

# SensoControl®

## The serviceman for hydraulic systems

Hand-held measuring device to measure pressure, temperature, flow and rotational speed

- Easy operation
- Rugged design
- Compact dimensions
- Large display
- Units of measurement displayed
- Differential value measurement
- MIN/MAX Memory
- Hold function
- 2 inputs with sensor recognition
- Low power consumption
- Data output for printer and PC
- External power supply

The SERVICEMAN SCM-150 from Parker is a modern, diagnostic measuring system and real alternative to conventional mechanical pressure measurement in hydraulic systems. The device can be used wherever hydraulic control and components are in use. The SCM-150 is very tough and insensitive to dirt so that it can be used in extreme conditions. It can be carried in the hand or used as a desktop unit with an integrated stand. Operation is very easy. Everything is controlled by 8 buttons. 2 sensor inputs are provided, thus enabling the generation of differential values from the sensor signals. A dynamic maximum and minimum value memory and a display "hold" function have also been implemented. The new measuring system is powered by a 9V block battery; the low power consumption means that it can be used for extended periods independent of a mains supply. The device automatically



recognises the connected sensors and displays the correct unit and scale for the respective sensor. This does away with complicated adjustments at the Serviceman, which significantly cuts the time needed for measurements and errors. A printer can also be used to document the most important hydraulic parameters. Following a pre-set transmission interval of between 1 and 100 sec., the device automatically documents the maximum, minimum and current values for the system. The memory is deleted after printing. This permits a precise determination of the extreme values per machine cycle. The

device can be connected to any PC with an auxiliary adapter. Parker uses standard software already installed on most computers. Thus, the drafting of status reports to verify data (ISO 9000) poses no problems.

The Serviceman SCM-150 will be of interest to all maintenance engineers working with mobile hydraulic systems, in the construction machinery and equipment sector, environmental engineering, shipbuilding and offshore. The Serviceman has been developed to give an excellent range of functions and benefits, at a modest price.

## Technical Data

### Inputs

4-pin round plug, series 712  
2 x 0,1...3,3 V (p, T, Q, n)  
with sensor recognition

RE: 470 K

A-D converter  
12 Bit

Scanning rate  
=/ $\leq$  2ms

### Display

LCD text display (4-digit)  
Character height: 13mm  
Accuracy: < 0,3 % +/- 2 digits  
Display of units:  
bar, PSI, l/min., USGPM, °C, °F,  
U/min., RPM, %

### Functions

Differential value measurement  
MIN/MAX memory  
Hold function  
Autoprint function (SCM-150-1-02)  
Battery level display LO BAT  
Auto power off after 15 min.

### Output possibilities

SC infrared interface via receiver  
adapter (infrared/RS232C) to  
connect a thermoprinter SCPR-100  
or PC (only in combination with  
SCM-150-1-02)

### Ambient conditions

Temperature range: 0...50 °C  
Storage temperature: -20...+60°C  
Rel. humidity: < 85%  
Protection level: IP54 (EN 60529)

### Power supply

SCM-150-1-01  
9V battery (IEC 6F 22)  
Current consumption: 20mA  
Approx. 10 h operation with one  
sensor  
SCM-150-1-02  
NC storage battery, 9V/110 mA/h  
Approx. 5 h operation with one  
sensor  
Battery charge circuit  
External charge via round plug,  
series 719:  
12...15 VDC/min. 60mA

### General

Housing material  
Plastic housing of ABS  
Protective covering of rubber and  
carrying straps

### Dimensions

L/W/H 145x70x40mm

### Weight

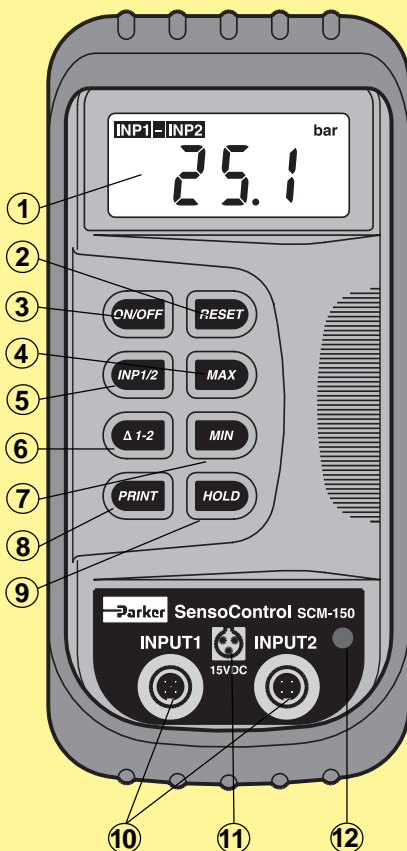
approx. 340 g

EMC compatibility pursuant to:

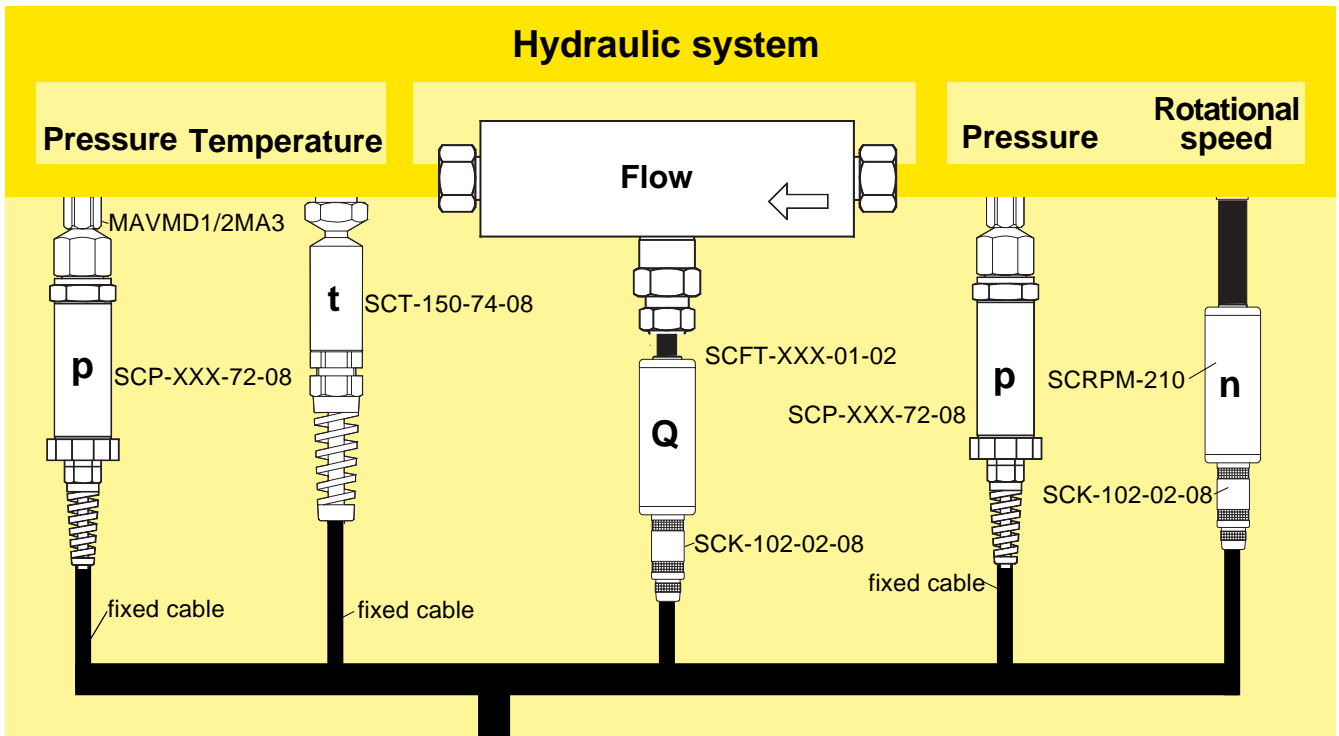
Interference emission DIN/EN 50081 Part 1 (VDE 0839 Part 81-1)

Resistance to jamming DIN/EN 50082 Part 2 (VDE 0839 Part 82-2)

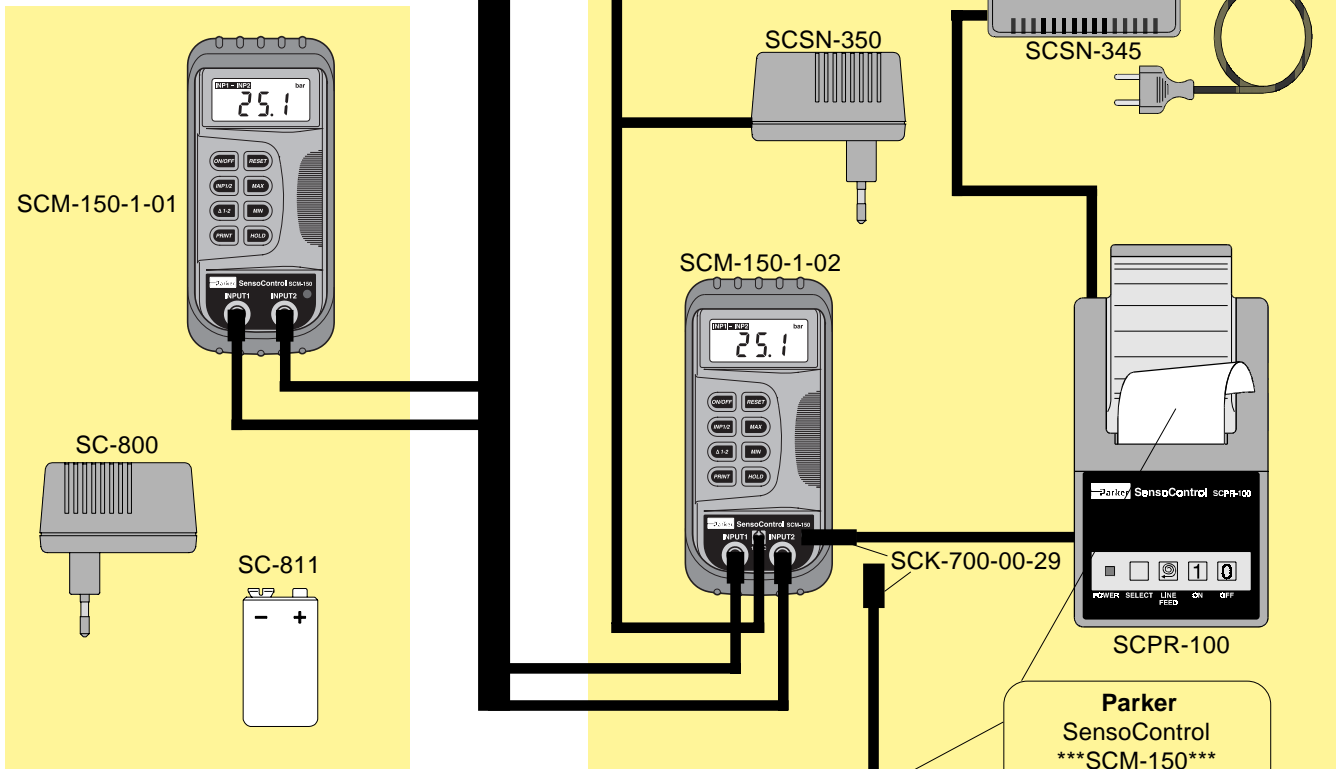
## Functional description SCM-150



- ① 4-digit **display** with units of mass, input status and battery status
- ② **RESET** to delete the maximum/minimum value memory
- ③ **On/Off switch**
- ④ **Maximum value display** RESET must be pressed before the start of measurements
- ⑤ **Channel selection button** for input 1/2
- ⑥ **Differential value calculation** Input 1 minus Input 2 symbol in display
- ⑦ **Minimum value display** RESET must be pressed before the start of measurements
- ⑧ **Printout** of actual/max/min values in numerical form
- ⑨ **Hold function** for display values
- ⑩ **Analog inputs** to connect 2 sensors
- ⑪ **Socket** for external power supply
- ⑫ **Data output** infrared interface to transfer measured values to printer or PC



**Fig. 1:** Sensors to record pressure, temperature, flow and rotational speed



**Fig. 2:** SCM-150-1-01 to measure pressure, temperature, flow, rotational speed

**Fig. 3:** Connection possibilities SCM-150-1-02 with external power supply and data output

**Parker**  
SensControl  
\*\*\*SCM-150\*\*\*

	I1=bar	I2=l/min	ACT	MAX	MIN
1	45.69	48.78	27.89		
2	15.35	18.40	9.81		

Data format

## Order code

Description		Order no.
<b>Handmeter</b> SCM-150	to measure p, t, Q, n also with data output and external power supply	<b>SCM-150-1-01</b> <b>SCM-150-1-02</b>
<b>Pressure sensor</b> SCP	with fixed cable connection for direct connection to the SCM-150	<b>SCP- . . . -72-08</b>
Measuring range	-1..... 15 bar 0....100 bar 0..1000 bar	015 100 1000
<b>Flow sensor</b> SCQ	further information on data sheet 4069	
<b>Flow turbine</b> SCFT	complete with measuring points for pressure and temperature, signal converter with voltage output	<b>SCFT- . . . -01-02</b>
Measuring range	1,0...15 l/min 7,5...60 l/min 15...300 l/min 25...600 l/min	015 060 300 600
<b>Temperature measurement</b>	measuring range -25...+125 °C	<b>SCT-150-74-08</b>
<b>Rotational speed recording</b>	measuring range 0...10000 rpm	<b>SCRPM-210</b>
<b>Connecting cable</b> , 2m	connection sensor/handmeter	<b>SCK-102-02-08</b>

### Accessories for SCM-150

<b>Measuring case</b>	for handmeter, pressure sensors, adapters, charger and battery also for printer and flow sensors	<b>SC-500</b> <b>SC-510</b>
<b>Printer</b> SCPR <b>Printer cable</b> , 1m <b>PC adapter</b>	thermoprinter for connection to SCM-150-1-02 optical transmission to transfer data to a PC	<b>SCPR-100-1-01</b> <b>SCK-700-00-29</b> <b>SCDA-150</b>
<b>Charger</b> <b>NiCD storage battery</b> <b>Mains adapter</b> SCSN	to charge NiCD storage battery SC-811 9V /110mAh (IEC 6F 22) power supply for SCM-150-1-02 power supply for SCM, SCPR, SCDA-150	<b>SC-800</b> <b>SC-811</b> <b>SCSN-350</b> <b>SCSN-345</b>
<b>Car cable</b> , 5m	connection between car socket - SCM-150-1-02	<b>SCK-519-05-21/A</b>
<b>Calibration certificate for SCM-150</b> according to DIN ISO 9001/EN 29009		

Subject to alteration  
PM/Aktuell/08/96

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