6. Determination of Flow Volume

Depending on the measurement job to be done, various measuring instruments are available to the hydraulic technician:

1 Flow meter type SCQ

- Flow measurement with direction indication
- Very fast reaction time <2msec.
- Wide viscosity range
- Screw-in cartridge in connector block SCAQ

2 Turbine flow meter type SCFT

- Very low flow resistance
- Built-in measurement points for pressure and temperature
- Very simple installation into a hydraulic system
- 5 different measuring ranges up to 600 l./min.
- Recording of a p/Q characteristic curve with a load valve to determine hydraulic performance

3 Gear flow meter type SCVF

- High precision flow measurement over a wide range of viscosity
- 6 measuring ranges up to 300 l./min.
- flexible use with various fluids



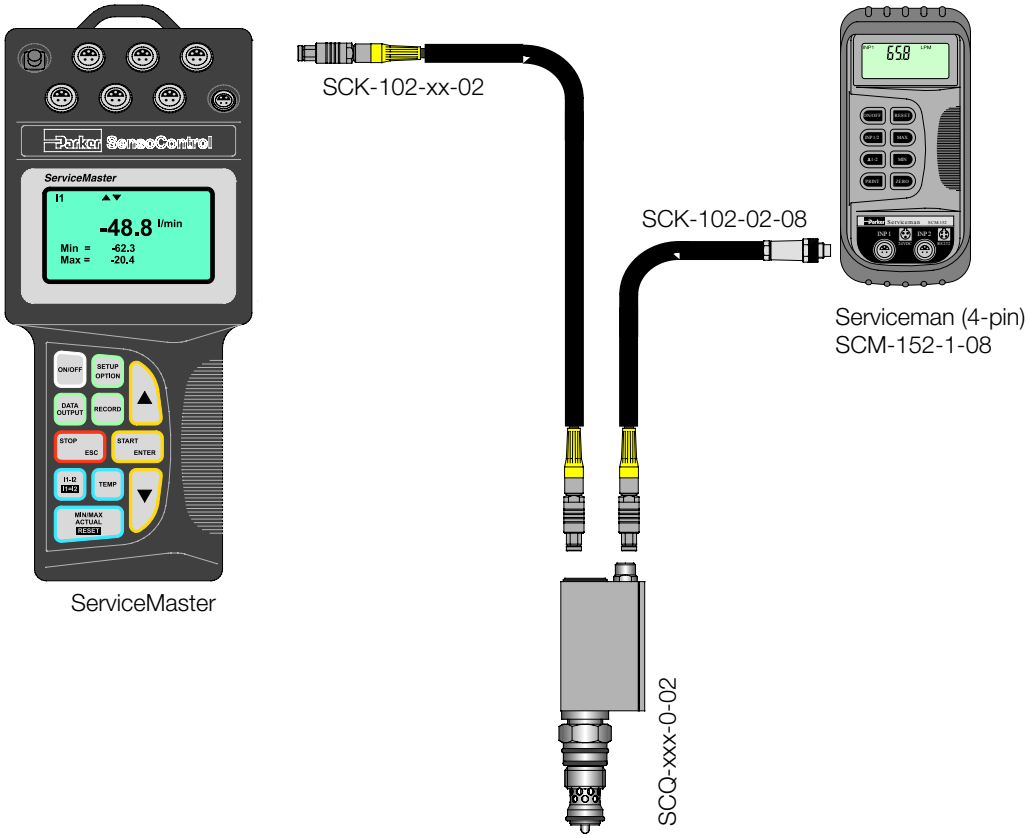
In addition to pressure measurement, the precise determination of flow volume in hydraulic equipment gives important evidence of the condition of the hydraulics. The efficiency of hydraulic drives such as hydrostatic units or variable pumps depends on the amount of flow. Hydraulic performance is determined by pressure and flow. The degree of wear in a hydraulic drive can be ascertained by comparing nominal and actual values. The resulting measurements can be used, for example, in preventive maintenance for systematic servicing and cost reductions. In mobile hydraulics, the efficiency of the machine is continually checked and documented. The diagnosis of pressure and flow thereby gives a total analysis.

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6.1 Determination of Flow Volume

Determination of flow volume with Serviceman/ ServiceMaster
(automatic scaling with sensor recognition; direction indication with ServiceMaster only)

For more technical details, please see Catalogue 4051 (Measurement technology for flow volume).



SCQ	Order code
0. . 60 l/min	SCQ-060-0-02
0. . 150 l/min	SCQ-150-0-02
(flow direction indication with ServiceMaster only)	

Accessories SCQ	Order code
Spacer ring (C-Ring SCQ-060)	SC-910
Seals SCQ-060	SC-911
Seals SCQ-150	SC-912

Connection Cables	Order code
Serviceman (4-pin)	SCK-102-02-08
Serviceman (5-pin) ServiceMaster xx = 2 mtr./ 3 mtr./ 5 mtr./ 8 mtr.	SCK-102-xx-02
Extension 3 mtr.	SCK-102-03-12
Extension 6 mtr.	SCK-102-06-12

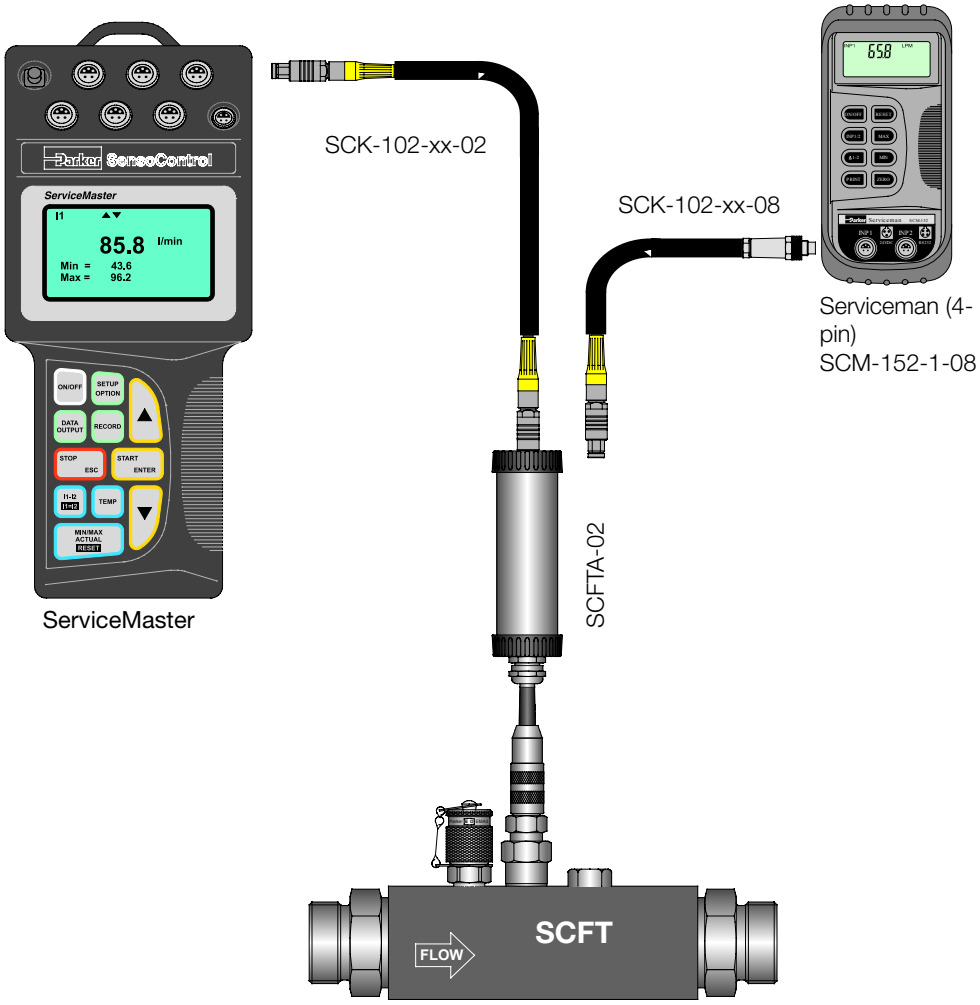
Screw Plugs SCAQ-060	Order code
SCQ Connection	SCQ-M24x1.5
A-B Connection	SCQ-R1/2-ED

Screw Plugs SCAQ-150	Order code
SCQ Connection	SCQ-M42x1.5
A-B Connection	SCQ-R3/4-ED

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6.2 Determination of Flow Volume — Turbine Flow Meter

Flow-measuring turbine with hand measuring instrument (automatic scaling with sensor recognition)
For more technical details, please see Catalogue 4051 (Measurement technology for flow volume in hydraulics).



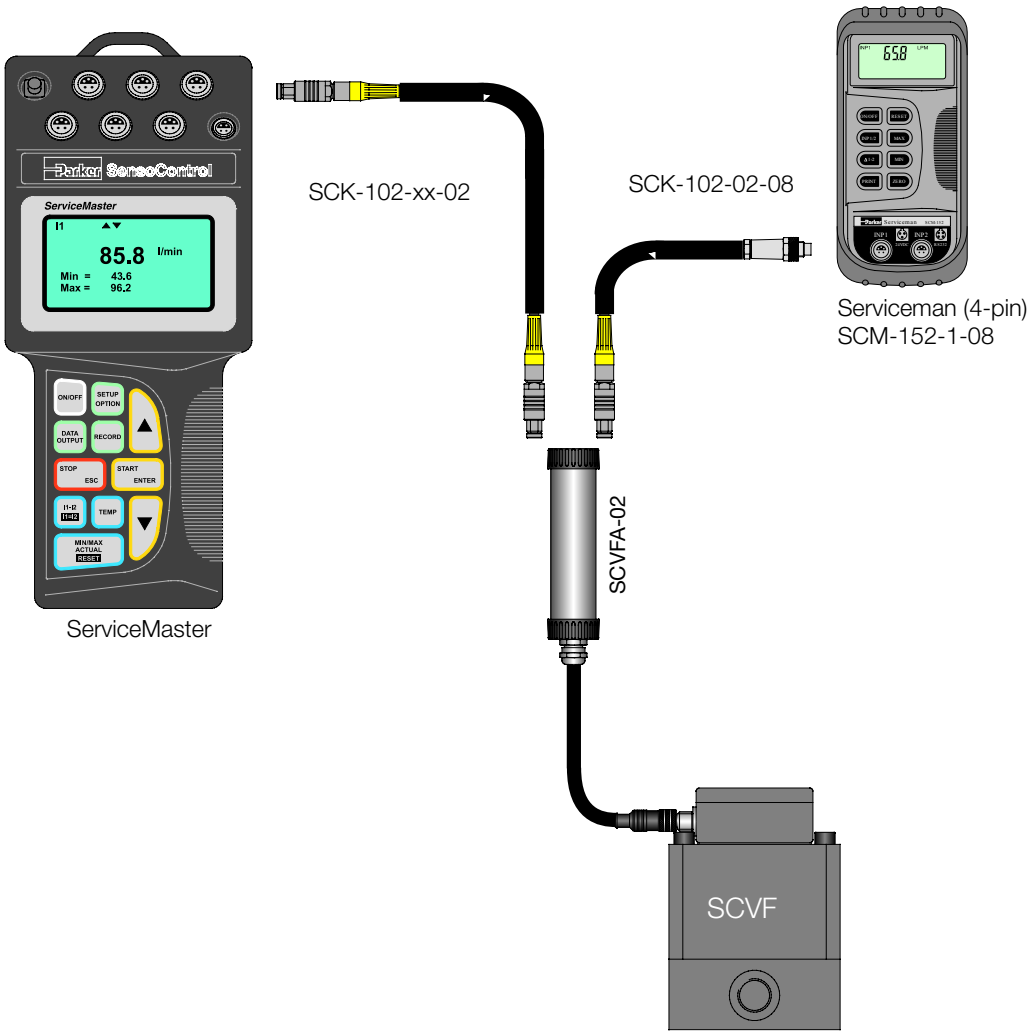
SCFT Flow-Turbine with Signal Converter SCFTA-02	
Range (l/min):	1,0 ... 015/ 7,5 ... 060/ 7,5. . 150/ 15 ... 300/ 25 ... 600
for Serviceman/ ServiceMaster	SCFT-xxx-01-02
Connection Cables	**Order code**
Serviceman (4-pin)	SCK-102-02-08
Serviceman (5-pin)/ ServiceMaster xx = 2 mtr./ 3 mtr./ 5 mtr./ 8 mtr.	SCK-102-xx-02
Extension 3 mtr.	SCK-102-03-12
Extension 6 mtr.	SCK-102-06-12

SCFT Flow-Turbine with Frequency Output Signal	
Range (l/min):	1,0 ... 015/ 7,5 ... 060/ 7,5. . 150/ 15 ... 300/ 25 ... 600
(without signal converter)	SCFT-xxx-01
Connection Cables	**Order code**
Connection cable 2mtr. ServiceMaster (SCM-360; SCM-400; SCM-450)	SCK-102-02-11

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6.3 Determination of Flow Volume — Gear Flow Meter

For more technical details, please see Catalogue 4051 (Measurement technology for flow volume in hydraulics).



SCVF Gear Flow Meter with Signal Converter SCVFA-02 and Connection Block	
Range (l/min):	0,1 ... 015/ 0,4 ... 060/ 0,4. . 150/ 1,0 ... 300
for Serviceman/ ServiceMaster	SCVF-xxx-00-02
Connection Cables	**Order code**
Serviceman (4-pin)	SCK-102-02-08
Serviceman (5-pin)/ ServiceMaster xx = 2 mtr./ 3 mtr./ 5 mtr./ 8 mtr.	SCK-102-xx-02
Extension 3 mtr.	SCK-102-03-12
Extension 6 mtr.	SCK-102-06-12

SCVF Gear Flow Meter with Frequency Output Signal and Connection Block	
Range (l/min):	0,0 ... 002/ 0,0 ... 004/ 0,16. . 015/ 0,6 ... 080/ 0,6 ... 150/ 0,6 300
(without signal converter)	SCVF-xxx
Connection Cables	**Order code**
Connection cable 2mtr. ServiceMaster (SCM-360; SCM-400; SCM-450)	SCK-102-02-07