



Local Solutions For Individual Customers Worldwide



Pressure Transmitter and Reader of the PT-RF Series

Product Catalogue

Pressure Transmitter and Reader of the Series PT-RF

Originating and located in Werdohl in the German Sauerland region, we have become an internationally leading developer, manufacturer and supplier of pipework equipment and hydraulic components under the brand name STAUFF.

The STAUFF product range includes:

- STAUFF Clamps
- STAUFF Test
- Filtration Technology
- Diagtronics
- Hydraulic Accessories
- Valves
- Fluid Connectors

Decades of experience, highly-motivated and qualified staff, state-of-the-art manufacturing technologies and a foresighted management give us the reputation of being a competitive partner.

Our in-house laboratories carry out constant tests in line with international standards on all products. Certified in accordance with ISO 9001:2008 (Quality), ISO 14001:2004 (Environmental Protection) and OHSAS 18001:2007 (Occupational Health and Safety), our management system continually strives for perfection. Many of our products have been successfully tested and approved by several international organisations and institutes.

Our well-stocked warehouses and flexible production lines ensure prompt reactions and short delivery times.

Represented by a tight network of distributors and wholly-owned manufacturing facilities, distribution bases and warehouses in 18 countries worldwide, we are close to you.

Our subsidiaries also supply additional retail products related to the fluid power industry, thereby offering a near-complete range of industry-specific key products.

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The PT-RF series of pressure transmitters are an alternative solution for universal pressure measurements for fluid technology applications, which will provide benefits for system operators, maintenance personnel and repair technicians as well as for original equipment manufacturers.



The advantages resulting from the use of the new technology for system operators, maintenance personnel and repair technicians are clear: Measurements can be carried very easily, without extensive training and within a few seconds at the press of a button and then documented in a reliable process.

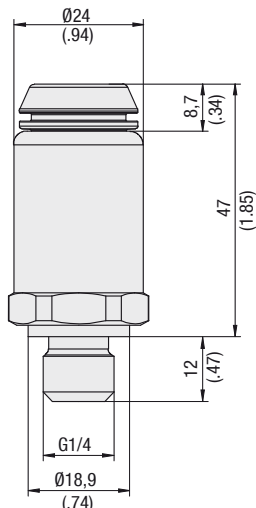
Unscrewing and re-installing pressure gauges or other measuring and display devices – practically a temporary opening of the system – is not required. Potential hazards for people, machines and the environment, for example from emitted residual oil in the test hose or leaks at the measuring point, as well as ingress of dirt into the system (e.g. in dusty environments) can be effectively excluded.

Original equipment manufacturers will also benefit from this new technology: If the pressure transmitters are installed at their factory already, the innovative technology can provide a competitive edge over alternative suppliers and open up specific advantages for the users, increasing the value retention of their own devices in the long term.

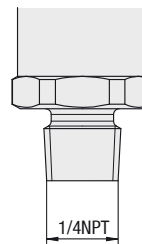
If the pressure transmitters are installed directly in the system or pipeline for permanent use, they protrude only slightly more than conventional hydraulic test couplings and meet the highest demands with regard to space requirements and weight.



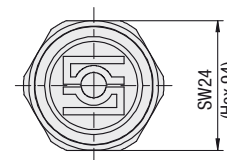
Pressure Transmitter - Type PT-RF



Process connection G1/4 (B04)



Process connection 1/4NPT (N04)



Product Description

The pressure transmitters from the PT-RF series are integrated into fluid technology plants and systems permanently or temporarily using the appropriate process connection adapters. The energy required for a measurement is transferred to the pressure transmitter via the antenna of the reading device using wireless RFID technology. This means that the pressure transmitters require neither internal nor external power supply and are completely maintenance-free.

Technical Data

Wetted Parts

- Suitable for liquid and gaseous media

Materials

- Housing: Stainless Steel 1.4305
- Sealing (B04): FPM (Viton®)
- Cap: Polyamide (glass fibre-reinforced)

Dimensions / Weight

- Dimensions: 59 x 26 mm / 2.32 x 1.02 in
- Weight: 80 g / .18 lbs

Temperature Range

- Media temp.: -40 °C ... +85 °C / -40 °F ... +185 °F
- Ambient temp.: -40 °C ... +85 °C / -40 °F ... +185 °F
- Storage temp.: -55 °C ... +125 °C / -67 °F ... +257 °F

Electrical Data

- Sampling rate: typ. 250 ms / max. 400 ms
- Long-term stability: according to IEC EN 60770-1 max. ± 0,25 % FS* / a
- Load cycles (10⁶): 10

Order Codes



① Series and Type

Pressure Transmitter PT

② Version

Signal transmission via RFID technology RF

③ Pressure Range

see table

④ Process Connection

G1/4 B04
1/4 NPT N04

Pressure Range and Accuracies

Version	Pressure Range and Accuracies					
Pressure Transmitter PT-RF	Pressure Range (bar/PSI)	Type of Measurement	Maximum Pressure (bar/PSI)	Burst Pressure (bar/PSI)	Accuracy (±% FS*) typ.	Accuracy (±% FS*) max.
B00016	0 ... 16	Relative pressure	32	48	0,25	0,5
	0 ... 232		464	696		
B00060	0 ... 60	Relative pressure	120	180	0,25	0,5
	0 ... 870		1740	2610		
B00160	0 ... 160	Relative pressure	320	480	0,25	0,5
	0 ... 2320		4641	6961		
B00400	0 ... 400	Relative pressure	800	1200	0,25	0,5
	0 ... 5801		11603	17405		
B00600	0 ... 600	Relative pressure	1200	1800	0,25	0,5
	0 ... 8702		17404	26107		

Temperature behaviour: max. ± 0,2 % FS* / 10K (test condition 25 °C; 45 % v. F.)

* FS = Full Scale

- Vibration loading: acc. to IEC 60068-2-6 (20 g)
- Schock loading: acc. to IEC 60068-2-27 (30 g) 11ms

Protection Rating

- IP67 protection rating: Dust tight and protected against splashing water

Process Connection Adaptors for Pressure Transmitter PT-RF

Various adaptors are available in addition to the pressure transmitters from the PT-RF series, allowing connection to the known STAUFF Test 20 system as well as installation in pipes.



SDA20-G1/4-C6F

Adaptor for process connection G1/4 (B04) on test coupling STAUFF Test 20 (connection thread M16 x 2)



SRS-G1/4-***-VG-C6F

Straight fitting with adaptor

Note: Please replace *** with tube-Ø and series (L or S).



SMD20-1/4NPT-C6F

Adaptor for process connection 1/4NPT (N04) on test coupling STAUFF Test 20 (connection thread M16 x 2)

Dimensional drawing: All dimensions in mm (in).

Reader - Type Reader-PT-RF



Product Description

The hand-held readers transfer the energy required for a measurement to the pressure transmitter using RFID technology. All that is required is a maximum distance of 1.5 cm / 0.6 in from the antenna to the tip of the pressure transmitter for the duration of the measurement.

When the pressure transmitter is activated by the press of a button, a current measured value is determined within only 0.5 seconds and then immediately transmitted back to the reading device together with other relevant information and then output on the illuminated display and stored. Over 15,000 of these measurement sets can be stored in the internal memory of the device.

Technical Data

Material

- Housing made of ABS

Dimensions / Weight

- Dimensions: 76 x 35 x 240 mm / 3.0 x 1.38 x 9.45 in
- Weight: 220 g / .49 lbs

Measurements / Display

- Pressure: in bar and PSI
- Temperature: in °C and °F
- Display: graphic, LED backlight
- Visible area: 55 x 46 mm / 2.17 x 1.81 in
- Resolution: 128 x 64 Pixel

Power Supply

- Battery: Lithium Ion (3,7 V DC / 900 mAh)
- Operating time approx. 6h (approx. 1800 individual measurement)

Type of Measurement

Start Measurement

1. Switch on the reader using the function button.

During the brief start process, the charge state of the lithium ion battery (Battery) is shown on the display and the share of the currently occupied data memory (MemUsed) in percent as well as the current date and time.

2. Position the tip of the antenna of the reader inside the measurement range of the pressure transmitter and hold this position as long as possible during the entire measurement process.

Order Code

Reader-PT-RF

①

① Series and Type

Reader **Reader-PT-RF**

Standard option:

- Reader-PT-RF
- Manual and software on CD
- Quick guide
- USB 2.0 cable (1 m / 3.28 ft)
- 5 V DC / 1 A power supply incl. country-specific adaptors

Temperature Range:

- Ambient temp.: -20 °C ... +70 °C / -4 °F ... +158 °F
- Storage temp.: -25 °C ... +60 °C / -13 °F ... +140 °F
- CE certified

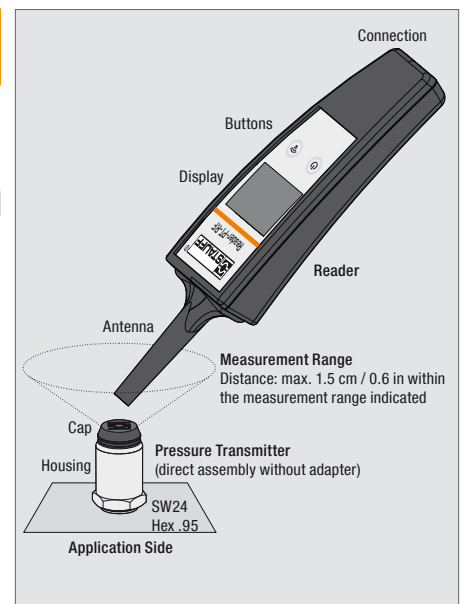
Electrical Data / Interface

- Sampling rate: typ. 250 ms / max. 400 ms
- Interface: Micro USB
- EMV: EN 61326-1:2013
EN 300330

Protection Rating

- IP65 protection rating: Dust tight and protected against water jets

Set Up



PC Software

The software included with the delivery allows transmission of the stored measured values from the reading device to the PC, subsequent evaluation and export, e.g. to Microsoft Excel®.

Individual Measurement (Single Value)

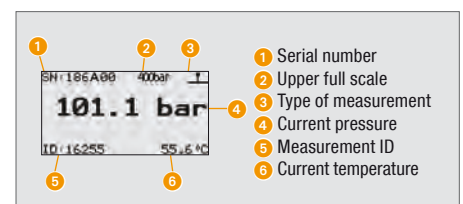
3. Start the individual measurement by tapping the function button once.

Permanent Measurement (Multiple Values)

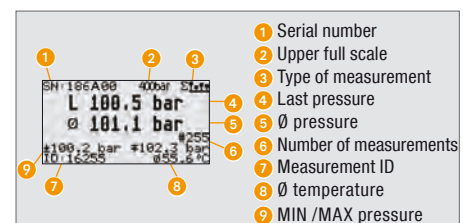
3. Start the permanent measurement by holding down the function button.

The simplest way of recognising the successful start of a permanent measurement is the change in the corresponding symbol in the upper right-hand corner of the display. The absolute number of the values determined as part of the measurement process is shown below the current pressure.

4. End a continuous measurement by releasing the function key.



Display after successful individual measurement



Display after successful permanent measurement

Complete system ▪ Type PT-RF-SET



Complete system in case PT-RF-SET

Order Codes



<p>① Series and Type</p> <table border="1"> <tr> <td>Series PT-RF</td> <td>PT-RF</td> </tr> </table>	Series PT-RF	PT-RF	<p>④ Pressure Range / Version</p> <table border="1"> <tr> <td>1st pressure transmitter</td> <td>see table</td> </tr> </table>	1 st pressure transmitter	see table				
Series PT-RF	PT-RF								
1 st pressure transmitter	see table								
<p>② Version</p> <table border="1"> <tr> <td>Complete system in case</td> <td>SET</td> </tr> </table>	Complete system in case	SET	<p>⑤ Pressure Range / Version</p> <table border="1"> <tr> <td>2nd Pressure Transmitter</td> <td>see table</td> </tr> </table>	2 nd Pressure Transmitter	see table				
Complete system in case	SET								
2 nd Pressure Transmitter	see table								
<p>③ Number of Pressure Transmitters in the Set</p> <table border="1"> <tr> <td>1x pressure transmitter</td> <td>1</td> </tr> <tr> <td>2x pressure transmitter</td> <td>2</td> </tr> <tr> <td>3x pressure transmitter</td> <td>3</td> </tr> </table>	1x pressure transmitter	1	2x pressure transmitter	2	3x pressure transmitter	3	<p>⑥ Pressure Range / Version</p> <table border="1"> <tr> <td>3rd Pressure Transmitter</td> <td>see table</td> </tr> </table>	3 rd Pressure Transmitter	see table
1x pressure transmitter	1								
2x pressure transmitter	2								
3x pressure transmitter	3								
3 rd Pressure Transmitter	see table								
	<p>⑦ Process Connection Adaptor</p> <table border="1"> <tr> <td>Adaptor SDA for process connection G1/4 (B04)</td> <td>B</td> </tr> <tr> <td>Adaptor SMD for process connection 1/4NPT (N04)</td> <td>N</td> </tr> </table>	Adaptor SDA for process connection G1/4 (B04)	B	Adaptor SMD for process connection 1/4NPT (N04)	N				
Adaptor SDA for process connection G1/4 (B04)	B								
Adaptor SMD for process connection 1/4NPT (N04)	N								

Product Description

The PT-RF-SET complete system is compiled in different versions according to customer requirements. All complete systems are supplied in a handy carrying case containing individually shaped foam inserts for a maximum of 10 pressure transmitters and 10 process connection adaptors and offering space for the following components:

Standard Option

- 1x Reader-PT-RF
- up to 3 Pressure Transmitters PT-RF
- up to 3 Process Connection Adaptors SDA or SMD
- 1x Manual and Software on CD
- 1x Quick Guide
- 1x USB 2.0 cable(1 m / 3.28 ft)
- 1x Power Supply incl. country-specific adaptors

Pressure Transmitter: Pressure Range and Version

Pressure Range	Version of Pressure Transmitter
000	When ordering a complete system with one or two pressure transmitters, the pressure range for the 2 nd and 3 rd pressure transmitter is given as "000".
016	Version pressure transmitter: B00016 (pressure range: 0 ... 16 bar / 0 ... 232 PSI)
060	Version pressure transmitter: B00060 (pressure range: 0 ... 60 bar / 0 ... 870 PSI)
160	Version pressure transmitter: B00160 (pressure range: 0 ... 160 bar / 0 ... 2320 PSI)
400	Version pressure transmitter: B00400 (pressure range: 0 ... 400 bar / 0 ... 5801 PSI)
600	Version pressure transmitter: B00600 (pressure range: 0 ... 600 bar / 0 ... 8702 PSI)
e.g.	400 (400 bar) 600 (600 bar) 000 (0 bar)

Order Codes



① **Spare Parts / Accessories**

Case, small	Case-Reader-PT-RF
Case, large	Case-PT-RF-SET
5 V DC / 1 A power supply incl. country-specific adaptors and USB 2.0 cable	Charger-Set-Reader-PT-RF
Adaptor for pressure transmitter (B04)	SDA20-G1/4-C6F
Adaptor for pressure transmitter (N04)	SMD20-1/4NPT-C6F
Straight fitting with adaptor	SRS-G1/4-***-VG-C6F

Product Description

In addition to the Charger-Set-Reader-PT-RF which is available as a spare part, the Case-PT-RF-Set is also available as an individual item for assembling a complete system later on.

The Case-Reader-PT-RF is available if only a storage case for the reading device is required. It only provides space for the reading device and the associated accessories (without pressure transmitters and process connection adaptors).

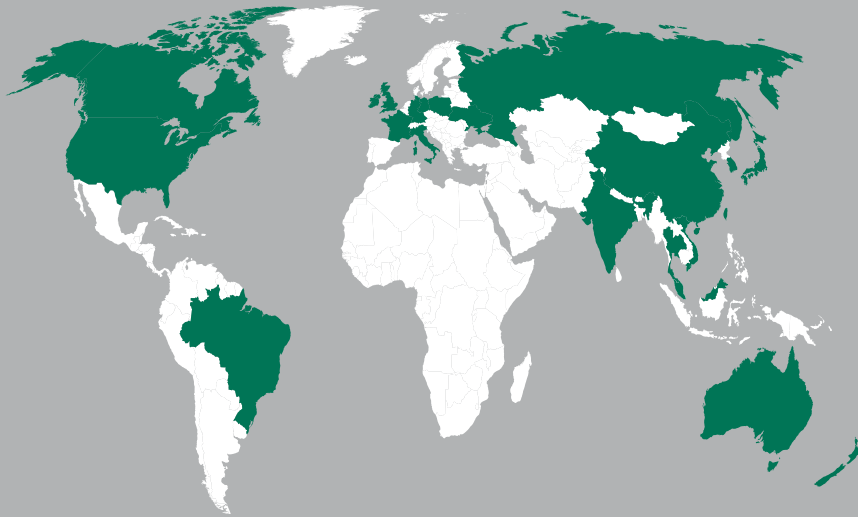
Spare Parts / Accessories



Case-Reader-PT-RF



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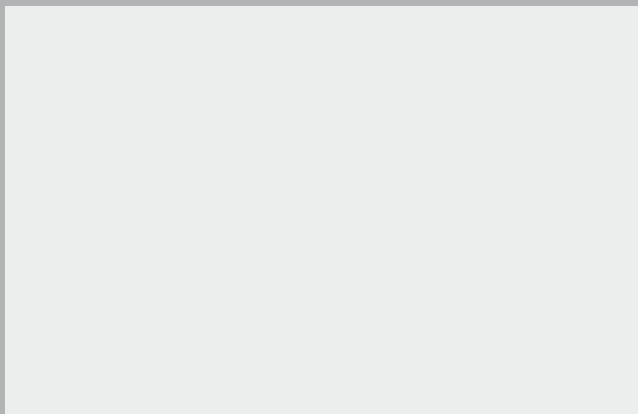
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