- **Portable multi-function hand-held measuring instrument**
- **Pressure, temperature, flow and speed can be measured, monitored and analysed.**
- **Measurement and display of over 50 channels.**
- **Measured value display: numerical, bar graph, pointer, curve graph**
- **Project templates can be saved and loaded.**
- **Interfaces: CAN, LAN, USB**
- **Total memory with up to 1 billion measured values**
- **Measured data can be (automatically) recorded, saved and analysed with the SensoWin® 7 PC software and a LAN or USB connection.**

The application possibilities for hydraulics have recently increased throughout all areas of drive and control systems. This trend has been particularly noticeable in the sectors of machine, plant and automotive construction. At the same time, hydraulics and electronics have become increasingly intertwined. Parker's new hand-held measuring instrument – **The Parker Service Master *Plus*** – helps you to deal with these new trends. It has never been so easy to follow the complex processes in these sectors with measurement, display and analysis. Potential uses include preventative maintenance, commissioning, troubleshooting and machine optimization.

The expanded requirements of these modern applications (such as the increased number of measurement points, longer cable lengths and high noise immunity) have driven further development of the CAN bus. Parker's CAN bus sensors now take advantage of the bus system's automatic sensor detection capability to provide an easy-to-install Plug & Play solution. Compatibility with existing diagnostic sensors is also provided.

Our proven storage strategy is focused on MIN and MAX value measurements. Combined with a wide variety of value presentation styles, these features make effective solutions-oriented analysis possible.

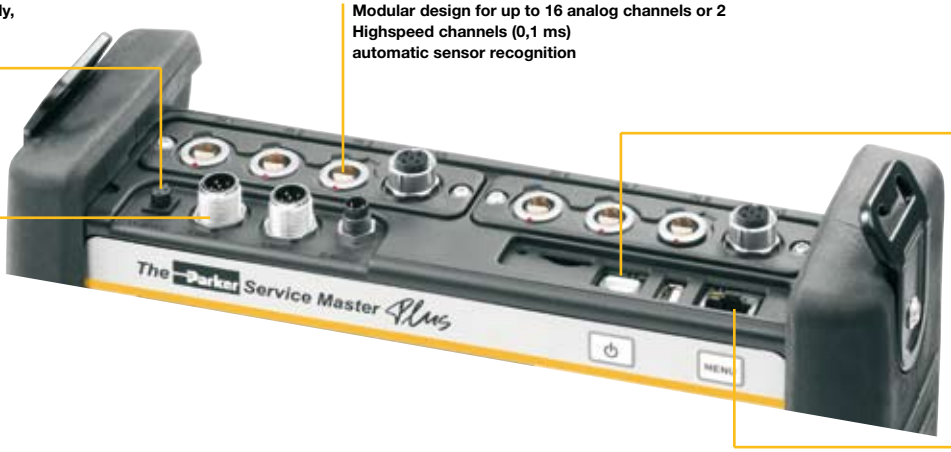
The **SensoWin®** PC software offers additional methods for analysis, control and remote maintenance using LAN and USB connections. Together with this software, **The Parker Service Master *Plus*** is a truly user-friendly measuring instrument that can be used for any type of diagnostics application.

110/240 VAC power supply, battery life 8 hours, recharging time 3 hours

2 x CAN-busnetworks with up to 32 channels

Modular design for up to 16 analog channels or 2 Highspeed channels (0,1 ms) automatic sensor recognition

PC Interface (USB 2.0); ACT/MIN/MAX measured value transmission to the SensoWin® software, terminal for USB mass storage devices



LAN interface for remote monitoring, micro SD memory card for storage enlargement

High protection from moisture and dirt thanks to cover caps and a rubber protective sleeve, Protection Class IP64

Easy to carry and hang up with carrying strap

Portable multi-function hand-held measuring instrument – strong in design and tough in operation

Illuminated display for good readability in any situation

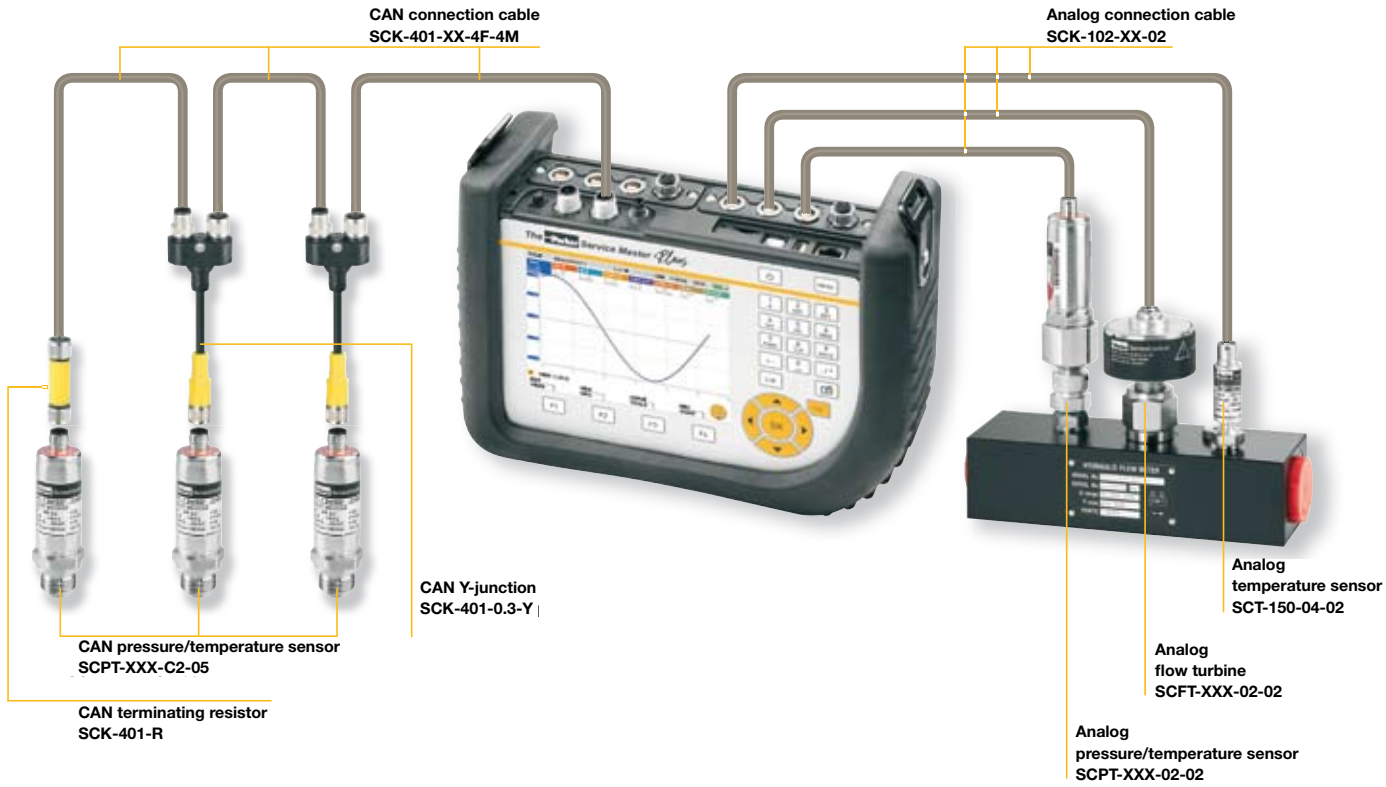
Large keyboard and fonts for easy operation and readability

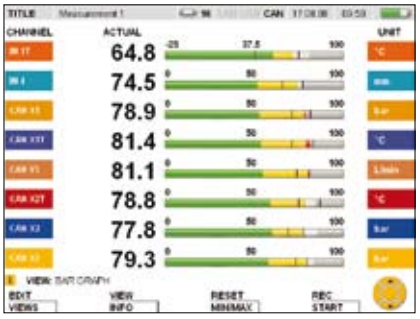
Ergonomic housing shape ensures convenient portability and long operating times

Protection of the housing, affording usage in tough environments and absorption of shocks

Big 5.7 inch colour display for clearly viewing the extensive information

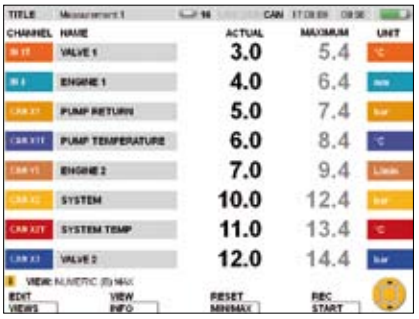
Intuitive operation thanks to clear-cut control elements and function-oriented keys



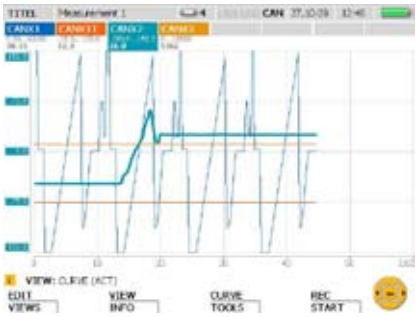


- Display of measured values as figures and bars
- Fixing of alarm ranges in green, yellow and red
- Trailing pointer function with MIN and MAX values

- Up to 4 channels in one large-format display
- Simultaneous display of ACT, MIN and MAX values
- Information lines for current settings, events and views
- Individual measurement channel identifier



- Up to 8 channels in one display
- Colour allocation of the individual channels
- Uniform headings with measurement titles, sensors connected, interfaces, date, time and battery condition indicator
- Display can be changed between MIN and MAX values and full scale



- Up to 8 channels in one graph display
- Fine, precise graph image thanks to high definition display
- Choice between ACT and MIN/MAX value display
- Automatic and manual scaling of the time axis for optimum measured value display

- Large-area pointer display of measured values
- Trailing pointer for MIN and MAX values
- Alarm range in green, yellow and red
- Further channels can be called up with the arrow keys

	The Parker Service Master *Plus* – Basic unit SCM-500-00-00
Inputs/outputs	CAN sensor inputs 2 CAN bus networks each with 16 channels (for Parker CAN-Bus sensors) Scanning rate 1 ms = 1000 measured values/sec. M12x1 push-in connector, 5-pin with SPEEDCON® 1 digital trigger input Scanning rate: 1 ms Input impedance: 1 kohm Active high: >+7 VDC…+24 VDC Active low: <1 VDC Isolated 1 digital trigger output Scanning rate: 1 ms Output signal: +24 VDC/max. 20 mA Isolated Push-in connector for digital input and output: M8x1, 4-pin, male
Module slots	2, for input module, flexible placement possible Slot 1 = IN1, IN2, IN3, IN4/5 Slot 2 = IN6, IN7, IN8, IN9/10
Display	FT-LCD colour graphic display Visible area: 115 x 86 mm Resolution: 640 x 480 pixels
Interfaces	USB device Online data transmission between unit and PC via SensoWin® Measured value transmission: ACT/MIN/MAX USB standard: 2.0, fullspeed Push-in connector: USB socket, shielded, type B USB host Connection for mass storage devices such as USB stick or removeable hard disc Standard: 2.0, fullspeed,100 mA max. Push-in connection: USB socket, shielded, type A Ethernet Online data transmission between unit and PC via SensoWin® and remote control Measured value transmission: ACT/MIN/MAX Standard: 10, 100 Mbit/s, IEEE 802.3 (10/100 base T) Push-in connection: RJ45, socket, shielded
Functions	Measurement: ACT, MIN and MAX values Measured value display: Numerical, bar graph, pointer, curve graph Measuring functions: Start/stop, points, trigger Trigger: Slope, manual, level, window, time, logic (interconnection of up to two events for the measurement start and stop) Pre-Trigger Remote operation via the Ethernet Acoustic notification at any incident

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	The Parker Service Master *Plus* – Basic unit SCM-500-00-00
Measured value storage	For storing measured values, project data and screen copies (screenshots) Storage capacity ≤ 4 million measured values per measurement Total measured value storage > 1 billion measured values Storage format: ACT/MIN/MAX Storage interval: 1 ms to 24 h Storage duration: 1 ms to 300 h (trigger measurement) Internal 64 MB (approx. 32 million measured values) External: SD storage 2 GB (1 GB Micro SD memory card included in standard shipment) Slot: Micro SD memory card External: USB mass storage device 40 GB
Ambient conditions	Operating temperature: 0…+50 °C Storage temperature: -25…+60 °C Relative humidity: < 80 % Environmental test: IEC60068-2-32 (1 m, free fall)
Type of protection	IP64 (to EN60529)
Power supply	Internal Lithium ion pack, +7.4 VDC/4500 mAh Battery charging circuit/operating time with 3 CAN sensors: > 8 h External 110/240 VAC - 24 VDC/2500 mA Vehicle adapter cable as accessory (12/24 VDC)
Housing/protective sleeve (incl. in standard shipment)	Housing material: ABS/PC (thermoplastic) Housing protective sleeve material: TPE (thermoplastic elastomer) Dimensions (w x h x d): 257 mm x 75 mm x 181 mm Weight: 1550 g (basic model)

	The Parker Service Master *Plus* – Typ 01 input modul
Inputs with sensor recognition	3 sensor inputs (up to 6 analog measurement channels) with sensor recognition (p/T/Q/n) for SensoControl® diagnostic sensors also connection of auxiliary sensors possible with SCMA-VADC Push-in connection: 5-pin, push-pull, combination panel plug/socket Scanning rate: 1 ms = 1000 measured values/sec. For the SCPT combined pressure & temperature sensor, there is an additional temperature channel for each sensor input Temperature scanning rate: 1 s
Inputs for auxiliary sensors	2 analog sensor inputs for measuring current and voltage Scanning rate: 1 ms = 1000 measured values/sec. Voltage measuring range: -10…+10 VDC (freely configurable) Current measuring range: 0/4…20 mA Supply external sensors: +18…+24 VDC/max. 100 mA Push-in connection: M12x1, 5-pin socket FAST mode Scanning rate: 0.1 ms = 10,000 measured values/sec. only one auxiliary sensor input is useable
Accuracy	±0,25 % FS + 0,02 % per °C

Product overview				**Additional items available:**
	CAN- sensor inputs	Sensor inputs with sensor recognition (analog)	External sensor inputs (analog)	- Installed handle - 24VDC/2.5A power pack incl. country adapter - M8x1,4-pole cable socket - USB 2.0 cable (2 m) - LAN cable (5 m) - Operating instructions - PC Software - 1 GB microSD-memory card
SCM-500-00-00 (Basic unit without input module)	2 networks each with 8 sensors max	0	0	
SCM-500-01-00 (Basic unit with 1 input module type 01)	2 networks each with 8 sensors max	3	2	
SCM-500-01-01 (Basic unit with 2 input modules type 01)	2 networks each with 8 sensors max	6	4	