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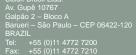
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Local solutions for individual customers worldwide



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Stauff Filtration Technology

Stauff Filtration Technology offers a complete range of filtration products and services that will provide the system designer or user with the highest level of contamination control demanded by today's most sophisticated applications. Products include pressure filters, return line filters, elements, spin on filters, suction strainers, and filler breathers for various hydraulic, lubrication and fuel oils.

Stauff has the technical expertise to provide superior filter element designs for the Stauff original filter housings and also for the interchange element market. Stauff manufactures more than 10,000 different elements. Many of these are designed to fit into filter housings produced by other companies while maintaining or surpassing the original performance.

The "Stauff Contamination Control Program" includes the diagnostic services including fluid sampling and laser particle counting products needed to monitor the system contamination level.

Stauff, through its global network of wholly owned companies and technically qualified distributors, is ideally placed to assist its customers in the total contamination process providing a well balanced filtration solution.

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The new STAUFF SPG-DIGI digital pressure gauge continuously measures and displays in-line pressure as well as capturing and displaying minimum and maximum pressure readings. Typical accuracy is 0.5 % of full scale. The unit can be supplied individually or as part of a Pressure Test Kit.



STAUFE

Dimensions

- Diameter ø80 mm (3.15 inch)
- Thickness 33 mm (1.3 inch)

Display

- Text-Display 4 1/2-digit Dimension : 50 x 34 mm (1.97 x 1.34 inch)
 - (1.97 X 1.34 III) Taut Llaight, 45 mm (0.50
- Text Height: 15 mm (0.59 inch)
 Available Units: Bar, PSI, Mpa,
 - "Bar-Graph-Scale" c/w drag
- "Bar-Graph-Scale" c/w drag indicator
- Back lighted
- Battery Life-Display



Specification

- Measures inline pressure
- ± 0.5 % FS* accuracy
- Measurement of pressure peaks at 10ms intervalls
- Operating temperature : -10°C...50°C (14...122°F)
- Ambient temperature : -20°C...80°C (-4...176°F)
- Back lighted display
- Battery-life indicator 1500 hours (2 x 1.5 V battery)
- Pressure Connection G 1/4 BSPP or 7/16-20 UNF (stainless steel)
- Zinc die cast housing with TPE protective cover
- Adapter is steel with zinc-plating
- Protection class : EN60529 IP67
- * FS = Full Scale

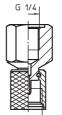
Ordering Code and Technical Data

	:	SP	<u>G</u>	DIG	il- <u>B0</u>	<u>100-E</u>	<u>B-C</u>	
Туре								
SPG	STAUFF Pressure	e G	au	ge				
Displa	у							
DIGI	Digital Display							
Pressu	ure Range					1		
Code	Measuring Range	0	ver	load	Burst	Pressu	re	
B0016	-116 bar (-14.5230 PSI)	(!	40 580	bar <i>PSI)</i>) bar <i>5 PSI)</i>		
B0100	0100 bar (01450 PSI)	200 bar (2900 PSI)			0 bar 00 PSI)			
B0400	0400 bar (05800 PSI)	800 bar <i>(11600 PSI)</i>			00 bar 50 PSI)			
B0600	0600 bar (08700 PSI)	1200 bar (17400 PSI)			00 bar <i>00 PSI)</i>			
	ection				oration			
В	G 1/4 BSP				none Without calibra			
U	7/16-20 UNF			CAL	With calibration		n	

Display and Functional Description

- 1 "Bar-Graph"-Display, actual and maximum pressure (Peak-Hold-function)
- 2 Actual value display (height 15mm, 0.59 inch)
- 3 Battery-Life indicator
- 4 MIN/MAX- or Full Scale-display
- Turns back light on/off
- Changes between Min/Max- and Full Scale-Display
 - MENU : Auto-POWER-OFF, choice of units ZERO-Function
- RESET : deletes measured values (MIN/MAX) OK : confirm selected inputs

Additional Adapter



Adapter SDA Connection pressure gauge with a test point Adapter SAD

Only in conjunction with adapter SDA20-G1/4, connection with other test point series / threads

For more information about adapters and test points see catalogue STAUFF TEST

G

416x7

Toot Doint

G

Test Point

Adapter	Adaption from	To Dim. G
SDA20-G1/4	G1/4	M16x2
SDA15-G1/4	G1/4	M16x1,5
SDA12-G1/4	G1/4	S12,65x1,5
SAD20/15-P	M16x2	M16x1,5
SAD20/12-P	M16x2	S12,65x1,5
SAD20/10-P	M16x2	Plug



STAUFF pressure transmitters are designed to meet price and performance requirements of Original Equipment Manufacturers. The SPT pressure transmitters use a thin film sensor for pressure ranges 10 bar (145 PSI) to 1000 bar (15000 PSI).



With a stainless steel case and compact design, STAUFF SPT pressure transmitters provide a high performance sensor package featuring excellent vibration resistance and long service life. OEM applications include hydraulics, pneumatics HVAC compressor control, machine tools, robotics and off road equipment.

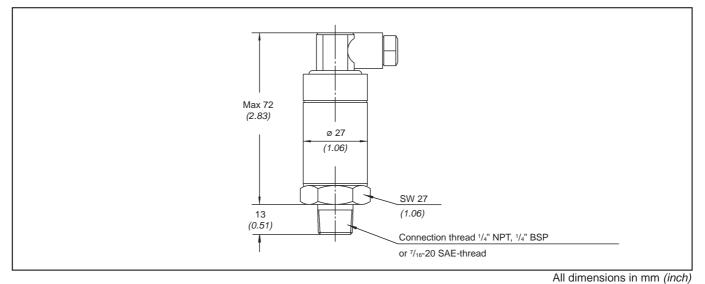
Features:

- Thin film sensor
- Rugged stainless steel body
- Compact size
- Work pressure up to 1000 bar (15000 PSI)
- Highly stable
- Temperature compensated

- Protected against reverse polarity, short circuit output and suppressor diode for high voltage protection
- Connections available BSP, NPT and SAE (male)
- Protection class (IP 65 / NEMA 5)
- Input 10-30 VDC
- Output 4...20mA



DIN 43 650 miniature L-plug



Ordering Code - Standard Ranges - SPT* Series

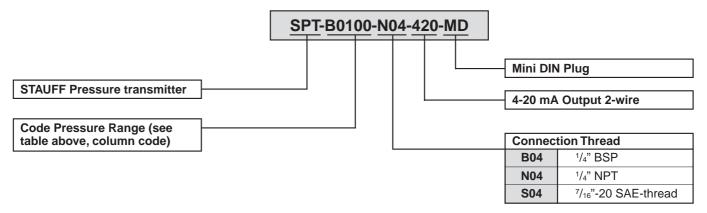
Code	Pressu	re Range	Maximum	Pressure**	Bur	st Pressure ***
B0010	0-10 bar	(0-145 PSIG)	35 bar	(507 PSI)	42 bar	(609 PSI)
B0016	0-16 bar	(0-232 PSIG)	80 bar	(1160 PSI)	96 bar	(1392 PSI)
B0025	0-25 bar	(0-363 PSIG)	50 bar	(725 PSI)	96 bar	(1392 PSI)
B0040	0-40 bar	(0-580 PSIG)	80 bar	(1160 PSI)	400 bar	(5800 PSI)
B0060	0-60 bar	(0-870 PSIG)	120 bar	(1740 PSI)	550 bar	(7980 PSI)
B0100	0-100 bar	(0-1450 PSIG)	200 bar	(2900 PSI)	800 bar	(11600 PSI)
B0160	0-160 bar	(0-2320 PSIG)	320 bar	(4640 PSI)	1000 bar	(14500 PSI)
B0250	0-250 bar	(0-3630 PSIG)	500 bar	(7250 PSI)	1200 bar	(17400 PSI)
B0400	0-400 bar	(0-5800 PSIG)	800 bar	(11600 PSI)	1700 bar	(24650 PSI)
B0600	0-600 bar	(0-8700 PSIG)	1200 bar	(17400 PSI)	2400 bar	(34800 PSI)
B1000	0-1000 bar	(0-14500 PSIG)	1500 bar	(21750 PSI)	3000 bar	(43500 PSI)
P00300	0-300 PSIG	(0-20 bar)	725 PSI	(49 bar)	3625 PSI	(247 bar)
P00400	0-400 PSIG	(0-27 bar)	725 PSI	(49 bar)	3625 PSI	(247 bar)
P00500	0-500 PSIG	(0-34 bar)	1160 PSI	(79 bar)	5800 PSI	(395 bar)
P00600	0-600 PSIG	(0-34 bar)	1160 PSI	(79 bar)	5800 PSI	(395 bar)
P01000	0-1000 PSIG	(0-68 bar)	1740 PSI	(118 bar)	7975 PSI	(543 bar)
P01500	0-1500 PSIG	(0-102 bar)	2900 PSI	(197 bar)	11600 PSI	(789 bar)
P02000	0-2000 PSIG	(0-136 bar)	2900 PSI	(197 bar)	11600 PSI	(789 bar)
P03000	0-3000 PSIG	(0-204 bar)	7250 PSI	(493 bar)	17400 PSI	(1184 bar)
P05000	0-5000 PSIG	(0-340 bar)	11600 PSI	(789 bar)	24650 PSI	(1677 bar)
P07500	0-7500 PSIG	(0-510 bar)	17400 PSI	(1184 bar)	34800 PSI	(2367 bar)
P10000	0-10000 PSIG	(0-680 bar)	17400 PSI	(1184 bar)	34800 PSI	(2367 bar)
P15000	0-15000 PSIG	(0-1020 bar)	21750 PSI	(1480 bar)	43500 PSI	(2959 bar)

Note: *Bold ranges are stocking program

** Maximum pressure, causing no permanent changes in specifications but may lead to zero and span shifts.

*** Burst pressure, leading to permanent changes in specifications (i.e. zero offsets) or destruction of the transmitter.

Order Code

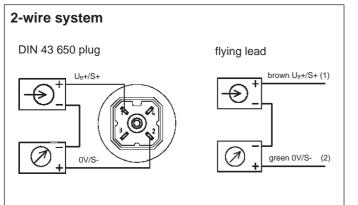




Specifications	
Sensing principle Pressure reference	thin film, relative pressure {absolute reference to 250 PSIA}
Pressure connection	1/4 NPT male 1/4 BSP male 7/ ₁₆ - 20 SAE male
Material: - wetted parts - case - internal transmitting liquid	1.4571 and 1.4542 stainless steel (316 SS and PH17-4 SS) 1.4301 stainless steel (304 SS) silicone oil piezoresistive sensors to 20 bar <i>(300 PSI)</i> , {halocarbon oil or oxygen service}, no liquid fill used for thin film sensors > 20 bar <i>(300 PSI)</i>
Supply voltage U _B	10-30 DC Volts
Output and load limitations: Output signal and maximum load	4-20 mA 2-wire system RA [Ohm} < (U [V] - 10V) / 0.02 A
Upper cutoff frequency Response time (1090%)	150Hz < 1 miliseconds
Accuracy (linearity, including hysteresis and repeatability)	\leq 0.50% of span (B.F.S.L.)
Repeatibility Hysteresis	≤ 0.05% of span ≤ 0.1% of span
1 year stability	\leq 0.2% of span (under reference conditions)
Temperature Media Ambient Storage Compensated range	-30°C to +85°C (-22°F to +185°F) -30°C to +85°C (-22°F to +185°F) -40°C to +100°C (-40°F to +212°F) 0°C to +80°C (+32°F to +176°F)
Temperature error (reference 21 °C (70 °F)) on zero point on span	< 0.3% of span per 10°C (18°F) change < 0.2% of span per 10°C (18°F) change
CE conformity	89/336/EWG Interference emission and immunity according to EN61326 97/23/EWG Pressure equipment directive
Shock resistance Vibration resistance	1000g according to IEC 60068-2-27 50g according to IEC 60068-2-6
Electrical connection	4-pin miniature L-plug per DIN 43 650
Weight Dimensions	approximately 0.1 kg (0.2lb) see drawing
Electrical protection	protected against reserve polarity, short circuit, and overvoltage
Environmental protection	IP 65 (NEMA 5) according to IEC 60529 with L-plug (4-pin)

Electrical connections

Wiring



2-wire system

Wire	Coding	DIN Plug	Wire Color
Supply +	UB+ / S+	pin1	Brown
Signal -	0V / S-	pin2	Green



N	otes	2
	ULE	J

STAUFF Diagtronics Hydraulic Tester PPC

The STAUFF PPC series of Hydraulic Tester are state-of-the-art instruments designed to diagnose certain variables in today's hydraulic and pneumatic systems like pressure, differential pressure, temperature, flow and hydraulic power. Depending on the type chosen, the STAUFF PPCs can analyze, store and process all data in a PC or notebook. The Hydraulic Testers are specially designed for today's increasing demands of system monitoring, trouble-shooting and determination of important values. The PPC units can be applied in the following wide range of applications :

- · Industrial Hydraulics
- Mobile and Agriculture Hydraulics

STAUFF

- · Marine and Offshore Hydraulics
- · Chemical and Petrochemical Industry

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- Energy and Air-condition Industry
- Sanitary Industry



The PPC-04 /2 is a very easy to handle mobile measuring device controlled by only 8 buttons and allows the connection of up to two sensors. The measured data is displayed on the double spaced screen as numeric values.

The larger PPC-06 / 08 / 12 Hydraulic Testers are available as three, four or six channel models having an internal data storage capability of up to 250,000 data points. The unit displays measurements not only as numeric values but also in graphic form.

The PPC-04 /2 series has been completely revised. The display is now double spaced to monitor both connected sensors at one time. This new revision (marked with the "/2" in the designation) also now operates with the same sensors as the series PPC-06 / 08 / 12, this makes handling, connecting, and measuring easier, saving time and cost.

The table shown below gives you a short overview of the STAUFF Hydraulic Testers; you will find more detailed information about your selected product on the pages dedicated to each unit.

®

Hydraulic Tester

STAUFF

PPC-04 /2	PPC-06 / 08 / 12	
2 sensor inputs	PPC-06: 3 sensor inputs Memory capacity for 60.000 data points	
Memory –function for minimum and maximum (MIN-/MAX) values	PPC-08: 4 sensor inputs Memory capacity for 125.000 data points	
	PPC-12: 6 sensor inputs Memory capacity for 250.000 data points	
Display for numeric values	Display for numeric values and graphs	
Download of numeric values to a PC	Download of numeric values and graphics (diagrams) to a PC	
Battery or rechargeable battery and external power supply	Rechargeable battery and external power supply	
External / Auxiliary sensors not possible	External / Auxiliary sensors possible	
Description see pages 10 and 11	Description see pages 12 and 13	

Sensors

The sensors are compatible with the Hydraulic Testers PPC-04 /2 and PPC-06 / 08 / 12		
Pressure Transducer	Description see pages 15 and 16	
Flow Turbines and Meters	Description see pages 18 to 21	
Rotational Speed Sensor	Description see page 17	
Only PPC-06 / 08 / 12-series : External / Auxiliary sensors for special measurements, see page 22		

Hand-held measuring unit ideal for maintenance, service and commissioning of hydraulic systems.

Today's hydraulic systems require a precise, quick and uncomplicated way of measuring important hydraulic parameters. For this purpose STAUFF offers the ideal solution: The PPC-04 /2.



The portable measuring device PPC-04 /2 is controlled by 8 buttons enabling the user to easily obtain data on working pressure, peak pressure, differential pressure, temperature, flow and rotational speed.

The PPC-04 /2 provides two separate sensor inputs which automatically identify the sensor connected to it. The new double spaced display now shows the values of both sensor inputs at one time. The unit and scale can be changed during use.

The PPC-04 /2 is insensitive to dirt and is designed to be used wherever hydraulic control and components are in use. The heavy duty rubber cover protects the unit from damage during use in extreme conditions. The PPC-04 /2 is powered either by a standard 9V battery (PPC-04-B /2), or by an integrated rechargeable battery (PPC-04-A/-AP /2).

Operation for an extended period of time is supported with the use of an AC power adaptor, which also charges the re-chargeable-battery. With the RS-232 port (not for PPC-04-A /2 and PPC-04-B /2) the PPC-04 /2 can be directly connected to the serial port of a PC or notebook. The PPC-04 /2-software is compatible with all Windows 3.1[®], Windows 95[®], Windows NT[®] and Windows XP[®] operating systems.

PPC-04 /2-Kits are supplied complete with adapters to connect the unit to STAUFF Test 20/15/12 and STAUFF Test 10 test points, even under pressure. Temperature and Flow measurements are possible using Temperature Sensor PPC-04/12-TS or SFM flow turbines mounted in the hydraulic line. Rotational speed can be measured using the STAUFF PPC-04/12-SDS rotational speed sensor.

In order to measure differential pressure two transducers of the same pressure range must be used.

Note ! This unit does not have internal data collection and logging capability.



Hydraulic Tester PPC-04-B /2, PPC-04-A /2 and PPC-04-AP /2

PPC-04-B /2	Unit with block battery
PPC-04-A /2	Unit with rechargeable battery
PPC-04-AP /2	Unit with rechargeable battery
	and data output

Measures/Display:

- Pressure in bar and PSI
- Temperature in °C and °F
- Flow
- in I/min and GPM (US) U/min and RPM
- Rotational speed
- Double spaced LCD-Display (4-digit) Text height 8 mm (0,32 inch)
- · Automatic recognition and identification of sensors connected
- Data output to transfer data to PC or notebook (PPC-04-AP /2 only)
- Plastic ABS housing with protective rubber cover integrated with stand and carrying straps
- Auto power off after 15 minutes
- * FS = Full Scale

Functional description PPC 04/2

Power supply:

- External power supply 110/230 VAC (PPC-04-A/-AP /2 only)
- 9V / 110mA/h block battery IEC 6F 22
- PPC-04-B /2 operating time with rechargeable batteries 5 hours
- KFZ-adaptor 24VDC (PPC-04-A/-AP /2) (optional)

Connections:

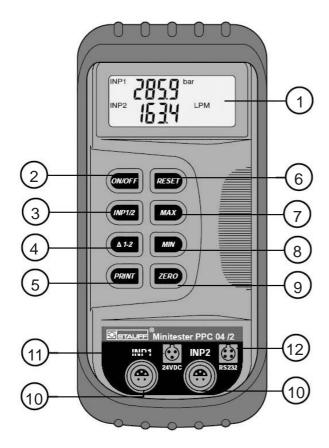
Sensor input (5-pin)

- · Automatic sensor identification
- U = 0...3 VDC (R=470k) Input signal
- Scanning rate 2 ms •
- < 0,3% FS ± 2 Digit Accuracy

Data output (4-pin, RS232-port)

General:

 Temperature range 0...50°C (32...122°F) Storage Temperature -20...60°C (-4...140°F) Relative Humidity < 85% Protection Level EN60529 - IP54 Dimensions L/W/H 145 x 70 x 40 mm (5.71 x 2.76 x 1.57 inch) · Weight approx. 330 g (0.73 lbs.)

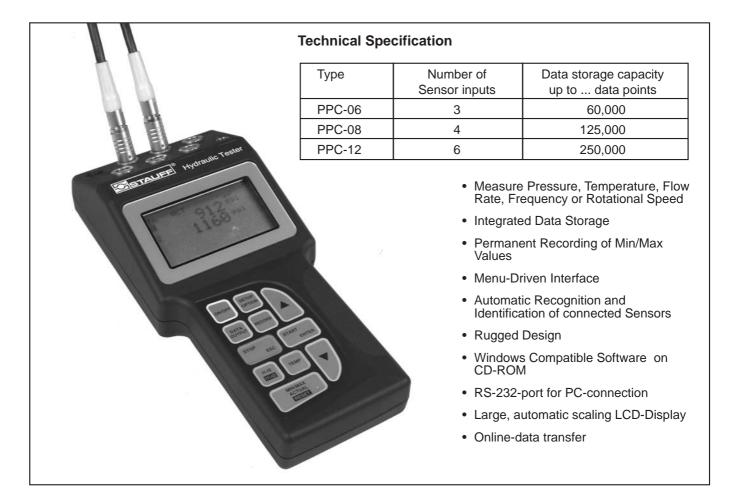


1.	DISPLAY	Double spaced LCD-display, display INP1and INP2 or P-value; battery status
2.	ON/OFF	Power on/off Switch
3.	INP 1/2	Selects whether meter will display measurement from Input 1 or Input 2
4.	1-2	Displays the differential value of INPUT 1 minus INPUT 2
5.	PRINT*	Sends displayed measurements to PC or notebook
6.	RESET	Resets minimum and maximum values to zero, calibration for p-measurement
7.	ΜΑΧ	Displays the maximum value since meter was last reset or turned on. (f.e. pressure peak display)
8.	MIN	Displays the minimum value since meter was last reset or turned on
9.	ZERO	Zero-point adjustment
10.	INP1 / INP2	5 pin sensor input
11.	24 VDC+	External power supply or KFZ-adaptor socket

Data output to transmit measured values to PC or notebook

12. RS 232*

STAUFF Diagtronics Hydraulic Tester PPC-06/08/12



The PPC-06/08/12 Hydraulic Testers are state-of-the-art instruments designed to provide the latest in diagnostic evaluation of hydraulic and pneumatic systems. These units are available in either three, four or six channel models. Additional to the features of the PPC-04 /2-series the PPC-06/08/12 units have an integrated data storage for data recording and further processing.

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STAUFF

The ergonomically designed case and large automatic scaling LCD display make it easy to use in even the most demanding environments.

The three different Hydraulic Testers PPC-06/08/12 differ in their data storage capacity, and in the number of sensor input ports (three, four or six channel model).

These hand held meters provide measurement and display of pressure, temperature, flow, differential pressure, as well as rotational speed. They are the perfect tools to capture diagnostic measurements at remote locations. Also new to these meters are the functions for calculating power and flow run-out. Permanent recording, a special trigger-function and the connection of auxiliary sensors are also additional features. The PPC-06 Hydraulic Tester can store up to 60,000, the PPC-08 up to 125,000 and the top-of the-line unit PPC-12 up to 250,00 data points. These measurements can be transferred directly to a PC or notebook via an RS-232 interface. The new PPC Software is compatible with all Windows 95[®], Windows 98[®], Windows NT[®] and Windows XP[®] operating systems and allows various data analysis and reports.

The PPC-06/08/12 units offer the latest in automatic sensor identification technology, eliminating the time consuming task of programming each individual sensor. This technology allows you to just plug in the sensor and you are ready to take measurements. The PPC-06/08/12 Hydraulic Tester will also allow you to program the individual inputs to accept other data collection formats, such as 4-20mA, 1-10 Volt or frequency.

Consult STAUFF for further details about the new PPC-06/08/12 Hydraulic Tester and kits.



Hydraulic Tester PPC-06, PPC-08 and PPC-12

	Sensor input	Data storage capacity		
	(5-pin)	(number of data points)		
PPC-06	3	60,000		
PPC-08	4	125,000		
PPC-12	6	250,000		

Measures / Display:

- in bar and PSI
- Temperature
- Flow

Pressure

- in °C and °F
- in I/min and US GPM
- Rotational speed in U/min and RPM
- Digital LCD-display 128x64 pixels
- · Automatic character height scaling
- · Automatic sensor identification
- Data output for data transfer to PC or notebook
- · Reinforced polyamide glass material
- 11-key tactile touch membrane
- EMC Protection (EMV):
- Electromagnetic interference DIN/EN 50081, Part 1 Immunity to emitted interference DIN/EN 50082, Part 2
- Auto power Off

Memory Functions:

- Variable storage rate
- Variable measuring period (2s ... 100h)
- Manual and automatic triggering

Power supply:

- · Recharge circuit for use with external power supply
- Internal NiCd-rechargeable battery 7.2V / 700mA/h
- Operating time with rechargeable batteries 5 hours

Connections:

- Sensor input (5-pin)
 - · Automatic sensor identification
 - Input signal U = 0...3 VDC (R = 470k)
- Frequency input via input socket 13
- Frequency range 0.5 Hz ... 30 kHz
- Scanning rate < 1 ms
- Accuracy
- < 0.3 % FS* ± 2 digit Data output 4-pin, RS-232 interface (push/pull)

< 80%

- Adjustable baud rate : 1200 ... 38400 PBS
- 8 data bits, 1 stop bit

General

- Temperature range
- Storage temperature
- Relative humidity
- Protection class
- Dimensions L/W/H
- 235 x 106 x 52,5mm (9.25 x 4.17 x 2.07 inch) 700 g (1.54 lbs)

0 ... 50°C (32 ... 122°F)

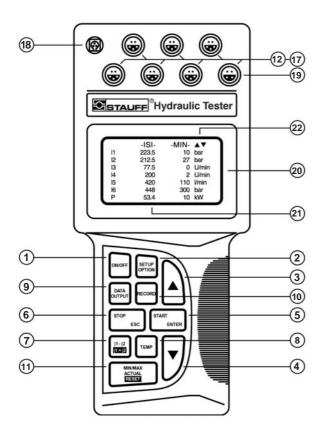
EN 60529 - IP54

-20 ... 60°C (-4 ... 140°F)

* FS = Full Scale

Weight

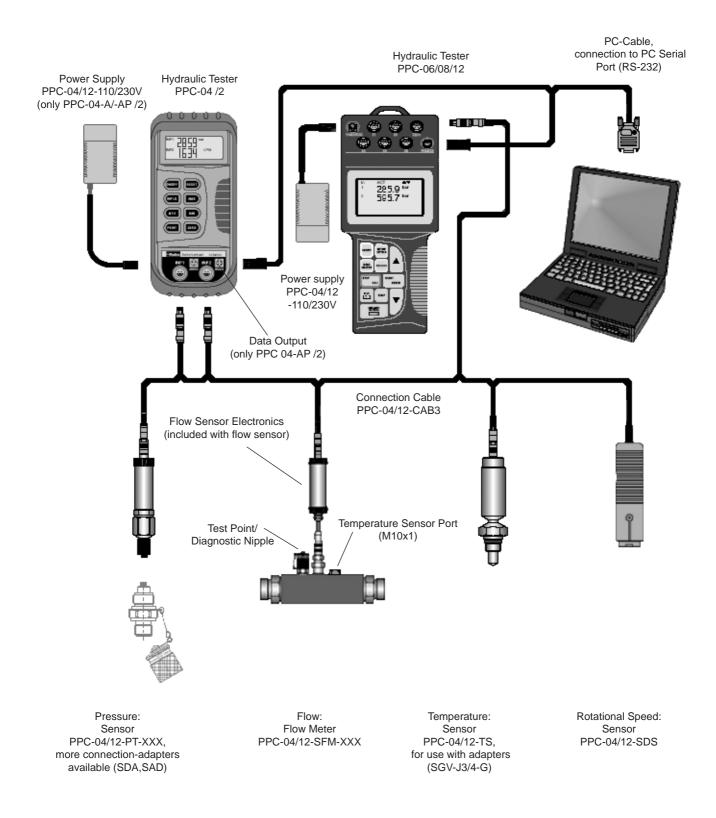
Functional description PPC-06 / 08 / 12



1 2	ON/OFF SETUP/OPTION	Turns unit on / off. Change system settings (date/clock, storage operation)
3/4 5	ARROWS START/ENTER	Select line and function values. Change function values and start measurements.
6	STOP/ESC	Stop or terminate functions.
7	11-12	Differential value between input
	14 10	1 and input 2.
8	I1=I2 TEMP	Zero adjustment (Tare-function)
0		Displays the measured temperature values for all channels.
9	DATA-OUTPUT	Displays output to PC, or graphic
-		display.
10	RECORD	To record and store measurements.
11	MIN/MAX/ACTUAL	Displays the minimum and
		maximum and actual values.
	RESET	Reset deletes values.
12	-17 INPUT	Inputs for up to six sensors.
		(automatic sensor recognition)
18	EXTERNAL POWER	
		Input for external power supply and charging of internal battery.
10	DATA OUTPUT	RS-232 port for connecting to the
13		PC, or external trigger module.
20	GRAPHIC LCD-DISP	
		Displays measured values,
		adjustment menus and graphics.
21	ADDITIONAL LINE	Displays the power or flow
		run out values.
22	STATUS LINE	Shows the designation of the
		measured value or the menu name.

Accessories Diagram PPC-04/06/08/12

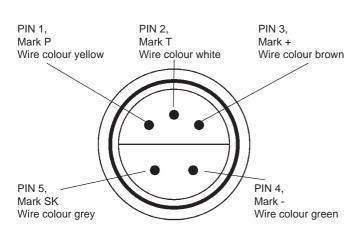
STAUFF

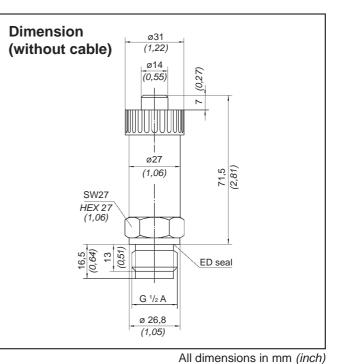






Cable End (PIN Out)





Technical Data

Type (Piezoresistive) Sensor PPC-04/12-PT-015 Sensor PPC-04/12-PT-100 Sensor PPC-04/12-PT-400 Sensor PPC-04/12-PT-600 -1...15 bar (-15...210 PSI) 0...400 bar (0...5800 PSI) 0...600 bar (0...8700 PSI) Pressure range 0...100 bar (0...1450 PSI) (Relative) (Absolute) (Absolute) (Absolute) 150 bar (2175 PSI) 800 bar (11600 PSI) 1000 bar (14700 PSI) Overload pressure 20 bar (290 PSI) Burst pressure 45 bar (650 PSI) 500 bar (7250 PSI) 1200 bar (17400 PSI) 1800 bar (26100 PSI) Hysteresis (±%FS* typ./max) 0,10/0,25 0,10/0,20 0,08/0,15 0,05/0,10 Repeatability (±%FS* typ./max) 0,08/0,15 0,08/0,15 0,08/0,15 0,08/0,15 Non-conformity (±%FS* typ./max) 0,25/0,50 0,25/0,50 0,25/0,50 0,25/0,50

-25...105°C (-13...221°F)

-40...125°C (-40...257°F)

-20...85°C (-4...185°F)

0...85°C (32...285°F)

7...12 VDC

<± 0,5% FS*

5 mA

Ambient Conditions

- Media temperature
- Ambient temperature
- Storage temperature
- Compensated range

Voltage Requirement

- Excitation voltage
- Current consumption

Output

- OutputU=0...3 VDC• Output signalU=0...3 VDC• Temperature deviation<± 0,03% FS*/°C</td>• Response time< 1 ms</td>• Long-term stability< 0,2% FS*/a</td>• Service Life10 Million Cycles• Max Shock loadIEC 68 2-29
- Charateristic curve deviation

Connection

Media application

Transducer connection

Material

- Transducer/Diaphragm
- Coupler
- Seal

General

- Male Stud
- Weight
- * FS = Full Scale

gases, fluids (for use with aggressive media, please consult STAUFF) with adapter Stauff-Test 20 (M16x2), without adapter G 1/2A

Stainless steel Carbon steel zinc plated yellow chromated FPM (Viton®)

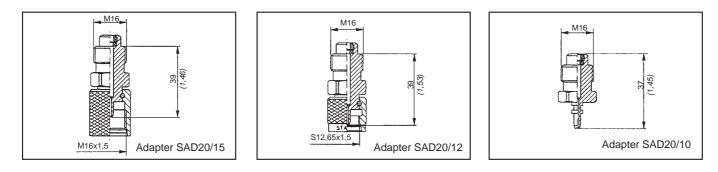
G 1/2 (BSPP) Approx. 200g *(0,44 lbs)*

Connecting adapters for PPC pressure sensors

STAUF

There are several different adapters and adapter sets available to connect the PPC pressure transducers not only to the well known STAUFF Test 20 series (adapter SDA20-G1/2) but also to the test points series STAUFF Test 15/12/10 (adapter SAD20/15-P, SAD20/12-P, SAD20/10-P). All these adapters are supplied in the PPC-Kits as standard (for more information see page 23).

For more information about available adapters please see page 3 or the separate catalogue "STAUFF TEST".

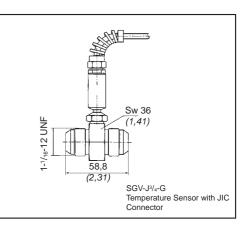


Temperature Sensors



The sensor PPC-04/12-TS-CAB measures the actual temperature of the media directly in-line. With the integrated cable (2m / 6.5 ft.) all data are transferred to the Hydraulic tester.

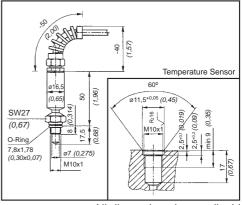
The temperature sensor is also compatible with the flow turbines PPC-04/12-SFM (see page 18) and is suitable with temperatures up to 125° C (257°F).





Probe system	Silicon Chip
 Measuring range Ambient temperature Media temperature Storage temperature 	-25125°C (-13257°F) 070°C (32158°F) -25125°C (-13257°F) -2580°C (-13176°F)
 Output signal Accuracy Response time Max. working pressure 	U=03 VDC ± 1.5 % FS* approx. 13,5 s 630 bar <i>(9000 PSI)</i>
Media application	Fluids (for use with aggressive media please consult STAUFF)
Cable length	2 m $(6,5 ft)$, round plug Series 712
Connection	a) STAUFF-Test JIC





All dimensions in mm (inch)

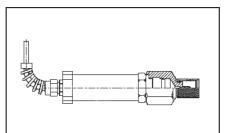
Material (sensor)

- Surface treatment
- Sealing
- Protection level

* FS = Full Scale

Steel zinc-plated, yellow chromated FPM

EN 60529 - IP 65



Pressure Transducer with adapter SDA20-G1/2

WIUXI





Rotational Speed Sensor PPC-04/12-SDS-CAB

Rotational speed measurement (RPM) is made possible with the use of the PPC-04/12-SDS-CAB non-contact sensor. Speed is measured using a photoelectric cell which counts revolutions via a reflecting strip or marking on the rotating surface resulting in a high level of accuracy. Additionally a contact sensor is available. A mechanical contact adapter is connected to the speed sensor, which is held onto the rotating surface during measurement.

When used with particularly small surfaces, accuracy may be improved by using a special focusing adapter.

Standard cable length is 3m (10 ft), fixed to the sensor, to achieve best results and correct values this length should not be altered by other extension cables.

Technical Data Sensor PPC-04/12-SDS-CAB

Input

Measuring rangeMeasuring distance

• Measuring angle

20...10.000 RPM 25...500 mm (1...20 inch) ±45° optical, red LED

Output

Output signal

Measurement

- Accuracy
- Resolution
- U=0...3 VDC <0.5% FS* ±5 RPM

Electrical connection

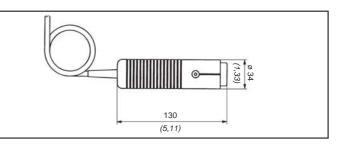
Cable connected to the sensor

length 3 m *(10 ft)*, round plug (extension cable not recommended)

General

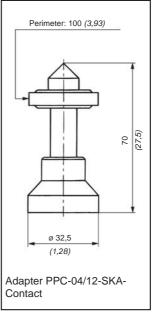
 Material 	ABS
Dimension	D=Ø 34 <i>(1.34 inch)</i> L=130 <i>(5.1 inch)</i> (without adapter)
Weight	ca. 230 g <i>(0.5 lb.)</i>

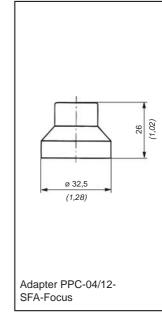
• Ambient temperature 0...70°C (32...158°F)



Rotational Speed Sensor PPC-04/12-SDS-CAB

Accessories

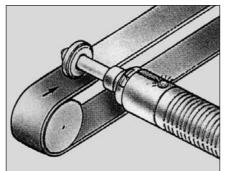




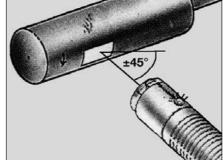
All dimensions in mm (inch)

* FS = Full Scale

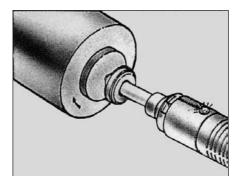
Applications



App. 1 – RPM with contact adaptor using perimiter



App. 2 – rotating shaft non-contact RPM with reflecting strip



App. 3 – RPM with contact adaptor using point



STAUFF Diagtronics – Hydraulic Tester PPC Flow Turbine



Flow-Turbines PPC-04/12-SFM

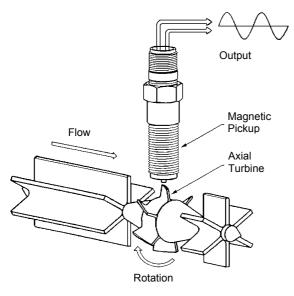
The PPC-04/12-SFM flow turbine is installed in-line, fluid flow direvtly sets the internal axial turbine into rotation. The resulting frequency is transferred by a digital electronic device (the signal converter) thereby compensating for the influence of interfering flow effects. The flow turbine PPC-04/12-SFM is available in five different measuring ranges.

The flow turbines PPC-04/12-SFM have an integrated test point for connection of a pressure transducer (see page 15). All flow turbines have a connection port to accommodate the temperature sensor PPC-04/12-TS (see page 16).

With the new updated version of the flow turbines PPC-04/12-SFM now the signal converter (see page 19) has been intergrated directly into the turbine. This allows a more easy handling and supports the connection between the matched units flow turbine and signal converter.

With the updated version the response time changes from 400 msec to 50 msec and also the accuracy of the types 060, 150, 300 and 600 have improved. The accuracy refers no longer on the full scale but on the actual readings.

Please take note that some dimensions and technical data have changed!

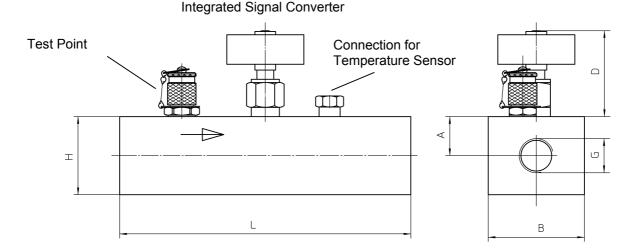


*) FS = Full Scale

Type Sensor PPC-04/12 SFM-015 SFM-060 SFM-150 SFM-300 1-15 10-300 4 - 606-150 Measuring Range 1/min (1.05-15.9) (GPM) (0.26 - 3.9)(1.59-39.6) (2.65-79)Pressure Range ba 420 420 420 420 (6090) (6090) (6090 (6090) (PSI Characteristic Curve Deviation (%FS*) (% FS) (% of the actual reading

Flow Ranges and Dimensions

1 1 2	Max.Pressure Drop	bar	1,5	1,5	1,5	4.0	4.0
echn	(at FS)	(PSI)	(21.8)	(21.8)	(21.8)	(58)	(58)
Ē	Port Connection (BSF	PP)	1/2"	³ /4"	3/4"	1"	1 1⁄4"
	Port Connection (SAE	Ξ)	¾"-16	1 1/16"-16	1 1/16"-16	1 5/16"-16	1 5/8"-12
	Weight	kg	0,65	0,75	0,75	1,2	1,8
		(lbs)	(1.4)	(1.6)	(1.6)	(2.6)	(4)
	A	mm	18.5	25	25	25	37.5
		(inch)	(0.73)	(0.98)	(0.98)	(0.98)	(1.48)
	В	mm	37	62	62	62	62
Suc		(inch)	(1.46)	(2.44)	(2.44)	(2.44)	(2.44)
Isio	D	mm	80	80	80	84	75
Dimensions		(inch)	(3.15)	(3.15)	(3.15)	(3.31)	(2.95)
<u>D</u>	L	mm	136	190	190	190	212
		(inch)	(5.35)	(7.48)	(7.48)	(7.48)	(8.35)
	Н	mm	37	50	50	50	75
		(inch)	(1.46)	(1 07)	(1 07)	(1 07)	(2.95)



SFM-600

20-600

(5.3-158)

350

(5000)

1



Signal Converter for Flow Turbine PPC-04/12-SFM

The signal converter is supplied with the flow turbine and is essential for flow measurement.

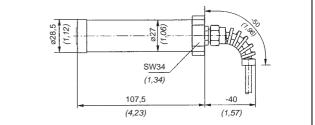
NOTE : Flow turbine and signal converter are matched units and must not be replaced with identical parts.

a28.5 (1,12)

Technical Data Flow-Turk	oine PPC-04/12-SFM
Media temperatureViscosityCalibration viscosity	-20150°C (-4302°F) 15100 cSt 30 mm²/s (=30 cSt)
Response timeAccuracyReproducibility	approx. 400 ms ± 1.0 % FS* at 30 cSt ± 0.2 % FS*
 Material of housing Surface treatment Seals 	Aluminum black anodized NBR (Buna-N, standard) others on request
Test pointAdditional connection	SMK 20 (M16 x 2) M10x1 (standard screw-plug)

* FS = Full Scale

Dimensions for signal converter for PPC-04/12-SFM

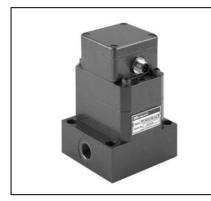


All dimensions in mm (inch)

Technical Data Signal Converter

 Output signal Accuracy 	U = 03 VDC 0.3 % FS*
 Working temperature Storage temperature 	0+60°C (<i>32140°F)</i> -20+80°C (<i>-4176°F</i>)
converter with 5pin plug	(<i>1,31 ft</i>) connected to signal PPC-04/12-CAB3 3m (<i>10ft.</i>)
 Material of housing 	stainless steel 1.4301
Weight	ca. 200 g <i>(0.44 lb</i> s.)

To connect the signal converter to the Hydraulic Tester PPC-04 /2 and PPC-06/08/12 you must use a connection cable PPC-04/12-CAB3 which is not supplied with the flow turbine.



Technical data PPC-04/12-SVC

- Flows up to 300 l/min (79 US gal/min)
- 4 measuring ranges
- Working pressure up to 400 bar (5800 PSI)
- Accuracy ± 0.5% FS*
- Large viscosity range
- Low noise
- With connecting plate
- With signal converter (without cable)
- Compatible with all STAUFF
 Hydraulic Tester series PPC
- Automatic scaling / sensor identification
- Output signal U = 0...3 VDC

Flow meter PPC-04/12-SVC (gear volume counter)

The STAUFF flow meter PPC-04/12-SVC measures flow in hydraulic systems. With its high precise gears the PPC-SVC achieves accurate results. With various seal material options the STAUFF volume counter is compatible with a wide range of fluids and various viscosity ranges such as aggressive products like brake fluids, skydrol, biological oils or isocyanates.

Types PPC-04/12-SVC

Type PPC-04/12-SVC-		015	060	150	300
Measuring Range	l/min	0,215	0,460	0,6150	1,0300
	gal/min	0,053,9	0,115,9	0,1639,6	0,2679,3
Max. Working Pressure	e bar	400	400	315	315
	PSI	5800	5800	4570	4570
Overload pressure	bar	480	480	350	350
	PSI	6960	6960	5075	5075
Connection (BSPP)	G 3/8	G 1/2	G 1	G 1	
Weight	g	2000	5200	9000	13000
	lbs.	4,41	11,46	19,84	28,66
Sound level db	А	<60	<70	<70	<72
Resolution in	npulse/liter	4082	965	333,33	191
Frequency	Hz [at FS]	1020	965	833,33	955

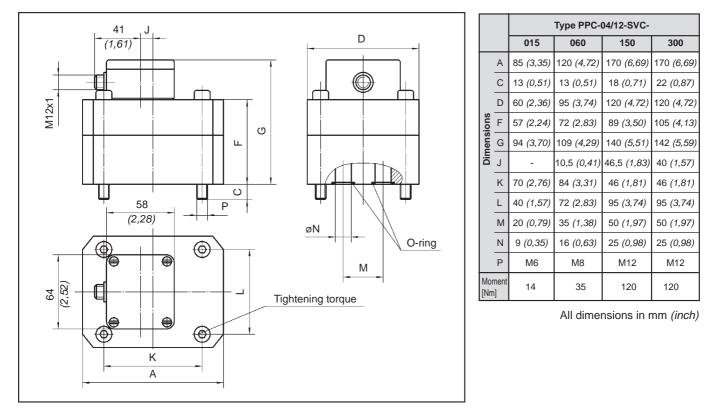


Technical Data

Electrical Data

Accuracy	± 0.5 % FS* ± 0.3 % of measured value (frequency service)	Working temperatureAmbient temperatureStorage temperature	1060°C (50140°F) 070°C (32158°F) -2080°C (-4176°F)
RepeatabilityResponse time	0.01 % FS* 400 ms (in conjunction with signal converter), for shorter response time see advice at the bottom of the page	 Output Resistance () Supply voltage Current drain Thermal drift 	U = 03 VDC <_ 500 +18 +30 VDC 28 mA ± 0.05 (% FS /°C)
		 Connection (IP 67) 	M12x1
Ambient temperatureMedia temperature	-30 80°C <i>(-22176°F)</i> -30120°C <i>(-2224</i> 8°F)	• EMC Protection (EMV):	EN 50081 Part 1 EN 50082 Part 2
 Viscosity range 	see diagrams next page		
Material housingSeal material	GGG40 FPM (Viton)	Signal hissing	< 5 mV
	EPDM (on request)	* FS = Full Scale	
• Style	Gear motor / Bearing material 1.7139, free of non-ferrous heavy metal and silicone		

Dimensions (without connecting plate)

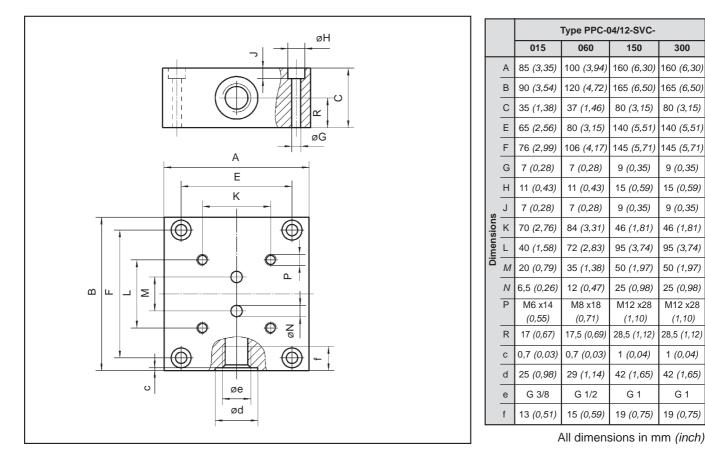


The flow meter PPC-04/12-SVC is always supplied with a connecting plate and a signal converter. To connect the signal converter to a Hydraulic Tester PPC the following cable is required (not supplied with the volume counter PPC-04/12-SVC): PPC-04/12-CAB3 for connection to PPC-04 /2, PPC-06, PPC-08 and PPC-12.

For the PPC-04/12-SVC a special cable with lower response time (6 ms) is available, **Cable PPC-04/12-SVC-FAST**, connect this cable only to port 3, the automatic sensor identification is not supported with this cable.

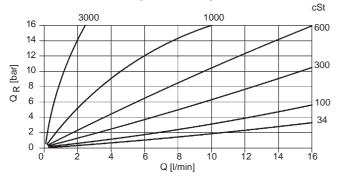


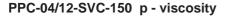
Dimensions Connecting Plate

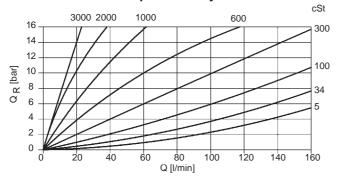


Pressure Drop Curves

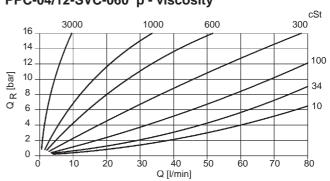
PPC-04/12-SVC-015 p - viscosity



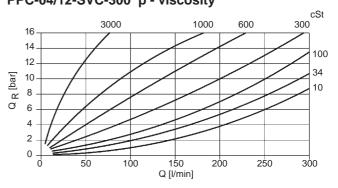




PPC-04/12-SVC-060 p - viscosity







Other Measurements

STAUFF

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With the PPC-06/08/12 Hydraulic Tester you are able not only to measure pressure, temperature, rotational speed and flow; in addition the PPC can read various signals (e.g. analogue signals of a load-displacement sensor / electrical current- or voltage-signal of a proportional valve) from external sensors. To measure and to process these signals the Hydraulic Tester PPC-06/08/12 uses the following adapters :

- Auxiliary adapter
- Adapter for external sensors
- External trigger-adapter
- Adapter PPC-06/12-VADC-A Adapter PPC-06/12-AUX-A Adapter PPC-06/12-TR-A

Adapter PPC-06/12-VADC-A

The auxiliary adapter PPC-06/12-VADC-A measures electrical currents up to 1.5 ADC and voltages up to 48 VDC and transfers these signals to the PPC-unit.

For example these adapters are used to check the inverter state of a motor / pump unit or of a proportional valve.

Adapter PPC-06/12-AUX-A

Signals of external sensors (like 0...20 mA or 0...10 VDC) are measured with the adapter PPC-06/12-AUX-A and are transferred to the PPC-06/08/12 units later on.

With this you can determine and display typical applications like loaddisplacement diagrams or torque / flow characteristics.

Adapter PPC-06/12-TR-A

External signals from a relay contact

can be used to start a measurement report with the Hydraulic Testers PPC-06/08/12. The report begins with the start-up of a pump or the release of a valve. To ensure the external relay triggers during online measurements you must connect the adapter PPC-06/12-TR-A directly to a PC or a notebook.

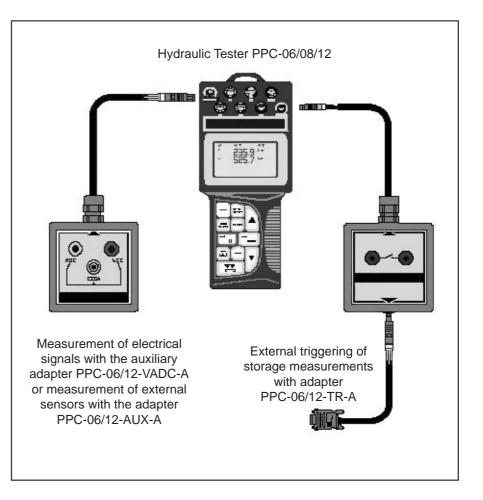
NOTE !!! All three adapters are not for use with the PPC-04 /2 Hydraulic Tester !!!

Adapter PPC-04/12-U5P-S4P

The adapter PPC-04/12-U5P-S4P is an easy solution to adapt the old 4-pin-sensors and flow meters with the new units PPC-04 /2 and PPC-06/08/12 with the 5-pin ports.

Adapter PPC-06/12-RS232-to-USB-CAB

To connect the PPC units to a PC or notebook there are special PC-cables available (PC-SET PPC-04-SW-CAB and PC-SET PPC-06/12-SW-CAB). These cables have an RS-232 connection as standard. To connect these cables to a USB-port of a PC or notebook the adapter PPC-06/12-RS232-to-USB-CAB is an easy solution.







A variety of standard and custom PPC-04/06/08/12-Kits can be supplied to meet customer requirements. All kits are supplied in a handy case including individual foam inserts, which provide room for the following components:

1	Hydraulic Tester PPC-04 /2
1	Power supply
up to 3	Pressure transducers with adapter
	STAUFF-Test 20
up to 3	Connection Cable
1	Temperature sensor with straight fitting
	SGV-J3/4-G (not shown here)
3	Adapters for STAUFF-Test series 15,
	12 and 10 are supplied with each
	PPC-04 /2-Kit
1	Operators manual

1	Hydraulic Tester PPC-06, PPC-08 or PPC-12
1	Power supply
up to 3	Pressure transducers with adapter
	STAUFF-Test 20
up to 3	Connection Cable
1	Temperature sensor (optional)
3	Adapters for STAUFF-Test series 15,
1	12 and 10 are supplied with each
	PPC-06/08/12-Kit
1	Operators manual
1	PC-Software for PPC-06/08/12
1	PC-connection cable

	PPC - <u>04</u> - AF	<u>-3</u>	T - <u>***</u>	/ *** / ***			
PPC	Hydraulic Tester						
04-B-SET	2 sensor inputs, without internal storage Battery-powered]		Pressure Rang	e for Pressure Transducer		
04-A-SET	2 sensor inputs, without internal storage, with			000/015/100/ 400/600	Pressure range for pressure transducer No.3		
04-AP-SE	2 sensor inputs, without internal storage, with rechargeable battery and power supply,			For Kits with only two pressure transducers please fill in "000" the third pressure transducer			
06-SET	with data-output 3 sensor inputs, incl. PC-software and PC- connection cable, internal data storage, for up to 60.000 MIN-/MAX-data points			015/100/ Pressure range for pressure 400/600 transducer No.2 015/100/ Pressure range for pressure			
08-SET	4 sensor inputs, incl. PC-software and PC- connection cable, internal data storage, for up to 125.000 MIN-/MAX-data points			400/600 transducer No.1 Please Note: in order to measure differential pressure two			
12-SET	6 sensor inputs, incl. PC-software and PC- connection cable, internal data storage, for up to 250.000 MIN-/MAX-data points			transducers of the	same pressure range must be used.		
Number	of Pressure Transducers			Temperatur	e Sensor		
1	with one pressure transducer			wi	thout temperature sensor		

	- 1		
of Pressure Transducers		Temper	ature Sensor
with one pressure transducer			without temperature sensor
with two pressure transducers		Т	with temperature sensor
with three pressure transducers			

Note: Maximum three sensors (pressure transducers and temperatures sensor) are allowed for one PPC-06/08/12-Kit at the same time.

2

3

015/100/ 400/600	Pressure range for pressure transducer No.1						
Please Note: in order to measure differential pressure two transducers of the same pressure range must be used.							
Temperature	e Sensor						

In the following table all available components for the Hydraulic Tester PPC-04 /2, PPC-06, PPC-08 and PPC-12 are listed with the exact ordering designations and can be individually compiled by the customer with this form. To make it easier to select the components are sorted according to their range of application. For more individual requirements or compilations please consult your nearest STAUFF distributor. You can use the following table as an order fax form.

R

STAUFF

Description	Ordering Code	Neces- sary	Optio- nal	Cata- log page	Number of chosen parts
1. Hydraulic Tester PPC 04 /2					
Hydraulic Tester PPC-04-B /2 with 2 Sensor Inputs and Battery	Hydraulic Tester PPC-04-B /2				
Hydraulic Tester PPC-04-A /2 with 2 Sensor Inputs, Rechargeable Battery	Hydraulic Tester PPC-04-A /2	X		10	
and Power Supply (110V / 230V)	, , , , , , , , , , , , , , , , , , ,	-			
Hydraulic Tester PPC-04-AP /2 with 2 Sensor Inputs, Rechargable Battery, Power Supply (110V / 230V) and Data Output	Hydraulic Tester PPC-04-AP /2				
2. Hydraulic Tester PPC 06 / 08 / 12					I
Hydraulic Tester with 3 Sensor Inputs, Internal Data Storage for up to	1	1	Г — —	1	1
60.000 MIN-MAX-data points, incl. PC Software and PC Connection	Hydraulic Tester PPC-06				
Cable and Power Supply					
Hydraulic Tester with 3 Sensor Inputs, Internal Data Storage for up to		1			
125.000 MIN-MAX-data points, incl. PC Software and PC Connection	Hydraulic Tester PPC-08	X		12	
Cable and Power Supply		-			
Hydraulic Tester with 3 Sensor Inputs, Internal Data Storage for up to 250.000 MIN-MAX-data points, incl. PC Software and PC Connection	Hydraulic Tester PPC-12				
Cable and Power Supply	Hydraulic Tester PPC-12				
3. Pressure Measuring (Connection and Extension Cable for Measuring Sensor	s without integrated see paragraph 8)			1	
Pressure Transducer G 1/2 A without Connection Cable			I		
Pressure range -115 bar (-15210 PSI) relative pressure	Sensor PPC-04/12-PT-015				
Pressure range 0100 bar (01450 PSI) absolute pressure	Sensor PPC-04/12-PT-100	x		15	
Pressure range 0400 bar (05800 PSI) absolute pressure	Sensor PPC-04/12-PT-400	1			
Pressure range 0600 bar (08700 PSI) absolute pressure	Sensor PPC-04/12-PT-600				
Pressure Transducer G 1/2 A with integrated Connection Cable 2m (6,5					
Pressure range -115 bar (-15210 PSI) relative pressure	Sensor PPC-04/12-PT-015-CAB				
Pressure range 0100 bar (01450 PSI) absolute pressure	Sensor PPC-04/12-PT-100-CAB		X	15	
Pressure range 0400 bar (05800 PSI) absolute pressure	Sensor PPC-04/12-PT-400-CAB				
Pressure range 0600 bar (08700 PSI) absolute pressure	Sensor PPC-04/12-PT-600-CAB				
Connection Adapters Adapter STAUFF Test 20		1		1	
Adapter STAUFF Test 20 Adapter STAUFF Test 20 to STAUFF Test 15	SDA20-G1/2 SAD20/15-P		x	16	
Adapter STAUFF Test 20 to STAUFF Test 15 Adapter STAUFF Test 20 to STAUFF Test 12	SAD20/13-P SAD20/12-P			10	
Adapter STAUFF Test 20 to STAUFF Test 10	SAD20/12-F SAD20/10-P		-		
4. Temperature Measuring (Connection and Extension Cable for Measuring Ser		8)		I	
Temperature Sensor with integrated Connection Cable 2 m (6,5 ft.)	Sensor PPC-04/12-TS-CAB	X			
Temperature Sensor without Connection Cable	Sensor PPC-04/12-TS		х	16	
Straight Fitting with M10x1 Port Connection for Temperature Sensor	SGV-16S-G	-			
5. Flow Measuring (Connection and Extension Cable for Measuring Sensors wit	hout integrated see paragraph 8)				
Flow Meter SFM with Signal Converter (without Connection Cable)					
Flow range 115 I/min (0,264,0 US GPM)	Flow Meter PPC-04/12-SFM-015	-			
Flow range 7,560 l/min (215,9 US GPM)	Flow Meter PPC-04/12-SFM-060				
Flow range 7,5150 l/min (240 US GPM) Flow range 15300 l/min (479 US GPM)	Flow Meter PPC-04/12-SFM-150 Flow Meter PPC-04/12-SFM-300	X		18	
Flow range 25600 l/min (6158,5 US GPM)	Flow Meter PPC-04/12-SFM-500	-			
Flow Meter SVC with Signal Converter (without Connection Cable)	110W Weter FFC-04/12-31 W-000				
Flow range 0.215 I/min (0.054,0 US GPM)	Flow Meter PPC-04/12-SVC-015				
Flow range 0,460 l/min (0,1015,9 US GPM)	Flow Meter PPC-04/12-SVC-060	-			
Flow range 0,6150 l/min (0,1640 US GPM)	Flow Meter PPC-04/12-SVC-150	x		19	
Flow range 15300 l/min (0,2679 US GPM)	Flow Meter PPC-04/12-SVC-300	-			
Connection Cable FAST 6ms (only Port 3, without sensor recognition)	Cable PPC-06/12-SVC-FAST		Х	1	
6. Rotational Speed Measuring (Connection and Extension Cable for Measurin		<u> </u>			
Rotational Speed Sensor with integrated Connection Cable 3 m (10 ft.)	Sensor PPC-04/12-SDS-CAB	Х			
Contact Adapter	Adapter PPC-04/12-SKA-Contact	4	Х	17	
Focussing Adapter	Adapter PPC-04/12-SFA-Focus				
7. Other Measurings	Adaptor PPC 06/12 TP A	1		1	
External Trigger Adapter Auxiliary Adapter (up to 1,5 ADC / 48 VDC)	Adapter PPC-06/12-TR-A Adapter PPC-06/12-VADC-A		X X	22	
Adapter for External Sensors (020 mA / 010 VDC)	Adapter PPC-06/12-VADC-A Adapter PPC-06/12-AUX-A		X		
8. Connection and Extension Cable for Measuring Sensors without integrat					
Connection Cable 3m (10 ft)	Cable PPC-04/12-CAB3		X		
Extension Cable 5m (16 ft)	Cable PPC-04/12-CAB5-EXT		Х	1	
Adapter for Hydraulic Tester (5-Pin) with 4Pin-Plug Sensor Cables	Adapter PPC-04/12-U5P-S4P		Х		
10. Accessories and Spare Parts	1				
External Power Supply (110/230 VAC) for PPC 04 / 06 / 08 / 12	Power Supply PPC-04/12-110-230V	Х		1	
PC Software and PC Adapter PPC-04 /2 (RS-232 serial)	PC-SET PPC-04-SW-CAB	L	X	4	
PC Software and PC Adapter PPC-06 / 08 / 12 (RS-232 serial)	PC-SET PPC-06/12-SW-CAB		X	-	
		1	X	1	
Adapter Cable RS-232 (serial) to USB for PPC and LasPaC	Adapter PPC-04/12-RS232-to-USB CAB		V V		
Adapter Cable RS-232 (serial) to USB for PPC and LasPaC Mobile Car Cable 12V/24V for PPC-04 / 06 / 08 / 12	Cable PPC-04/12-CAB-MOB		X	-	
Adapter Cable RS-232 (serial) to USB for PPC and LasPaC Mobile Car Cable 12V/24V for PPC-04 / 06 / 08 / 12 Manual PPC-06 / 08 / 12 incl. Quickstart, german	Cable PPC-04/12-CAB-MOB PPC-06/12-Manual-German		Х	-	
Adapter Cable RS-232 (serial) to USB for PPC and LasPaC Mobile Car Cable 12V/24V for PPC-04 / 06 / 08 / 12 Manual PPC-06 / 08 / 12 incl. Quickstart, german Manual PPC-06 / 08 / 12 incl. Quickstart, english	Cable PPC-04/12-CAB-MOB PPC-06/12-Manual-German PPC-06/12-Manual-English		X X	-	
Adapter Cable RS-232 (serial) to USB for PPC and LasPaC Mobile Car Cable 12V/24V for PPC-04 / 06 / 08 / 12 Manual PPC-06 / 08 / 12 incl. Quickstart, german	Cable PPC-04/12-CAB-MOB PPC-06/12-Manual-German		Х		

STAUFF Diagtronics Hydraulic Tester PPC Order Codes (calibrated)

Optional calibration certificate are available for all PPC Hydraulic Testers and sensors. Also all units and sensors can be calibrated after initial purchase. You must order these calibrated components and the additional calibration with special order designations as listed in the table below.

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Description	Ordering Code	Neces- sary	Optio- nal	Cata- log page	Number of chosen parts
1K. Hydraulic Tester PPC 04 /2 calibrated					
Hydraulic Tester PPC-04-B /2 calibrated with 2 Sensor Inputs and Battery	Hydraulic Tester PPC-04-B-CAL /2				
Hydraulic Tester PPC-04-A /2 calibrated with 2 Sensor Inputs,	Hydraulic Tester PPC-04-A-CAL /2	Тх			
Rechargeable Battery and Power Supply (110V / 230V)	,			10	
Hydraulic Tester PPC-04-AP /2 calibrated with 2 Sensor Inputs,	Hydraulic Tester PPC-04-AP-CAL /2				
Rechargable Battery, Power Supply (110V / 230V) and data output				-	
Additional Calibration PPC-04 /2	CAL-PPC-04		Х		
2K. Hydraulic Tester PPC 06 / 08 / 12 calibrated		1		-	1
PPC 06-calibrated	Hydraulic Tester PPC-06-CAL				
PPC 08-calibrated	Hydraulic Tester PPC-08-CAL	X			
PPC 12-calibrated	Hydraulic Tester PPC-12-CAL			12	
Additional Calibration PPC-06 / 08 / 12	CAL-PPC-06/12		Х		
3K. Pressure Measuring calibrated (Connection and Extension Cable for Mea	asuring Sensors without integrated see p	aragraph 8	3)		
Pressure Transducer calibrated G 1/2 A without Connection Cable					
Pressure range -115 bar (-15210 PSI) relative pressure	Sensor PPC-04/12-PT-015-CAL]			
Pressure range 0100 bar (01450 PSI) absolute pressure	Sensor PPC-04/12-PT-100-CAL	X		15	
Pressure range 0400 bar (05800 PSI) absolute pressure	Sensor PPC-04/12-PT-400-CAL	1			
Pressure range 0600 bar (08700 PSI) absolute pressure	Sensor PPC-04/12-PT-600-CAL	1			
Pressure Transducer calibrated G 1/2 A with integrated Connection Ca	able 2 m (6,5 ft)				
Pressure range -115 bar (-15210 PSI) relative pressure	Sensor PPC-04/12-PT-015-CAB-CAL				
Pressure range 0100 bar (01450 PSI) absolute pressure	Sensor PPC-04/12-PT-100-CAB-CAL	X			
Pressure range 0400 bar (05800 PSI) absolute pressure	Sensor PPC-04/12-PT-400-CAB-CAL	1		18	
Pressure range 0600 bar (08700 PSI) absolute pressure	Sensor PPC-04/12-PT-600-CAB-CAL	1		-	
Additional Calibration Pressure Sensor	CAL-PPC-04/12-PT		X	1	
4K. Temperature Measuring calibrated (Connection and Extension Cable for	Measuring Sensors without intergrated s	ee paragra	aph 8)		
Temperature Sensor with integrated Connection Cable 2 m (6,5 ft.)	Sensor PPC-04/12-TS-CAB-CAL	X			
Temperature Sensor without Connection Cable	Sensor PPC-04/12-TS-CAL		× ×	16	
Additional Calibration Temperature Sensor	CAL-PPC-04/12-TS	1	X		
5K. Flow Measurring calibrated (Connection and Extension Cable for Measur		graph 8)		1	
Flow Meter SFM with Signal Converter (without Connection Cable)			I	1	1
Flow range 115 l/min (0,264,0 US GPM)	Flow Meter PPC-04/12-SFM-015-CAL				
Flow range 7,560 l/min (2,15,9 US GPM)	Flow Meter PPC-04/12-SFM-060-CAL	-			
Flow range 7,5150 l/min (240 US GPM)	Flow Meter PPC-04/12-SFM-150-CAL	×		18	
Flow range 15300 l/min (479 US GPM)	Flow Meter PPC-04/12-SFM-300-CAL	- ^			
Flow range 25600 l/min (6.6158,5 US GPM)	Flow Meter PPC-04/12-SFM-600-CAL	-			
Additional Calibration Flow Sensor	CAL-PPC-04/12-SFM		x	-	
Flow Meter SVC with Signal Converter (without Connection Cable)	CAL-PPC-04/12-SFIM		~		
	Flow Meter PPC-04/12-SVC-015-CAL	1	-	1	
Flow range 0,215 l/min (0,054,0 US GPM)		-			
Flow range 0,460 l/min (0,1015,9 US GPM)	Flow Meter PPC-04/12-SVC-060-CAL	×		10	
Flow range 0,6150 l/min (0,1640 US GPM)	Flow Meter PPC-04/12-SVC-150-CAL	- ×		19	
Flow range 1,0300 l/min (0,2679 US GPM)	Flow Meter PPC-04/12-SVC-300-CAL			-	
Additional Calibration Flow Sensor	CAL-PPC-04/12-SVC	<u> </u>	X		
6K. Rotational Speed Measuring calibrated (Connection and Extension Cabl			ragraph 8)		
Rotational Speed Sensor with integrated Connection Cable 3 m (10 ft.)	Sensor PPC-04/12-SDS-CAB-CAL	Х		17	
Additional Calibration Speed Sensor	CAL-PPC-04/12-SDS		Х		

Calibration Certificate

Kalibrier-Zertifikat / Calibration Certificate Security Main Control Contrel Contrel Control Control Control Control Control Con	Initial Cost of Henden <				In Presided 4 D. M	104 Wardahi Talatan //	23 00 0 16 0	_
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bit Confidance no: 123456789 Nrmag Description of instrument: PPC-0L-AP/2 Nrmag Customer: 123448 Operation: 123448 PPC-0L-AP/2 Beard in no: 123456 Ser.No: 123445679	at Nr Certificate no: 1224/56789 hrving Description instrument: PPC-04. AP/2 year Customer 10 no: 1234A8 gaber DDNr: Customer 10 no: 1234A8 gaber DDN: Done 000 bar rd	Ka	ibrier-Zertifikat / Calibration C	ortificate				Seteiya
Image Description PPC-OLAP /2 Wr. Solid Inc: 123AB piled Cultorier: 9753. Destingen wir, daß das oben genannte Meßwystem unter Beschaurg eines zertifizierten sachenungssystem nach DNI 50 9001:2000 kaltbert wurde. 9753. der Kaltbereng verwendeten Meßwystem unter Beschaurg eines zertifizierten sachenungssystem nach DNI 50 9001:2000 kaltbert wurde. 9753. der Kaltbereng verwendeten Meßwystem unter Beschaurg eines zertifizierten auf den anzonahen Normale der Physikalisch-Teroprikhög kaltbert und sind rück- auf den anzonahen Normale eistieren, entspricht das Meßver- ferenze 1: AB 3456 A Ser. No. 1234A66789 Wahnes of toospritzige Dokumentschaupen werden zusteren, entspricht das Meßver- n hefddaten sind auf den nachfolgenden Seiteln/) dieses Kaltberer zwerten. Alle erto- n hefddaten sind auf den nachfolgenden Seiteln/) dieses Kaltberer zwerten. Alle erto- n hefddaten sind auf den nachfolgenden Seiteln/) dieses Kaltberer zwerten. Alle erto- n hefddaten sind auf den nachfolgenden Seiteln/) dieses Kaltberer zwerten. Alle erto- ne of the measureng procedure consponds with the technical megations and norms wild die auf, the measureng procedure consponds with the technical megations and norms wild die auf, the measureng procedure consponds with the technical megation on androng 0.31 V Nominal Actual Deviation 0.03 V New UT 1 Nominal Actual Deviation 0.03 V Obar 0.05 bar 0.31 V Obar 0.05 bar 0.05 bar 0.05 bar 0.31 V Obar 0.05 bar 0.05 bar 0.	Immang Description of Instruments: PPC-04-AP/2 Spelar Statistics: 123AB Spelar Cultomer: 9753 Spelar Other no.: 07554321 v. 01.03.000 Spelar Device: 9753 Spelar Device: 123AB Value: Device: 123AB Value: Device: 123AB Value: Device: 123AB Value: Device: 0.00 bar Optimize: Device: 0.00 bar Optimize: Device: Device: Optimize: Device:				Ka	librier-Zertifikat Nr./C	alibration certificate no	123456789
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