

16 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.

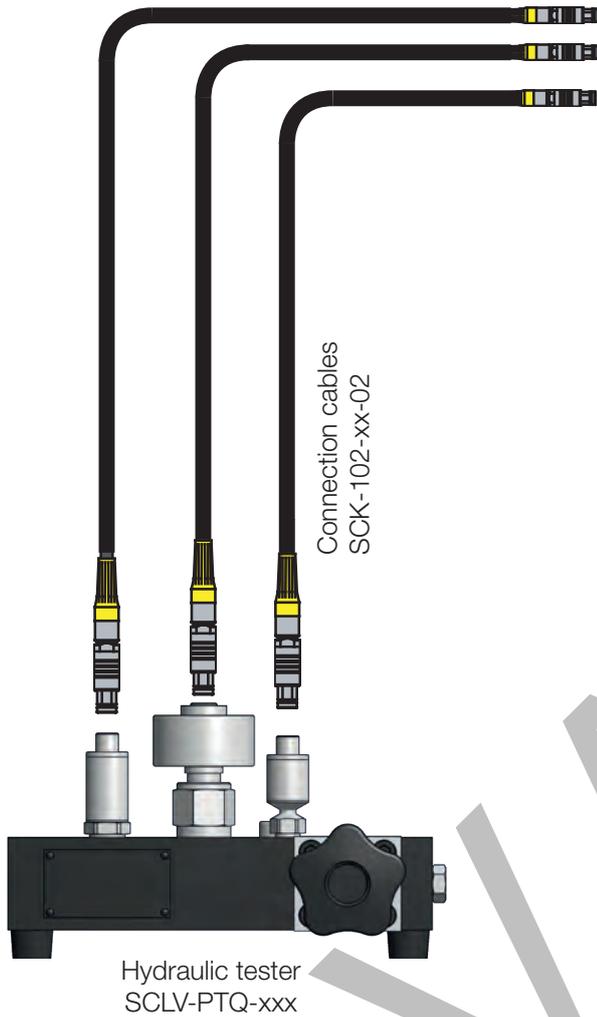
Built-in safety shutdown (blow-out discs)

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.

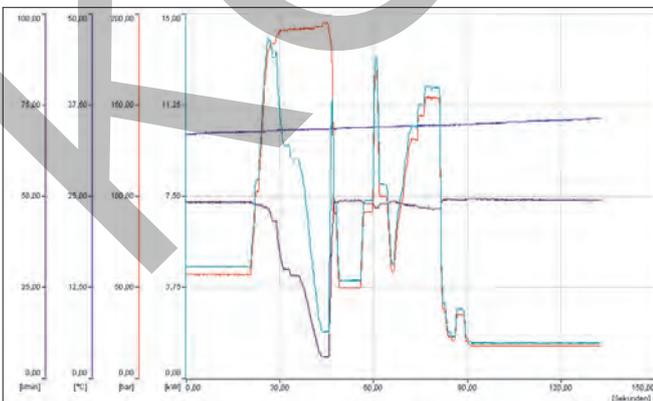
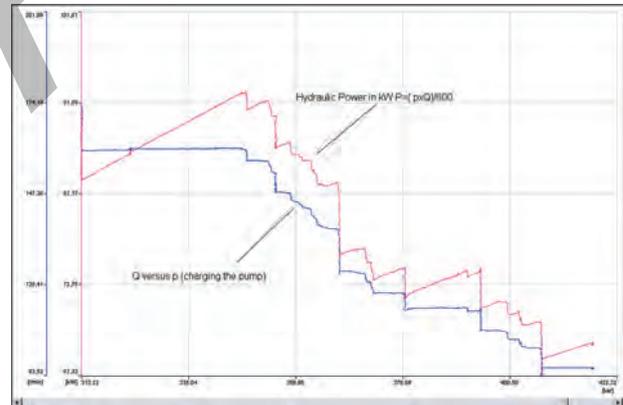
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Functional description



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

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.



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

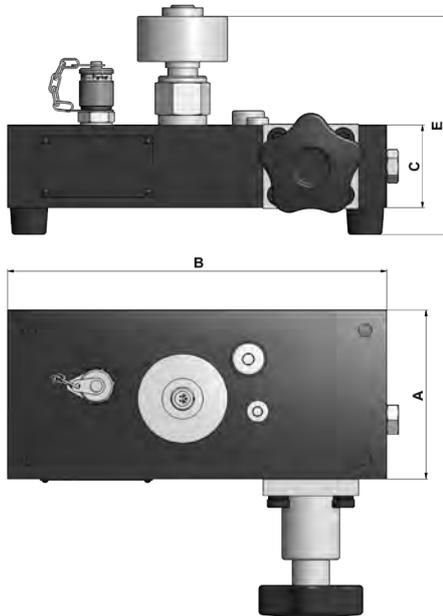
The figure shows an application with a hydraulic tester SCLV-PTQ. The built-in pressure relief valve generates pressure in the system.

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

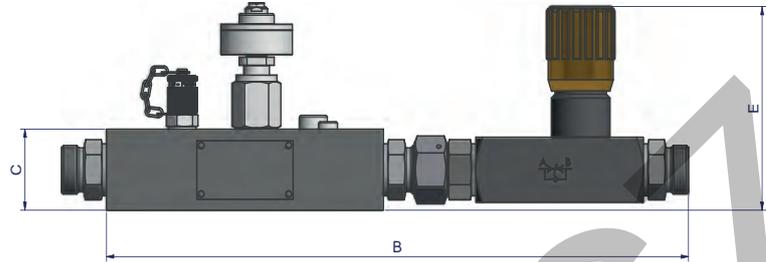
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Technical data

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) (US Gal/min)	6...150 1.6...40	10...300 2...80	20...750 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) (Blow-out disc)	-	420 / 6100	480 / 7000
Connection (A - B)	3/4" BSPP	1" BSPP	1-7/8" UNF
Pressure drop ΔP_{max} (bar) / (psi) @ (FS*)	15 / 218	4 / 58	5 / 72.5
Weight (g)	4200	3700	7500

* FS = Full Scale (measuring range end value)
** IR = Indicated Reading (measured value displayed)

Response time	50 ms
Accuracy of temperature measurement only with CAN	± 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) (°F)	-10...+50 +14...+122
Storage temperature (°C) (°F)	-20...+85 -4...+185
Media temperature (°C) (°F)	-20...+90 -4...+194
Filtration (μm)	25 μ m
Viscosity range (cSt.) (calibrated at 21 cSt., other viscosities on request)	10...100

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Supply range and accessories

SCLV-PTQ hydraulic tester with pressure load valve	Order designation
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
SCLV-PTQ hydraulic tester with pressure load valve and calibration certificate according to ISO 9001	Order designation
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
SCLV-PTQ blow-out discs	Order designation
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
SCFT turbine flow meter including one-way flow control valve	Order designation
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
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
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	