on-site use
- Documentation of the measured values

**SensoControl®** Hand-held measuring devices and accessories – the right measuring tool for every application. Whether you work in industry, mobile hydraulics, service or repair: Measuring and working with hydraulic variables is the basis for reliable troubleshooting. Systematic troubleshooting with modern tools is therefore essential for today's service technicians.

Rapid processes - such as switching valves, cylinder strokes, pressure peaks, differential pressures and changes in flow - must be measured and evaluated at the same time.



**SensoControl®** hand-held measuring devices have been specially designed for these requirements:

- Measurement and display of hydraulic parameters such as pressure, differential pressure, pressure peaks, temperature and flow as well as speed.
- For mobile measurement data acquisition with high accuracy and easy operation.

We manufacture and test all **SensoControl®** hand-held measuring devices and accessories in our own production facilities. Our constantly growing demands on quality and flexibility make Parker a reliable partner.

# Finding the best measuring device

## Finding the best measuring device

| Selection/property  | ServiceJunior                    | Parker Serviceman Plus | The Parker Service Master COMPACT | The Parker Service Master CONNECT |
|---------------------|----------------------------------|------------------------|-----------------------------------|-----------------------------------|
| Measure             | ●                                | ●                      | ●                                 | ●                                 |
| Display             | ●                                | ●                      | ●                                 | ●                                 |
| Save                | ○                                | ●                      | ●                                 | ●                                 |
| Measurement display | ACTUAL/MIN/MAX/FS<br>(Peak-Hold) | ACTUAL/MIN/MAX/FS      | ACTUAL/MIN/MAX/FS                 | ACTUAL/MIN/MAX/FS<br>(Peak-Hold)  |

### Sensor connection

|                                 |       |         |             |             |
|---------------------------------|-------|---------|-------------|-------------|
| Sensors with recognition        |       |         |             |             |
| Parker CAN Bus                  | -     | up to 3 | up to 6     | up to 48    |
| Parker ANALOG                   | -     | up to 2 | up to 4     | up to 6     |
| CANOpen and SAEJ-1939 interface | -     | -       | -           | > 100       |
| Auxiliary sensors               | -     | - *     | up to 2*    | up to 4*    |
| Frequency input                 | -     | -       | -           | 1           |
| Calculation channels            | -     | 1       | 2           | 4           |
| Pressure peaks/sample rate      | 10 ms | 1 ms    | 1 ms/0.1 ms | 1 ms/0.1 ms |

### Functions

|                         |                  |              |              |                   |
|-------------------------|------------------|--------------|--------------|-------------------|
| Battery                 | Non rechargeable | Rechargeable | Rechargeable | Rechargeable      |
| External power supply   | —                | ●            | ●            | ●                 |
| Interface               | USB (optional)   | USB          | USB          | USB/Ethernet/WLAN |
| Online measurement      | —                | ●            | ●            | ●                 |
| Record measurement data | ○                | ●            | ●            | ●                 |

\* Additional auxiliary sensors with SCMA-VADC-710

○ Option

● Series

# 1 ServiceJunior

## ServiceJunior with data logger

- Digital pressure measurement and back-lit display
- Measurement ranges up to 1000 bar
- Accuracy up to 0.1%
- Data logger function with integrated memory and real-time clock optional
- Pressure peak capture at 10-ms sample rate
- MIN/MAX value display
- Extremely robust and reliable thanks to metal housing
- Start/stop measurement means no more complex calculations and lengthy configurations
- Optimal storage thanks to automatic data compression



The ServiceJunior allows you to measure, display and store pressures in one device.

Its extremely robust metal housing design and easy operation make it stand out from the competition.

Several mechanical pressure gauges are often required for accurate measurements over a wide pressure range. Thanks to its high accuracy, resolution and long-term stability as well as the 4 1/2-digit display, the ServiceJunior does this job all by itself.

Pressure peaks are securely captured at a sample rate of 10 ms. The MIN and MAX function saves minimum and maximum pressures automatically and calls them up at the touch of a button.

The optional data logger with real-time clock records the current measured values as well as the minimum and maximum values. The signature Parker start/stop function with automatic data compression makes complex calculations and lengthy configurations a thing of the past. A measurement of up to 24 hours is simply started at the push of a button. The stored measurement data is transferred to a computer or laptop via the USB interface. Thanks to the universal CSV format, the data can be evaluated and documented without special software.

The device offers all the advantages of digital pressure measurement at great value for money.

### Applications:

- Maintenance and service
- Pressure test
- Fault-finding
- Leak test
- Monitoring and commissioning
- Quality assurance and Laboratory

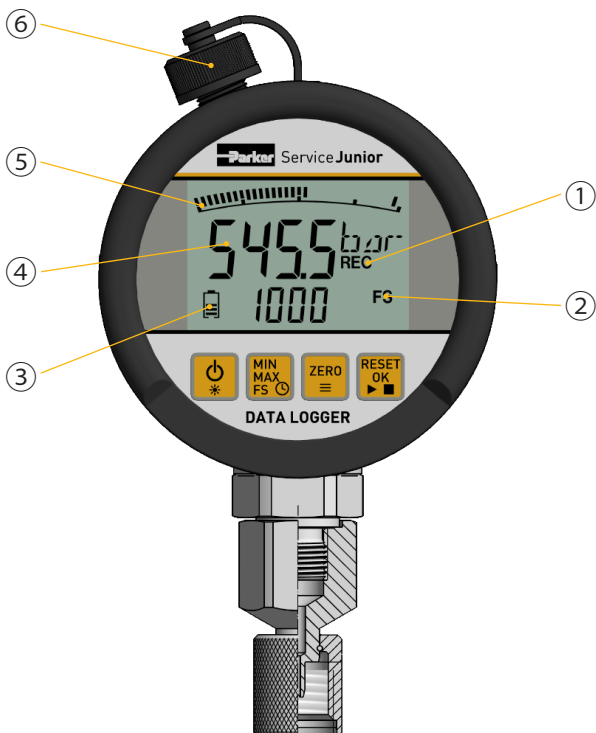
### Functions:

- Min/MAX display
- Adjustable display filter
- ZERO function
- Configurable automatic shutdown
- Switchable units
- Optional data logger and real-time clock

### Markets:

- Mobile hydraulics
- Industrial hydraulics
- Pneumatics
- Plant and mechanical engineering
- Environmental engineering

Functional description

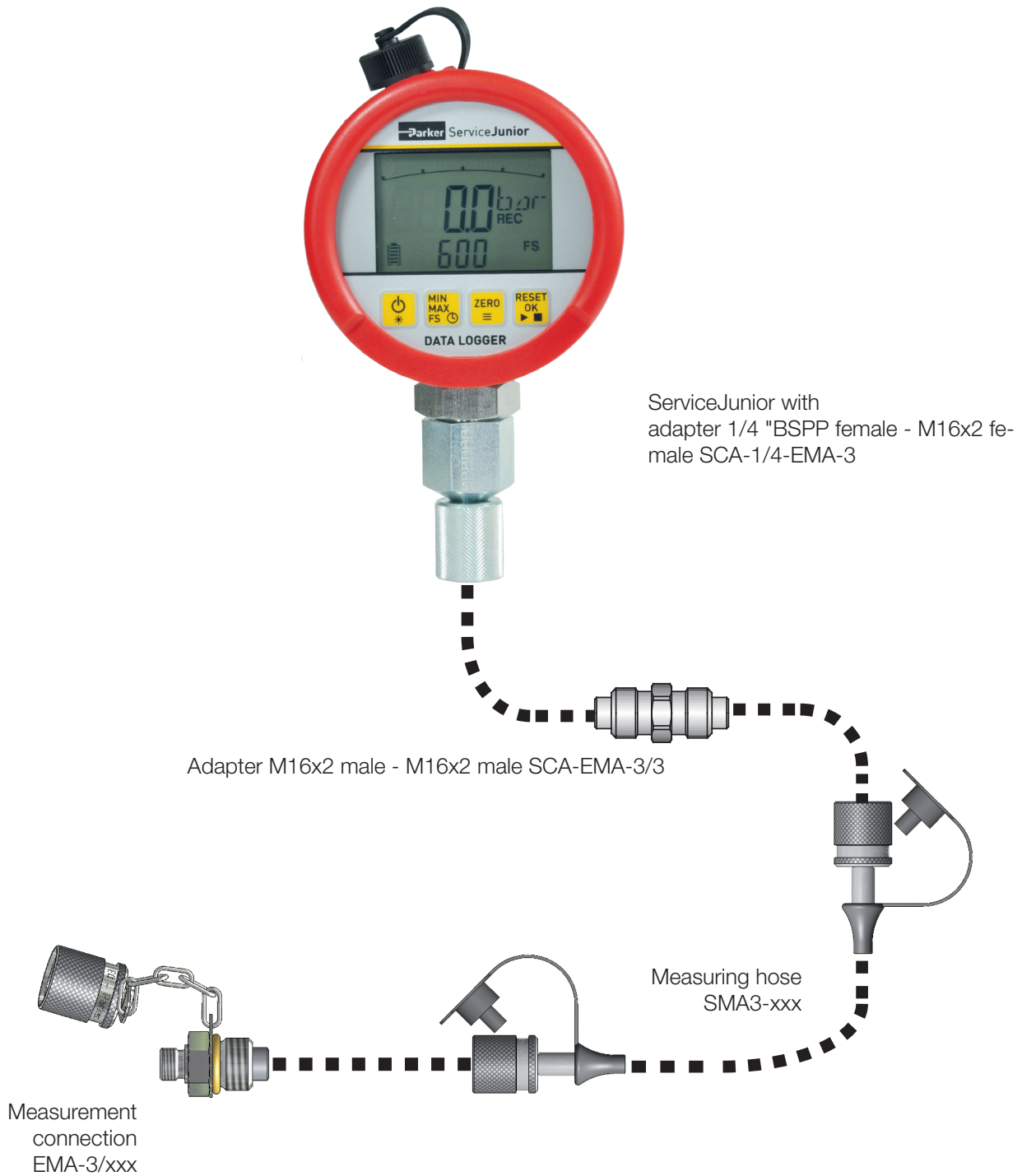


| No.                                                                                | Function                                               |                                                                                                                    |
|------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| ①                                                                                  | REC display, flashes when data recording is active**   |                                                                                                                    |
| ②                                                                                  | MIN/MAX or FullScale display, depending on the setting |                                                                                                                    |
| ③                                                                                  | Battery level indicator                                |                                                                                                                    |
| ④                                                                                  | Actual value display                                   |                                                                                                                    |
| ⑤                                                                                  | Bar graph with peak and hold functions                 |                                                                                                                    |
| ⑥                                                                                  | Mini-USB port*                                         |                                                                                                                    |
|   | ON/OFF key                                             | Switch device on/off.<br>Press for 2 s: Switch on the backlight for 20 s.                                          |
|   | MIN/MAX/FS key                                         | Select additional display value: Decrement MIN, MAX or FS/time*.<br>Press for 2 s: Set the time (CSV formatting)*. |
|   | ZERO/MENU key                                          | Zero point adjustment/increment time*.<br>Press for 2 s: Open the menu.                                            |
|  | RESET/OK/START-STOP key                                | Delete MIN and MAX values from the memory.<br>Confirm menu functions.<br>Press for 2 s: Start/stop measurement*.   |
| * only with data logger version                                                    |                                                        |                                                                                                                    |

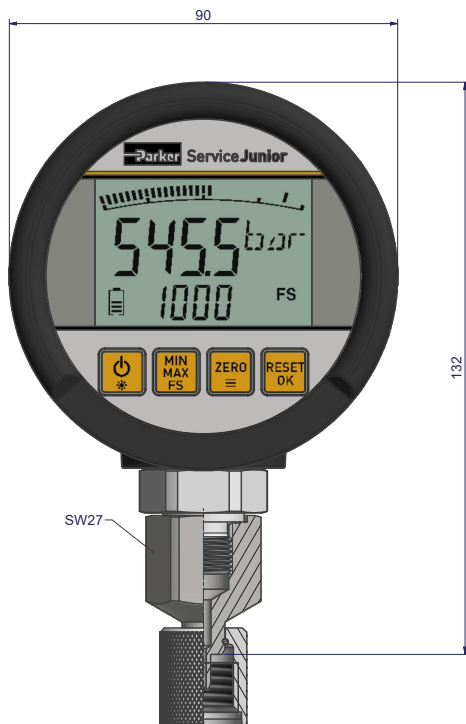


# 1 ServiceJunior

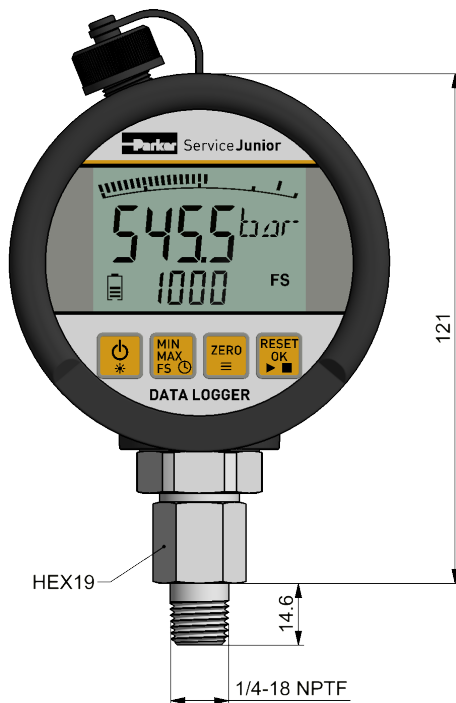
## Pressure measurement



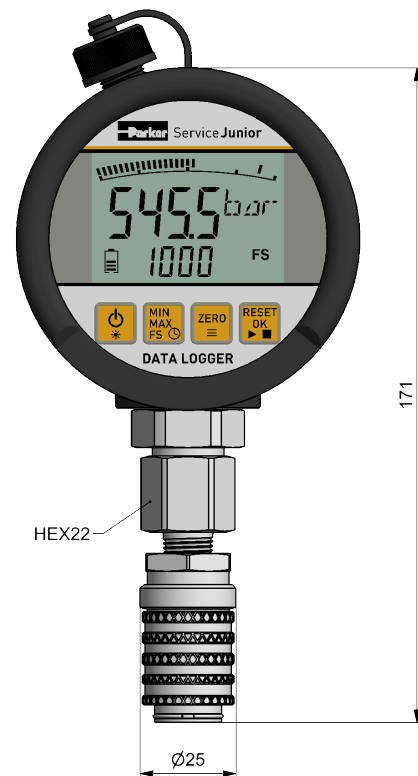
## Dimensional drawings



ServiceJunior SCJN-xxx-xx



ServiceJunior SCJN-xxx-xx-4MP  
(USA only)



ServiceJunior SCJN-xxx-xx-PD

# 1 ServiceJunior

## Technical data

| SCJN-                                      | 016                                                                                                                                                                                                                                                                                                                                                                                    | 100                 | 400                 | 600                 | 1000                   |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|---------------------|------------------------|
| Measuring range (bar)<br>(psi)             | -1...16<br>-14.5...232                                                                                                                                                                                                                                                                                                                                                                 | 0...100<br>0...1450 | 0...400<br>0...5800 | 0...600<br>0...8700 | 0...1000*<br>0...14500 |
| Nominal pressure $P_N$ (bar)<br>(psi)      | 16<br>232                                                                                                                                                                                                                                                                                                                                                                              | 100<br>1450         | 40<br>5800          | 600<br>8700         | 630<br>9100            |
| Overload pressure $P_{max}$ (bar)<br>(psi) | 32<br>464                                                                                                                                                                                                                                                                                                                                                                              | 200<br>2900         | 800<br>11600        | 1000<br>14500       | 1000<br>14500          |
| Burst pressure (bar)<br>(psi)              | 160<br>2320                                                                                                                                                                                                                                                                                                                                                                            | 800<br>11600        | 1700<br>24650       | 2000<br>29000       | 2000<br>29000          |
| Housing                                    | Ø = 90 mm, D = 45 mm<br>Die-cast zinc with rubber protective cover TPE                                                                                                                                                                                                                                                                                                                 |                     |                     |                     |                        |
| Weight                                     | approx. 500 g                                                                                                                                                                                                                                                                                                                                                                          |                     |                     |                     |                        |
| Outlet Connection                          | Stainless steel 1/4" BSPP (ISO 228-1),<br>Adapter M16x2 SCA-1/4-EMA-3 in<br>scope of delivery                                                                                                                                                                                                                                                                                          |                     |                     |                     |                        |
| Input                                      | 10-ms sample rate<br>Accuracy<br>0.5 % FS ±1 Digit: SCJN-xxx-01<br>0.1 % FS ±1 Digit: SCJN-xxx-02<br>+ 0.2%/year                                                                                                                                                                                                                                                                       |                     |                     |                     |                        |
| Display indication                         | LC text display 4.5 digits<br>backlight                                                                                                                                                                                                                                                                                                                                                |                     |                     |                     |                        |
| Seal                                       | NBR                                                                                                                                                                                                                                                                                                                                                                                    |                     |                     |                     |                        |
| Media-contacting parts                     | Stainless steel, NBR                                                                                                                                                                                                                                                                                                                                                                   |                     |                     |                     |                        |
| Power supply                               | 2 x 1.5 V batteries (AA)<br>Battery life max. 1,500 h                                                                                                                                                                                                                                                                                                                                  |                     |                     |                     |                        |
| Functions                                  | Units: mbar, bar, PSI, Mpa, kPa, kg/cm <sup>2</sup><br>Representation MIN/MAX/FS<br>Battery level indicator<br>Auto Power Off/On<br>Zero (zero point adjustment)<br>Reset (delete MIN/MAX)                                                                                                                                                                                             |                     |                     |                     |                        |
| Data logger (optional)                     | Mini-USB port / with protective cap<br>Real time clock<br>Storage rate from 100 ms. Up to 18000 readings (automatic data compression)<br>Maximum measurement time: 24 hours<br>Number of measurements: 10<br>Storage format: CSV                                                                                                                                                       |                     |                     |                     |                        |
| Ambient conditions                         | Ambient temperature -10... + 50 °C (0 ... 50 °C for SCJN-xxx-x2) /<br>+14 ... + 122 °F (+24 ... +122 °F)<br>Storage temperature -20...+60 °C / -4...+140 °F<br>Media temperature -20...+80 °C / -4...+176 °F<br>Rel. humidity < 85 %<br>Protection class IP67 EN 60529, data logger version IP65<br>Vibration IEC 60068-2-6/ 10...500 Hz, 5 g<br>Shock load IEC 60068-2-29/25 g, 11 ms |                     |                     |                     |                        |
| Load change                                | 100 mil.                                                                                                                                                                                                                                                                                                                                                                               |                     |                     |                     |                        |

\* Nominal pressure 630 bar, for pressure peaks up to 1000 bar



## Order codes and accessories

### ServiceJunior

### ServiceJunior with ISO 9001 calibration certificate

|         |   |     |   |   |   |   |    |
|---------|---|-----|---|---|---|---|----|
| SCJN    | - | xxx | - | x | x | - | xx |
| K- SCJN | - | xxx | - | x | x | - | xx |

### Pressure range

|                               |      |
|-------------------------------|------|
| -1...16 bar (-14.5...232 psi) | 016  |
| 0...100 bar (0...1450 psi)    | 100  |
| 0...400 bar (0...5801 psi)    | 400  |
| 0...600 bar (0...8700 psi)    | 600  |
| 0...1000 bar (0...14503 psi)  | 1000 |

### Version

|                     |   |
|---------------------|---|
| without data logger | 0 |
| with data logger    | L |

### Accuracy

|      |   |
|------|---|
| 0.5% | 1 |
| 0.1% | 2 |

### Adapter

Standard: SCA-1/4-EMA-3CF adapter (EMA3 M16 x 2)

|                        |     |
|------------------------|-----|
| PD adapter             | PD  |
| PDP adapter (USA only) | PDP |
| 4MP adapter (USA only) | 4MP |

| ServiceJunior kits: Measurement ranges -1...016 bar/0...100 bar/0...400 bar/0...600 bar                                                                                                                                                                                                                                                      | Order designation |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Scope of delivery: <ul style="list-style-type: none"> <li>■ Equipment case SCC-120 (USA case SCC-300)</li> <li>■ ServiceJunior SCJN-xxx-x1 (0.5%) incl. adapter (1/4" BSPP female - M16x2 female) SCA-1/4-EMA-3CF</li> <li>■ Adapter (M16x2 male - M16x2 male) SCA-EMA-3/3</li> <li>■ Measuring hose 1,500 mm (M16x2) SMA3-1500CF</li> </ul> |                   |
| ServiceJunior kit                                                                                                                                                                                                                                                                                                                            | SCJN-KIT-xxx      |
| ServiceJunior kit with calibration certificate as per ISO 9001                                                                                                                                                                                                                                                                               | K-SCJN-KIT-xxx    |
| ServiceJunior kit with PD adapter (USA only)                                                                                                                                                                                                                                                                                                 | SCJN-KIT-xxx-PD   |
| ServiceJunior kit with PD adapter and calibration certificate as per ISO 9001 (USA only)                                                                                                                                                                                                                                                     | K-SCJN-KIT-xxx-PD |
| ServiceJunior kit with data logger                                                                                                                                                                                                                                                                                                           | SCJN-KIT-xxx-L1   |
| ServiceJunior kit with data logger and ISO 9001 calibration certificate                                                                                                                                                                                                                                                                      | K-SCJN-KIT-xxx-L1 |
| * only 0.5% accuracy, not available for 1,000 bar                                                                                                                                                                                                                                                                                            |                   |

| Spare parts/accessories                       | Order designation |
|-----------------------------------------------|-------------------|
| Equipment case                                | SCC-120           |
| Blue rubber protection (16 bar / 230 psi)     | SCJN-RUBBER-BLU   |
| Green rubber protection (100 bar / 1500 psi)  | SCJN-RUBBER-GRE   |
| Rubber protection orange (400 bar / 5800 psi) | SCJN-RUBBER-ORA   |
| Rubber protection red (600 bar / 8700 psi)    | SCJN-RUBBER-RED   |
| Black rubber protection (1000 bar)            | SCJN-RUBBER-BLA   |



## 2 Parker Serviceman Plus

### Parker Serviceman Plus

- Easy handling
- Robust design with oil-resistant rubber protection
- Plug & Play functionality
- Large backlit display
- Direct storage on nano USB stick
- PC connection
- Including SensoWin® PC software
- Available in 2 versions:  
Analogue or CAN



#### Analogue version



#### CAN version



Of the **Parker Serviceman Plus** is a mobile, extremely robust and easy-to-use measuring instrument for many measuring tasks in mobile hydraulics or in stationary hydraulic systems.

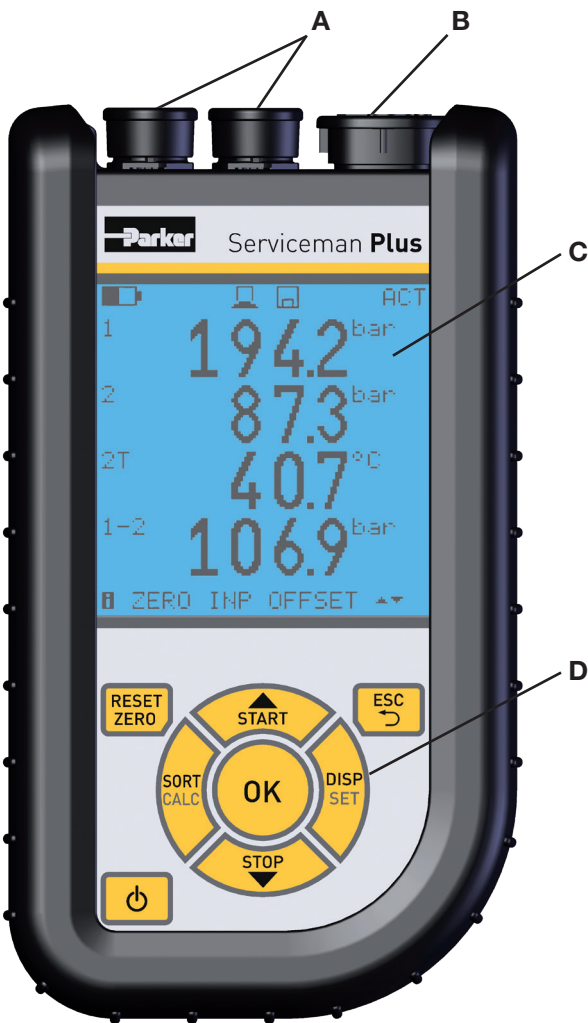
With the automatic sensor recognition, you can simply plug in pressure, temperature, flow or speed sensors and start measuring immediately.

There is no need to parameterise the sensors because the measuring ranges are automatically scaled and the measured value shown on the display.

#### Advantages of the Parker CAN bus

- Cable lengths up to 50 m
- Low wiring effort, up to 3 sensors on one bus line
- High interference resistance due to digital data transfer
- Plug & Play functionality without parameterisation

Functional description



|   |                                                                                                                                                       |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | Sensor connections                                                                                                                                    |
| B | USB connections for external hard drive, charging function and data transfer to PC                                                                    |
| C | Illuminated display                                                                                                                                   |
| D | Keyboard                                                                                                                                              |
|   | Switching on and off                                                                                                                                  |
|   | <ul style="list-style-type: none"><li>■ Resettable MIN and MAX values</li><li>■ Zero-point adjustment</li></ul>                                       |
|   | Back                                                                                                                                                  |
|   | Confirm selection                                                                                                                                     |
|   | <ul style="list-style-type: none"><li>■ Rearrange channels in the display</li><li>■ Insert calculation channel</li></ul>                              |
|   | <ul style="list-style-type: none"><li>■ Toggle display: MIN and MAX values, sensor end value or temperature</li><li>■ Basic device settings</li></ul> |
|   | Start measured value storage                                                                                                                          |
|   | Stop measured value storage                                                                                                                           |



USA suitcase  
(possibly different content)

## 2 Parker Serviceman Plus

### Technical data

|                                              | SCM-155-0-02 analogue                                                                                                                                                                                     | SCM-155-2-05 CAN                                                             |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Inputs                                       |                                                                                                                                                                                                           |                                                                              |
| Sensor inputs                                | 2 Parker analogue sensors with sensor recognition                                                                                                                                                         | CAN bus interface for up to 3 Parker CAN bus sensors with sensor recognition |
| Measuring accuracy                           | < ± 0.2 % FS ± 1 digit                                                                                                                                                                                    | –                                                                            |
| Plug-in Connection                           | 5 pin, push-pull                                                                                                                                                                                          | 5 pin, M12x1, plug                                                           |
| Sample rate                                  | 1 ms                                                                                                                                                                                                      | 1 ms                                                                         |
| Interfaces                                   |                                                                                                                                                                                                           |                                                                              |
| USB device                                   | Online data transfer between device and PC via PC software SensoWin®, measured value transfer: ACT/MIN/MAX, min. 5 ms, USB standard: 2.0, full speed, plug connection: Micro-USB socket, shielded, type B |                                                                              |
| USB host                                     | Port for USB stick, max. 4 GB, recommended types: Delock USB 2.0 Nano-Stick, Intenso Micro Line, USB standard: 2.0, full speed, max. 100 mA, plug connection: Micro-USB socket, shielded, type B          |                                                                              |
| Memory                                       |                                                                                                                                                                                                           |                                                                              |
| Internal measured value memory               | 1 measurement, approx. 15,000 data records (270,000 measured values ACT/MIN/MAX), max. 24 h per measurement                                                                                               |                                                                              |
| USB stick                                    | 4 GB included                                                                                                                                                                                             |                                                                              |
| Storage format                               | Choice of SCMO (SensoWin compatible) or CSV                                                                                                                                                               |                                                                              |
| Functions                                    | Difference, addition, hydraulic power, ACT, MIN, MAX, FS, TEMP display, battery status, start/stop measurement with automatic data compression, adjustable display filter                                 |                                                                              |
| Display indication                           |                                                                                                                                                                                                           |                                                                              |
| Type                                         | FSTN-LCD, graphic, with LED backlight                                                                                                                                                                     |                                                                              |
| Visible area                                 | 62mm x 62mm                                                                                                                                                                                               |                                                                              |
| Resolution                                   | 130 x 130 pixels                                                                                                                                                                                          |                                                                              |
| Power supply (external)                      | Micro USB socket, type. B, + 5V DC, max. 1,000 mA                                                                                                                                                         |                                                                              |
| Rechargeable battery                         |                                                                                                                                                                                                           |                                                                              |
| Type                                         | Lithium-ion pack, 3.7 V DC / 2250 mAh                                                                                                                                                                     | Lithium-ion pack, 3.7 V DC / 4500 mAh                                        |
| Battery charging time with power supply unit | approx. 3.5 h                                                                                                                                                                                             | approx. 7 h                                                                  |
| Battery discharge time                       | > 8 h, with 2 sensors                                                                                                                                                                                     | > 8 h, with 2 CAN bus sensors                                                |
| Housing                                      |                                                                                                                                                                                                           |                                                                              |
| Housing material                             | PC/ABS/POM                                                                                                                                                                                                |                                                                              |
| Housing protective cover material            | TPU                                                                                                                                                                                                       |                                                                              |
| Dimensions (W x H x D)                       | 96 x 172 x 54 mm                                                                                                                                                                                          |                                                                              |
| Weight                                       | approx. 530 g                                                                                                                                                                                             |                                                                              |
| Ambient conditions                           |                                                                                                                                                                                                           |                                                                              |
| Ambient temperature                          | 0...+50 °C                                                                                                                                                                                                |                                                                              |
| Storage temperature                          | -25...+60 °C                                                                                                                                                                                              |                                                                              |
| Rel. Humidity                                | < 80 %                                                                                                                                                                                                    |                                                                              |
| Environmental impact test                    | DIN EN 60068-2-32 (1 m free fall)                                                                                                                                                                         |                                                                              |
| Protection class                             | IP54 EN 60529                                                                                                                                                                                             | IP67 EN 60529                                                                |
| SensoWin® PC software                        | Read-out, display, computer analysis of measured data, read-out, alteration of device settings, loading of device settings from library onto hand-held device                                             |                                                                              |

### Supply range and accessories

| Parker Serviceman Plus<br>Scope of delivery                  | Order designation     |                  |
|--------------------------------------------------------------|-----------------------|------------------|
|                                                              | SCM-155-0-02 analogue | SCM-155-2-05 CAN |
| Power supply unit with USB port 110/240 VAC, 1 A, SCSN-440   | ●                     | ●                |
| Nano USB stick 4 GB, SC USB MINISTICK                        | ●                     | ●                |
| 1 m USB connection cable (for charging and connection to PC) | ●                     | ●                |
| SensoWin® PC software                                        | ●                     | ●                |

| Spare parts and accessories                                     | Order designation |
|-----------------------------------------------------------------|-------------------|
| Car cable adapter with USB port 12/24 VDC, 1 A                  | SCNA-USB-CAR      |
| 2 m USB connection cable<br>(for charging and connection to PC) | SCK-315-02-36     |
| Equipment case                                                  | SCC-200           |
| Equipment case for PQ kit                                       | SCC-370           |
| Protective Rubber                                               | SCM-155 RUBBER    |

| Parker Serviceman Plus<br>kits                                                                                       | Order designation              |                           |                                |                           |                            |                       |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------|--------------------------------|---------------------------|----------------------------|-----------------------|
|                                                                                                                      | SCKIT-<br>155-0-00             | SCKIT-<br>155-2-00        | SCKIT-<br>155-0-600            | SCKIT-<br>155-2-600       | SCKIT-<br>155-0-PQ         | SCKIT-<br>155-2-PQ    |
| Equipment case                                                                                                       | SCC-200                        | SCC-200                   | SCC-200                        | SCC-200                   | SCC-370                    | SCC-370               |
| Parker Serviceman Plus incl.<br>USB stick, power supply<br>unit,<br>PC connection cable and<br>SensoWin® PC software | SCM-155-<br>0-02<br>(analogue) | SCM-155-<br>2-05<br>(CAN) | SCM-155-<br>0-02<br>(analogue) | SCM-155-<br>2-05<br>(CAN) | SCM-155-0-02<br>(analogue) | SCM-155-2-05<br>(CAN) |
| Pressure sensor, 600 bar<br>analogue SCP-600-74-02                                                                   | —                              | —                         | 1                              | —                         | —                          | —                     |
| Pressure sensor, 600 bar<br>CAN SCP-600-C4-05                                                                        | —                              | —                         | —                              | 1                         | —                          | —                     |
| Pressure/temperature sen-<br>sor SCPT-600-02-02                                                                      | —                              | —                         | —                              | —                         | 1                          | —                     |
| Pressure/temperature<br>sensor<br>SCPT-600-C2-05                                                                     | —                              | —                         | —                              | —                         | —                          | 1                     |
| Turbine flow meter<br>SCFT-150-DRV                                                                                   | —                              | —                         | —                              | —                         | 1                          | —                     |
| Turbine flow meter<br>SCFT-150-DRV-C2-05                                                                             | —                              | —                         | —                              | —                         | —                          | 1                     |
| Connection cable analogue<br>SCK-102-03-02                                                                           | 2                              | —                         | 1                              | —                         | 2                          | —                     |
| CAN connection cable<br>SCK-401-02-4F-4M                                                                             | —                              | 2                         | —                              | 1                         | —                          | 2                     |
| Y-junction CAN<br>SCK-401-0.3-Y                                                                                      | —                              | 1                         | —                              | —                         | —                          | 1                     |
| CAN terminating resistor<br>SCK-401-R                                                                                | —                              | 1                         | —                              | 1                         | —                          | 1                     |
| EMA adapter<br>SCA-EMA-3/3                                                                                           | 2                              | 2                         | 1                              | 1                         | 1                          | 1                     |
| Measuring hose<br>SMA3-1500CF                                                                                        | 2                              | 2                         | 1                              | 1                         | 1                          | 1                     |
| Please order additional accessories/sensors separately                                                               |                                |                           |                                |                           |                            |                       |



## 2 Parker Serviceman Plus

| Parker Serviceman Plus with calibration certificate according to ISO 9001 | Order designation |
|---------------------------------------------------------------------------|-------------------|
| Parker Serviceman Plus analogue                                           | K-SCM-155-0-02    |
| Parker Serviceman Plus analogue                                           | K-SCKIT-155-0-00  |
| Parker Serviceman Plus kit analogue with 600-bar sensor                   | K-SCKIT-155-0-600 |
| Parker Serviceman Plus kit CAN with calibrated 600-bar sensor             | K-SCKIT-155-2-600 |
| Parker Serviceman Plus analogue p-Q kit                                   | K-SCKIT-155-0-PQ  |
| Parker Serviceman Plus-CAN-p-Q kit                                        | K-SCKIT-155-2-PQ  |



# 3 The Parker Service Master COMPACT

**The perfect blend of advanced features, robustness, and affordability without any compromises.**

The Parker Service Master COMPACT is a versatile, innovative device ideal for service applications in sectors like construction, agriculture, railway, and defence. It provides real-time monitoring and diagnostics of key parameters such as pressure, temperature, and flow rate, enabling proactive issue detection. Housed

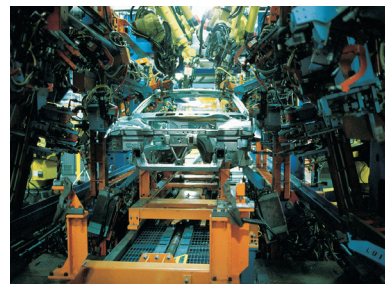
in a robust IP65 casing with a 4.3" touch screen, it allows on-site initial analyses and swift rectification of machine defects. The device, available in three versions, is compatible with various Parker sensors and comes with complimentary SensoWin 7 software for easy data upload and documentation. Despite its advanced features, it's user-friendly,

cost-effective, and designed for technicians of all experience levels, enhancing efficiency and productivity. Its compact, lightweight design makes it ideal for transportation and use in different locations.



## Application

- Mobile equipment
- Industrial hydraulic systems
- Fluid or gas maintenance and trouble shooting
- System performance optimization
- System validation
- Test equipment and technology



## Markets

- Maintenance and Repair, MRO
- Mobile
- Agriculture
- Construction
- Transportation
- Defence
- Industrial
- Molding
- Testing



### 3 The Parker Service Master COMPACT

#### Features





# 3 The Parker Service Master COMPACT

## Configurations

The Parker Service Master COMPACT is available in three different versions and therefore offers a wide range of options for different sensor types and configurations.



SCM-370-0-02 for 4 Parker analogue sensors with automatic sensor recognition and 2 auxiliary analogue sensors.



SCM-370-1-05 for 6 Parker CAN sensors with automatic sensor recognition and 2 auxiliary analogue sensors.



SCM-370-2-05 for 6 Parker CAN sensors with automatic sensor recognition.

# 3 The Parker Service Master COMPACT

## Technical data

|                                                                 |                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input/Output</b>                                             |                                                                                                                                                                                                                                                                                                                                                                           |
| Sensor input CAN<br>(only SCM-370-1-05 and SCM-370-2-05)        | 1 CAN bus network for max. 6 Parker CAN sensors with sensor recognition<br>Terminating resistor permanently installed internally<br>Connector: 5-pin, M12x1 built-in plug (male)<br>Sampling rate: up to 4 sensors 1 ms, 5 or 6 sensors 2 ms                                                                                                                              |
| Analogue sensors with sensor recognition<br>(only SCM-370-0-02) | 4 sensor inputs (up to 8 analogue measuring channels)<br>With sensor recognition (p/T/Q/n) for SensoControl® diagnostic sensors<br>Connector: 5 pin, push-pull, combination male/female connector<br>Sample rate: 1 ms = 1,000 measured values/sec.<br>Accuracy: 0.1% FS                                                                                                  |
| Inputs for external sensors                                     | 1 connection with 2 inputs (analogue) for measuring current and voltage<br>Voltage measuring range: -10...+10 VDC<br>Current measuring range: 0/4...20 mA<br>Supply for external sensors: +24...+24 VDC/max. 100 mA (for both inputs)<br>Connector: M12x1, 5 pin socket<br>Sample rate: 1 ms = 1,000 measured values/sec.,<br>FAST-MODE 0.1 ms = 10,000 measured values/s |
| Touch-Display                                                   | 4,3", 800 x 480 pixels, brightness: 450 cd., glove operation possible                                                                                                                                                                                                                                                                                                     |
| <b>Calculation channels</b>                                     |                                                                                                                                                                                                                                                                                                                                                                           |
| Quantity                                                        | 2                                                                                                                                                                                                                                                                                                                                                                         |
| Functions                                                       | Subtraction, addition, multiplication, power, volume                                                                                                                                                                                                                                                                                                                      |
| <b>Interfaces</b>                                               |                                                                                                                                                                                                                                                                                                                                                                           |
| USB-C<br>(Communication and power supply)                       | in accordance with IEC 62680-1-3, USB PD 3.0, 5V, 12V, 20V,<br>Current consumption max. 2.5A at 5V, 1.8A at 12V, 1.2 A at 20V,<br>for fast charging a USB-C compatible charger with min. 45W is required,<br>alternatively via USB-A/C cable (included in delivery) 5V max. 2 A                                                                                           |
| USB-A (host)                                                    | USB 2.0, fullspeed, 12 Mbit/s<br>max. memory size 128 GB                                                                                                                                                                                                                                                                                                                  |
| <b>Ambient conditions</b>                                       |                                                                                                                                                                                                                                                                                                                                                                           |
| Ambient temperature                                             | -20...+50°C                                                                                                                                                                                                                                                                                                                                                               |
| Storage temperature                                             | -30...+80°C                                                                                                                                                                                                                                                                                                                                                               |
| Rel. Humidity                                                   | max. 95% non-condensing                                                                                                                                                                                                                                                                                                                                                   |
| Environmental impact test                                       | Drop test 1m (EN 60068-2-31:2008)                                                                                                                                                                                                                                                                                                                                         |
| Vibration                                                       | DIN EN 60068-2-6:2008-10                                                                                                                                                                                                                                                                                                                                                  |
| Protection class                                                | IP 65 (EN 60529:1989 +A1:1999 + A2:2013)                                                                                                                                                                                                                                                                                                                                  |
| <b>Rechargeable battery</b>                                     | Lithium-ion pack, 7.2 V / 3500 mAh / 25.44 Wh                                                                                                                                                                                                                                                                                                                             |
| <b>Material</b>                                                 |                                                                                                                                                                                                                                                                                                                                                                           |
| Housing                                                         | ABS/PC                                                                                                                                                                                                                                                                                                                                                                    |
| Housing seal                                                    | TPE                                                                                                                                                                                                                                                                                                                                                                       |
| Housing protective cover                                        | TPE                                                                                                                                                                                                                                                                                                                                                                       |
| Dimensions (W x H x D)                                          | 215 x 60 x 154 mm                                                                                                                                                                                                                                                                                                                                                         |
| Weight                                                          | approx. 850 g                                                                                                                                                                                                                                                                                                                                                             |
| VESA connection                                                 | 75 x 75 mm                                                                                                                                                                                                                                                                                                                                                                |

### 3 The Parker Service Master COMPACT

#### Scope of delivery

| Device (incl. Nano USB-Stick, USB charging und connection cable 1m USB A auf C)                       |                |
|-------------------------------------------------------------------------------------------------------|----------------|
| Analogue AUX device (4 Inputs for Parker analogue sensors + 2 inputs for standard industrial sensors) | SCM-370-0-02   |
| CAN AUX device (interface for up to 6 Parker CAN sensors + 2 inputs for standard industrial sensors)  | SCM-370-1-05   |
| CAN device (interface for up to 6 Parker CAN sensors)                                                 | SCM-370-2-05   |
| Analogue AUX device calibrated                                                                        | K-SCM-370-0-02 |
| CAN AUX device calibrated                                                                             | K-SCM-370-1-05 |

| Spare parts and accessories                                                                               |                  |
|-----------------------------------------------------------------------------------------------------------|------------------|
| Power supply with quick charging function (66 W) incl. USB cable (C to C) and country adapter (EUR/UK/US) | SCSN-445         |
| AUS (Type-I) Country adapter for SCSN-445                                                                 | SCK-PLUG-C-I     |
| Car charging adapter 12/24 VDC with USB-C-port                                                            | SCNA-USB-C-CAR   |
| USB connection cable (USB A - USB C)                                                                      | SCK-USB-A-C      |
| USB connection cable (for charging and connection)                                                        | SCK-USB-C-C      |
| Nano USB stick ≥ 4 GB                                                                                     | SC-USB-MINISTICK |
| M12x1 connector for auxilliary sensor input                                                               | SCK-401-4M       |
| Screen protection glass                                                                                   | SCM-370-DISPRO   |
| Touchpen                                                                                                  | SC-TOUCHPEN      |
| Equipment case                                                                                            | SCC-200          |
| Equipment case for outdoor use                                                                            | SCC-370          |
| Rubber protection + stand                                                                                 | SCM-370-RUBBER   |
| Protective cap set (set with caps for all versions)                                                       | SCM-370-CAPS     |
| Replacement battery for SCM 370                                                                           | SC-BAT-370       |

| The Parker Service Master COMPACT Kits                                                                               |  | Order designation |                |                |                 |
|----------------------------------------------------------------------------------------------------------------------|--|-------------------|----------------|----------------|-----------------|
|                                                                                                                      |  | SCKIT-370-0-02    | SCKIT-370-1-05 | SCKIT-370-2-05 | SCKIT-370-0-PTQ |
| Equipment Case                                                                                                       |  | SCC-200           | SCC-200        | SCC-200        | SCC-370         |
| The Parker Service Master COMPACT (incl. Nano USB-Stick, USB charging und connection cable 1m, without power supply) |  | SCM-370-0-02      | SCM-370-1-05   | SCM-370-2-05   | SCM-370-0-02    |
| Power supply with quick charging function SCSN-445                                                                   |  | 1                 | 1              | 1              | 1               |
| Pressure/temperature sensor 0...600 bar SCPT-600-02-02                                                               |  |                   |                |                | 2               |
| Temperature sensor SCT-190-00-02                                                                                     |  |                   |                |                | 1               |
| Turbine flow meter SCFT-150-DRV                                                                                      |  |                   |                |                | 1               |
| Connection cable analogue SCK-102-03-02                                                                              |  | 2                 |                |                | 2               |
| Connection cable analogue SCK-102-05-02                                                                              |  | 2                 |                |                | 2               |
| M12x1 connector for auxilliary sensor connection SCK-401-4M                                                          |  | 1                 | 1              |                | 1               |
| CAN connection cable SCK-401-02-4F-4M                                                                                |  |                   | 2              | 2              |                 |
| CAN connection cable SCK-401-05-4F-4M                                                                                |  |                   | 2              | 2              |                 |
| Y-junction CAN SCK-401-0.3-Y                                                                                         |  |                   | 1              | 1              |                 |
| CAN terminating resistor SCK-401-R                                                                                   |  |                   | 1              | 1              |                 |
| EMA-Adapter SCA-EMA-3/3                                                                                              |  | 2                 | 2              | 2              | 2               |
| Measuring hose SMA3-1500CF                                                                                           |  | 2                 | 2              | 2              | 2               |

# 4 The Parker Service Master CONNECT

## The Parker Service Master CONNECT

- Up to 100 channels enable complex measuring tasks
- The illuminated 7" touch display and the well-designed user interface make use intuitive
- The additional tactile keypad enables safe operation even under adverse conditions
- The right expansion level for every application thanks to individually exchangeable measuring modules
- SensoWin® software included in the supply package. This enables you to analyse measurements and create test reports easily.



**The Parker Service Master CONNECT** is a powerful diagnostic measuring device for mobile, stationary hydraulic applications, e.g. in the area of service, commissioning and development. It safely and accurately records values such as pressure, temperature, flow and frequency.

Thanks to the robust IP65 design, it offers comprehensive protection against moisture and dirt and is resistant to impacts. Therefore, the device is very suitable for use in harsh environments.

The 7" large, illuminated, non-reflective display enables smooth, intuitive operation. The clearly structured user interface which enables fast and secure measurement setting configuration makes the device easy to use.

The modular measuring device hardware and software enables customised set-up according to individual measuring and analysis needs. It measures and displays up to 100 channels and is therefore also suitable for very complex diagnostic tasks. The **Parker ServiceMaster CONNECT** is a state-of-the-art device that is equipped with various interfaces such as Parker CAN, CANopen, SAEJ-1939, analogue, digital, frequency and Wifi.



# 4 The Parker Service Master CONNECT

## Functional description

Illuminated and non-reflective colour display for good readability in all situations, 7 inches large for clear overview with comprehensive information

High protection against moisture and dirt, protection class IP 65

Integrated holder for carrying strap

Additional large tactile keyboard for safe operation even in difficult conditions

Robust, oil-resistant housing protection for use in harsh environments and for absorbing shocks

Suitable for use with gloves, robust 3 mm glass, resolution 800 x 480 pixels

Intuitive operation thanks to clear icons and function-related buttons and apps

Power supply unit with universal country adapters, strong battery power and fast charging times, energy saving options for long operating times

Analogue input module for connecting Parker sensors with sensor recognition

Analogue third-party sensors - also with high-speed functionality

CAN module for monitoring CAN systems or for connecting external CAN sensors

LAN interface for remote monitoring, transmission of measured values or remote control

USB host interface for connecting USB mass storage devices

USB device interface for connecting to PC, laptop etc.

2 x CAN bus networks with up to 24 channels each

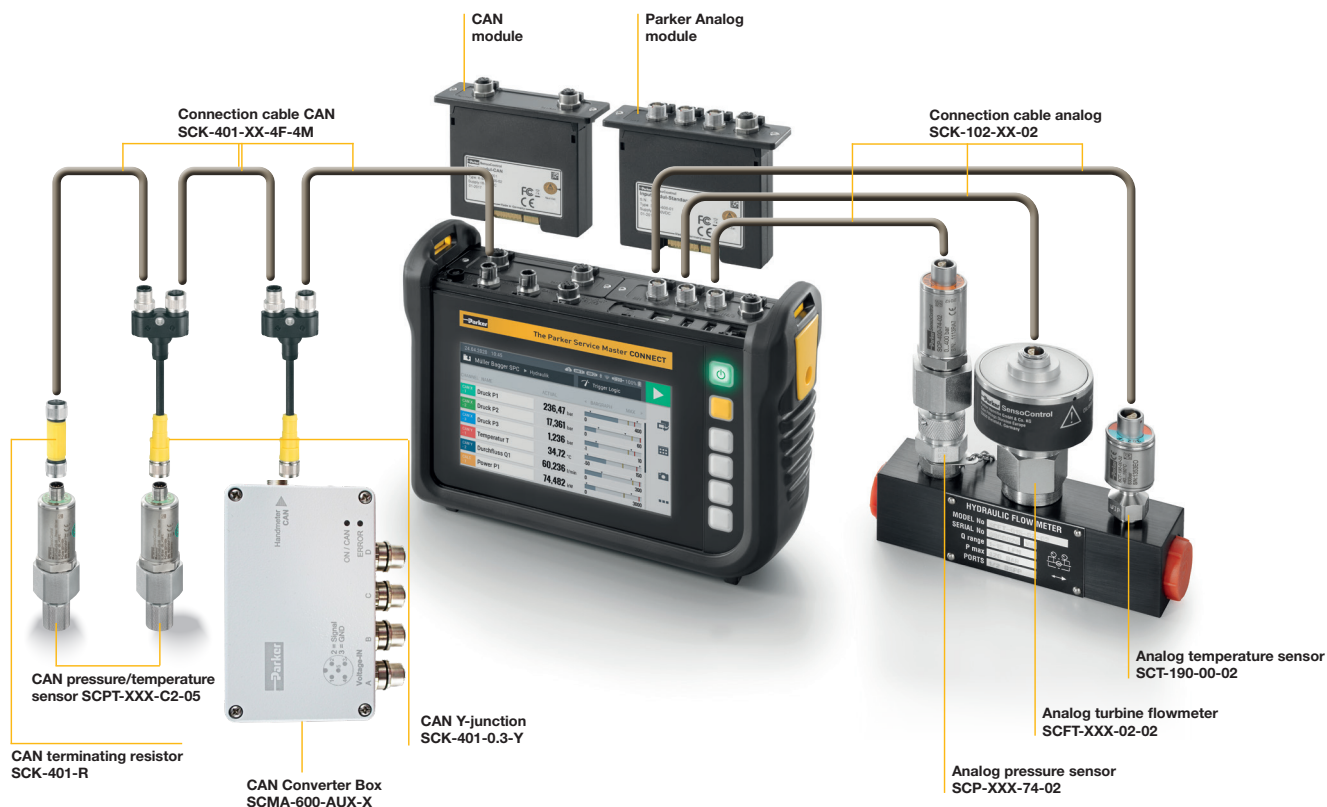
SIM card slot

2 frequency inputs or D-IN/D-OUT

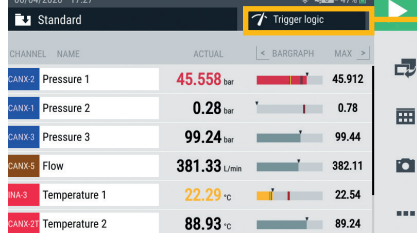
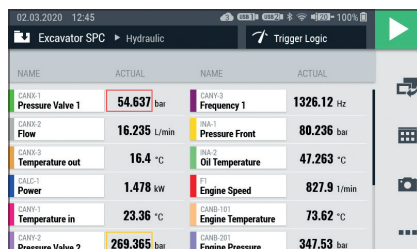




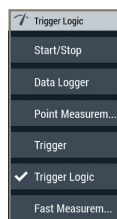
# 4 The Parker Service Master CONNECT



- Up to 12 channels in one display
- Colour assignment of the individual channels
- Display can be changed between ACT, MIN and MAX values

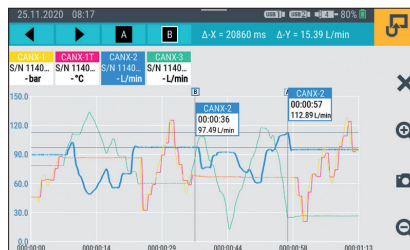


- Numerical representation of 6 channels with bar graph
- Display of measuring range, warning and alarm values as well as MIN and MAX values



- Variety of measurement options for a wide variety of applications

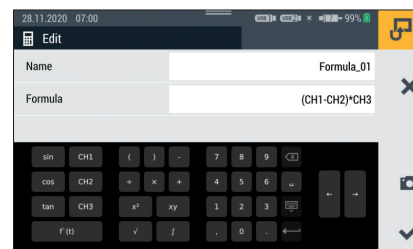
- Up to 8 freely selectable channels simultaneously in one curve display
- Choice between ACT and MIN/MAX value display
- Free scalability
- Up to two cursors with measured value and delta display can be displayed for analysis purposes



| CH     | NAME           | NOMINAL CH.                     | ACTUAL CH.                      | STATE |
|--------|----------------|---------------------------------|---------------------------------|-------|
| CANX-2 | Pressure 1     | 0 - 60 bar<br>S/N 1204016817    | 0 - 60 bar<br>S/N 1204016817    | OK    |
| CANX-1 | Pressure 2     | 0 - 600 bar<br>S/N 144513023    | 0 - 600 bar<br>S/N 144513023    | OK    |
| CANX-3 | Pressure 3     | 0 - 150 bar<br>S/N 1204016819   | 0 - 150 bar<br>S/N 1204016819   | OK    |
| CANX-5 | Delta Pressure | -60 - 150 bar<br>S/N            | -60 - 150 bar<br>S/N            | OK    |
| CANX-8 | Flow           | 0 - 600 L/min<br>S/N 1204017265 | 0 - 600 L/min<br>S/N 1204017265 | OK    |
| NA-3   | Temperature 1  | -50 - 250 °C<br>S/N             | -50 - 250 °C<br>S/N             | OK    |

- Recurring measurement tasks can simply be saved as a template
- When selecting the template, the pre-set measurement set-up is also compared
- Using a template ensures the comparability of the measurements
- An existing template can be duplicated and modified as required

- Up to 4 calculation channels can be created
- In addition to the predefined standard functions such as delta values or hydraulic power, free formulas can also be entered



| NAME                       | TYPE | DATE v     | SIZE   |
|----------------------------|------|------------|--------|
| Drawing SCPT-XXX-C2-05-EMA | png  | 20.09.2019 | 130 KB |
| SCJN                       | pdf  | 20.09.2019 | 309 KB |
| USERMANUAL                 | pdf  | 20.09.2019 | 2 MB   |
| SCREENSHOT_001             | jpg  | 20.09.2019 | 1 MB   |
| SCREENSHOT_002             | jpg  | 20.09.2019 | 245 KB |

- In addition to measurement files and templates, images, reports and other documentation files can also be managed

## 4 The Parker Service Master CONNECT

### Technical data

| The Parker Service Master CONNECT                    |                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inputs/outputs                                       |                                                                                                                                                                                                                                                                                                                                                           |
| CAN sensor inputs                                    | 2 CAN bus networks with 24 Parker CAN bus channels each. Alternatively on CAN Y up to 5 third-party CANOpen sensors. Baud rate adjustable for external CAN. 24 VDC power supply/ max. 250 mA. Mixed operation of Parker CAN and external CAN is not possible within a CAN bus line. Internal terminating resistor 120 ohms. Supports CAN 2.0 A/CAN 2.0 B. |
| Sample rate                                          | 1 ms = 1,000 measured values/s                                                                                                                                                                                                                                                                                                                            |
| Plug-in Connection                                   | M12x1, 5 pin, Built-in connector                                                                                                                                                                                                                                                                                                                          |
| D-IN/OUT F1/2                                        | Double-assigned input that can be used either as DIGITAL-IN and DIGITAL-OUT, or by switching, two frequency inputs are made available. Also possible as direction of rotation detection.                                                                                                                                                                  |
| Connection                                           | M12x1 female. (5-pin)                                                                                                                                                                                                                                                                                                                                     |
| Input                                                | Galvanically isolated                                                                                                                                                                                                                                                                                                                                     |
| Supply                                               | 24 V <sub>DC</sub> 80 mA                                                                                                                                                                                                                                                                                                                                  |
| Input signals                                        | Frequency (0 Hz ... 20 KHz)                                                                                                                                                                                                                                                                                                                               |
| Level/threshold                                      | Active low: 0-1.4 V, active high: 3-30 V                                                                                                                                                                                                                                                                                                                  |
| Accuracy                                             | ≤± 0.1%                                                                                                                                                                                                                                                                                                                                                   |
| Input module slots                                   | Flexible assembly with up to 2 modules                                                                                                                                                                                                                                                                                                                    |
| Touch display                                        | 7", 800 x 480 pixels, brightness: 450 cd. Use with gloves possible.                                                                                                                                                                                                                                                                                       |
| Calculation channels                                 |                                                                                                                                                                                                                                                                                                                                                           |
| Quantity                                             | 4                                                                                                                                                                                                                                                                                                                                                         |
| Functions                                            | /, *, +, -, f(t), Integral, sin, cos, tan, x2, SQRT, xy                                                                                                                                                                                                                                                                                                   |
| Maximum number of offsetting channels / Calc channel | 3                                                                                                                                                                                                                                                                                                                                                         |
| Interfaces                                           |                                                                                                                                                                                                                                                                                                                                                           |
| USB device                                           | Data transmission between device and PC                                                                                                                                                                                                                                                                                                                   |
| USB host 1                                           | USB 2.0, connection of external storage media                                                                                                                                                                                                                                                                                                             |
| USB host 2                                           | USB 2.0, connection of external storage media                                                                                                                                                                                                                                                                                                             |
| Memory                                               | 12 GB                                                                                                                                                                                                                                                                                                                                                     |
| LAN                                                  | Connection of network cables                                                                                                                                                                                                                                                                                                                              |
| SIM card                                             | MINI-SIM insertion                                                                                                                                                                                                                                                                                                                                        |
| Wireless communication                               | SMC-600-00: WLAN                                                                                                                                                                                                                                                                                                                                          |
| Ambient conditions                                   |                                                                                                                                                                                                                                                                                                                                                           |
| Ambient temperature                                  | -10...+50 °C                                                                                                                                                                                                                                                                                                                                              |
| Storage temperature                                  | -20...+60 °C                                                                                                                                                                                                                                                                                                                                              |
| Rel. Humidity                                        | < 80 %                                                                                                                                                                                                                                                                                                                                                    |
| Environmental impact test                            | Drop test 1m (EN 60721-3-7)                                                                                                                                                                                                                                                                                                                               |
| Vibrations                                           | EN 60721-3-7, 7M3                                                                                                                                                                                                                                                                                                                                         |
| Protection class                                     | IP 65 (EN/IEC 60529:2014)                                                                                                                                                                                                                                                                                                                                 |
| External power supply                                | 110/240 V <sub>AC</sub> - 24 VDC/3.5 A car charging cable as an accessory (12/24 V <sub>DC</sub> )                                                                                                                                                                                                                                                        |
| Connection                                           | 3-pin                                                                                                                                                                                                                                                                                                                                                     |
| Rechargeable battery                                 |                                                                                                                                                                                                                                                                                                                                                           |
| Lithium-ion pack, 14.4 V/3350 mAh                    |                                                                                                                                                                                                                                                                                                                                                           |
| Material                                             |                                                                                                                                                                                                                                                                                                                                                           |
| Housing                                              | ABS/PC (thermoplastic resin)                                                                                                                                                                                                                                                                                                                              |
| Housing protective cover                             | TPE (thermoplastic elastomer)                                                                                                                                                                                                                                                                                                                             |
| Flammability Class                                   | UE94VO                                                                                                                                                                                                                                                                                                                                                    |
| Dimensions (W x H x D)                               | 282 x 195 x 85 mm                                                                                                                                                                                                                                                                                                                                         |
| Weight                                               | 1880 g (without input module)                                                                                                                                                                                                                                                                                                                             |
| VESA connection                                      | 100 x 100 mm / M4 metric                                                                                                                                                                                                                                                                                                                                  |



## 4 The Parker Service Master CONNECT

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Input module<br/>SCMI-600-01 Parker Analogue</b>         |                                                                                                                                                                                                                                                                                                                                                                                       |
| Inputs with sensor recognition                              | 3 sensor inputs (up to 6 analogue measurement channels)<br>With sensor recognition (p/T/Q/n) for SensoControl® diagnostic sensors<br>Push-in connection: 5-pin, push-pull, combination panel plug/socket<br>Sample rate: 1 ms = 1,000 measured values/sec.                                                                                                                            |
| Inputs for external sensors                                 | 2 sensor inputs (analogue)<br>For measuring current and voltage<br>Sample rate: 1 ms = 1,000 measured values/sec.<br>Voltage measuring range: -10...+10 V <sub>DC</sub><br>Current measuring range: 0/4...20 mA<br>Supply ext. Sensors: +24...+24 V <sub>DC</sub> /max. 100 mA<br>Push-in connection: M12x1, 5 pin socket<br>FAST-MODE sample rate: 0.1 ms = 10,000 measured values/s |
| Supply                                                      | 24 V <sub>DC</sub> 100 mA                                                                                                                                                                                                                                                                                                                                                             |
| Input signal range                                          | -10...+10 V<br>0/4...20 mA                                                                                                                                                                                                                                                                                                                                                            |
| Operating temperature range                                 | -10 °C...+50 °C                                                                                                                                                                                                                                                                                                                                                                       |
| Storage temperature range                                   | -20 °C...+60 °C                                                                                                                                                                                                                                                                                                                                                                       |
| Weight                                                      | 152 g                                                                                                                                                                                                                                                                                                                                                                                 |
| Accuracy                                                    | ±0.1 % FS                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Input module<br/>SCMI-600-02 CAN</b>                     | 2x M12x1.5 pin connector inputs for connection to CAN systems such as CANopen, CAN generic and SAE-J1939                                                                                                                                                                                                                                                                              |
| Connections                                                 | 2 x M12 5-pin female                                                                                                                                                                                                                                                                                                                                                                  |
| Designation                                                 | CAN1xx, CAN2xx, each galvanically isolated                                                                                                                                                                                                                                                                                                                                            |
| Channels CAN1xx                                             | 24                                                                                                                                                                                                                                                                                                                                                                                    |
| Channels CAN2xx                                             | 24                                                                                                                                                                                                                                                                                                                                                                                    |
| Standards                                                   | CAN 2.0 A, CAN 2.0 B,                                                                                                                                                                                                                                                                                                                                                                 |
| Protocol support                                            | CANopen, SAEJ1939 and CAN generic,<br>mixed operation of several CAN protocols possible                                                                                                                                                                                                                                                                                               |
| Terminating resistor                                        | Can be switched on/off                                                                                                                                                                                                                                                                                                                                                                |
| Signal connection supply                                    | Passive, no external supply                                                                                                                                                                                                                                                                                                                                                           |
| Operating temperature range                                 | -10 °C...+50 °C                                                                                                                                                                                                                                                                                                                                                                       |
| Storage temperature range                                   | -20 °C...+60 °C                                                                                                                                                                                                                                                                                                                                                                       |
| Weight                                                      | 127 g                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Input module<br/>SCMI-600-03 Parker<br/>Analogue iso</b> | Like SCMI-600-01 Parker Analogue, but module galvanically isolated from The Parker Service Master CONNECT                                                                                                                                                                                                                                                                             |

## 4 The Parker Service Master CONNECT

### Order codes and accessories

#### The Service Master CONNECT (without input modules)

Included in the supply package:

- Power supply with country adapters: EUR/UK/US/AUS
- USB-2.0 cable (2 m)
- PC software

#### The Service Master CONNECT Kit (without input modules)

Included in the supply package:

- Device in trolley case SCC-600 incl. Power supply with country adapters
- 1 x Carrying strap SC-ACC-02
- 2 x Connection cable CAN SCK-401-05-4F-4M
- 2 x Terminating resistor SCK-401-R
- 2 x Adapter SCA-EMA-3/3
- 2 x Measuring hose SMA3-1500CF

#### The Service Master CONNECT SET with input modules (without case)

Included in the supply package:

- The Service Master Connect
- Power supply unit with country adapters: EUR/UK/US/AUS
- USB 2.0 cable (2 m)
- PC software
- Input modules according to order matrix

With ISO 9000 calibration certificate

#### Equipment

with WLAN (Approved for Europe only)

without WLAN

#### Input module 1

Input module Parker analogue SCMI-600-01

Input module CAN SCMI-600-02

Input module Parker analogue iso (galvanically isolated) SCMI-600-03

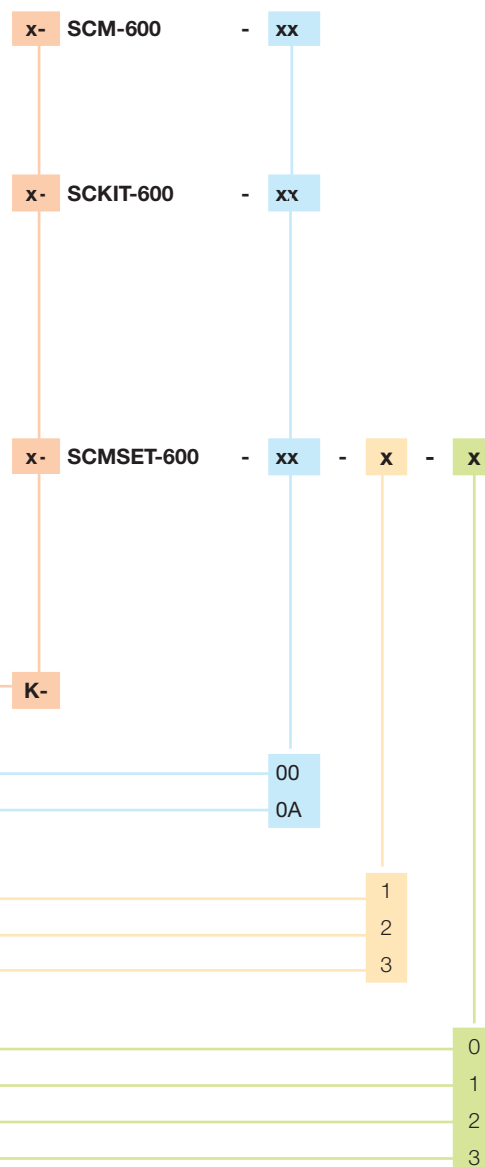
#### Input module 2

without

Input module Parker analogue SCMI-600-01

Input module CAN SCMI-600-02

Input module Parker analogue iso (galvanically isolated) SCMI-600-03



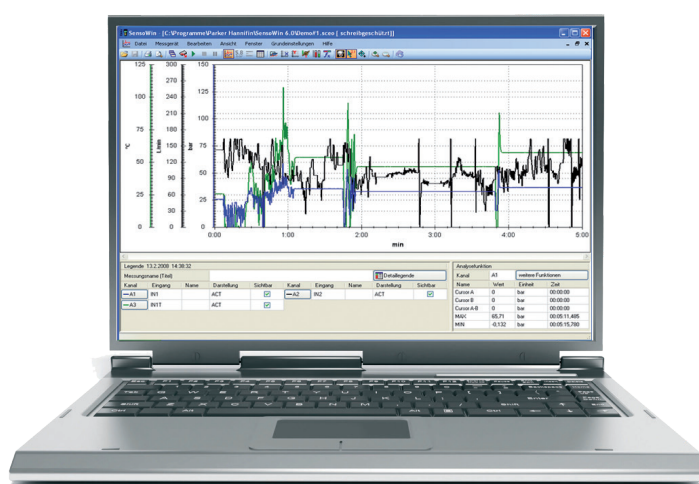
| Input module (single)                                                    |               |
|--------------------------------------------------------------------------|---------------|
| Input Module Parker Analog                                               | SCMI-600-01   |
| Input module CAN                                                         | SCMI-600-02   |
| Input module Parker Analog iso (galvanically isolated)                   | SCMI-600-03   |
| Input module (single) with calibration certificate according to ISO 9001 |               |
| Input Module Parker Analog                                               | K-SCMI-600-01 |
| Input module Parker Analog ISO (galvanically isolated)                   | K-SCMI-600-03 |
| Accessories                                                              |               |
| Order designation                                                        |               |
| Car charging cable 24 VDC                                                | SCK-318-05-21 |
| Car charging cable 12 VDC                                                | SCNA-SMC-CAR  |
| M12x1 plug for external sensor inputs                                    | SCK-401-4M    |
| SMC carrying strap                                                       | SC-ACC-02     |
| LAN cable                                                                | SCK-318-02-37 |
| Power supply including country adapter (EUR/UK/US/AUS)                   | SCSN-470      |
| Case with trolley function                                               | SCC-600       |
| USB cable                                                                | SCK-315-02-35 |



## 5 SensoWin® PC software

### SensoWin® PC software

- Compatible with Windows 10/11 (32 and 64 bit)
- Zoom functions
- Linking of measurement curves
- Freely definable calculation channels
- Cursor functions
- Remote connection/remote control  
The Parker Service Master CONNECT
- Data transfer to/from  
The Parker Service Master via  
USB, LAN, WLAN
- Documentation print-out
- Export function
- Online measurement



#### General

The PC software **SensoWin®** is an easy to operate software package for reading and processing the measured curves recorded by the **Parker Serviceman Plus** or the **The Parker Service Master CONNECT**.

Documentation and certificates can be created easily and at low cost since the PC software **SensoWin®** can make use of all Windows features and advantages.

#### Functions

The curves can be represented in a diagram. The curve shifting function allows exact hydraulics analysis. A power performance curve can be created to evaluate a pump. Leaks and pressure losses can be detected by generating a differential value function. With the cursor, a hydraulic procedure can be examined in a time-dependent way. Extensive information exists for each curve, i.e. the measurement with the **Parker Serviceman Plus**, or the **The Parker Service Master**

**CONNECT** can be reproduced at any time.

Changing scales and units allows later adjustment for presentation in a diagram. Tabular representation of ACT, MIN and MAX values, smoothing of the measurement curve and mathematical links are important functions in the analysis of the hydraulic system.

Date and time are documented with each measurement. This considerably facilitates the later allocation of values. Direct transmission of measured values from the **Parker Serviceman Plus** or the **Parker Service Master CONNECT** to the PC is also possible.

Current events (pressure peaks, etc.) are visible while the process is running (online function).

## Technical data

| SensoWin® Parker PC software                                               | Parker Serviceman Plus | The Parker Service Master CONNECT |
|----------------------------------------------------------------------------|------------------------|-----------------------------------|
| SensoWin version                                                           | 7.1                    | 7.6                               |
| Display as curve/number/bar/pointer                                        | ●                      | ●                                 |
| Simultaneous display of 16 channels                                        | ●                      | ●                                 |
| Oscilloscope, trigger representation                                       | —                      | ●                                 |
| Zoom function                                                              | ●                      | ●                                 |
| Calculate function                                                         | ●                      | ●                                 |
| Analyse function                                                           | ●                      | ●                                 |
| Extended cursor function<br>(displays X values and corresponding Y values) | ●                      | ●                                 |
| Equipment connector                                                        | USB                    | USB, Ethernet, WLAN               |
| Online measured value display                                              | ●                      | ●                                 |
| Online measured value memory                                               | ●                      | ●                                 |
| Saving and management of projects (SPC)                                    | —                      | ●                                 |
| CSV export                                                                 | ●                      | ●                                 |
| Documentation function                                                     | ●                      | ●                                 |
| Remote Control                                                             | —                      | ●                                 |

— not available

● Series

## 6 ServiceJunior Test kit

### ServiceJunior test kit

- Easy generation of pressures for testing and adjusting:
  - Pressure meters
  - Pressure sensors
  - Pressure switches
  - Safety valves
- Also suitable for mobile use
- Pneumatic version from -0.95 - 60 bar and hydraulic version from 0 - 700 bar
- No additional power supply necessary
- Includes large set of adapters



### Hand pump + reference = test kit

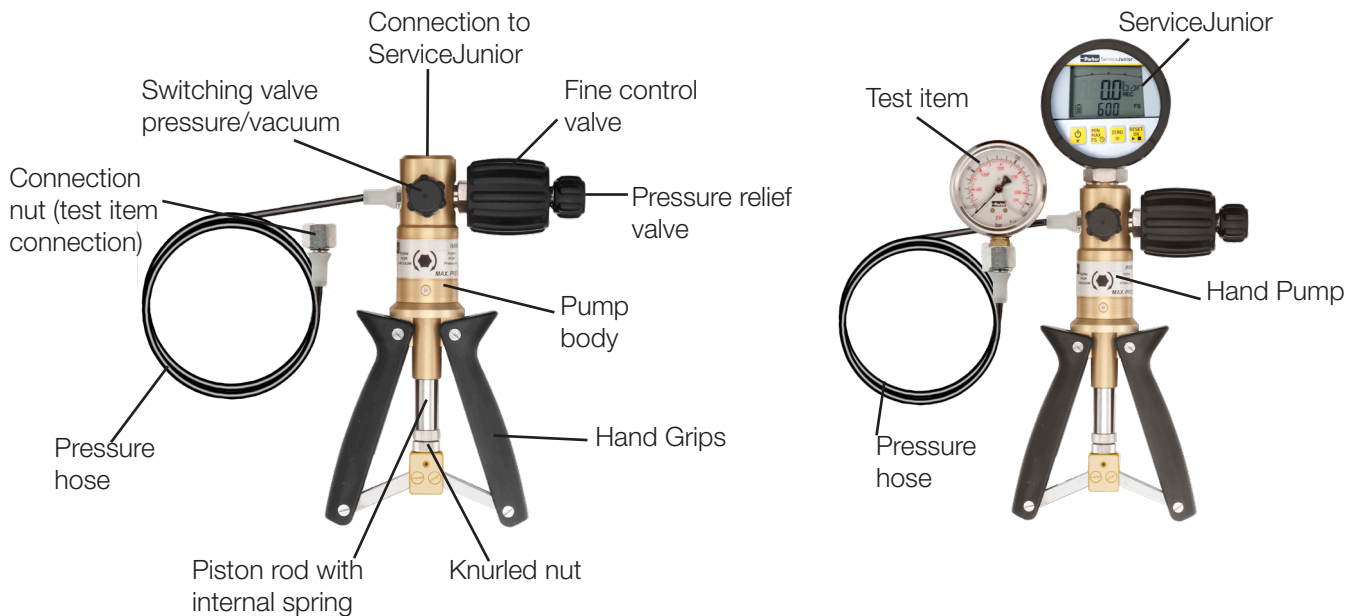
Whether in industry, mobile hydraulics, service or repair: the pressure value is decisive for ensuring the functioning and productivity of machines and plants. The pressure transmitters, sensors and pressure switches used here can suffer from ageing, wear or other influences, leading to incorrect measured values or switching points.

The ServiceJunior Test kit makes it easy to test manometers and pressure sensors, set pressure switches and more. The kit consists of a hydraulic or pneumatic hand pump used to generate a defined test pressure, plus a Service Junior as the reference device. Air, water or oil is used as the pressure medium.

Simply connect the unit to be tested to the hand pump. The connection hose and a large set of adapters are included in the supply package.

The required test pressure is generated by pumping and precisely set using the regulating valve. The proven ServiceJunior acts as a reference and pressure display with an accuracy of 0.1 %. By comparing the pressure display with the measured value of the test item, the test item is checked and can be adjusted if necessary.

### Functional description



### Pressure measurement

1. Connect the test item to the pressure hose using a suitable adapter.
2. Generate test pressure by pressing the handles together.
3. Set the test pressure exactly via the fine adjustment valve.
4. If necessary, reduce the test pressure via the pressure relief valve.
5. Compare the measured value of the test item with the reference value of the highly accurate ServiceJunior.



# 6 ServiceJunior Test kit

## Technical data

|                                                                        | SCHP-KIT-060-02-01                                                                                                                                            | SCHP-KIT-700-02-01                                                                                                                                            |
|------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hand pump with pressure hose</b>                                    |                                                                                                                                                               |                                                                                                                                                               |
| Pressure range                                                         | - 0.95 ... 60 bar                                                                                                                                             | 0 ... 700 bar                                                                                                                                                 |
| Pressure medium                                                        | Air                                                                                                                                                           | Hydraulic oil<br>(-10 ... 60 °C, non-freezing)*<br>or<br>demineralised water<br>(0 ... 60 °C, non-freezing)                                                   |
| Connection to ServiceJunior                                            | G ¼                                                                                                                                                           | G ¼                                                                                                                                                           |
| Connection of test item                                                | Measuring hose M16x2 with connection nut G ¼"                                                                                                                 | Pressure hose (1 m) with connection nut G ¼"                                                                                                                  |
| Dimensions without ServiceJunior                                       | approx. 240 x 170 x 50 mm                                                                                                                                     | approx. 255 x 225 x 85 mm                                                                                                                                     |
| Weight without ServiceJunior                                           | approx. 1.1 kg                                                                                                                                                | approx. 1.7 kg                                                                                                                                                |
| <b>Reference</b>                                                       |                                                                                                                                                               |                                                                                                                                                               |
| Measuring range                                                        | - 1...60 bar                                                                                                                                                  | 0 ... 700 bar                                                                                                                                                 |
| Overload pressure                                                      | 120 bar                                                                                                                                                       | 1,000 bar                                                                                                                                                     |
| Burst pressure                                                         | 550 bar                                                                                                                                                       | 2,000 bar                                                                                                                                                     |
| Accuracy (in % of measuring span)                                      | 0.1 % ±1 digit                                                                                                                                                | 0.1 % ±1 digit                                                                                                                                                |
| Sample rate                                                            | 10 ms                                                                                                                                                         | 10 ms                                                                                                                                                         |
| Process connection                                                     | G ¼" stainless steel, seal NBR                                                                                                                                | G ¼" stainless steel, seal NBR                                                                                                                                |
| Display indication                                                     | LC text display, 4.5 characters<br>50 x 34 mm<br>Digit size 13.5 mm<br>Backlight<br>Units: bar, mbar, psi, kPa, Mpa, kg/cm²<br>Bar graph (trailing indicator) | LC text display, 4.5 characters<br>50 x 34 mm<br>Digit size 13.5 mm<br>Backlight<br>Units: bar, mbar, psi, kPa, Mpa, kg/cm²<br>Bar graph (trailing indicator) |
| Functions                                                              | Display of MIN, MAX values<br>Battery level indicator<br>Auto Power Off (can be switched off)<br>Zero (zero point adjustment)                                 | Display of MIN, MAX values<br>Battery level indicator<br>Auto Power Off (can be switched off)<br>Zero (zero point adjustment)                                 |
| Power supply                                                           | 2 x 1.5 V batteries (AA)                                                                                                                                      | 2 x 1.5 V batteries (AA)                                                                                                                                      |
| Ambient temperature                                                    | 0 ... 50°C                                                                                                                                                    | 0 ... 50°C                                                                                                                                                    |
| Storage temperature                                                    | - 20 ... + 60 °C                                                                                                                                              | - 20 ... + 60 °C                                                                                                                                              |
| Rel. Humidity                                                          | < 85 %                                                                                                                                                        | < 85 %                                                                                                                                                        |
| Protection class                                                       | IP 67 EN 60529                                                                                                                                                | IP 67 EN 60529                                                                                                                                                |
| Vibration                                                              | IEC 60068-2-6/10 ... 500 Hz, 5 g                                                                                                                              | IEC 60068-2-6/10 ... 500 Hz, 5 g                                                                                                                              |
| Shock load                                                             | IEC 60068-2-29/25 g, 11 ms                                                                                                                                    | IEC 60068-2-29/25 g, 11 ms                                                                                                                                    |
| Pump weight                                                            | approx. 1450 g                                                                                                                                                | approx. 2200 g                                                                                                                                                |
| Kit weight                                                             | approx. 3700 g                                                                                                                                                | approx. 4700 g                                                                                                                                                |
| *Observe the information in the data sheets for the hydraulic oil used |                                                                                                                                                               |                                                                                                                                                               |

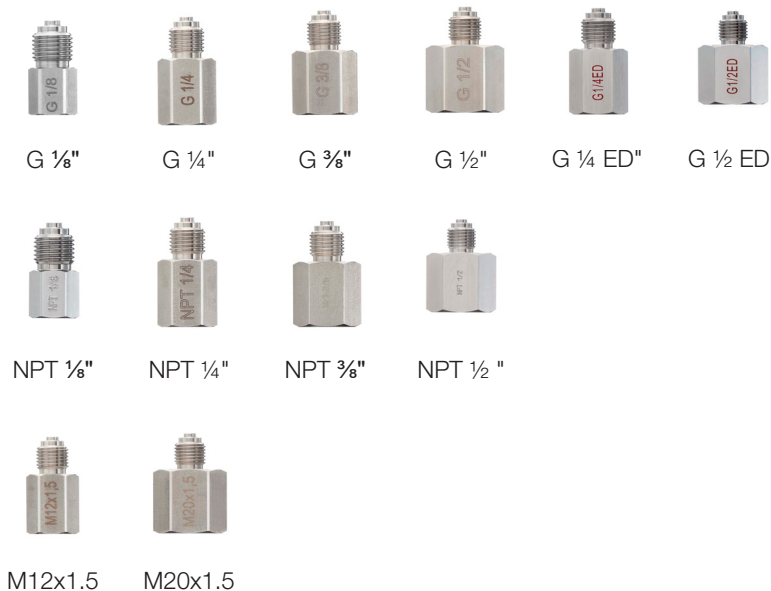
## Supply range and accessories

| Type                                                                                                                                                 | Pressure range         | Accuracy reference       |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|
| SCHP-KIT-060-02-01                                                                                                                                   | - 0.95 ... 60 bar      | ± 0.1% of measuring span |
| SCHP-KIT-700-02-01                                                                                                                                   | 0 ... 700 bar          | ± 0.1% of measuring span |
| Further pressure levels on request                                                                                                                   |                        |                          |
| Scope of delivery                                                                                                                                    | SCHP-KIT-060-02-01     | SCHP-KIT-700-02-01       |
| Service Junior (reference)                                                                                                                           | K-SCJN-060-02-N (0.1%) | K-SCJN-700-02-N (0.1%)   |
| Hand Pump                                                                                                                                            | SCHP-060-01            | SCHP-700-01              |
| Equipment case                                                                                                                                       | SCC-400                | SCC-410                  |
| Seal set flat seals<br>made of plastic and O-rings                                                                                                   | SCHP-SEALSET           | SCHP-SEALSET             |
| 1 m connection hose                                                                                                                                  | SMA1/4MA-1/8M-1000BLCF | SC-SMA3-1000-1/4F-316L   |
| Spray bottle                                                                                                                                         | —                      | SCHP-SPFL-01             |
| Stainless steel adapter set G¼ to:<br>G ⅛", G ¼", G ⅜", G ½", G ¾ ED",<br>G ½ ED", NPT ⅛", NPT ¼", NPT ⅜",<br>NPT ½", M12x1.5, M20x1.5, G ⅛ A, G ¼ A | SCA-HP-KIT-01          | SCA-HP-KIT-01            |

— not available

## Adapter set

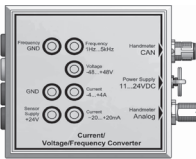
### Reducers



### Double nipples



# Finding the best sensor

| SCMA-VADC-710                                                                                                                                                                                                         | SCP analogue                                                                                                                                                                                                                                       | SCP CAN                                                                                                                                                                                                                                                                                    | SCPT analogue                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                      |                                                                                                                                                                   |                                                                                                                                                                                                          |                                                         |
| Current/voltage/frequency meter                                                                                                                                                                                       | Pressure measurement                                                                                                                                                                                                                               | Pressure measurement                                                                                                                                                                                                                                                                       | Pressure/temperature measurement                                                                                                           |
| <ul style="list-style-type: none"><li>✓ Connection of external sensors</li><li>✓ Galvanic isolation</li><li>✓ CAN and analogue output</li></ul>                                                                       | <ul style="list-style-type: none"><li>✓ Small size</li><li>✓ Stainless steel cell</li><li>✓ High burst pressure</li><li>✓ Resistant to pressure peaks</li></ul>                                                                                    | <ul style="list-style-type: none"><li>✓ Small size</li><li>✓ Stainless steel cell</li><li>✓ High burst pressure</li><li>✓ Resistant to pressure peaks</li><li>✓ CAN bus connection</li></ul>                                                                                               | <ul style="list-style-type: none"><li>✓ Stainless steel cell</li><li>✓ High burst pressure</li><li>✓ Resistant to pressure peaks</li></ul> |
| SCPT CAN                                                                                                                                                                                                              | SCT analogue                                                                                                                                                                                                                                       | SCT CAN                                                                                                                                                                                                                                                                                    | SCRPM analogue                                                                                                                             |
|                                                                                                                                      |                                                                                                                                                                   |                                                                                                                                                                                                          |                                                         |
| Pressure/temperature measurement                                                                                                                                                                                      | Temperature measurement even at higher operating pressures                                                                                                                                                                                         | Temperature measurement even at higher operating pressures                                                                                                                                                                                                                                 | Speed measurement, incl. for non-contact measurement                                                                                       |
| <ul style="list-style-type: none"><li>✓ Stainless steel cell</li><li>✓ High burst pressure</li><li>✓ Resistant to pressure peaks</li><li>✓ CAN bus connection</li></ul>                                               | <ul style="list-style-type: none"><li>✓ Unique resistance to pressures up to 630 bar</li><li>✓ Compact size</li></ul>                                                                                                                              | <ul style="list-style-type: none"><li>✓ Unique resistance to pressures up to 630 bar</li><li>✓ Compact size</li><li>✓ CAN bus connection</li></ul>                                                                                                                                         | <ul style="list-style-type: none"><li>✓ optoelectronic measurement</li><li>✓ no setting and adjustment necessary</li></ul>                 |
| Turbine flow meter SCFT                                                                                                                                                                                               | Turbine flow meter SCFTT CAN                                                                                                                                                                                                                       | Hydraulic tester SCLV                                                                                                                                                                                                                                                                      |                                                                                                                                            |
|                                                                                                                                    |                                                                                                                                                                 |                                                                                                                                                                                                        |                                                                                                                                            |
| Low-loss volume flow measurement                                                                                                                                                                                      | Low-loss volume flow measurement with integrated temperature sensor                                                                                                                                                                                | Hydraulic tester in analogue and CAN design                                                                                                                                                                                                                                                |                                                                                                                                            |
| <ul style="list-style-type: none"><li>✓ Response time ≤ 50 ms</li><li>✓ many measuring ranges</li><li>✓ small flow resistance</li><li>✓ up to 750 l/min</li><li>✓ up to 400 bar</li><li>✓ Reverse operation</li></ul> | <ul style="list-style-type: none"><li>✓ Response time ≤ 50 ms</li><li>✓ many measuring ranges</li><li>✓ small flow resistance</li><li>✓ up to 750 l/min</li><li>✓ up to 400 bar</li><li>✓ Reverse operation</li><li>✓ CAN bus connection</li></ul> | <ul style="list-style-type: none"><li>✓ Response time ≤ 50 ms</li><li>✓ many measuring ranges</li><li>✓ small flow resistance</li><li>✓ up to 750 l/min</li><li>✓ up to 400 bar</li><li>✓ enables p-Q measurement</li><li>✓ Pressure loading valve</li><li>✓ Overload protection</li></ul> |                                                                                                                                            |

## Sensor compatibility

|                                       | ServiceMaster<br>SCM-450/400/250 | Serviceman<br>SCM-152 | Serviceman Plus<br>SCM-155-0-02 | Serviceman Plus<br>SCM-155-0-05 | ServiceMaster easy<br>SCM-330-2-02<br>SCM-340-2-02 |
|---------------------------------------|----------------------------------|-----------------------|---------------------------------|---------------------------------|----------------------------------------------------|
| SCMA-VADC-710                         | ●                                | —                     | ●                               | ●                               | ●                                                  |
| SCP-xxx-74-02                         | ● <sup>5)</sup>                  | ● <sup>5)</sup>       | ●                               | —                               | ● <sup>1)</sup>                                    |
| SCP-xxx-C4-05                         | —                                | —                     | —                               | ●                               | —                                                  |
| SCPT-xxx-02-02<br>(version from 2015) | ●                                | —                     | ●                               | —                               | ●                                                  |
| SCPT-xxx-C2-05                        | —                                | —                     | —                               | ●                               | —                                                  |
| SCT-150-xx-02                         | ●                                | ●                     | ●                               | —                               | ●                                                  |
| SCT-190-xx-02                         | ●                                | —                     | ●                               | —                               | ●                                                  |
| SCT-190-Cx-05                         | —                                | —                     | —                               | ●                               | —                                                  |
| SCTA-400-02 /<br>SCT-400-K-01"        | ● <sup>4)</sup>                  | —                     | ● <sup>4)</sup>                 | —                               | ● <sup>4)</sup>                                    |
| SCRPM-220                             | ●                                | ●                     | ●                               | —                               | ●                                                  |
| SCFT-xxx-02-02                        | ●                                | ●                     | ●                               | —                               | ●                                                  |
| SCFTT-xxx-C2-05                       | —                                | —                     | —                               | ●                               | —                                                  |
| SCLV-PTQ-xxx                          | ●                                | ●                     | ●                               | —                               | ●                                                  |
| SCLVT-PTQ-xxx-C2-05                   | —                                | —                     | —                               | ●                               | —                                                  |

1) 60 bar, 150 bar and 600 bar only with firmware version V01261 or higher

2) 60 bar, 150 bar and 600 bar only with firmware version g102 or higher

3) only with firmware version i102 or higher

4) parametrise as auxiliary sensor

5) not 60 bar, 150 bar and 600 bar

6) only P channel, not < 0 bar

— not available

● available

# Finding the best sensor

|                                       | ServiceMaster<br>Compact<br>SCM-370-0-02 | ServiceMaster<br>Compact<br>SCM-370-1-05<br>SCM-370-2-05 | ServiceMaster<br>Plus<br>SCM-500-00-00 | ServiceMaster<br>Plus<br>SCM-500-01-00<br>SCM-500-01-01 | ServiceMaster<br>Connect<br>SCM-600-00<br>SCM-600-0A | ServiceMaster<br>Connect Input<br>module<br>analogue<br>SCMI-600-01<br>SCMI-600-03 | ServiceMaster<br>Connect Input<br>module CAN<br>SCMI-600-02 |
|---------------------------------------|------------------------------------------|----------------------------------------------------------|----------------------------------------|---------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------|
| SCMA-VADC-710                         | ●                                        | ●                                                        | ●                                      | ●                                                       | ●                                                    | ●                                                                                  | ●                                                           |
| SCP-xxx-74-02                         | ●                                        |                                                          | —                                      | ● <sup>2)</sup>                                         | —                                                    | ●                                                                                  | —                                                           |
| SCP-xxx-C4-05                         |                                          | ●                                                        | ●                                      | ●                                                       | ●                                                    | —                                                                                  | ●                                                           |
| SCPT-xxx-02-02<br>(version from 2015) | ●                                        |                                                          | —                                      | ●                                                       | —                                                    | ●                                                                                  | —                                                           |
| SCPT-xxx-C2-05                        |                                          | ●                                                        | ●                                      | ●                                                       | ●                                                    | —                                                                                  | ●                                                           |
| SCT-150-xx-02                         | ●                                        |                                                          | —                                      | ●                                                       | —                                                    | ●                                                                                  | —                                                           |
| SCT-190-xx-02                         | ●                                        |                                                          | —                                      | ●                                                       | —                                                    | ●                                                                                  | —                                                           |
| SCT-190-Cx-05                         |                                          | ●                                                        | ● <sup>3)</sup>                        | ● <sup>3)</sup>                                         | ●                                                    | —                                                                                  | ●                                                           |
| SCTA-400-02 /<br>SCT-400-K-01"        | ●                                        |                                                          | —                                      | ● <sup>4)</sup>                                         | —                                                    | ● <sup>4)</sup>                                                                    | —                                                           |
| SCRPM-220                             | ●                                        |                                                          | —                                      | ●                                                       | —                                                    | ●                                                                                  | —                                                           |
| SCFT-xxx-02-02                        | ●                                        |                                                          | —                                      | ●                                                       | —                                                    | ●                                                                                  | —                                                           |
| SCFTT-xxx-C2-05                       |                                          | ●                                                        | ● <sup>3)</sup>                        | ● <sup>3)</sup>                                         | ●                                                    | —                                                                                  | ●                                                           |
| SCLV-PTQ-xxx                          | ●                                        |                                                          | —                                      | ●                                                       | —                                                    | ●                                                                                  | —                                                           |
| SCLVT-PTQ-xxx-C2-05                   |                                          | ●                                                        | ●                                      | ●                                                       | ●                                                    | —                                                                                  | ●                                                           |

1) 60 bar, 150 bar and 600 bar only with firmware version V01261 or higher

2) 60 bar, 150 bar and 600 bar only with firmware version g102 or higher

3) only with firmware version i102 or higher

4) parametrise as auxiliary sensor

5) not 60 bar, 150 bar and 600 bar

— not available

● available

## 7 SCMA current/voltage/frequency meter

### Current/voltage/frequency meter SCMA-VADC-710

- Current/voltage or frequency measurement with our hand-held measuring devices
- Connection of external sensors (e.g. for measuring torque, force or displacement) to our hand-held measuring devices
- Galvanic isolation - high safety even when using several adapters
- CAN and analogue output - compatible with our new hand-held measuring device



#### Applications:

- Force-path diagram
- Torque-volume flow characteristic
- Current consumption at proportional valve
- Measurement of switching states of motors/pumps

#### Data:

- Voltages up to  $\pm 48$  V
- Currents up to  $\pm 4$  A
- Frequencies up to 5 kHz
- Supply of external sensors up to 24 V

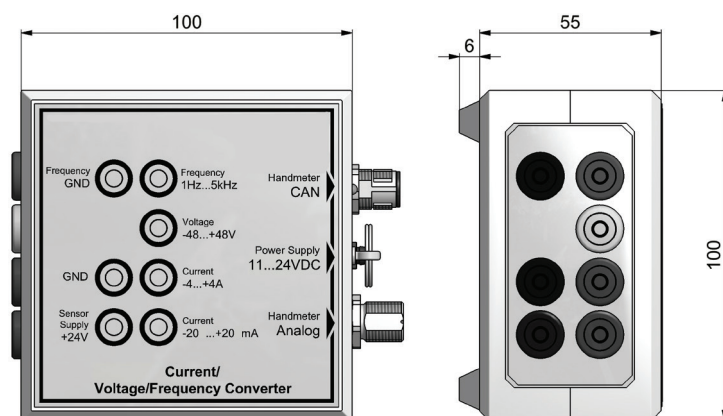


# 7 SCMA current/voltage/frequency meter

## Technical data

| Input (galvanically isolated)                        |                                |                |             |                                             |
|------------------------------------------------------|--------------------------------|----------------|-------------|---------------------------------------------|
|                                                      | DC voltage                     | DC current     | DC current  | Frequency                                   |
| Measuring range                                      | -48 ... +48 V                  | -20 ... +20 mA | -4 ... +4 A | 0 ... 5000Hz<br>100 mV ... 24 V             |
| Accuracy                                             | ±0.5 % FS                      | ±0.5 % FS      | ±1.5 % FS   | ± 0.04% FS @ <100 Hz<br>± 0.5% FS @> 100 Hz |
| Long-term stability                                  | 0.1 % Volt. / a                |                |             |                                             |
| External sensor power supply (galvanically isolated) |                                |                |             |                                             |
| Power supply (external)                              | 24 VDC ± 2 V                   |                |             |                                             |
| Current without power supply                         | max. 50 mA                     |                |             |                                             |
| Current with power supply                            | max. 100 mA                    |                |             |                                             |
| Power supply external                                |                                |                |             |                                             |
| Power supply                                         | 11...30 VDC                    |                |             |                                             |
| Connections                                          |                                |                |             |                                             |
| Measuring inputs                                     | 4 mm banana sockets            |                |             |                                             |
| Analogue outputs                                     | 5 pin, push-pull               |                |             |                                             |
| CAN output                                           | 5-pin, M 12x1, SPEEDCON®, plug |                |             |                                             |
| External power supply                                | 3-pin, socket                  |                |             |                                             |
| Ambient conditions                                   |                                |                |             |                                             |
| Ambient temperature                                  | 0...+60 °C                     |                |             |                                             |
| Storage temperature                                  | -20...+70 °C                   |                |             |                                             |
| Rel. Humidity                                        | < 80 %                         |                |             |                                             |
| Protection class                                     | IP40 EN 60529                  |                |             |                                             |
| Housing                                              |                                |                |             |                                             |
| Dimensions (W x H x D)                               | 100 x 100 x 61 mm              |                |             |                                             |
| Material                                             | ABS                            |                |             |                                             |
| Weight                                               |                                |                |             |                                             |
| Weight                                               | 240 g                          |                |             |                                             |
| Order designation                                    |                                |                |             |                                             |
| Order designation                                    | SCMA-VADC-710                  |                |             |                                             |

## Dimensional drawing



## Pressure/temperature/RPM measurement

Various sensors are available depending on the requirements of the measuring task:

### Type SCP pressure sensors

- Robust stainless steel design
- Response times of 1 ms
- Capturing of pressure peaks
- Accuracy  $\pm 0.5\%$
- Diagnostic adapters

### Pressure/temperature sensors Type SCPT

- Robust stainless steel design
- Response times of 1 ms
- Capturing of pressure peaks
- Accuracy  $\pm 0.5\%$
- Diagnostic adapters

### Temperature sensors Type SCT

- High pressure-resistant temperature sensors for measurements in hydraulics
- Measurement of temperatures up to 1000 °C
- Screw-in or rod sensors

### Rev. counter Type SCRPM

- Contactless speed measurement
- Measurement of speeds up to 10,000 RPM
- With 3 m fixed cable



## 8 SCMA-600 CAN-Converter Box

### CAN-Converter Box SCMA-600 AUX

- Connexion of additional analogue third party sensors to our SMC-600 measuring devices
- High accuracy of 0,1 % FS
- Galvanic isolation
- Plug & play connection to the SCM-600
- Easy & intuitive configuration menu

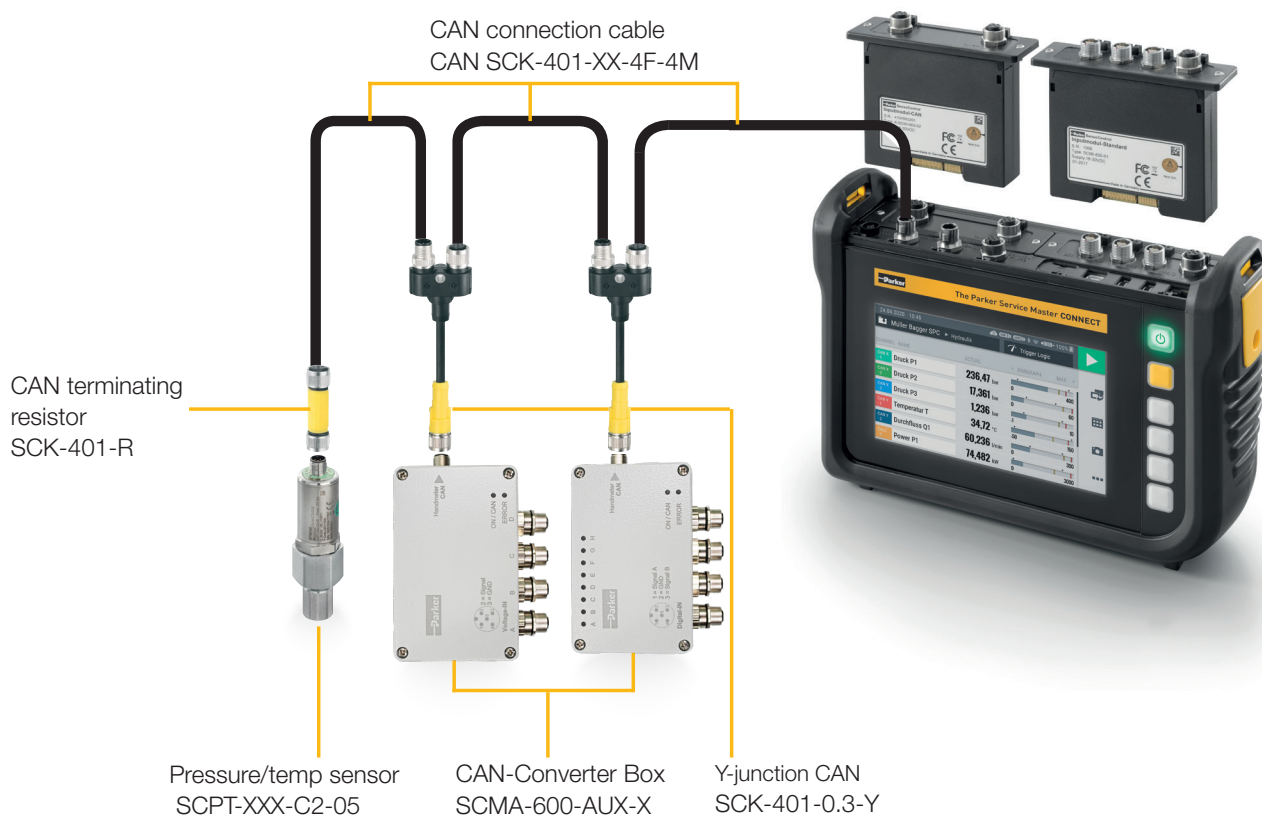


### Applications:

- Forth-path diagram
- Torque-volume flow characteristic
- Current consumption at proportional valve
- Measurement of switching states of motors/pumps

### Data:

- 4x voltage input up to  $\pm 30V$
- 4x current input up to  $\pm 20\text{ mA}$
- 8x digital input @3,3 V

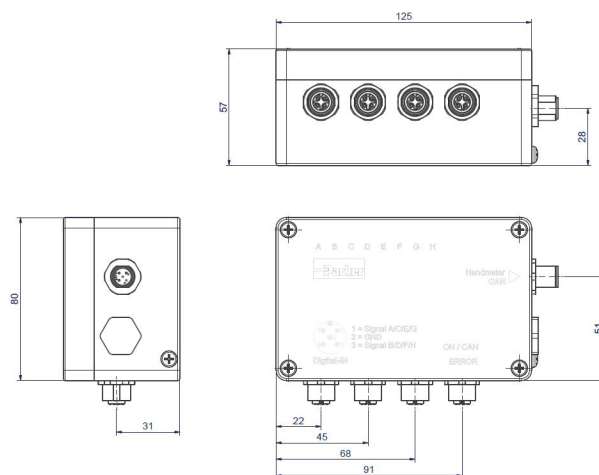


# 8 SCMA-600 CAN-Converter Box

## Technical data

| Version                                                 |                                                                      |                |                 |
|---------------------------------------------------------|----------------------------------------------------------------------|----------------|-----------------|
| Order designation                                       | SCMA-600-AUX-U                                                       | SCMA-600-AUX-I | SCMA-600-AUX-DI |
| Measuring range                                         | -30V ... +30 V                                                       | -20 ... +20 mA | @3,3V           |
| Accuracy                                                | ±0.1 % FS                                                            | ±0.1 % FS      | ±0.1 % FS       |
| Long-term stability                                     | 0.1 % Volt./ a                                                       |                |                 |
| Connections                                             |                                                                      |                |                 |
| Measuring inputs                                        | 4x 5-pin, M12x1 (female)                                             |                |                 |
| CAN output                                              | 5-pin, M12x1 (male)                                                  |                |                 |
| SCMA-600-AUX-U                                          | 84mA (reducing maximum number of CAN Sensors on same CAN port by 10) |                |                 |
| Ambient conditions                                      |                                                                      |                |                 |
| Ambient temperature                                     | -40 ... +85 °C                                                       |                |                 |
| Storage temperature                                     | -40 ... +85 °C                                                       |                |                 |
| Rel. Humidity                                           | <75% (without condensation)                                          |                |                 |
| Protection class                                        | IP66                                                                 |                |                 |
| Housing                                                 |                                                                      |                |                 |
| Dimensions 01V x H x D)                                 | 125 x 57 x 80 mm                                                     |                |                 |
| Material                                                | Die-cast aluminum                                                    |                |                 |
| Weight                                                  |                                                                      |                |                 |
| Weight                                                  | 240 g                                                                |                |                 |
| Requirements                                            |                                                                      |                |                 |
| SCM-600 Firmware                                        | V 24.23.10 or higher                                                 |                |                 |
| External power supply for connected sensors is required |                                                                      |                |                 |

## Dimensional drawing



## 9 Pressure measurement SCP analogue

### Pressure measurement SCP analogue

- Small size
- Robust stainless steel design
- Response times of 1 ms
- Capturing of pressure peaks
- Accuracy  $\pm 0.5\%$
- Laser-welded and labelled



Fast response times guarantee reliable detection of disruptive pressure peaks in the hydraulic system. The robust stainless steel design allows a variety of applications such as for cooling water or in compressed air systems.

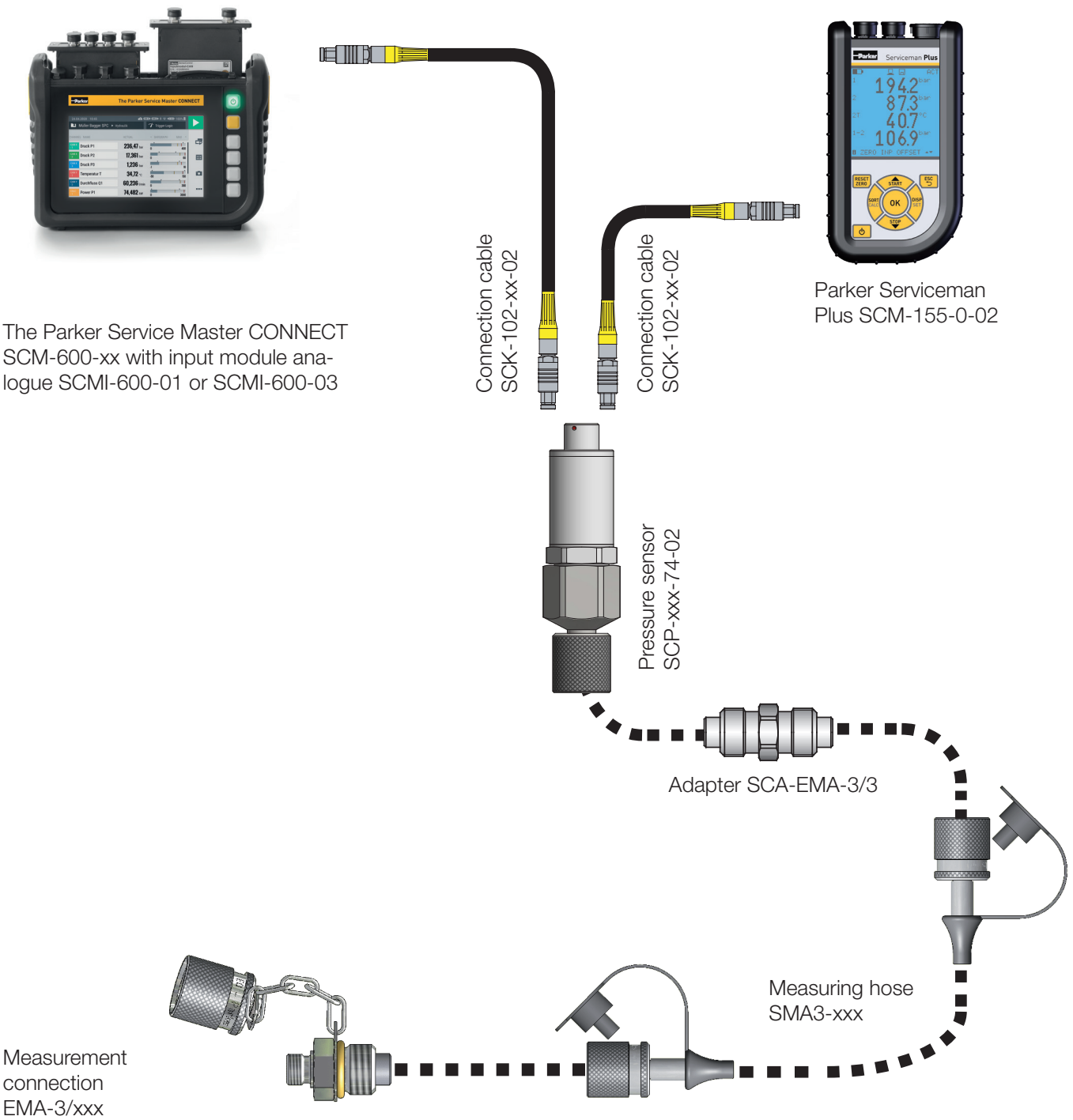
All pressure sensors are delivered with a diagnosis adapter (M16x2) installed. Fast and safe connection to the hydraulic system is ensured. Installation times are reduced.

#### Pressure measurement

|                |                              |
|----------------|------------------------------|
| -1 ... 015 bar | Pneumatics/negative pressure |
| 0 ... 060 bar  | Medium pressure range        |
| 0 ... 150 bar  | Medium pressure range        |
| 0 ... 400 bar  | Hydraulic operating pressure |
| 0 ... 600 bar  | High pressure                |
| 0 ... 1000 bar | High pressure peaks          |

## 9 Pressure measurement SCP analogue

### Functional description



#### Pressure meter SCP

There is a selection of different measuring ranges for measuring pressure. Sensors can be used for pneumatic applications and also for measuring pressure peaks of up to 1,000 bar.

## 9 Pressure measurement SCP analogue

### Technical data

| Type                                              | SCP-015                 | SCP-060            | SCP-150             | SCP-400             | SCP-600             | SCP-1000               |
|---------------------------------------------------|-------------------------|--------------------|---------------------|---------------------|---------------------|------------------------|
| Measuring range (bar)<br>(psi)                    | -1...015<br>-14.5...218 | 0...060<br>0...870 | 0...150<br>0...2320 | 0...400<br>0...5800 | 0...600<br>0...8700 | 0...1000*<br>0...14500 |
| Overload pressure P <sub>max</sub> (bar)<br>(psi) | 40<br>464               | 200<br>2900        | 500<br>7250         | 800<br>11600        | 1000<br>14500       | 1000<br>14500          |
| Burst pressure (bar)<br>(psi)                     | 60<br>870               | 1000<br>14500      | 2000<br>29000       | 2000<br>29000       | 2000<br>29000       | 2000<br>29000          |

\* P<sub>N</sub> 630 bar, for pressure peaks up to 1000 bar

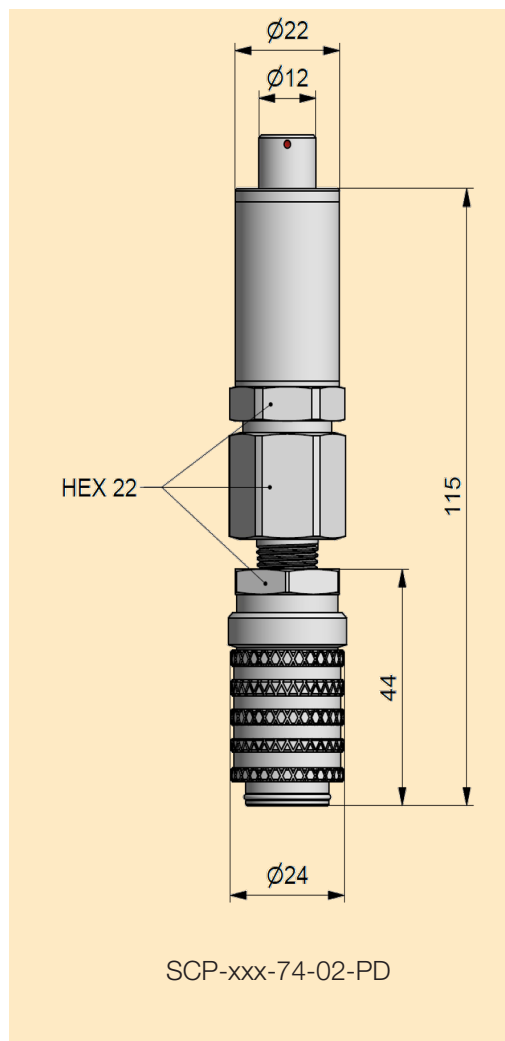
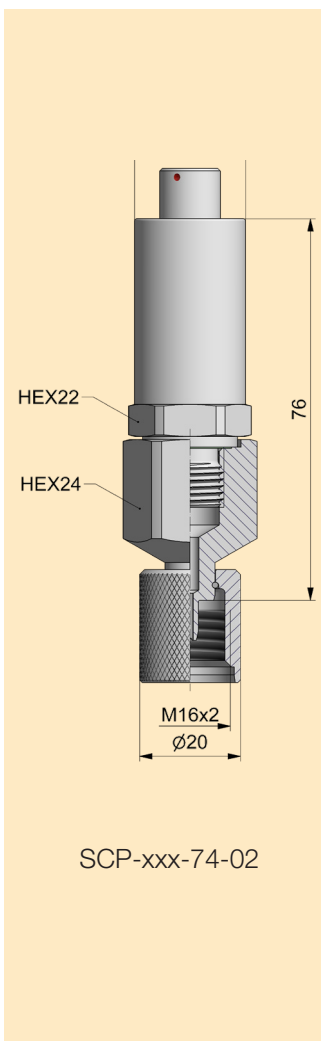
| Accuracy              |                           | Ambient conditions               |                              |
|-----------------------|---------------------------|----------------------------------|------------------------------|
| Accuracy FS           | ± 0.5 % + 0.2 %/year      | Ambient temperature (°C)<br>(°F) | -25...+85<br>-13...+185      |
| Response time         | 2 ms                      | Storage temperature (°C)<br>(°F) | -20...+85<br>-13...+185      |
| Connections           |                           | Media temperature (°C)<br>(°F)   | -25...+105<br>-13...+221     |
| Electrical connection | 5-pin, plug-in connection | Load change                      | 100 mil.                     |
| Process connection    | 1/4" BSPP                 | Shock load                       | 50 g/11 ms<br>IEC 60068-2-27 |
| Material              |                           | Vibrations                       | 20 g as per<br>IEC 60068-2-6 |
| Housing               | Stainless steel           |                                  |                              |
| Seal                  | FKM                       |                                  |                              |
| Weight                | approx. 200 g             |                                  |                              |
| Protection class      | IP54 EN 60529             |                                  |                              |



## 9 Pressure measurement SCP analogue

### Supply range and accessories

|                                                                           |                          |
|---------------------------------------------------------------------------|--------------------------|
| <b>SCP pressure sensor 1/4" BSPP male incl. adapter SCA-1/4-EMA-3</b>     | <b>Order designation</b> |
| -1...015 bar/0...060 bar/0...150 bar/0...400 bar/0...600 bar/0...1000 bar | SCP-xxx-74-02            |
| <b>SCP pressure sensor 1/4" BSPP male incl. adapter SCA-1/4-PQC</b>       | <b>Order designation</b> |
| -1...015 bar/0...060 bar/0...150 bar/<br>0...400 bar/0...600 bar          | SCP-xxx-74-02-PD         |
| <b>SCP pressure sensor with calibration certificate as per ISO 9001</b>   | <b>Order designation</b> |
| SCP pressure sensor incl. adapter SCA-1/4-EMA-3                           | K-SCP-xxx-74-02          |
| SCP pressure sensor incl. PD adapter                                      | K-SCP-xxx-74-02-PD       |
| <b>SCK connection cables analogue</b>                                     | <b>Order designation</b> |
| 3 m (male 5 pin - male 5 pin)                                             | SCK-102-03-02            |
| 5 m (male 5 pin - male 5 pin)                                             | SCK-102-05-02            |
| 5 m extension (male 5 pin - female 5 pin)                                 | SCK-102-05-12            |



# 10 Pressure measurement SCP CAN

## Pressure measurement SCP CAN

- Small size
- Robust stainless steel design
- Response times of 1 ms
- Capturing of pressure peaks
- Accuracy  $\pm 0.5\%$
- Sensor identification light ring
- Suitable for long cables
- Laser-welded and labelled



All the advantages of analogue SCP sensors combined with future-proof CAN bus technology. Plug & Play functionality without lots of configuration.

All pressure sensors are delivered with a diagnosis adapter (M16x2) installed. Fast and safe connection to the hydraulic system is ensured. Installation times are reduced.

| Pressure measurement |                              |
|----------------------|------------------------------|
| -1 ... 004 bar       | Pneumatics/negative pressure |
| -1 ... 010 bar       | Pneumatics/negative pressure |
| -1 ... 016 bar       | Pneumatics/negative pressure |
| 0 ... 025 bar        | Lower pressure range         |
| 0 ... 060 bar        | Medium pressure range        |
| 0 ... 160 bar        | Medium pressure range        |
| 0 ... 250 bar        | Medium pressure range        |
| 0 ... 400 bar        | Hydraulic operating pressure |
| 0 ... 600 bar        | High pressure                |
| 0 ... 1000 bar       | High pressure peaks          |

# 10 Pressure measurement SCP CAN

## Functional description



The Parker Service Master CONNECT  
SCM-600-00 or SCM-600-0A

Connection cable  
SCK-401-xx-4F-4M



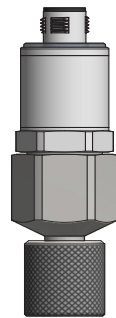
Connection cable  
SCK-401-xx-4F-4M



Parker Serviceman  
Plus SCM-155-2-05

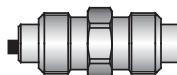


Terminating  
resistor  
SCK-401-R

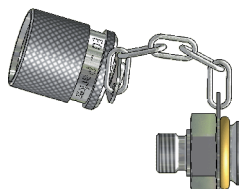


Pressure sensor  
SCP-xxx-C4-05

Adapter SCA-EMA-3/3



Measuring hose  
SMA3-xxx



Measurement  
connection  
EMA-3/xxx

### Pressure meter SCP

There is a selection of different measuring ranges for measuring pressure. Sensors can be used for pneumatic applications and also for measuring pressure peaks of up to 1,000 bar.

# 10 Pressure measurement SCP CAN

## Technical data

| Type                                              | SCP-004                | SCP-010                 | SCP-016                 | SCP-025            | SCP-060            |
|---------------------------------------------------|------------------------|-------------------------|-------------------------|--------------------|--------------------|
| Measuring range (bar)<br>(psi)                    | -1...004<br>-14.5...58 | -1...010<br>-14.5...145 | -1...016<br>-14.5...232 | 0...025<br>0...363 | 0...060<br>0...870 |
| Overload pressure P <sub>max</sub> (bar)<br>(psi) | 20<br>290              | 20<br>290               | 32<br>464               | 50<br>725          | 120<br>1740        |
| Burst pressure (bar)<br>(psi)                     | 100<br>1450            | 100<br>1450             | 160<br>2320             | 250<br>3625        | 550<br>7970        |

\* P<sub>N</sub> 630 bar, for pressure peaks up to 1000 bar

| Type                                              | SCP-160             | SCP-250             | SCP-400             | SCP-600             | SCP-1000               |
|---------------------------------------------------|---------------------|---------------------|---------------------|---------------------|------------------------|
| Measuring range (bar)<br>(psi)                    | 0...160<br>0...2320 | 0...250<br>0...3625 | 0...400<br>0...5800 | 0...600<br>0...8700 | 0...1000*<br>0...14500 |
| Overload pressure P <sub>max</sub> (bar)<br>(psi) | 320<br>4640         | 500<br>7250         | 800<br>11600        | 1000<br>14500       | 1000<br>14500          |
| Burst pressure (bar)<br>(psi)                     | 1000<br>14500       | 1700<br>24650       | 2000<br>29000       | 2000<br>29000       | 2000<br>29000          |

\* P<sub>N</sub> 630 bar, for pressure peaks up to 1000 bar

| Accuracy              |                      |
|-----------------------|----------------------|
| Accuracy FS           | ± 0.5 % + 0.2 %/year |
| Response time         | 1 ms                 |
| Connections           |                      |
| Electrical connection | M12, 5 pin           |
| Process connection    | 1/4" BSPP            |
| Material              |                      |
| Housing               | Stainless steel      |
| Seal                  | FKM                  |
| Weight                | approx. 195 g        |
| Protection class      | IP67 EN 60529        |

| Ambient conditions               |                              |
|----------------------------------|------------------------------|
| Ambient temperature (°C)<br>(°F) | -25...+85<br>-13...+185      |
| Storage temperature (°C)<br>(°F) | -25...+85<br>-13...+185      |
| Media temperature (°C)<br>(°F)   | -25...+105<br>-13...+221     |
| Load change                      | 100 mil.                     |
| Shock load                       | 50 g/11 ms<br>IEC 60068-2-27 |
| Vibrations                       | 20 g<br>IEC 60068-2-6        |

# 10 Pressure measurement SCP CAN

## Supply range and accessories

| SCP pressure sensor CAN 1/4" BSPP male incl. adapter SCA-1/4-EMA-3                                                                | Order designation |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------|
| -1...004 bar/-1...010 bar/-1...016 bar/ 0...025 bar/0...060 bar/0...160 bar/ 0...250 bar/<br>0...400 bar/0...600 bar/0...1000 bar | SCP-xxx-C4-05     |

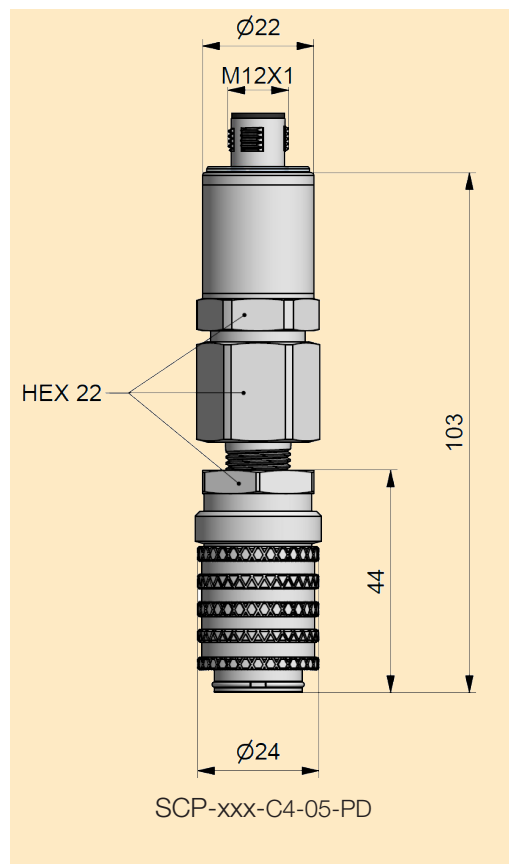
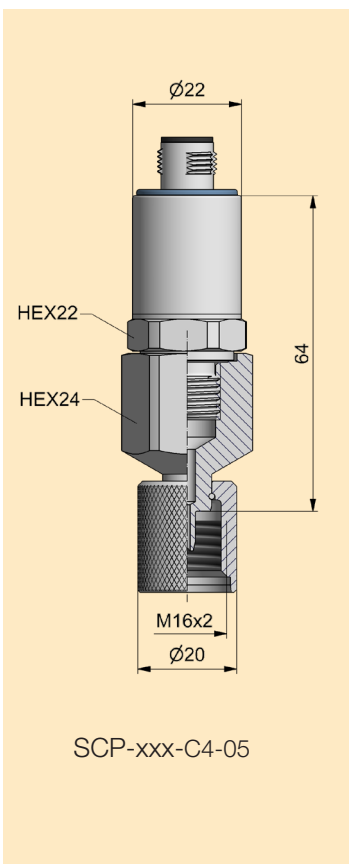
| SCP pressure sensor CAN 1/4" BSPP male incl. adapter SCA-1/4-PD                        | Order designation |
|----------------------------------------------------------------------------------------|-------------------|
| -1...004 bar/-1...010 bar/-1...016 bar/0...060 bar/0...160 bar/0...400 bar/0...600 bar | SCP-xxx-C4-05-PD  |

| SCK connection cables CAN*                               | Order designation |
|----------------------------------------------------------|-------------------|
| 0.5 m (male 5 pin - female 5 pin)                        | SCK-401-0.5-4F-4M |
| 2 m (male 5 pin - female 5 pin)                          | SCK-401-02-4F-4M  |
| 5 m (male 5 pin - female 5 pin)                          | SCK-401-05-4F-4M  |
| 10 m (male 5 pin - female 5 pin)                         | SCK-401-10-4F-4M  |
| Y-junction CAN                                           | SCK-401-Y         |
| Y-junction CAN incl. 0.3-m cable                         | SCK-401-0.3-Y     |
| T-junction CAN                                           | SCK-401-T         |
| Terminating resistor** CAN (female 5 pin - female 5 pin) | SCK-401-R         |

\* Other lengths available on request

\*\* Each CAN network requires a terminating resistor

| SCP pressure sensor CAN with calibration certificate as per ISO 9001 | Order designation  |
|----------------------------------------------------------------------|--------------------|
| SCP pressure sensor CAN incl. adapter SCA-1/4-EMA-3                  | K-SCP-xxx-C4-05    |
| SCP pressure sensor CAN incl. PD adapter                             | K-SCP-xxx-C4-05-PD |



# 11 Pressure/temperature measurement SCPT analogue

## Pressure / temperature measurement SCPT analogue

- Robust stainless steel design
- Response times of 1 ms
- Capturing of pressure peaks
- Accuracy  $\pm 0.5\%$
- Laser-welded and labelled



Fast response times guarantee reliable detection of disruptive pressure peaks in the hydraulic system. The robust stainless steel design allows a variety of applications such as for cooling water or in compressed air systems.

All pressure sensors are delivered with a diagnosis adapter (M16x2) installed. Fast and safe connection to the hydraulic system is ensured. Installation times are reduced.

| Pressure measurement    |                              |
|-------------------------|------------------------------|
| -1 ... 015 bar          | Pneumatics/negative pressure |
| 0 ... 060 bar           | Medium pressure range        |
| 0 ... 150 bar           | Medium pressure range        |
| 0 ... 400 bar           | Hydraulic operating pressure |
| 0 ... 600 bar           | High pressure                |
| 0 ... 1000 bar          | High pressure peaks          |
| Temperature measurement |                              |
| -25...+105 °C           | Temperature                  |

# 11 Pressure/temperature measurement SCPT analogue

## Functional description



The Parker Service Master CONNECT SCM-600-xx with input module analogue SCMI-600-01 or SCMI-600-03



Parker Serviceman Plus SCM-155-0-02

Connection cable  
SCK-102-xx-02

Connection cable  
SCK-102-xx-02

Pressure/temperature sensor  
SCPT-xxx-02-02

Adapter SCA-EMA-3/3

Measuring hose  
SMA3-xxx

Measurement  
connection  
EMA-3/xxx

### Pressure/temperature meter SCPT

There is a selection of different measuring ranges for measuring pressure. Sensors can be used for pneumatic applications and also for measuring pressure peaks of up to 1,000 bar.



# 11 Pressure/temperature measurement SCPT analogue

## Technical data

| Type                                                            | SCPT-015                 | SCPT-060                 | SCPT-150                 | SCPT-400                 | SCPT-600                 | SCPT-1000                |
|-----------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Measuring range (bar)<br>(psi)                                  | -1...015<br>-14.5...217  | 0...060<br>0...870       | 0...150<br>0...2320      | 0...400<br>0...5800      | 0...600<br>0...8700      | 0...1000*<br>0...14500   |
| Overload pressure P <sub>max</sub> (bar)<br>(psi)               | 32<br>464                | 120<br>1740              | 320<br>4640              | 800<br>11600             | 1000<br>14500            | 1000<br>14500            |
| Burst pressure (bar)<br>(psi)                                   | 180<br>2610              | 550<br>7970              | 1000<br>14500            | 1200<br>17400            | 2000<br>29000            | 2000<br>29000            |
| Temperature measurement<br>range (°C)<br>(°F)<br>Accuracy ± 3 K | -25...+105<br>-13...+221 | -25...+105<br>-13...+221 | -25...+105<br>-13...+221 | -25...+105<br>-13...+221 | -25...+105<br>-13...+221 | -25...+105<br>-13...+221 |

\* P<sub>N</sub> 630 bar, for pressure peaks up to 1000 bar

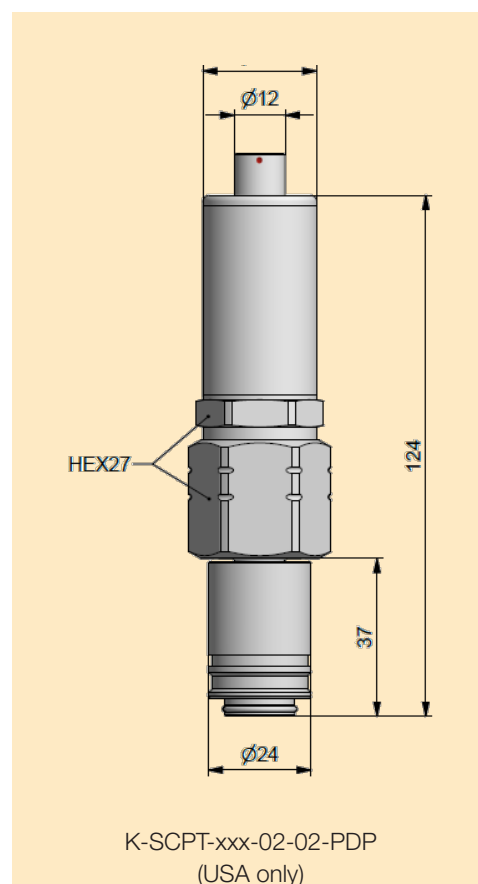
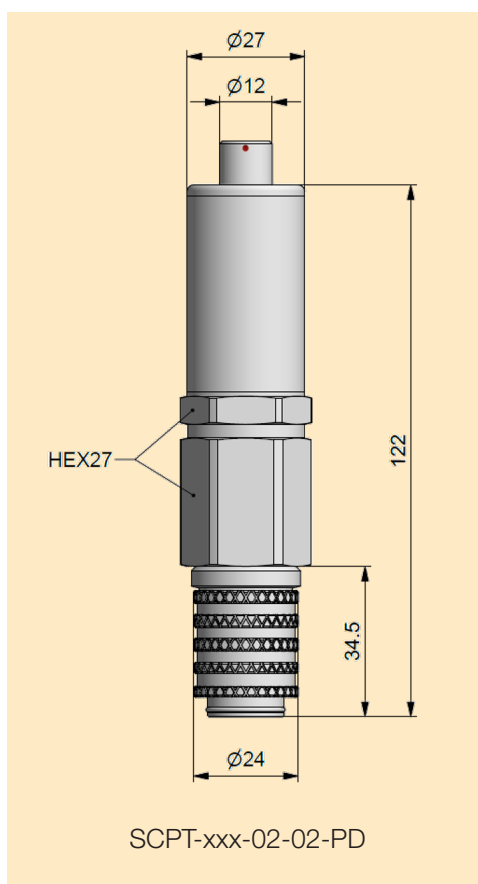
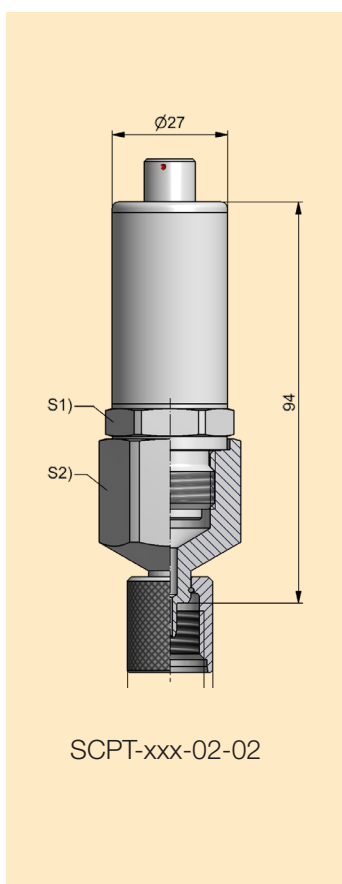
| Accuracy              |                           |
|-----------------------|---------------------------|
| Accuracy FS           | max. ±0.5 % + 0.2 %/year  |
| Response time         | 1 ms                      |
| Connections           |                           |
| Electrical connection | 5-pin, plug-in connection |
| Process connection    | 1/2" BSPP                 |
| Material              |                           |
| Housing               | Stainless steel           |
| Seal                  | FKM                       |
| Weight                | approx. 275 g             |
| Protection class      | IP54 EN 60529             |

| Ambient conditions               |                              |
|----------------------------------|------------------------------|
| Ambient temperature (°C)<br>(°F) | -25...+85<br>-13...+185      |
| Storage temperature (°C)<br>(°F) | -25...+85<br>-13...+185      |
| Media temperature (°C)<br>(°F)   | -25...+105<br>-13...+221     |
| Load change                      | 100 mil.                     |
| Shock load                       | 50 g/11 ms<br>IEC 60068-2-27 |
| Vibrations                       | 20 g<br>IEC 60068-2-6        |

# 11 Pressure/temperature measurement SCPT analogue

## Supply range and accessories

|                                                                                        |                          |
|----------------------------------------------------------------------------------------|--------------------------|
| <b>SCPT pressure/temperature sensor 1/2" BSPP male incl. adapter SCA-1/2-EMA-3</b>     | <b>Order designation</b> |
| -1...015 bar/0...060 bar/0...150 bar/0...400 bar/0...600 bar/0...1000 bar              | SCPT-xxx-02-02           |
| <b>SCPT pressure/temperature sensor 1/2" BSPP male incl. adapter SCA-1/2-PD</b>        | <b>Order designation</b> |
| -1...015 bar/0...060 bar/0...150 bar/0...400 bar/0...600 bar                           | SCPT-xxx-02-02-PD        |
| <b>SCPT pressure/temperature sensor 1/2" BSPP male incl. adapter PDP288 (USA only)</b> | <b>Order designation</b> |
| -1...015 bar/0...060 bar/0...150 bar/ 0...400 bar/0...600 bar                          | SCPT-xxx-02-02-PDP       |
| <b>SCPT pressure/temperature sensor with calibration certificate as per ISO 9001</b>   | <b>Order designation</b> |
| SCPT pressure/temperature sensor incl. adapter SCA-1/2-EMA-3                           | K-SCPT-xxx-02-02         |
| SCPT pressure/temperature sensor incl. PD adapter                                      | K-SCPT-xxx-02-02-PD      |
| SCPT pressure/temperature sensor incl. PDP288 adapter (USA only)                       | K-SCPT-xxx-02-02-PDP     |
| <b>SCK connection cables analogue</b>                                                  | <b>Order designation</b> |
| 3 m (male 5 pin - male 5 pin)                                                          | SCK-102-03-02            |
| 5 m (male 5 pin - male 5 pin)                                                          | SCK-102-05-02            |
| 5-m extension cable (male 5 pin - female 5 pin)                                        | SCK-102-05-12            |



# 12 Pressure/temperature measurement SCPT CAN

## Pressure/temperature measurement SCPT CAN

- Robust stainless steel design
- Response times of 1 ms
- Capturing of pressure peaks
- Future-proof CAN bus technology
- Sensor identification light ring
- Suitable for long cables
- Accuracy  $\pm 0.5\%$
- Laser-welded and labelled



All the advantages of analogue SCPT sensors combined with future-proof CAN bus technology. Plug & Play functionality without lots of configuration.

All pressure sensors are delivered with a diagnosis adapter (M16x2) installed. Fast and safe connection to the hydraulic system is ensured. Installation times are reduced.

| Pressure measurement    |                              |
|-------------------------|------------------------------|
| -1 ... 016 bar          | Pneumatics/negative pressure |
| 0 ... 060 bar           | Medium pressure range        |
| 0 ... 160 bar           | Medium pressure range        |
| 0 ... 400 bar           | Hydraulic operating pressure |
| 0 ... 600 bar           | High pressure                |
| 0 ... 1000 bar          | High pressure peaks          |
| Temperature measurement |                              |
| -25...+105 °C           | Temperature                  |

# 12 Pressure/temperature measurement SCPT CAN

## Technical data

| Type                                                            | SCPT-016                 | SCPT-060                | SCPT-160                | SCPT-400                | SCPT-600                | SCPT-1000               |
|-----------------------------------------------------------------|--------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Measuring range (bar)<br>(psi)                                  | -1...016<br>-14.5...232  | 0...060<br>0...870      | 0...160<br>0...2320     | 0...400<br>0...5800     | 0...600<br>0...8700     | 0...1000*<br>0...145000 |
| Overload pressure P <sub>max</sub> (bar)<br>(psi)               | 32<br>464                | 120<br>1740             | 320<br>4640             | 800<br>11600            | 1000<br>14500           | 1000<br>14500           |
| Burst pressure (bar)<br>(psi)                                   | 180<br>2610              | 550<br>7970             | 1000<br>14500           | 1700<br>17400           | 2000<br>29000           | 2000<br>29000           |
| Temperature measurement<br>range (°C)<br>(°F)<br>Accuracy ± 3 K | -25...+105<br>-13...+221 | -25...+105<br>13...+221 | -25...+105<br>13...+221 | -25...+105<br>13...+221 | -25...+105<br>13...+221 | -25...+105<br>13...+221 |

\* P<sub>N</sub> 630 bar, for pressure peaks up to 1000 bar

| Accuracy              |                      | Ambient conditions               |                              |
|-----------------------|----------------------|----------------------------------|------------------------------|
| Accuracy              | ± 0.5 % + 0.2 %/year | Ambient temperature (°C)<br>(°F) | -25...+85<br>13...+185       |
| Response time         | 1 ms                 | Storage temperature (°C)<br>(°F) | -25...+85<br>13...+185       |
| Connections           |                      | Media temperature (°C)<br>(°F)   | -25...+105<br>13...+221      |
| Electrical connection | 5 pin, M12x1, plug   | Load change                      | 100 mil.                     |
| Process connection    | 1/2" BSPP            | Shock load                       | 50 g/11 ms<br>IEC 60068-2-27 |
| Material              |                      | Vibration                        | 20 g<br>IEC 60068-2-6        |
| Housing               | Stainless steel      |                                  |                              |
| Seal                  | FKM                  |                                  |                              |
| Weight                | 270 g                |                                  |                              |
| Protection class      | IP67 EN 60529        |                                  |                              |

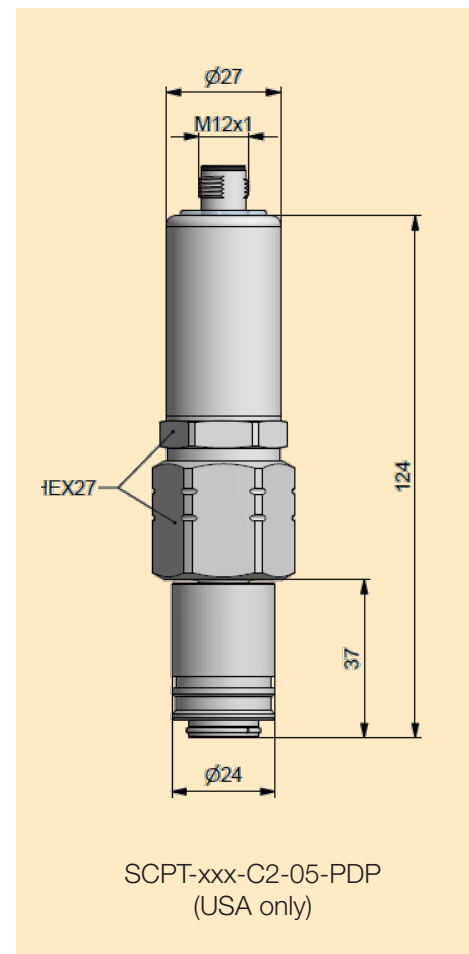
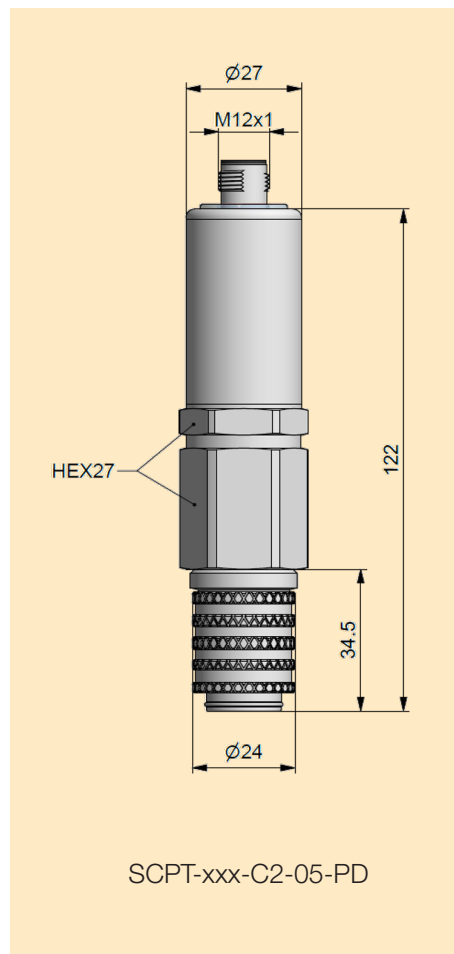
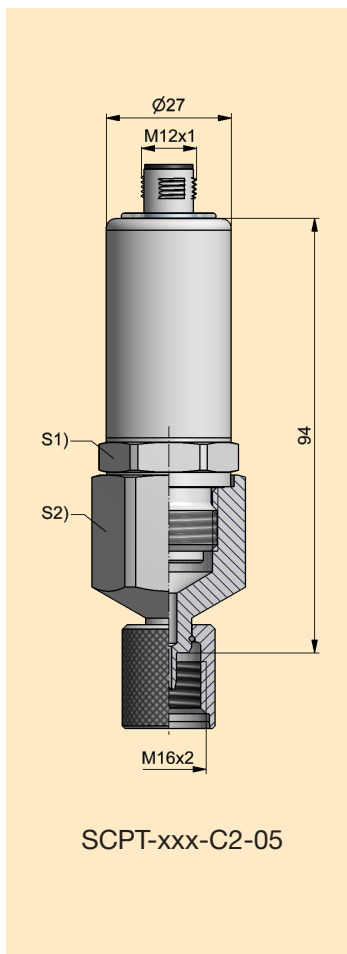
# 12 Pressure/temperature measurement SCPT CAN

## Supply range and accessories

| SCPT pressure/temperature sensor CAN 1/2" BSPP male<br>incl. adapter SCA-1/2-EMA-3  | Order designation    |
|-------------------------------------------------------------------------------------|----------------------|
| -1...016 bar/0...060 bar/0...160 bar/0...400 bar/0...600 bar/0...1000 bar           | SCPT-xxx-C2-05       |
| SCPT pressure/temperature sensor CAN 1/2" BSPP male incl. adapter SCA-1/2-PD        | Order designation    |
| -1...016 bar/0...060 bar/0...160 bar/0...400 bar/0...600 bar                        | SCPT-xxx-C2-05-PD    |
| SCPT pressure/temperature sensor 1/2" BSPP external incl. adapter PDP288 (USA only) | Order designation    |
| -1...015 bar/0...060 bar/0...150 bar/ 0...400 bar/0...600 bar                       | SCPT-xxx-C2-05-PDP   |
| SCPT pressure/temperature sensor CAN with calibration certificate as per ISO 9001   | Order designation    |
| SCPT pressure/temperature sensor CAN incl. adapter SCA-1/2-EMA-3                    | K-SCPT-xxx-C2-05     |
| SCPT pressure/temperature sensor CAN incl. PD adapter                               | K-SCPT-xxx-C2-05-PD  |
| SCPT pressure/temperature sensor CAN incl. PDP288 adapter (USA only)                | K-SCPT-xxx-C2-05-PDP |
| SCK connection cables CAN*                                                          | Order designation    |
| 0.5 m (male 5 pin - female 5 pin)                                                   | SCK-401-0.5-4F-4M    |
| 2 m (male 5 pin - female 5 pin)                                                     | SCK-401-02-4F-4M     |
| 5 m (male 5 pin - female 5 pin)                                                     | SCK-401-05-4F-4M     |
| 10 m (male 5 pin - female 5 pin)                                                    | SCK-401-10-4F-4M     |
| Y-junction CAN                                                                      | SCK-401-Y            |
| Y-junction CAN incl. 0.3-m cable                                                    | SCK-401-0.3-Y        |
| T-junction CAN                                                                      | SCK-401-T            |
| Terminating resistor** CAN (female 5 pin - female 5 pin)                            | SCK-401-R            |
| * Other lengths available on request                                                |                      |
| ** Each CAN network requires a terminating resistor                                 |                      |

# 12 Pressure/temperature measurement SCPT CAN

## Dimensional drawings



## 13 Temperature measurement SCT analogue

### Temperature measurement SCT analogue

- High pressure-resistant temperature sensors
- Measurement of temperatures up to 1000 °C
- Flexible use
- Screw-in or rod sensors



Temperature measurements in hydraulics are used for troubleshooting and preventing damage due to excessively high temperatures on critical components such as pumps or proportional valves.

In order to carry out a precise temperature measurement, the temperature is measured directly in the pipe or hose line.

The SCT-190 series screw-in sensors can also be used in the SCFT-xxx-02-02 turbine flow meter for temperature measurement.



# 13 Temperature measurement SCT analogue

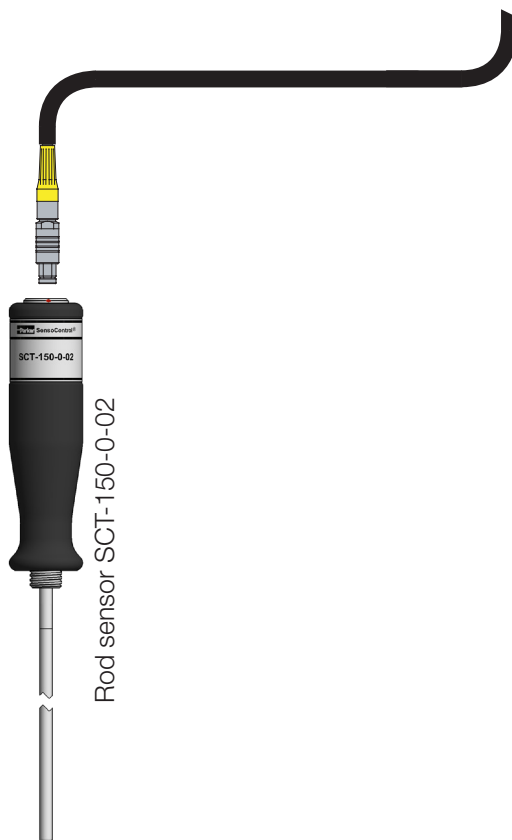
## Functional description



The Parker Service Master CONNECT SCM-600-xx with input module analogue SCMI-600-01 or SCMI-600-03



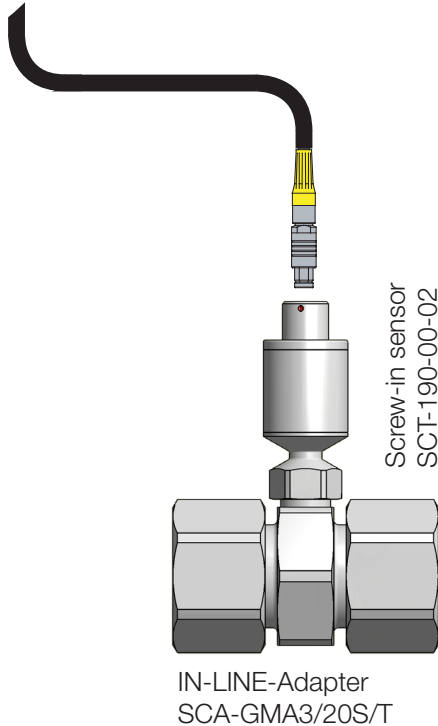
Parker Serviceman Plus SCM-155-0-02



Rod sensor SCT-150-0-02

### Rod sensor SCT-150 (-25 °C...+125 °C)

The SCT-150-0-02 rod sensor measures temperatures in tanks and containers.



Screw-in sensor SCT-190-00-02

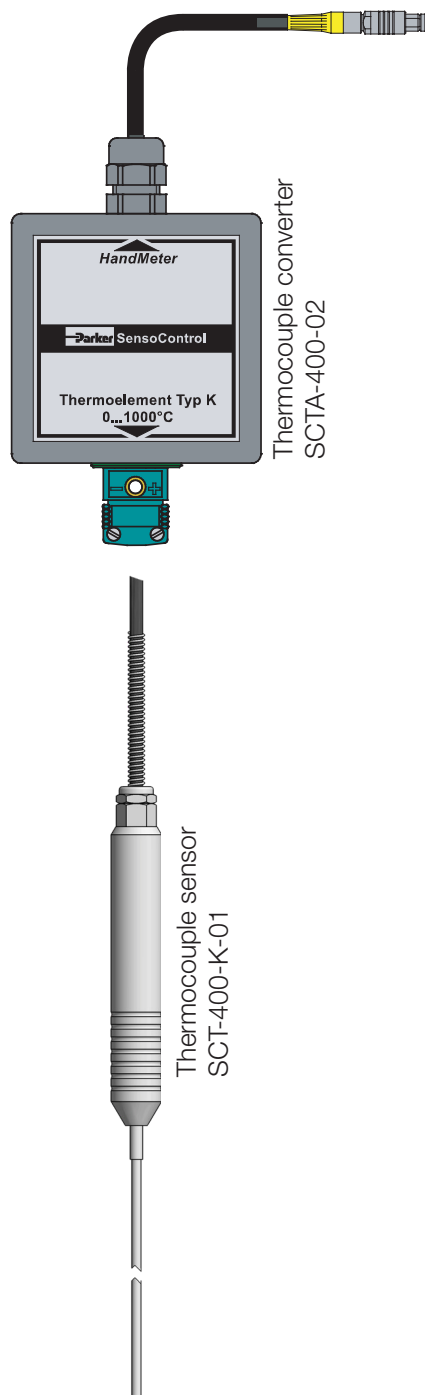
IN-LINE-Adapter SCA-GMA3/20S/T

### Screw-in sensor SCT-190 (-40 °C...+150 °C)

The SCT-190-xx-02 screw-in sensor can be adapted to the hydraulic system up to a system pressure of 630 bar. The screw-in plug is compatible with the GMA3/20 series measuring connections, the SCFT-xxx-02-02 turbine flow meter and the SCLV-xxx-02-02 hydraulic tester.

# 13 Temperature measurement SCT analogue

## Functional description



The Parker Service Master CONNECT  
SCM-600-xx with input module analogue SCMI-600-  
01 or SCMI-600-03

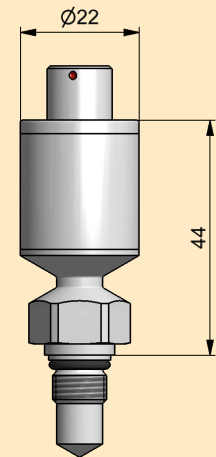
### **Thermocouple sensor SCT-400-K-01 with thermocouple converter SCTA-400-02**

High temperature-resistant thermocouple sensors measure exhaust gas temperatures on diesel engines up to 1,000 °C.

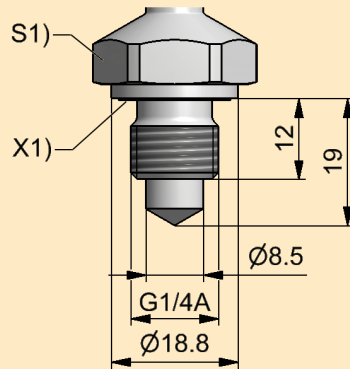
The thermocouple converter SCTA-400-02 is compatible with all type K thermocouple sensors.

# 13 Temperature measurement SCT analogue

## Technical data

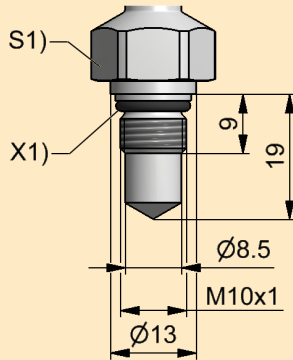


Screw-in sensor



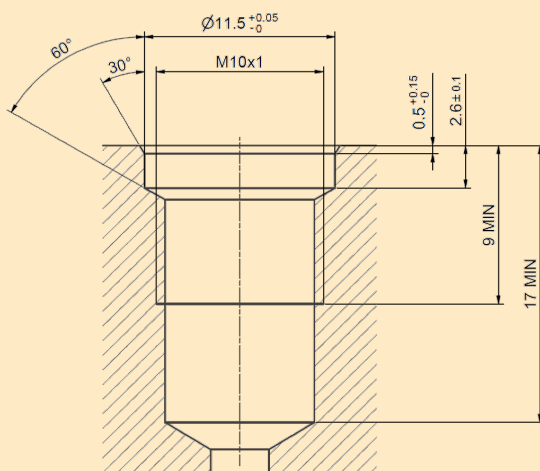
SCT-190-04-02

G1/4"-connection  
S1) = SW22  
X1) = ED-seal 14x1.5

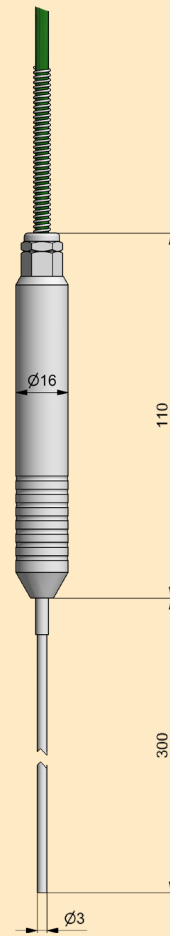


SCT-190-00-02

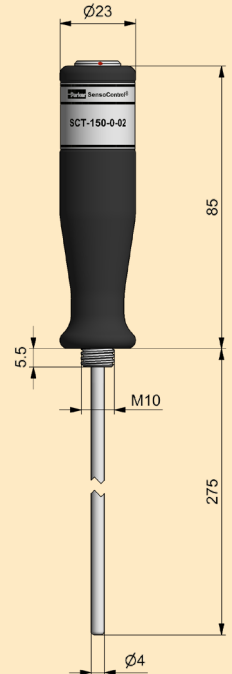
M10x1-connection  
S1) = SW17  
X1) = O-ring 7.65x1.78



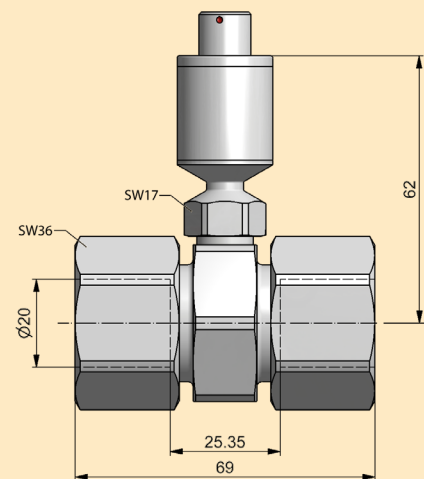
Port M10x1



Thermocouple sensor  
SCT-400-K-01

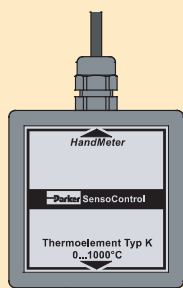


Rod sensor  
SCT-150-0-02



Screw-in sensor  
SCT-190-00-02  
with IN-LINE adapter SCA-GMA3/20S/T

# 13 Temperature measurement SCT analogue



Thermocouple  
SCTA-400-02

| Type                                                          | SCT-190-04-02                                                     | SCT-190-00-02                                                     | SCT-150-0-02                              | SCT-400-K-01                               | SCTA-400-02                      |
|---------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------|--------------------------------------------|----------------------------------|
| Measuring range<br>(°C)                                       | -40...+150                                                        | -40...+150                                                        | -25...+125                                | 0...+1000                                  | 0...+1000                        |
| (°F)                                                          | -40...+302                                                        | -40...+302                                                        | -13...+257                                | 0...+1832                                  | 0...+1832                        |
| Accuracy                                                      | ± 1.0% FS*                                                        | ± 1.0% FS*                                                        | ± 1.5% FS                                 | ± 1.5 K                                    | ± 1.0 % FS*                      |
| Response time                                                 | T <sub>50</sub> ≤ 4s, T <sub>90</sub> ≤ 14s                       | T <sub>50</sub> ≤ 4s, T <sub>90</sub> ≤ 12s                       | T <sub>90</sub> ≤ 9.1s                    | T <sub>90</sub> ≤ 5s                       | -                                |
| Process con-<br>nection                                       | G1/4"                                                             | M10x1                                                             | -                                         | -                                          | -                                |
| <b>Material</b>                                               |                                                                   |                                                                   |                                           |                                            |                                  |
| Housing                                                       | Stainless steel                                                   | Stainless steel                                                   | Rod: Stainless<br>steel handle:<br>Delrin | Stainless steel<br>with 2 m fixed<br>cable | ABS with<br>30 cm fixed<br>cable |
| Seal                                                          | FKM**                                                             | FKM**                                                             | -                                         | -                                          | -                                |
| Weight (g)                                                    | 70                                                                | 55                                                                | 120                                       | 150                                        | -                                |
| Media-contact-<br>ing parts                                   | Stainless steel                                                   | Stainless steel                                                   | Stainless steel                           | Stainless steel                            | -                                |
| <b>Ambient conditions</b>                                     |                                                                   |                                                                   |                                           |                                            |                                  |
| Ambient<br>temperature (°C)                                   | -40...+85                                                         | -40...+85                                                         | -25...+85                                 | -20...+150                                 | 0...+50                          |
| (°F)                                                          | @T <sub>Meas</sub> ≤ 85<br>-40...+185<br>@T <sub>Meas</sub> ≤ 185 | @T <sub>Meas</sub> ≤ 85<br>-40...+185<br>@T <sub>Meas</sub> ≤ 185 | -13...185                                 | -4...302                                   | +32...122                        |
| Storage temper-<br>ature (°C)                                 | -40...+85                                                         | -40...+85                                                         | -25...+80                                 | -20...+80                                  | -25...+60                        |
| (°F)                                                          | -40...+185                                                        | -40...+185                                                        | -13...+176                                | -13...+176                                 | +32...+140                       |
| Operating pres-<br>sure (bar)                                 | 630                                                               | 630                                                               | -                                         | -                                          | -                                |
| (psi)                                                         | 9100                                                              | 9100                                                              |                                           |                                            |                                  |
| Overload pres-<br>sure (bar)                                  | 800                                                               | 800                                                               | -                                         | -                                          | -                                |
| (psi)                                                         | 11600                                                             | 11600                                                             |                                           |                                            |                                  |
| Burst pressure<br>(bar)                                       | 2000                                                              | 2000                                                              | -                                         | -                                          | -                                |
| (psi)                                                         | 29000                                                             | 29000                                                             |                                           |                                            |                                  |
| * FS = FullScale (full scale value)                           |                                                                   |                                                                   |                                           |                                            |                                  |
| ** for temperatures -25...+150 °C, other materials on request |                                                                   |                                                                   |                                           |                                            |                                  |

# 13 Temperature measurement SCT analogue

## Supply range and accessories

| SCT temperature sensors               | Order designation |
|---------------------------------------|-------------------|
| Screw-in sensor (M10x1)               | SCT-190-00-02     |
| Screw-in sensor(G1/4" BSPP male)      | SCT-190-04-02     |
| Rod sensor                            | SCT-150-0-02      |
| IN-LINE adapter pipe mounting (M10x1) | SCA-GMA3/20S/T    |

| SCT temperature sensor ( $T_{Max} = 1,000\text{ °C}$ ) | Order designation |
|--------------------------------------------------------|-------------------|
| Thermocouple converter                                 | SCTA-400-02       |
| Thermocouple sensor                                    | SCT-400-K-01      |

| SCT temperature sensor with calibration certificate as per ISO 9001* | Order designation |
|----------------------------------------------------------------------|-------------------|
| Screw-in sensor (M10x1)                                              | K-SCT-190-00-02   |
| Screw-in sensor(G1/4" BSPP male)                                     | K-SCT-190-04-02   |
| Rod sensor                                                           | K-SCT-150-0-02    |
| * calibrated range -25 ... + 100 °C                                  |                   |

| SCK connection cables analogue                  | Order designation |
|-------------------------------------------------|-------------------|
| 3 m (male 5 pin - male 5 pin)                   | SCK-102-03-02     |
| 5 m (male 5 pin - male 5 pin)                   | SCK-102-05-02     |
| 5-m extension cable (male 5 pin - female 5 pin) | SCK-102-05-12     |

# 14 Temperature measurement SCT CAN

## Temperature measurement SCT CAN

- High pressure-resistant temperature sensors for measurements in hydraulics
- Measurement of temperatures up to 150 °C
- Flexible use
- Screw-in sensor
- Sensor identification light ring
- Accuracy  $\pm 0.66\%$
- Suitable for long cables
- Laser-welded and labelled



Temperature measurements in hydraulics are used for troubleshooting and preventing damage due to excessively high temperatures on critical components such as pumps or proportional valves.

In order to carry out a precise temperature measurement, the temperature is measured directly in the pipe or hose line.

The SCT-190 screw-in sensors series can also be used in the SCFT turbine flow meters for temperature measurement.

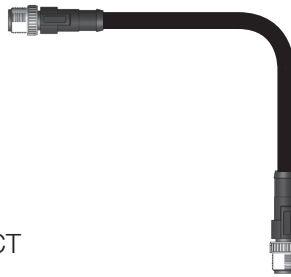
# 14 Temperature measurement SCT CAN

## Functional description



The Parker Service Master CONNECT  
SCM-600-00 or SCM-600-0A

Connection cable  
SCK-401-xx-4F-4M



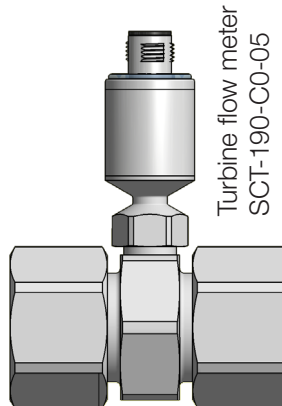
Connection cable  
SCK-401-xx-4F-4M



Parker Serviceman  
Plus SCM-155-2-05



Terminating  
resistor  
SCK-401-R



Turbine flow meter  
SCT-190-C0-05

IN-LINE-Adapter  
SCA-GMA3/20S/T

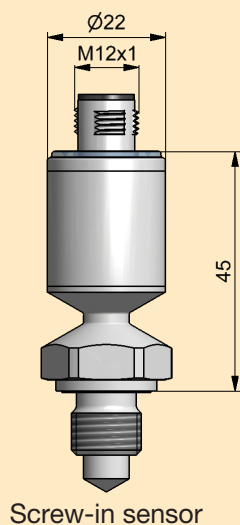
### Screw-in sensor SCT-190 (-40 °C...+150 °C)

The SCT-190-Cx-05 screw-in sensor can be adapted to the hydraulic system up to a system pressure of 630 bar. The screw-in plug is compatible with the GMA3/20 series measuring connections, the SCFTT-xxx turbine flow meter and the SCLVT-xxx hydraulic tester.

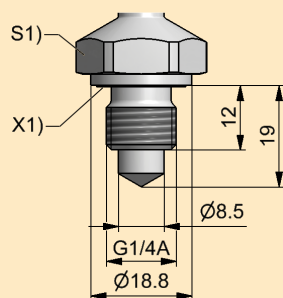


# 14 Temperature measurement SCT CAN

## Technical data

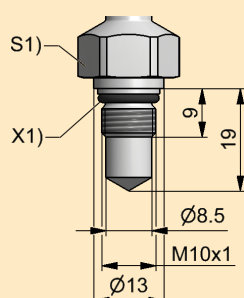


Screw-in sensor



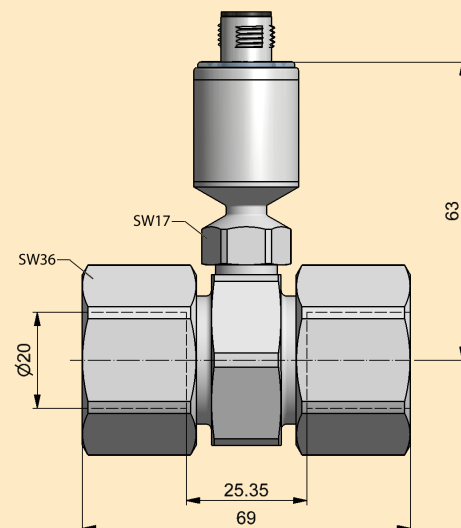
SCT-190-C4-05

G1/4"-connection  
S1) = SW22  
X1) = ED-seal 14x1.5

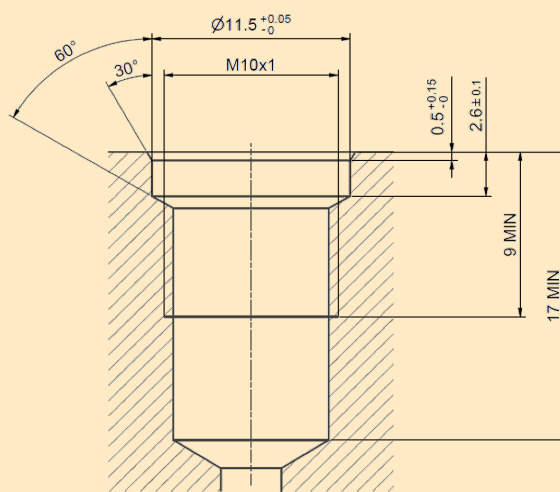


SCT-190-C0-05

M10x1-connection  
S1) = SW17  
X1) = O-ring 7.65x1.78



Screw-in sensor  
SCT-190-C0-05  
with IN-LINE adapter  
SCA-GMA3/20S/T



Port M10X1

# 14 Temperature measurement SCT CAN

| Type                                                          | SCT-190-C0-05                              | SCT-190-C4-05                              |
|---------------------------------------------------------------|--------------------------------------------|--------------------------------------------|
| Measuring range (°C)                                          | -40 ... +150                               | -40 ... +150                               |
| (°F)                                                          | -40 ... +302                               | -40 ... +302                               |
| Accuracy                                                      | ± 0.66% FS                                 | ± 0.66% FS                                 |
| Response time                                                 | $T_{50} \leq 4s, T_{90} \leq 12s$          | $T_{50} \leq 4s, T_{90} \leq 12s$          |
| Ambient temperature (°C)                                      | -40...+85 @ $T_{Meas} \leq 85\text{ °C}$   | -40...+85 @ $T_{Meas} \leq 85\text{ °C}$   |
| (°F)                                                          | -40 ... +70 @ $T_{Meas} > 85\text{ °C}$    | -40 ... +70 @ $T_{Meas} > 85\text{ °C}$    |
|                                                               | -40...+185 @ $T_{Meas} \leq 185\text{ °F}$ | -40...+185 @ $T_{Meas} \leq 185\text{ °F}$ |
|                                                               | -40 ... +158 @ $T_{Meas} > 185\text{ °F}$  | -40 ... +158 @ $T_{Meas} > 185\text{ °F}$  |
| Storage temperature (°C)                                      | -40...+85                                  | 40...+85                                   |
| (°F)                                                          | -40...+185                                 | -40...+185                                 |
| Operating pressure (bar)                                      | 630                                        | 630                                        |
| (psi)                                                         | 9100                                       | 9100                                       |
| Overload pressure (bar)                                       | 800                                        | 800                                        |
| (psi)                                                         | 11600                                      | 11600                                      |
| Burst pressure (bar)                                          | 2000                                       | 2000                                       |
| (psi)                                                         | 29000                                      | 29000                                      |
| Housing                                                       | Stainless steel                            | Stainless steel                            |
| Seal                                                          | FKM**                                      | FKM**                                      |
| Weight (g)                                                    | 55                                         | 70                                         |
| Media-contacting parts                                        | Stainless steel                            | Stainless steel                            |
| * FS = FullScale (full scale value)                           |                                            |                                            |
| ** for temperatures -25...+150 °C, other materials on request |                                            |                                            |

## Supply range and accessories

| SCT temperature sensors CAN           | Order designation |
|---------------------------------------|-------------------|
| Screw-in sensor (M10x1)               | SCT-190-C0-05     |
| Screw-in sensor(G1/4" BSPP male)      | SCT-190-C4-05     |
| IN-LINE adapter pipe mounting (M10x1) | SCA-GMA3/20S/T    |

| SCT temperature sensor CAN with calibration certificate as per ISO 9001* | Order designation |
|--------------------------------------------------------------------------|-------------------|
| Screw-in sensor (M10x1)                                                  | K-SCT-190-C0-05   |
| Screw-in sensor(G1/4" BSPP male)                                         | K-SCT-190-C4-05   |
| * calibrated range -25 ... + 100 °C                                      |                   |

| SCK connection cables CAN*                               | Order designation |
|----------------------------------------------------------|-------------------|
| 0.5 m (male 5 pin - female 5 pin)                        | SCK-401-0.5-4F-4M |
| 2 m (male 5 pin - female 5 pin)                          | SCK-401-02-4F-4M  |
| 5 m (male 5 pin - female 5 pin)                          | SCK-401-05-4F-4M  |
| 10 m (male 5 pin - female 5 pin)                         | SCK-401-10-4F-4M  |
| Y-junction CAN                                           | SCK-401-Y         |
| Y-junction CAN incl. 0.3-m cable                         | SCK-401-0.3-Y     |
| T-junction CAN                                           | SCK-401-T         |
| Terminating resistor** CAN (female 5 pin - female 5 pin) | SCK-401-R         |
| * Other lengths available on request                     |                   |
| ** Each CAN network requires a terminating resistor      |                   |

# 15 RPM measurement SCRPM analogue

## RPM measurement SCRPM analogue

- Also for contactless speed measurement
- Measurement of speeds up to 10,000 RPM
- With 3 m fixed cable



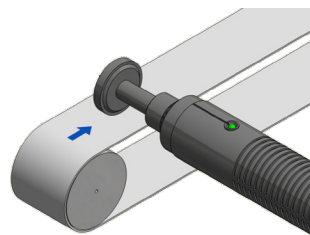
Speed-dependent performance data, such as the feed rate of regulated pumps, can ideally be determined in combination with a pressure and volume flow measurement of a hydraulic drive.

The contactless speed measurement (optoelectronic principle) can be performed quickly and easily.

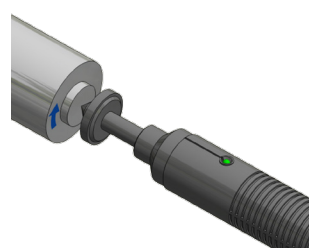
The speed can be detected on a drive shaft, for example, and displayed in the measuring device. No settings or adjustments required.



Rotating shaft: Contactless speed measurement.



Contact speed measurement with contact adapter.



Front speed measurement with contact adapter.

The included reflective strips are used for the precise detection of the optoelectronic signal.

The speed to be recorded is measured directly with the contact adapter on a shaft or drive unit.

# 15 RPM measurement SCRPM analogue

## Functional description



The Parker Service Master CONNECT  
SCM-600-xx with input module analogue SCMI-600-  
01 or SCMI-600-03



Parker Serviceman Plus  
SCM-155-0-02

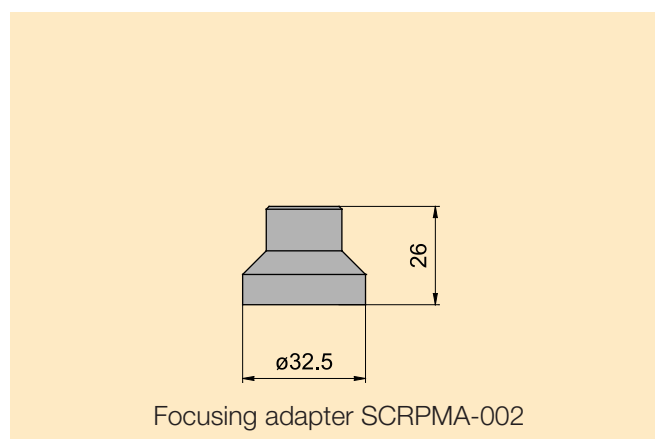
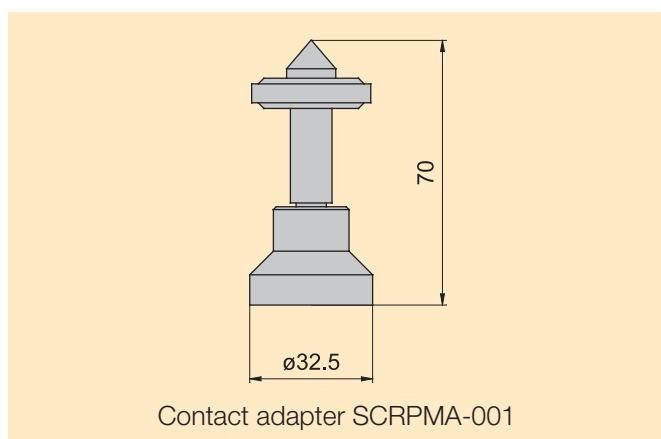
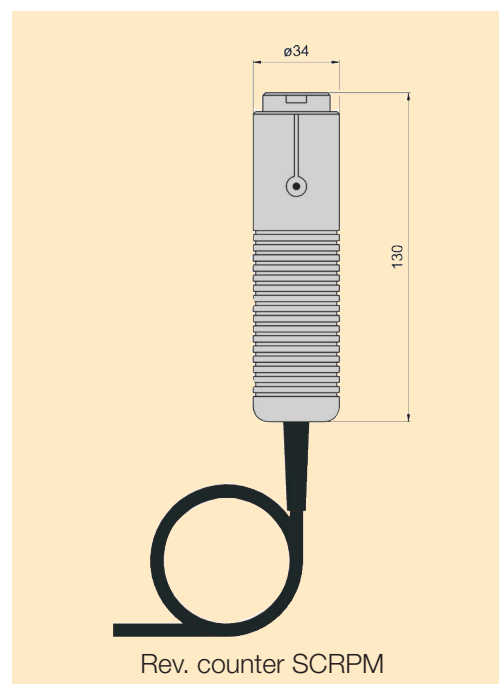


Rev. counter SCRPM-220

# 15 RPM measurement SCRPM analogue

## Technical data

| Input                                               |                                                |
|-----------------------------------------------------|------------------------------------------------|
| Measurement distance                                | 25...500 mm                                    |
| Measurement angle                                   | $\pm 45^\circ$                                 |
| Measurement type                                    | optical, red LED                               |
| Output                                              |                                                |
| Measuring range                                     | 20...10,000 RPM                                |
| Accuracy                                            | $< 0.5 \% \text{ FS}^*$                        |
| Resolution                                          | $\pm 5 \text{ RPM}$                            |
| Electrical connection to hand-held measuring device |                                                |
| Fixed cable 3 m**                                   | 5 pin push-pull                                |
| General                                             |                                                |
| Material                                            | ABS                                            |
| Dimension                                           | $\varnothing 34 \text{ mm/L} = 130 \text{ mm}$ |
| Weight                                              | 230 g                                          |
| Ambient temperature                                 | 0...70 °C                                      |
| * FS = FullScale (full scale value)                 |                                                |
| ** Cable must not be extended                       |                                                |



# 15 RPM measurement SCRPM analogue

## Supply range and accessories

| SCRPM rev. counter                                           | Order designation |
|--------------------------------------------------------------|-------------------|
| 20 ... 10,000 RPM (incl. 3 x reflective strips 2.5 x 7.5 cm) | SCRPM-220         |

| SCRPM rev. counter with calibration certificate as per ISO 9001 | Order designation |
|-----------------------------------------------------------------|-------------------|
| 20...10,000 RPM                                                 | K-SCRPM-220       |

| SCRPM accessories                            | Order designation |
|----------------------------------------------|-------------------|
| Contact adapter                              | SCRPMA-001        |
| Focusing adapter                             | SCRPMA-002        |
| Reflective strips (replacement 1.5 x 60 cm)) | SCRPMA-010        |

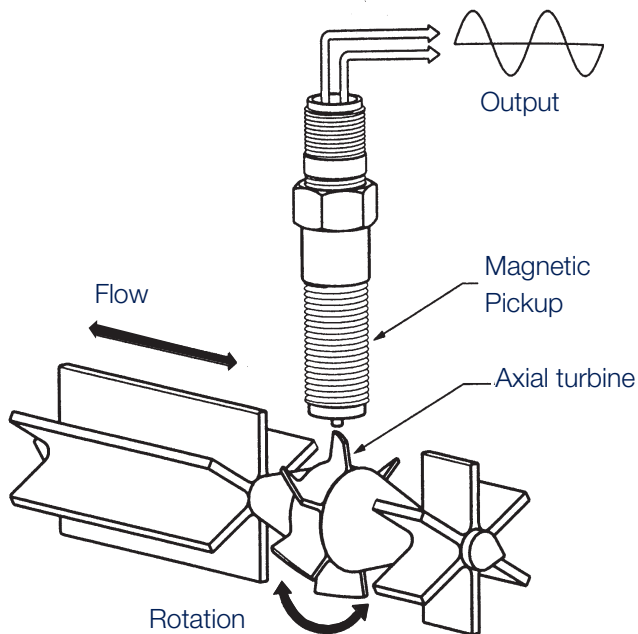
# 16 Turbine flow meter SCFT analogue

## Turbine flow meter SCFT analogue

- 6 measuring ranges up to 750 l/min
- Easy construction
- Small flow resistance
- Built-in pressure and temperature measurement connections
- Suitable for reverse operation



**Flow measurement with low flow resistance. Combined p, T and Q measurement possible with additional sensors.**



### Function

A turbine wheel is driven and rotated by the oil flow. The generated frequencies are processed by digital electronics.

The influences of disruptive flow effects are compensated.

Due to the low flow resistance  $Q_R$  the hydraulic circuit is operated with little loss.

The turbine flow meter is equipped with an EMA-3 quick coupling for pressure measurement.

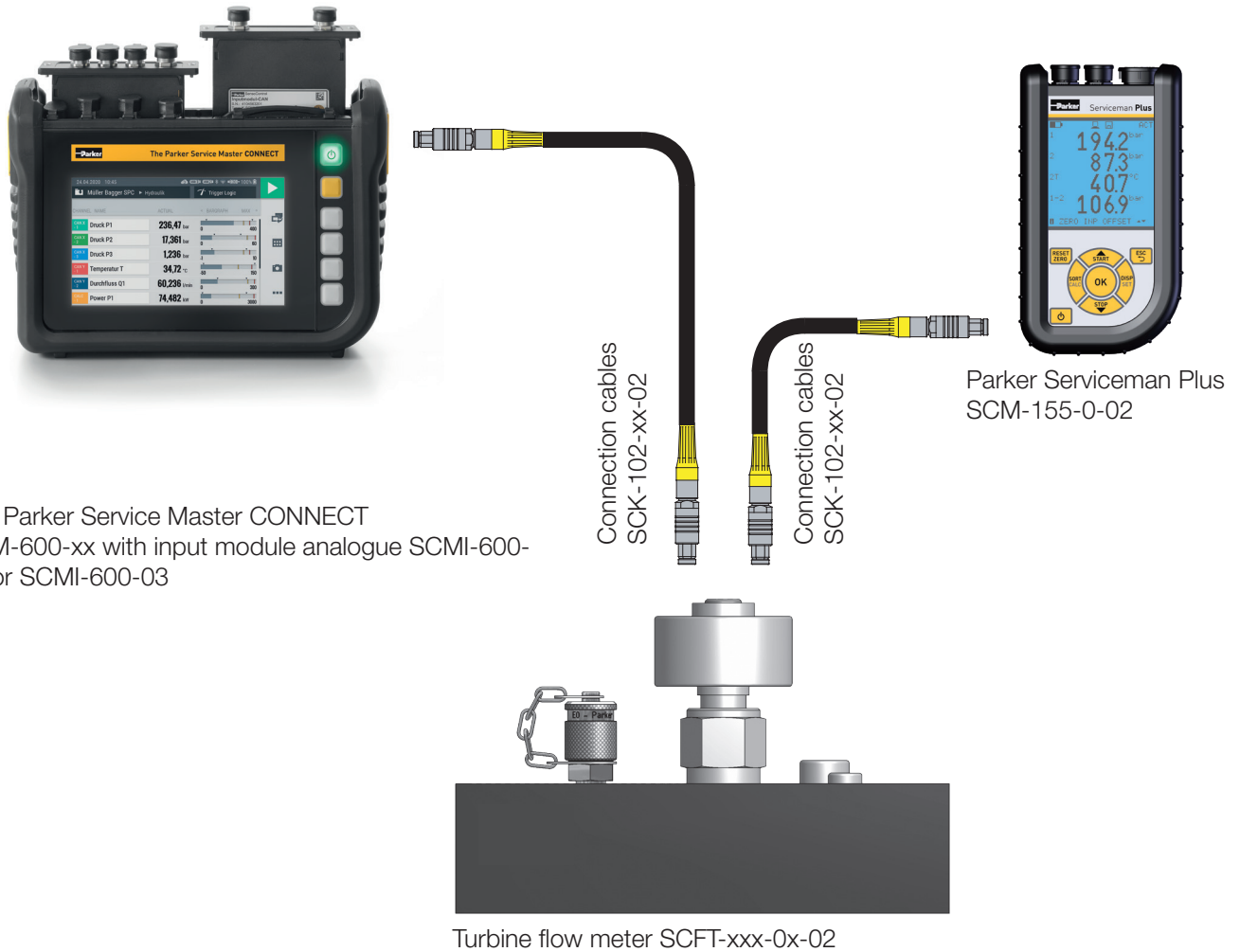
Oil temperatures can be measured directly in the oil flow of the turbine flow meter. This means that all important measured variables are available at one installation location.

### Applications

- mobile diagnosis
- p-Q measurement
- Hydraulic test via pressure load valve

# 16 Turbine flow meter SCFT analogue

## Functional description



The Parker Service Master CONNECT  
SCM-600-xx with input module analogue SCMI-600-  
01 or SCMI-600-03

Parker Serviceman Plus  
SCM-155-0-02

Turbine flow meter SCFT-xxx-0x-02



# 16 Turbine flow meter SCFT analogue

## Technical data

| Type                                                   | SCFT-015                | SCFT-060                   | SCFT-150                   | SCFT-300                 | SCFT-600                    | SCFT-750            |
|--------------------------------------------------------|-------------------------|----------------------------|----------------------------|--------------------------|-----------------------------|---------------------|
| Measuring range $Q_N$ (l/min)<br>(US Gal/min)          | 1...15<br>0.25...4      | 3...60<br>0.8...16         | 5...150<br>1.3...40        | 8...300<br>2...80        | 15...600<br>4...160         | 20...750<br>5...200 |
| Accuracy ( $\pm$ %) @ 21cSt.                           | 1.0 FS                  | 1.0 IR*                    | 1.0 IR*                    | 1.0 IR*                  | 1.0 IR*                     | 1.0 IR*             |
| Operating pressure $P_N$ (bar)<br>(psi)                | 350<br>5070             | 350<br>5070                | 350<br>5070                | 350<br>5070              | 290<br>4200                 | 400<br>5800         |
| Connection (A - B)<br>SCFT-xxx-02-02<br>SCFT-xxx-0U-02 | 1/2" BSPP<br>3/4"-16UNF | 3/4" BSPP<br>1-1/16"-12UNF | 3/4" BSPP<br>1-1/16"-12UNF | 1" BSPP<br>1-5/16"-12UNF | 1-1/4" BSPP<br>1-5/8"-12UNF | 1-7/8" UNF<br>-     |
| Pressure drop $\Delta P_{Max}$ @ FS*<br>(bar)<br>(psi) | 1.5<br>21.8             | 1.5<br>21.8                | 1.5<br>21.8                | 4<br>58                  | 5<br>72.5                   | 5<br>72.5           |
| Weight (g)                                             | 700                     | 1600                       | 1600                       | 1700                     | 2700                        | 5000                |

FS = FullScale (full scale value)

IR = Indicated Reading (displayed measured value)

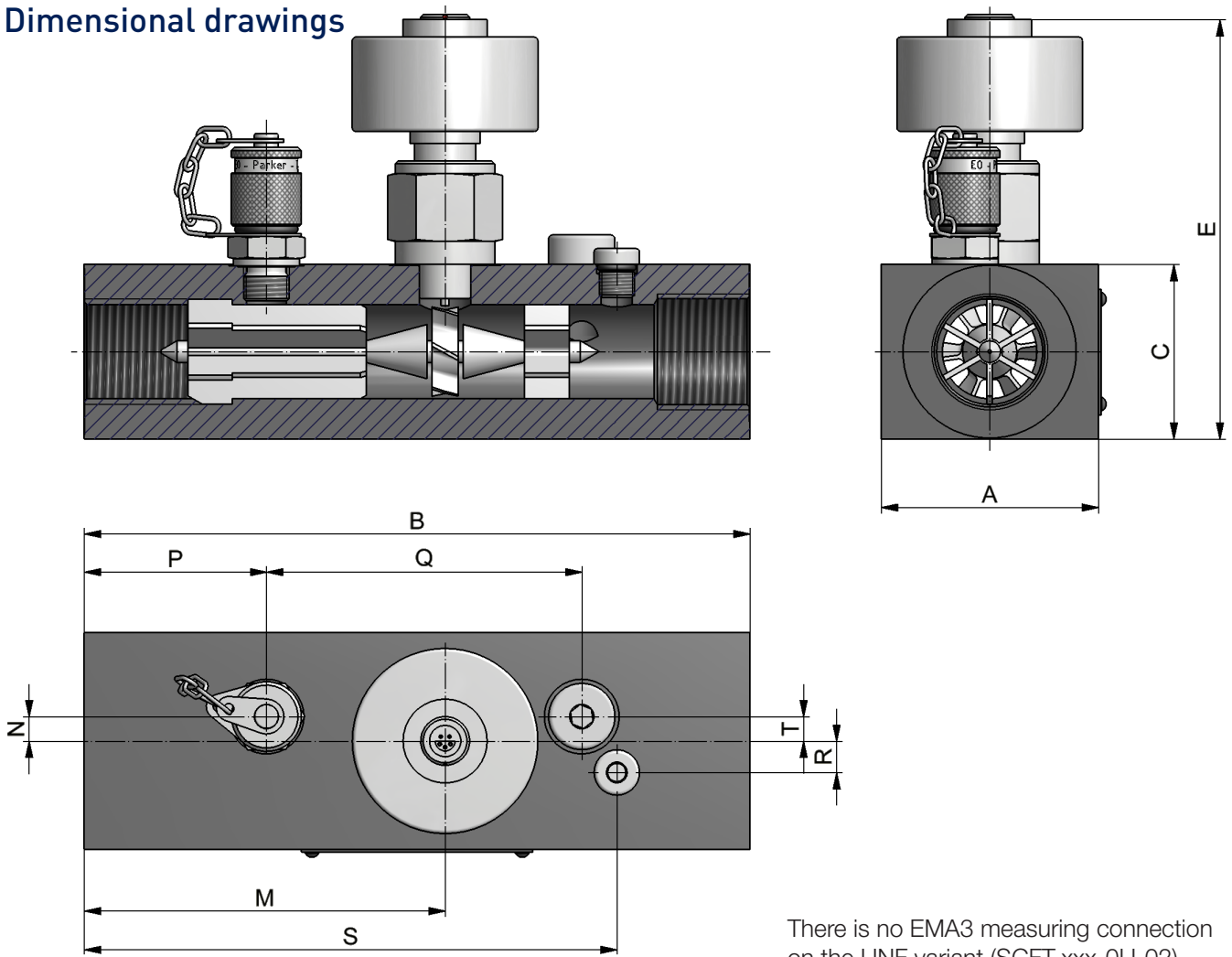
\* = for measured values  $\geq$  15% FS, for measured values  $<$  15% FS, accuracy 0.15% FS

|                                                                                                                                                   |                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Response time</b>                                                                                                                              | 50 ms                                         |
| <b><math>Q_{max}</math></b>                                                                                                                       | $Q_N \times 1.1$                              |
| <b>Overload pressure <math>P_{max}</math></b>                                                                                                     | $P_N \times 1.2$                              |
| <b>Ports:</b><br><b>Temperature measurement</b><br><b>Pressure (SCFT-xxx-02-02)</b><br><b>Pressure (SCFT-xxx-0U-02)</b><br><b>Pressure (VSTI)</b> | M10x1<br>EMA3 M16x2<br>7/16" UNF<br>1/4" BSPP |
| <b>Housing</b>                                                                                                                                    | Aluminium                                     |
| <b>Seal</b>                                                                                                                                       | FKM                                           |
| <b>Media-contacting parts</b>                                                                                                                     | Aluminium, steel, FKM                         |
| <b>Protection class</b>                                                                                                                           | IP54 EN 60529                                 |

|                                                           |                                         |
|-----------------------------------------------------------|-----------------------------------------|
| <b>Ambient temperature (°C)<br/>(°F)</b>                  | -10...+50<br>+14...+122                 |
| <b>Storage temperature (°C)<br/>(°F)</b>                  | -20...+80<br>-4...+176                  |
| <b>Media temperature (°C)<br/>(°F)</b>                    | -20...+90<br>-4...+194                  |
| <b>Filtration</b>                                         | 25 $\mu$ m<br>(10 $\mu$ m for SCFT-015) |
| <b>Viscosity range (cSt.)<br/>(calibrated at 21 cSt.)</b> | 10...100                                |

# 16 Turbine flow meter SCFT analogue

## Dimensional drawings



| Type | SCFT-015 | SCFT-060 | SCFT-150 | SCFT-300 | SCFT-600 | SCFT-750 |
|------|----------|----------|----------|----------|----------|----------|
| A    | 37       | 62       | 62       | 62       | 62       | 100      |
| B    | 136      | 190      | 190      | 190      | 212      | 212      |
| C    | 37       | 50       | 50       | 50       | 75       | 75       |
| E    | 108      | 121      | 121      | 125      | 140      | 143      |
| M    | 70       | 103      | 103      | 103      | 127      | 126      |
| N    | N/A      | 5        | 5        | 7        | 9        | 12       |
| P    | 25       | 52       | 52       | 52       | 62       | 60       |
| Q    | N/A      | 90       | 90       | 90       | 106      | 104      |
| R    | N/A      | 5        | 5        | 9        | 11       | 10       |
| S    | 115      | 157      | 157      | 152      | 168      | 181      |
| D    | N/A      | 9        | 9        | 10       | 9        | 12       |

All dimensions in mm

# 16 Turbine flow meter SCFT analogue

## Supply range and accessories

| SCFT turbine flow meter                                                                       | Order designation    |
|-----------------------------------------------------------------------------------------------|----------------------|
| 1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)                | SCFT-xxx-02-02       |
| 1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)                          | SCFT-xxx-0U-02       |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only) | SCFT-xxx-0U-02-EMA   |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)  | SCFT-xxx-0U-02-PD    |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PDP adapter (USA only) | SCFT-xxx-0U-02-PDP   |
| SCFT turbine flow meter with calibration certificate as per ISO 9001                          | Order designation    |
| 1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)                | K-SCFT-xxx-02-02     |
| 1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)                          | K-SCFT-xxx-0U-02     |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only) | K-SCFT-xxx-0U-02-EMA |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)  | K-SCFT-xxx-0U-02-PD  |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PDP adapter (USA only) | K-SCFT-xxx-0U-02-PDP |
| SCK connection cables analogue                                                                | Order designation    |
| 3 m (male 5 pin - male 5 pin)                                                                 | SCK-102-03-02        |
| 5 m (male 5 pin - male 5 pin)                                                                 | SCK-102-05-02        |
| 5-m extension cable (male 5 pin - female 5 pin)                                               | SCK-102-05-12        |

# 17 Turbine flow meter SCFTT CAN

## Turbine flow meter SCFTT CAN

- Turbine flow meter with integrated temperature sensor in CAN bus technology
- 6 measuring ranges up to 750 l/min
- Easy construction
- Small flow resistance
- Built-in pressure and temperature measurement connections
- Suitable for reverse operation
- Suitable for long cables
- Sensor identification LED



**Flow measurement with low flow resistance. Combined p, T and Q measurement possible with additional sensors.**

### Function

A turbine wheel is driven and rotated by the oil flow. The generated frequencies are processed by digital electronics.

The influences of disruptive flow effects are compensated.

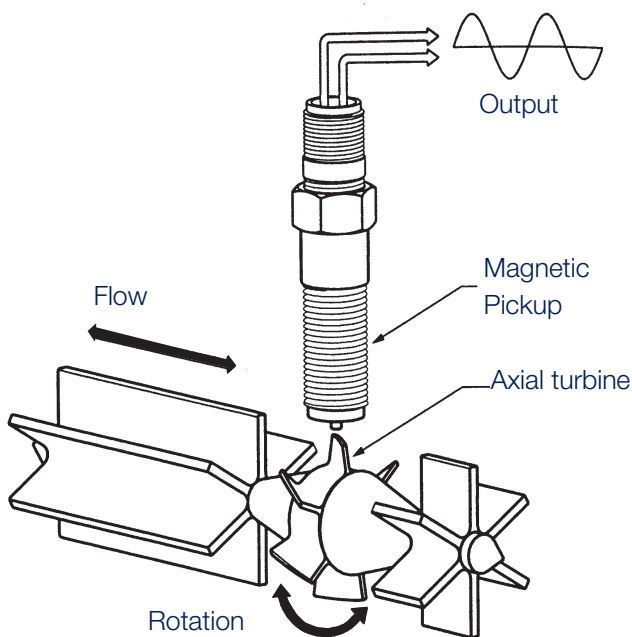
Due to the low flow resistance  $Q_R$  the hydraulic circuit is operated with little loss.

The turbine flow meter is equipped with an EMA-3 quick coupling for pressure measurement.

Oil temperatures are measured directly in the oil flow of the turbine flow meter. This means that all important measured variables are available at one installation location.

### Applications

- mobile diagnosis
- p-Q measurement
- Hydraulic test via pressure load valve

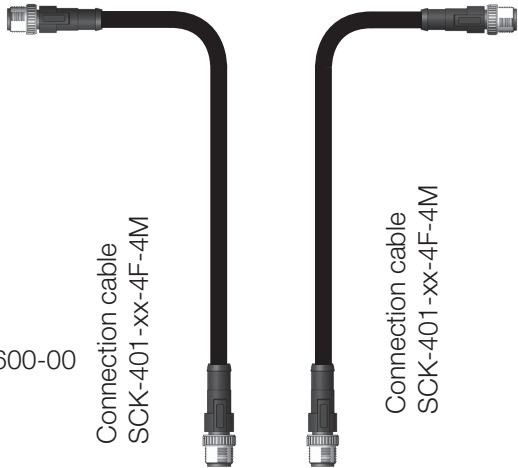


# 17 Turbine flow meter SCFTT CAN

## Functional description



The Parker Service Master CONNECT SCM-600-00 or SCM-600-0A



Connection cable  
SCK-401-xx-4F-4M

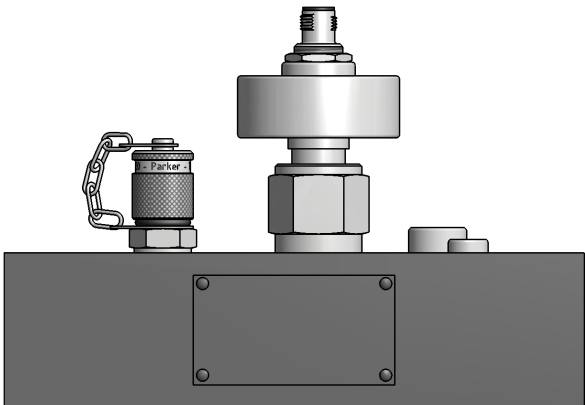
Connection cable  
SCK-401-xx-4F-4M



Parker Serviceman Plus  
SCM-155-0-02



Terminating  
resistor  
SCK-401-R



Turbine flow meter SCFTT-xxx-CU-05

# 17 Turbine flow meter SCFTT CAN

## Technical data

| Type                                                     | SCFTT-015                 | SCFTT-060                    | SCFTT-150                    | SCFTT-300                  | SCFTT-600                     | SCFTT-750           |
|----------------------------------------------------------|---------------------------|------------------------------|------------------------------|----------------------------|-------------------------------|---------------------|
| Measuring range<br>$Q_N$<br>(l/min)<br>(US Gal/min)      | 1...15<br>0.25...4        | 3...60<br>0.8...16           | 5...150<br>1.3...40          | 8...300<br>2...80          | 15...600<br>4...160           | 20...750<br>5...200 |
| Accuracy<br>(± %) @ 21cSt.                               | 1.0 FS                    | 1.0 IR*                      | 1.0 IR*                      | 1.0 IR*                    | 1.0 IR*                       | 1.0 IR*             |
| Operating pressure $P_N$ (bar)<br>(psi)                  | 350<br>5070"              | 350<br>5070"                 | 350<br>5070"                 | 350<br>5070"               | 290<br>4200"                  | 400<br>5800"        |
| Connection (A - B)<br>SCFTT-xxx-C2-05<br>SCFTT-xxx-CU-05 | "1/2" BSPP<br>3/4"-16UNF" | "3/4" BSPP<br>1-1/16"-12UNF" | "3/4" BSPP<br>1-1/16"-12UNF" | "1" BSPP<br>1-5/16"-12UNF" | "1-1/4" BSPP<br>1-5/8"-12UNF" | "1-7/8"-12UNF<br>-  |
| Pressure drop<br>$\Delta P_{Max}$ @ (FS) (bar)<br>(psi)  | 1.5<br>21.8"              | 1.5<br>21.8"                 | 1.5<br>21.8"                 | 4<br>58"                   | 5<br>72.5"                    | 5<br>72.5"          |
| Weight (g)                                               | 700                       | 1600                         | 1600                         | 1700                       | 2700                          | 5000                |

\* FS = Full Scale (measuring range end value)

\*\* IR = Indicated Reading (measured value displayed)

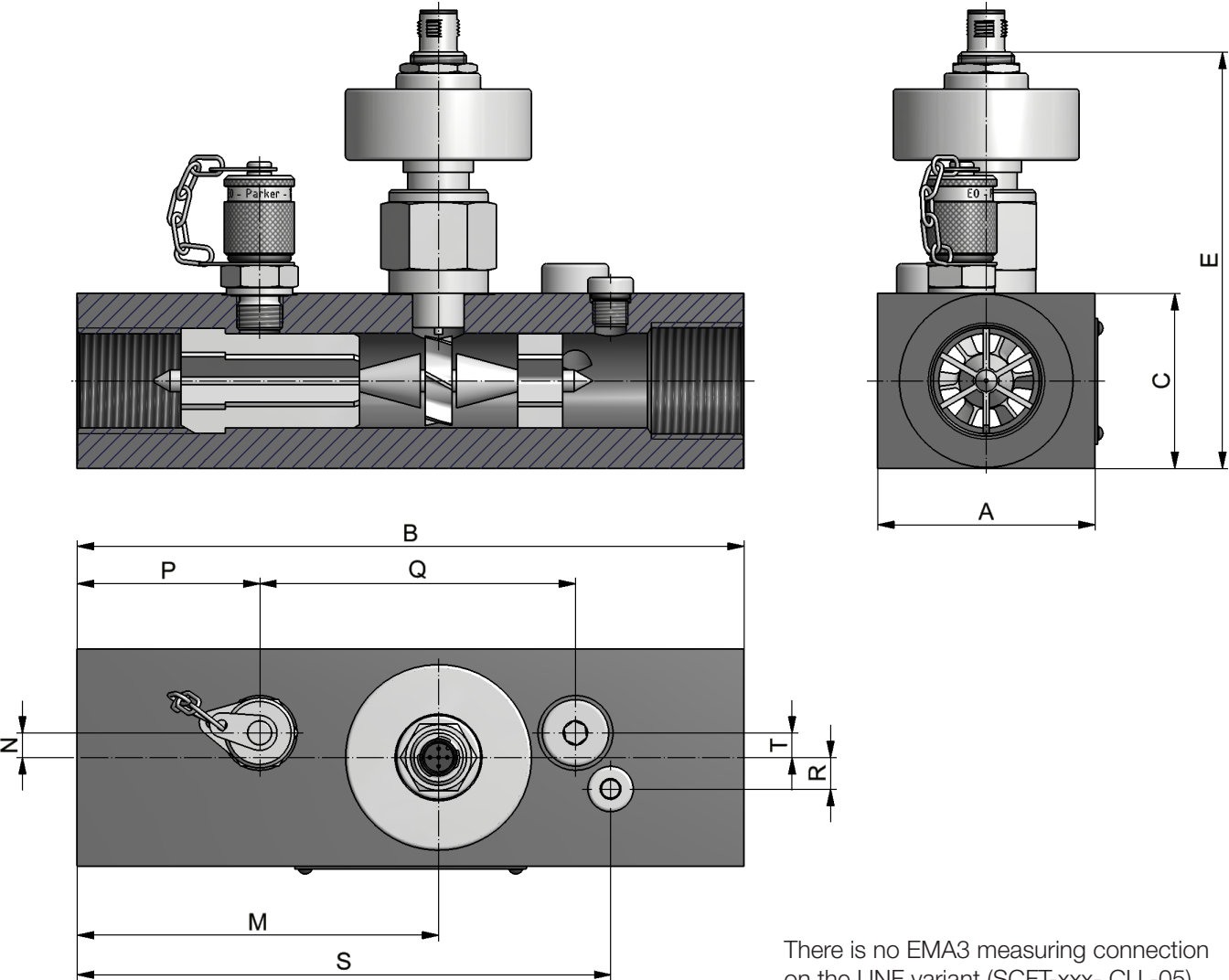
\* = for measured values ≥ 15% FS, for measured values <15% accuracy 0.15% FS

|                                                                                                                                                     |                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Response time</b>                                                                                                                                | 50 ms                                         |
| <b>Accuracy temperature measurement</b>                                                                                                             | ± 2 K                                         |
| <b><math>Q_{max}</math></b>                                                                                                                         | $Q_N \times 1.1$ l                            |
| <b>Overload pressure <math>P_{max}</math></b>                                                                                                       | $P_N \times 1.2$                              |
| <b>Ports:</b><br><b>Temperature measurement</b><br><b>Pressure (SCFTT-xxx-C2-05)</b><br><b>Pressure (SCFTT-xxx-CU-05)</b><br><b>Pressure (VSTI)</b> | M10x1<br>EMA3 M16x2<br>7/16" UNF<br>1/4" BSPP |
| <b>Housing</b>                                                                                                                                      | Aluminium                                     |
| <b>Seal</b>                                                                                                                                         | FKM                                           |
| <b>Media-contacting parts</b>                                                                                                                       | Aluminium, steel, FKM                         |
| <b>Protection class</b>                                                                                                                             | IP66 EN 60529                                 |

|                                                           |                                |
|-----------------------------------------------------------|--------------------------------|
| <b>Ambient temperature (°C)<br/>(°F)</b>                  | -10...+50<br>+14...+122        |
| <b>Media temperature (°C)<br/>(°F)</b>                    | -20...+80<br>-4...+185         |
| <b>Storage temperature (°C)<br/>(°F)</b>                  | -20...+90<br>-4...+194         |
| <b>Filtration</b>                                         | 25 µm<br>(10 µm for SCFTT-015) |
| <b>Viscosity range (cSt.)<br/>(calibrated at 21 cSt.)</b> | 10...100                       |

# 17 Turbine flow meter SCFTT CAN

## Dimensional drawings



| Type | SCFTT-015 | SCFTT-060 | SCFTT-150 | SCFTT-300 | SCFTT-600 | SCFTT-750 |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| A    | 37        | 62        | 62        | 62        | 62        | 100       |
| B    | 136       | 190       | 190       | 190       | 212       | 212       |
| C    | 37        | 50        | 50        | 50        | 75        | 75        |
| E    | 105       | 118       | 118       | 119       | 137       | 141       |
| M    | 70        | 103       | 103       | 103       | 127       | 126       |
| N    | N/A       | 5         | 5         | 7         | 9         | 12        |
| P    | 25        | 52        | 52        | 52        | 62        | 60        |
| Q    | N/A       | 90        | 90        | 90        | 106       | 104       |
| R    | N/A       | 5         | 5         | 9         | 11        | 10        |
| S    | 115       | 157       | 157       | 152       | 168       | 181       |
| D    | N/A       | 9         | 9         | 10        | 9         | 12        |

All dimensions in mm



# 17 Turbine flow meter SCFTT CAN

## Supply range and accessories

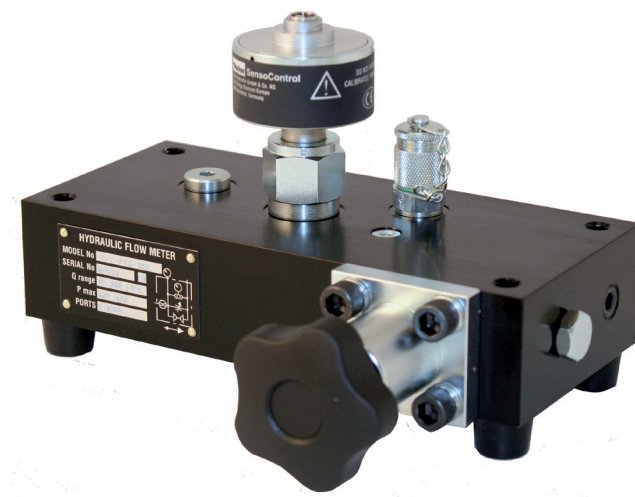
| SCFTT-CAN turbine flow meter                                                                  | Order designation     |
|-----------------------------------------------------------------------------------------------|-----------------------|
| 1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)                | SCFTT-xxx-C2-05       |
| 1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)                          | SCFTT-xxx-CU-05       |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only) | SCFTT-xxx-CU-05-EMA   |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)  | SCFTT-xxx-CU-05-PD    |
| 1,0...15/3...60/5...150/8...300/15...600 l/min mit UNF connection and PDP adapter (USA only)  | SCFTT-xxx-CU-05-PDP   |
| SCFTT CAN turbine flow meter with calibration certificate as per ISO 9001                     | Order designation     |
| 1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)                | K-SCFTT-xxx-C2-05     |
| 1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)                          | K-SCFTT-xxx-CU-05     |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only) | K-SCFTT-xxx-CU-05-EMA |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)  | K-SCFTT-xxx-CU-05-PD  |
| 1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PDP adapter (USA only) | K-SCFTT-xxx-CU-05-PDP |
| SCK connection cables CAN*                                                                    | Order designation     |
| 0.5 m (male 5 pin - female 5 pin)                                                             | SCK-401-0.5-4F-4M     |
| 2 m (male 5 pin - female 5 pin)                                                               | SCK-401-02-4F-4M      |
| 5 m (male 5 pin - female 5 pin)                                                               | SCK-401-05-4F-4M      |
| 10 m (male 5 pin - female 5 pin)                                                              | SCK-401-10-4F-4M      |
| Y-junction CAN                                                                                | SCK-401-Y             |
| Y-junction CAN incl. 0.3-m cable                                                              | SCK-401-0.3-Y         |
| T-junction CAN                                                                                | SCK-401-T             |
| Terminating resistor** CAN (female 5 pin - female 5 pin)                                      | SCK-401-R             |
| * Other lengths available on request                                                          |                       |
| ** Each CAN network requires a terminating resistor                                           |                       |



# 18 Hydraulic tester SCLV analogue and CAN

## Hydraulic tester SCLV analogue and CAN

- Pressure/temperature/flow measuring device
- Simulation of machine states using a load valve
- 2 measuring ranges up to 750 l/min
- Built-in overload protection
- Reverse operation
- Also available with CAN bus connection
- CAN version comes with integrated temperature sensor



## Measurement of pressure, temperature and flow

### Special features:

- Safe handling in both flow directions, built-in oil bypass protects system, test device and operator against overpressure
- Freely selectable flow direction enables easy connection and measurement
- Can be used quickly on pumps, valves, motors, cylinders and hydrostatic gears

The hydraulic testers have been designed for testing the function of motors, pumps, valves and hydrostatic transmissions. These easy-to-use hydraulic testers can help locate faults in a hydraulic system.

The hydraulic testers can be used to accurately measure pressure, temperature and flow rate during hydraulic system maintenance and troubleshooting on controlled directional control valves as well as when setting valves.

The pressure loading valve with integrated blow-out discs allows a progressive pressure build-up to check the flow over the entire working area.

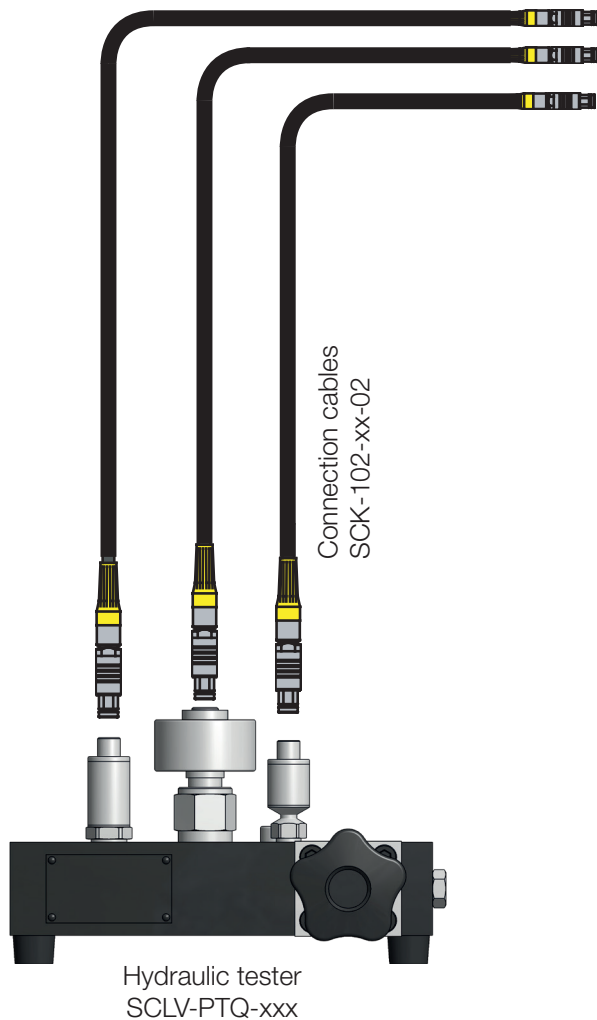
## Built-in safety shutdown (blow-out discs)

The pressure loading valve is mounted with two blow-out discs. These protect the device. If the permitted overpressure  $P_{Max}$  is exceeded, the blow-out discs break and the pressure relief valve becomes inactive. The full volume flow can pass freely to the tank.

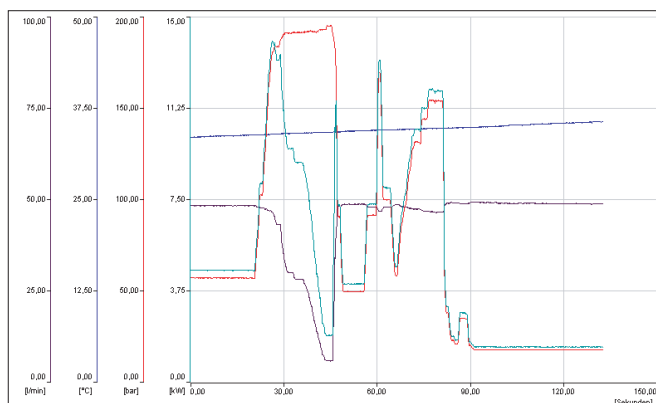
To change the blow-out discs, please read the information in the operating instructions.

# 18 Hydraulic tester SCLV analogue and CAN

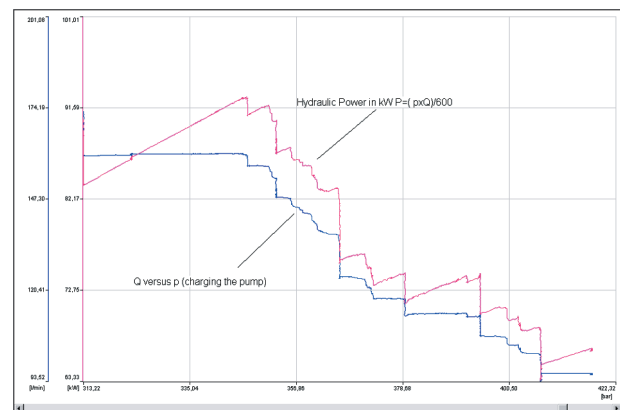
## Functional description



The determined power is shown in the p-Q curve (figure on the right). This analysis is essential for controlled hydraulic pumps (load sensing) in the case of speed-dependent loads. Evaluation with the PC software **SensoWin®** is quick and easy.



Pressure, volume flow and temperature measurement with Parker Serviceman Plus or Service Master CONNECT SCM-600-xx with input module analogue SCMI-600-01 or SCMI-600-03 and hydraulic tester SCLV-PTQ



Combined pressure and volume flow measurement (figure on the left) allows insights into a system's hydraulic performance.

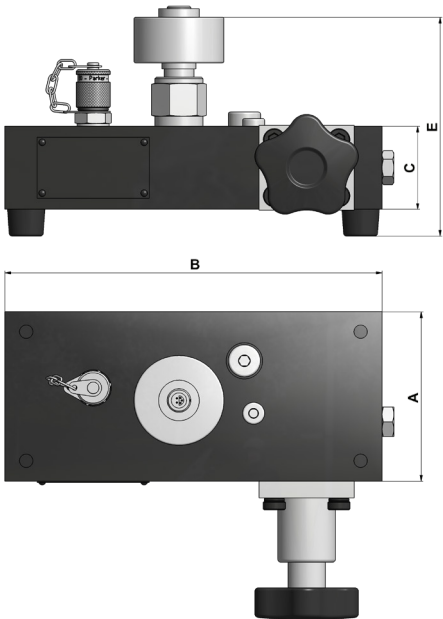
The figure shows an application with a hydraulic tester SCLV-PTQ. The built-in pressure relief valve generates pressure in the system.

In the evaluation, the output is calculated from the volume flow of the pump and the pressure.

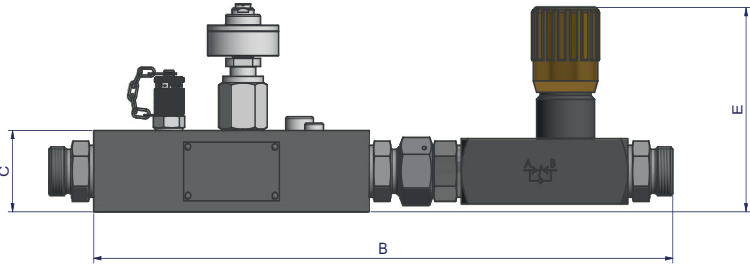
# 18 Hydraulic tester SCLV analogue and CAN

## Technical data

Hydraulic tester  
SCLV-PTQ-xxx



Turbine flow meter including one-way flow control valve SCFT-150-  
DRV



| Type | SCFT-150-DRV | SCLV-PTQ-300 | SCLV-PTQ-750 |
|------|--------------|--------------|--------------|
| A    | 62           | 98           | 117          |
| B    | 370          | 222          | 235          |
| C    | 50           | 50           | 75           |
| E    | 125.5        | 135          | 150          |

| Type                                                                                                  | SCFT-150-DRV        | SCLV-PTQ-300       | SCLV-PTQ-750        |
|-------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|
| Measuring range $Q_N$ (l/min)<br>(US Gal/min)                                                         | 6...150<br>1.6...40 | 10...300<br>2...80 | 20...750<br>5...200 |
| Accuracy ( $\pm$ %) IR** @ 21cSt.                                                                     | 1.0                 | 1.0 (> 20 l/min)   | 1.0 (> 25 l/min)    |
| Operating pressure $P_N$ (bar) / (psi)                                                                | 400 / 5070          | 350 / 5070         | 400 / 5800          |
| Safety shut-off (bar) / (psi)<br>(Blow-out disc)                                                      | –                   | 420 / 6100         | 480 / 7000          |
| Connection (A - B)                                                                                    | 3/4" BSPP           | 1" BSPP            | 1-7/8" UNF          |
| Pressure drop $\Delta P_{max}$ (bar) / (psi) @ (FS*)                                                  | 15 / 218            | 4 / 58             | 5 / 72.5            |
| Weight (g)                                                                                            | 4200                | 3700               | 7500                |
| * FS = Full Scale (measuring range end value)<br>** IR = Indicated Reading (measured value displayed) |                     |                    |                     |

|                                                   |                        |
|---------------------------------------------------|------------------------|
| Response time                                     | 50 ms                  |
| Accuracy of temperature measurement only with CAN | $\pm 2$ K              |
| $Q_{max}$                                         | $Q_N \times 1.1$ l/min |
| Overload pressure $P_{max}$                       | $P_N \times 1.2$ bar   |
| Ports:                                            |                        |
| Temperature port (SCT-190)                        | M10x1                  |
| Pressure port (EMA3 port)                         | M16x2                  |
| Pressure port (VSTI)                              | 1/4" BSPP              |
| Housing                                           | Aluminium              |
| Seal                                              | FKM                    |
| Media-contacting parts                            | Aluminium, steel, FKM  |

|                                                                                 |                         |
|---------------------------------------------------------------------------------|-------------------------|
| Ambient temperature (°C)<br>(°F)                                                | -10...+50<br>+14...+122 |
| Storage temperature (°C)<br>(°F)                                                | -20...+85<br>-4...+185  |
| Media temperature (°C)<br>(°F)                                                  | -20...+90<br>-4...+194  |
| Filtration (µm)                                                                 | 25 µm                   |
| Viscosity range (cSt.)<br>(calibrated at 21 cSt., other viscosities on request) | 10...100                |

# 18 Hydraulic tester SCLV analogue and CAN

## Supply range and accessories

| <b>SCLV-PTQ hydraulic tester with pressure load valve</b>                                                   | <b>Order designation</b> |
|-------------------------------------------------------------------------------------------------------------|--------------------------|
| 10...300 l/min, $P_{\max} = 420$ bar                                                                        | SCLV-PTQ-300             |
| 10...300 l/min, $P_{\max} = 420$ bar, with CAN bus connection                                               | SCLVT-PTQ-300-C2-05      |
| 20...750 l/min, $P_{\max} = 480$ bar                                                                        | SCLV-PTQ-750             |
| 20...750 l/min, $P_{\max} = 480$ bar, with CAN bus connection                                               | SCLVT-PTQ-750-C2-05      |
| <b>SCLV-PTQ hydraulic tester with pressure load valve and calibration certificate according to ISO 9001</b> | <b>Order designation</b> |
| 10...300 l/min, $P_{\max} = 420$ bar                                                                        | K- SCLV-PTQ-300          |
| 10...300 l/min, $P_{\max} = 420$ bar, with CAN bus connection                                               | K-SCLVT-PTQ-300-C2-05    |
| 20...750 l/min, $P_{\max} = 480$ bar                                                                        | K-SCLV-PTQ-750           |
| 20...750 l/min, $P_{\max} = 480$ bar, with CAN bus connection                                               | K-SCLVT-PTQ-750-C2-05    |
| <b>SCLV-PTQ blow-out discs</b>                                                                              | <b>Order designation</b> |
| for 10 ... 300 l/min, $P_{\max} = 420$ bar (4 blow-out discs)                                               | SCLV-DISC-300            |
| for 20 ... 750 l/min, $P_{\max} = 480$ bar (4 blow-out discs)                                               | SCLV-DISC-800            |
| <b>SCFT turbine flow meter including one-way flow control valve</b>                                         | <b>Order designation</b> |
| 6...150 l/min, $P_{\max} = 400$ bar                                                                         | SCFT-150-DRV             |
| 6...150 l/min, $P_{\max} = 400$ bar, with CAN bus connection                                                | SCFTT-150-DRV-C2-05      |
| <b>SCK connection cables analogue</b>                                                                       | <b>Order designation</b> |
| 3 m (male 5 pin - male 5 pin)                                                                               | SCK-102-03-02            |
| 5 m (male 5 pin - male 5 pin)                                                                               | SCK-102-05-02            |
| 5-m extension cable (male 5 pin - female 5 pin)                                                             | SCK-102-05-12            |
| <b>SCK connection cables CAN*</b>                                                                           | <b>Order designation</b> |
| 0.5 m (male 5 pin - female 5 pin)                                                                           | SCK-401-0.5-4F-4M        |
| 2 m (male 5 pin - female 5 pin)                                                                             | SCK-401-02-4F-4M         |
| 5 m (male 5 pin - female 5 pin)                                                                             | SCK-401-05-4F-4M         |
| 10 m (male 5 pin - female 5 pin)                                                                            | SCK-401-10-4F-4M         |
| Y-junction CAN                                                                                              | SCK-401-Y                |
| Y-junction CAN incl. 0.3-m cable                                                                            | SCK-401-0.3-Y            |
| T-junction CAN                                                                                              | SCK-401-T                |
| Terminating resistor** CAN (female 5 pin - female 5 pin)                                                    | SCK-401-R                |
| * Other lengths available on request                                                                        |                          |
| ** Each CAN network requires a terminating resistor                                                         |                          |

# 19 Connection cables SCK

## Connection cables SCK

- Compact size
- Interference-free
- Compatible with all diagnosis sensors and diagnostic measuring devices
- Various lengths available
- Oil-resistant material

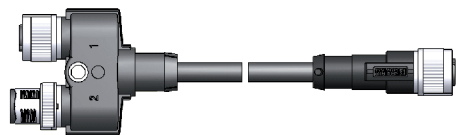
### Cables for CAN bus sensors

Parker CAN bus cables are used to connect Parker CAN bus sensors to **The Parker Service Master CONNECT** SCM-600, **The Parker Service Master COMPACT** SCM-370-x-05 or the **Parker Serviceman Plus** SCM-155-2-05.

#### CAN connection cable SCK-401-xx-4F-4M



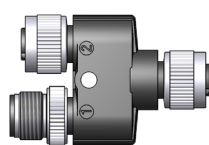
#### Y-junction CAN SCK-401-0.3-Y



#### T-junction CAN SCK-401-T



#### Y-junction CAN SCK-401-Y



#### CAN terminating resistor SCK-401-R



### Cables for analogue sensors

The **SensoControl**® diagnostic cables were designed for use in harsh working conditions.

#### 5-pin version

The 5-pin cables with push-pull plugs are suitable for all 5-pin analogue connections.

#### 4-pin version

Diagnostic cables with 4-pin plugs are only compatible with the Serviceman types SCM-150-1-01/02 and SCM-152-2-08.

#### Connection cable (5 pin) SCK-102-xx-02



#### Extension cable (5 pin) SCK-102-05-12



#### Adapter

SCK-002-08  
(for connecting 4-pin sensors to newer devices)



## Technical data

| Plug housing                        |                           |  |
|-------------------------------------|---------------------------|--|
| Material                            | Cu alloy                  |  |
| Surface                             | nickel-plated             |  |
| Protection class (while plugged in) | analogue IP54<br>CAN IP67 |  |

| Cable                 |                                                  |                                 |
|-----------------------|--------------------------------------------------|---------------------------------|
| Sheathing             | PUR                                              |                                 |
| Colour                | black                                            |                                 |
| Permitted temperature | Stationary operation<br>Non-stationary operation | -20 ... +70 °C<br>-5 ... +70 °C |
| Screen                | Cu meshed shield                                 |                                 |

## Supply range and accessories

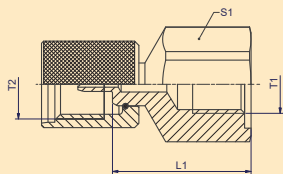
| SCK connection cables analogue                  | Order designation |
|-------------------------------------------------|-------------------|
| 3 m (male 5 pin - male 5 pin)                   | SCK-102-03-02     |
| 5 m (male 5 pin - male 5 pin)                   | SCK-102-05-02     |
| 5-m extension cable (male 5 pin - female 5 pin) | SCK-102-05-12     |
| Adapter (female 4 pin - male 5 pin)             | SCK-002-08        |

| SCK connection cables CAN*                               | Order designation |
|----------------------------------------------------------|-------------------|
| 0.5 m (male 5 pin - female 5 pin)                        | SCK-401-0.5-4F-4M |
| 2 m (male 5 pin - female 5 pin)                          | SCK-401-02-4F-4M  |
| 5 m (male 5 pin - female 5 pin)                          | SCK-401-05-4F-4M  |
| 10 m (male 5 pin - female 5 pin)                         | SCK-401-10-4F-4M  |
| Y-junction CAN                                           | SCK-401-Y         |
| Y-junction CAN incl. 0.3-m cable                         | SCK-401-0.3-Y     |
| T-junction CAN                                           | SCK-401-T         |
| Terminating resistor** CAN (female 5 pin - female 5 pin) | SCK-401-R         |
| * Other lengths available on request                     |                   |
| ** Each CAN network requires a terminating resistor      |                   |

## 20 Diagnostic adapters SCA

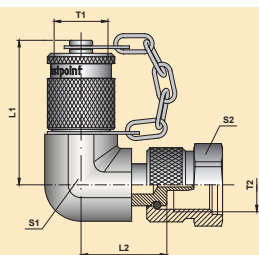
### Diagnostic adapter SCA

#### Diagnostic adapters



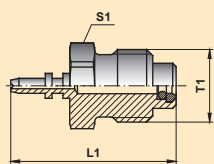
| Order code       | PN      | Pmax     | Pburst   | T1        | T2      | L1 | S1 |
|------------------|---------|----------|----------|-----------|---------|----|----|
| SCA-1/4-EMA-3CF  | 630 bar | 1200 bar | 2000 bar | 1/4" BSPP | M16x2   | 32 | 27 |
| SCA-1/2-EMA-3    | 630 bar | 800 bar  | 1200 bar | 1/2" BSPP | M16x2   | 36 | 30 |
| SCA-1/2-EMA-3-HP | 630 bar | 1200 bar | 2000 bar | 1/2" BSPP | M16x2   | 36 | 32 |
| SCA-1/4-EMA-4    | 630 bar | 1200 bar | 2000 bar | 1/4" BSPP | M16x1.5 | 49 | 24 |
| SCA-1/2-EMA-4    | 630 bar | 800 bar  | 1200 bar | 1/2" BSPP | M16x1.5 | 54 | 30 |
| SCA-EMA-3/1      | 400 bar | 480 bar  | 1200 bar | M16x2     | —       | 37 | 17 |

#### 90° diagnostic adapter with test coupling

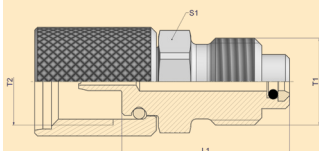


| Order code   | PN      | Pmax    | Pburst   | T1    | T2    | L1 | L2   | S1 | S2 |
|--------------|---------|---------|----------|-------|-------|----|------|----|----|
| SCA-90-EMA-3 | 630 bar | 800 bar | 1200 bar | M16x2 | M16x2 | 52 | 28.5 | 19 | 22 |

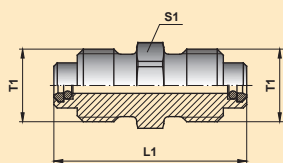
#### Diagnostic coupling



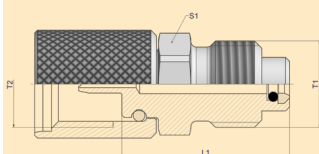
SCA-EMA-3/1



SCA-EMA-3/2



SCA-EMA-3/3 / SCA-EMA-4/4



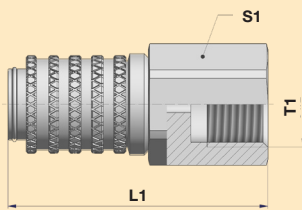
SCA-EMA-3/4 / SCA-EMA-4/3

| Order code  | PN      | Pmax    | Pburst   | T1      | T2       | L1 | S1 |
|-------------|---------|---------|----------|---------|----------|----|----|
| SCA-EMA-3/2 | 630 bar | 800 bar | 1200 bar | M16x2   | M12x1.65 | 31 | 17 |
| SCA-EMA-3/3 | 630 bar | 800 bar | 1200 bar | M16x2   | M16x2    | 43 | 17 |
| SCA-EMA-3/4 | 630 bar | 800 bar | 1200 bar | M16x2   | M16x1.5  | 31 | 17 |
| SCA-EMA-4/3 | 630 bar | 800 bar | 1200 bar | M16x1.5 | M16x2    | 31 | 17 |
| SCA-EMA-4/4 | 630 bar | 800 bar | 1200 bar | M16x1.5 | M16x1.5  | 43 | 17 |



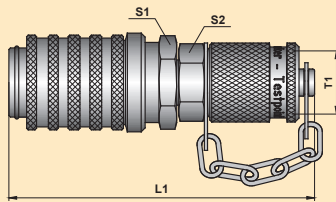
Note pressure range!  
Only use adapters with the products listed in this catalogue.

### Technical data and order numbers



**PD248 / PD288**

| Order code      | PN      | Pmax    | Pburst    | T1        | L1 | S1 | S2 |
|-----------------|---------|---------|-----------|-----------|----|----|----|
| PD248           | 400 bar | 600 bar | 1,000 bar | 1/4" BSPP | 54 | 21 | —  |
| PD288           | 400 bar | 600 bar | 1,000 bar | 1/2" BSPP | 64 | 31 | —  |
| SCA-EMA-3 / PQC | 400 bar | 600 bar | 1,000 bar | M16x2     | 78 | 21 | 17 |



**SCA-EMA-3/PQC**



Note pressure range!  
Only use adapters with the products listed in this catalogue.

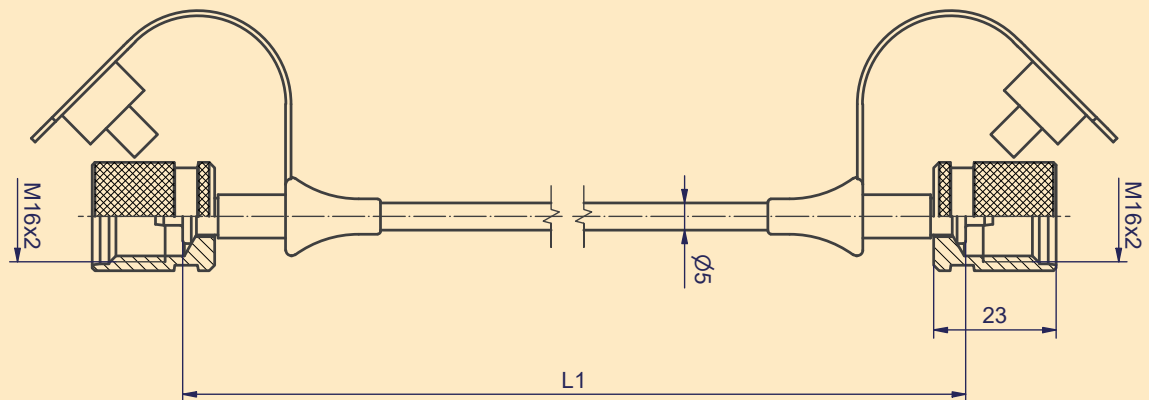


## 21 SMA measuring hoses

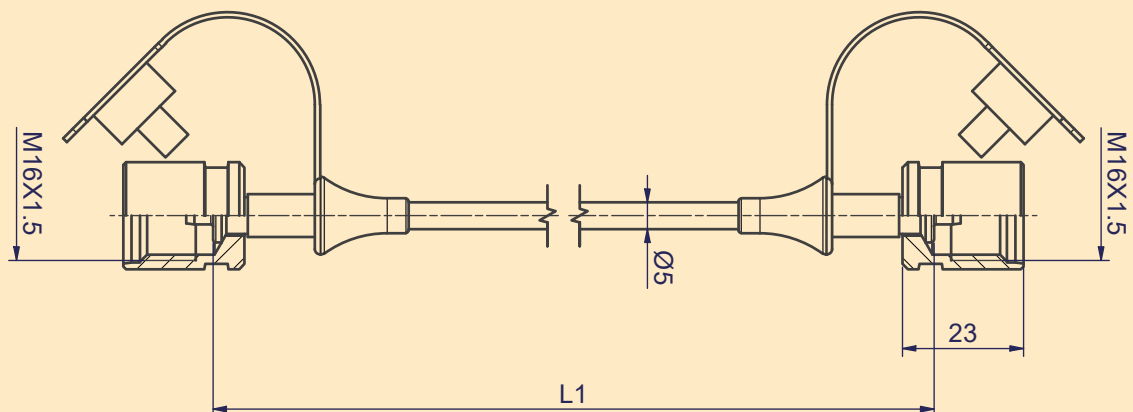
### SMA measuring hoses

The connection between the measuring connection and the sensor is made either directly or, in the case of restricted space, via an SMA hose. The measuring hose also decouples the sensor from vibrations and oscillations at the same time.

**SMA3-xxx**



**SMA4-xxx**



## 21 SMA measuring hoses

### Technical data

| SMA measuring hoses       |                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------|
| Nominal width             | DN 2                                                                                    |
| Nominal pressure          | 630 bar                                                                                 |
| Safety factor DF          | 2.5                                                                                     |
| Pressure utilisation rate | up to 0 °C: 122%<br>at 30 °C: 110%<br>at 50 °C: 100%<br>at 80 °C: 86%<br>at 100 °C: 77% |
| Bending radius r          | 20 mm                                                                                   |
| Operating temperature     | -20 ... 100 °C                                                                          |
| Sealing material          | NBR                                                                                     |
| Material                  | Steel, zinc-coated, CR (VI) -free                                                       |

### Supply range and accessories

| Connection      | Length (mm) | Order designation |
|-----------------|-------------|-------------------|
| M16x2/M16x2     | 400         | SMA3-400CF        |
| M16x2/M16x2     | 800         | SMA3-800CF        |
| M16x2/M16x2     | 1000        | SMA3-1000CF       |
| M16x2/M16x2     | 1500        | SMA3-1500CF       |
| M16x2/M16x2     | 2000        | SMA3-2000CF       |
| M16x2/M16x2     | 4000        | SMA3-4000CF       |
| M16x1.5/M16x1.5 | 400         | SMA4-400X         |
| M16x1.5/M16x1.5 | 1000        | SMA4-1000X        |
| M16x1.5/M16x1.5 | 1500        | SMA4-1500X        |
| M16x1.5/M16x1.5 | 2000        | SMA4-2000X        |
| M16x1.5/M16x1.5 | 4000        | SMA4-4000X        |



You will find measuring connections in Catalogue 4100.

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