The Parker Service Master CONNECT

Intuitive operation. Modular system.
Customized solutions. Optimal connections.

ENGINEERING **YOUR** SUCCESS.

The Parker Service Master CONNECT –

Modular system due to individual interchangeable measuring modules

Variable measuring inputs: Parker analog and CAN sensors with sensor recognition, analog sensors, SAEJ-1939, CANopen and frequency

Automatic recording and saving of measurement data and immediate analyzing with the tried-and-tested SensoWin® software on a PC

Measure and display up to 100 channels

Intuitive operation using the colored 7" touch display

Variety of measuring methods, i. a:
– Start/Stop
– Data logger with ring memory
– Point measurement
– Trigger
– Trigger logic
– Fast measurements

Intuitive user interface, can be extended by customer-specific software applications

Measured value representations:
– Numerical
– Bar graph
– Pointer
– Curve

Parker SensoControl
Inputmodul-CAN
S.N.: 4104563201

The Parker Service Master CONNECT

24.04.2020 10:45   100%

Müller Bagger SPC ▸ Hydraulik   Trigger Logic

CHANNEL NAME	ACTUAL	BARGRAPH	MAX
CAN X -1 Druck P1	236,47 bar		0 ... 400
CAN X -2 Druck P2	17,361 bar		0 ... 60
CAN X -3 Druck P3	1,236 bar		-1 ... 10
CAN Y -1 Temperatur T	34,72 °C		-50 ... 150
CAN Y -2 Durchfluss Q1	60,236 l/min		0 ... 300
CALC 1 Power P1	74,482 kW		0 ... 3000

Advantages that connect.

Integrated web server for remote control applications

Pressure, temperature, flow, rpm and frequency, etc. – everything is measured, saved, monitored and analyzed

Large internal data logger

Push button for screen shots

Varied connections:
– WLAN
– Bluetooth LE
– LTE*

* in preparation

Universally appliable for mobile and stationary applications.

A strong diagnosis measuring device for many applications due to the modularly structured system in the hardware and software.

Can be flexibly used in hydraulics thanks to the wide range of sensors. For example, for service, commissioning, research and development.

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Strong design, durable and easy to opera

Highly protected against moisture and dust, protection class IP 65

Illuminated and anti-glare color display for good readability in all situations, 7 inches in size for a clear overview of comprehensive information

Rugged, oil-resistant protection for use in harsh conditions and for shock absorption

The Parker Service Master CONNECT

24.04.2020 10:45

Müller Bagger SPC ▶ Hydraulik   Trigger Logic

Druck P1	236,47 bar	0 — 400
Druck P2	17,361 bar	0 — 60
Druck P3	1,236 bar	1 — 10
Temperatur T	34,72 °C	50 — 150
Durchfluss Q1	60,236 l/min	0 — 300
Power P1	74,482 kW	0 — 3000
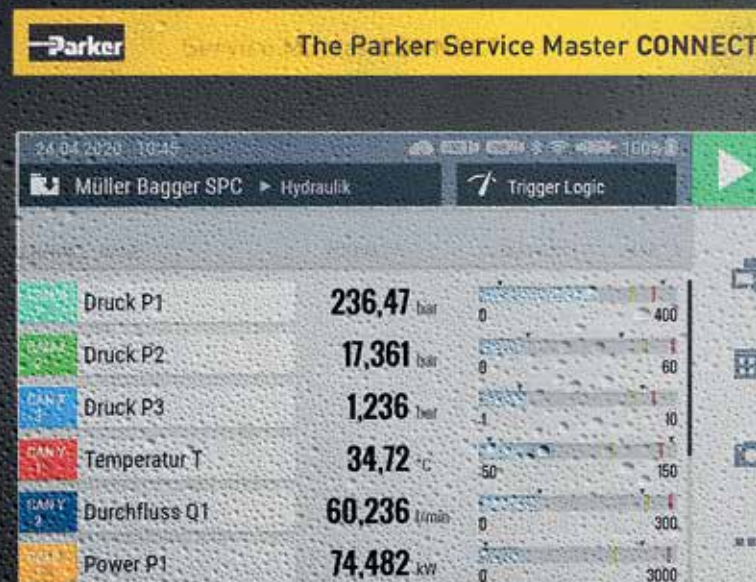
Suitable for use with gloves, robust 3 mm glass, resolution 800 x 480 pixels

Parker

ate.

**Integrated bracket
for carry strap**

**Additional large tactile
keyboard to ensure
operation even in
adverse conditions**

**Intuitive operation
thanks to clear icons and
functional keys and apps**

Easy and practical to use.

Not only for universal application, but also universal handling. The Parker Service Master CONNECT has diverse adaptation capabilities prepared: A stand on the back, VESA-standard connection for wall mounting and a carrying strap for "man-carried" use.

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Everything is intuitively possible and me

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

Analog input module for connection with Parker sensors with sensor recognition

Analog auxiliary sensors - also with high-speed feature

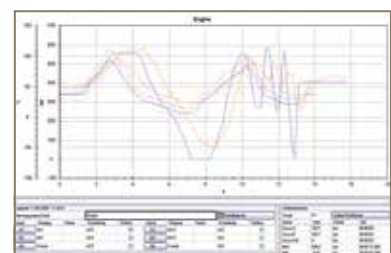**2 x CAN-BUS networks with up to 24 channels each**

2 frequency inputs or D-IN/D-OUT

Sim card slot

asurable.

CAN module for monitoring CAN systems or also for connecting auxiliary CAN sensors

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

USB host interface for connection with USB mass storage.

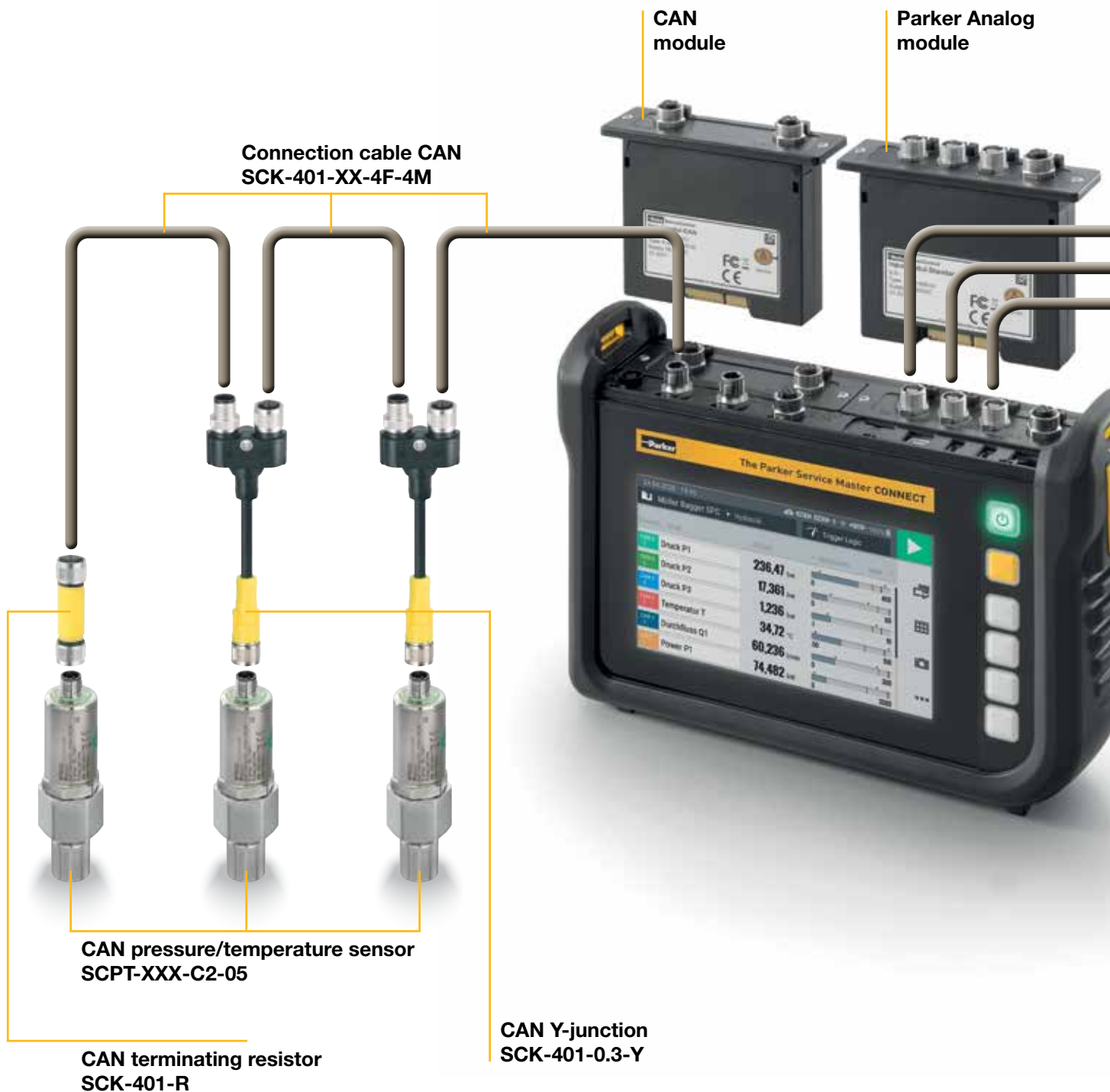**USB device interface for connection with PC, Laptop etc.**

We are in touch with technology

With the The Parker Service Master CONNECT, we make work environments a little bit easier and more manageable. Never before has it been so easy to measure, display and analyze complex operations. Specially developed Parker sensors enable the automatic sensor recognition and the Plug & Play solution. Don't wait – start right away!

The tried-and-tested software SensoWin® is included in the delivery. With that, measurements are analyzed and test reports are easily prepared.

ENGINEERING **YOUR** SUCCESS.

The connection artist is at home on many

Parker CAN bus sensors

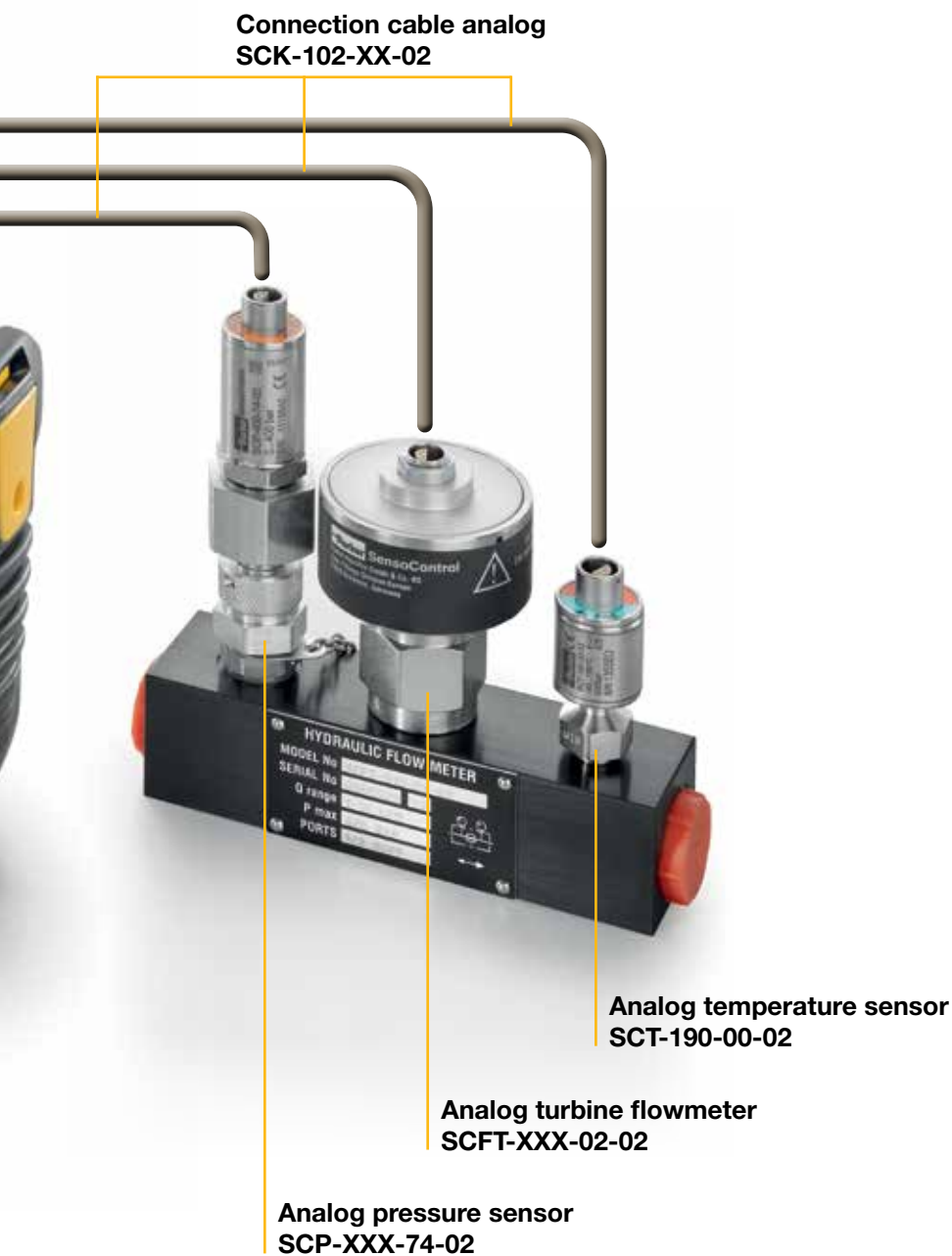Up to 24 channels are connected via
one bus cable to the measuring device.

Further modules are in preparation,
customer-specific solutions are possible.

CAN
module

Parker Analog
module

Connection cable CAN
SCK-401-XX-4F-4M

CAN pressure/temperature sensor
SCPT-XXX-C2-05

CAN Y-junction
SCK-401-0.3-Y

CAN terminating resistor
SCK-401-R

y stages.

Analog sensors

The analog sensors are separately and directly connected to the measuring device.

**Connection cable analog
SCK-102-XX-02**

**Analog temperature sensor
SCT-190-00-02**

**Analog turbine flowmeter
SCFT-XXX-02-02**

**Analog pressure sensor
SCP-XXX-74-02**

Lighthouse with exemplary function.

The measurement device can process different electrical signals. In the range of the CAN bus technology the following sensors can be connected.

Parker CAN sensors with integrated sensor recognition. After plug in, manual parameterizing of the measurement signal and measuring range is no longer necessary – independent if pressure, temperature, flow or rpm sensors.

Connection of standard CAN sensors, which are supplied and processed independently by the measuring device.

Communication with a CAN system for so-called "listening", i. e. to display and further process measurement values without interfering directly with the bus controller.

An optional CAN monitor assists during installation of CAN channels and analysis of CAN bus reports.

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# Evident: A large display for the smallest

- Up to 12 channels in one display
- Color allocation of the individual channels
- Display can be changed between ACT, MIN and MAX values
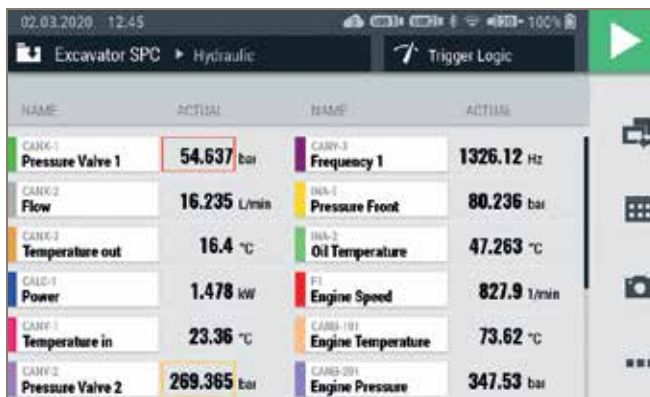
- Up to 8 freely selectable channels simultaneously in one curve display
- Choice between ACT and MIN/MAX value presentation
- Free scalability
- For analysis purposes, up to two cursors with measured value and delta display could be inserted

- Numerical display of 6 channels with bar graph
- Display of measuring range, warning and alarm values and min. and max, values
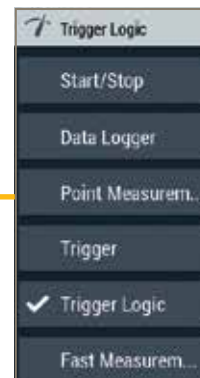
- Variety of measurement possibilities for different applications

values.

- Recurring measuring tasks can easily be saved as a template
- When choosing the template, the preset measurement set up is also compared
- Using a template, ensures the comparability of the measurements.
- A current template can be duplicated and modified as needed

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

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

Specifications

The Parker Service Master CONNECT

Input/output

CAN sensor input	2 CAN bus networks, 24 Parker CAN bus sensors each. Alternative at CAN Y up to 5 external CANopen sensors. Baudrate at different CAN adjustable. 24 VDC power supply/ max. 250 mA. No mixed mode of Parker-CAN and different CAN within a CAN-Bus section possible. Internal termination impedance 120 Ohm fixed. Supports CAN 2.0 A/CAN 2.0 B. Version SMC-600-LC: max. 20 channels. SMC-600-LC: only predefined calculation channels possible.
Scanning rate	1 ms = 1.000 measurement value/s
Plug connection	M12x1, 5 pin with SPEEDCON®, connection plug
D-IN/OUT F1/2	dual-function input, which can be used either as DIGITAL-IN or DIGITAL-OUT, or through a changeover, two frequency inputs are made available. Also possible as recognition of rotation direction.
Connection	M12x1 SpeedCon female. (5 pin)
Input	galvanic separated
Supply	24 V DC, 80 mA
Input signals	Frequency (0 Hz … 20 KHz)
Gauge/level	Activ low: 0-1.4 V, Activ high: 3-30 V
Precision	≤± 0,1%
Module slots	2, for input module, flexible placement possible
Touch display	7" color graphic display, 800 x 480 pixels

Calculation channels

Quantity	4
Functions	/, *, +, -, f'(t), Integral, sin, cos, tan, x^2, SQRT, x^y
Max. offsettings of channels/ Calc-channels	3

Ports

USB device	data transmission between device and PC
USB host 1	connection with external storage media
USB host 2	connection with external storage media
Memory	12 GB
LAN	connection with network cable
SIM card	MINI-SIM insert
Wireless communication	SMC-600-00: WLAN, Bluetooth LE (Europe)

Ambient conditions

Ambient temperature	-10. . .+50 °C
Storage temperature	-20…+60 °C
Rel. humidity	< 80 %
Environmental impact test	Drop test 1 m (EN 60721-3-7)
Vibration	(EN 60721-3-7, 7M3)
Protection class	IP 65 (EN/IEC 60529:2014)
External power supply	110/240 VAC - 24 VDC/3.750 mA KFZ charging cable as accessory (12/24 VDC)
Connection	3 pin

Battery

	Lithium-ion pack, +14.4 VCD/3.250 mAh

Material

Housing	ABS/PC (thermoplastic)
Housing protective cover	TPE (thermoplastic elastomer)
Flammability rating	UE94VO
Dimensions (W x H x D)	257 mm x 181 mm x 87 mm
Weight	1880 g without input modules
VESA connection	100 x 100 mm / M4 metric

Specifications

Input module
SCMI-600-01 Parker analog

Inputs with sensor recognition	3 sensor inputs (up to 6 analog measurement channels)
	With sensor recognition (p/T/Q/n) for SensoControl® diagnosis sensors
	Plug connection: 5 pin, push-pull, combination connector/socket
	Sampling rate: 1 ms = 1.000 measured values/sec.
Working temperature range	-10 °C…+50 °C
Storage temperature range	-20 °C…+60 °C
Weight	152 g
Inputs for auxiliary sensors	2 sensor inputs (analog)
	For measuring power and voltage
	Scanning rate: 1 ms = 1.000 measured values/sec.
	Voltage measuring range: -10. . .+10 VDC
	Current measuring range: 0/4. . .20 mA
	Supply ext. Sensors: +24 VDC/max. 100 mA
	Plug connection: M12x1, 5 pin socket
	FAST-MODE scanning rate: 0/1 ms = 10.000 measured value/s
Supply	24 V DC, 100 mA
Input signal range	-10…+10 V
	0/4…20 mA
Accuracy	±0.1 % FS

Input module **SCMI-600-02 CAN**	2 x M12x1, 5 pin plug input for connection with CAN systems like CANopen, CAN generic and SAE-J1939
Connection	2 x M12 5 pol. female
Nomenclature	CAN1xx, CAN2xx, each galvanically separated
Kanale CAN1xx	24
Kanale CAN2xx	24
Standards	CAN 2.0 A, CAN 2.0 B,
Protocol support	CANopen, SAEJ1939 CAN generic, mixed mode of several CAN protocols possible
Termination impedance	Attachable/detachable
Supply signal connection	Passive, no external supply
Working temperature range	-10 °C…+50 °C
Storage temperature range	-20 °C…+60 °C
Weight	127 g

Input modules **SCMI-600-03 Parker analog ISO**	Such as SCMI-600-01 Parker analog, but module electronically isolated from device

PC software SensoWin®

- ■ **Compatible with Windows 10 (32- and 64-bit)**
- ■ **Zoom functions**
- ■ **Conjunction of measurement curves**
- ■ **Cursor functions**
- ■ **Export function**
- ■ **Extensive filter function**
- ■ **Remote connection/remote control The Parker Service Master CONNECT**
- ■ **Freely definable calculation channels**
- ■ **Online measurement**
- ■ **Easy operation**

General

The PC software SensoWin® is an easy-to-use tool for reading and processing the measurement curves recorded by The Parker Service Master CONNECT.

Functions

The recorded curves can be represented in a diagram. Shifting of the curves allows for accurate analysis of the hydraulics.

A performance curve can be created to evaluate a pump. Pressure losses and leaks are detected by generating the difference values of pressure curves.

With the cursor, a hydraulic procedure can be examined relating to the time. Comprehensive information is available for each curve. That is to say the measurement recorded by The Parker Service Master CONNECT can be reproduced at any time.

Changing the scale factor and units allows for any subsequent adjustment to be shown in a diagram. Smoothing of the measurement curve and mathematical operations are important functions in the analysis of the hydraulic system.

The date, time, and any notes are documented with each measurement, making subsequent allocation considerably easier. As a result, documentation and certificates can be generated quickly and in a cost-effective way since the PC software SensoWin® can make use of all Windows features and benefits. All measurements can be exported in CSV format.

Current findings (pressure peaks, etc.) are visible during ongoing processes (online function).

Scope of delivery

The Service Master CONNECT (without input modules)	x-	SCM-600	-	xx			
The following items are furnished with the device:							
- Power supply incl. Country adapter							
- USB 2.0 cable (2 m)							
- PC software							
The Service Master CONNECT Kit (without input modules)	x-	SCKIT-600	-	xx			
Device in trolley bag incl. carry strap							
2 x SCK-401-05-4F-4M, 2 x SCK-401-R,							
2 x SCA-EMA-3/3, 2 x SMA3-1500							
The Service Master CONNECT with input modules	x-	SCMSET-600	-	xx	- x	-	x
With calibration certificate according to ISO 9000	K-						
Instrumentation							
with WLAN and Bluetooth LE (Europe) / no LTE				00			
without WLAN and without Bluetooth				0A			
Input module 1							
Input module Parker Analog SCMI-600-01					1		
Input module CAN SCMI-600-02					2		
Input module Parker Analog ISO (electronically separated) SCMI-600-03					3		
Input module 2							
without							0
Input module Parker Analog SCMI-600-01							1
Input module CAN SCMI-600-02							2
Input module Parker Analog ISO (electronically separated) SCMI-600-03							3

Accessories	Order designation
KFZ charging cable 24 VDC	SCK-318-05-21
KFZ charging cable 12 VDC	SCNA-SMC-CAR
Plug M12x1 for external sensor input	SCK-401-4M
SMC carry strap	SC-ACC-02
LAN-Cable	SCK-318-02-37
Power supply incl. adapter (EUR/UK/US/AUS)	SCSN-470
Case with Trolley function	SCC-600
USB cable	SCK-315-02-35

Subject to alteration.

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