



Field pressure process calibrator with removable generation pump



P200 PRO is a field calibrator that measures and generate pressure from -1 to 700 bars with an accuracy of 0.025% FS. It is developed for the calibration, verification and testing of pressure sensors and transmitters, manometers, pressostats and flow transmitters.\_

# Description

P200 PRO is a field calibrator that measures and generate pressure from -1 to 700 bars with an accuracy of 0.025% FS. It is developed for the calibration, verification and testing of pressure sensors and transmitters, manometers and pressostats. Besides, it measures and generates process voltage and current .

- Pressure range: -1 to 700 bars
- Leak test
- Switch test
- Calibration of transmitters and pressostats

P200 PRO is a versatile, robust and handy instrument with its IP65 measurement head and removable pump. It is a comprehensive calibration system yet easy-to-use. It has an internal pressure sensor and accepts an external module in addition. It simultaneously displays the output pressure and input current or voltage, the pressure percentage, the pressostat status or the MIN / MAX pressure value. P200 PRO stores not only 1,500 measurement values but several calibration procedures, leak test or switch test procedures. The instrument is delivered in standard with a factory calibration report traceable to the national standards that states the nominal and actual values and deviation errors. The pressure calibrator is widely used and recommended for maintenance, regulation, metrology departments of process industries, energy field, applied or scientific research activities.



# Specifications

## Specifications and performances @23°C ±5°C

#### **Pressure**

Pressure media: AISI 316 SS compatible fluids (water, gas, and oil) Engineering units: mbar, bar, hPa, kPa, Mpa, kg/cm2, kg/m2, psi, mmH2O, cmH2O, mH2O, Torr, atm, lb/ft2, inH2O, FTH2O, mmHg, cmHg, mHg, inHg Accuracy: accuracies given for 1 year, include non linearity, hysteresis, and repeatability. Temperature coefficient inside the temperature compensated range: ±0.002% RDG /°C Temperature compensation: Automatic with built-in calibration matrix from 0°C to 45°C

	By interne moduel	By external sensor
Accuracy	±0.025% FS	±0.025% FS
Overpressure	125% FS	125% FS
Port	3/8" BSP male	1/4" BSP male
Connexion cable	Internal	2 m

### Process voltage

Туре	Measurement / Emission	Range	Resolution	Accuracy / 1 year
Voltage IN / OUT	IN / OUT	-200 to 200 mV	1 mV	0.02% RDG + 3 mV
		-0.2 to 2 V	10 mV	0.02% RDG + 10 mV
	-2 to 20 V	100 mV	0.02% RDG + 100 mV	

### Process current

Туре	Measurement / Emission	Range	Resolution	Accuracy / 1 year
Current	IN / OUT	-5 to 22 mA	0.1 mA	0.02% RDG + 0.4 mA

Loop supply: 24 V ±10% (30 mA maximum)



### Further features

Scaling in measurement mode	Scaling allows process signals to be displayed in % of FS or in pressure, offering a direct comparison between the measured pressure value and the transmitter output value and allowing sensors to be corrected after a calibration.
Transmitters tests	The feature enables any pressure transmitter to be controlled and calibrated with simultaneous display of input and output values in % F.S. or in actual unit. The measuring circuit is also able to power the loop for a direct connection to the transmitter under test.
Switch test	In pressure, P200 PRO controls and displays the applied pressure and the switch status OPEN or CLOSED of pressostats.
Leak test	P200 PRO detects the presence of any pressure leakage through a test procedure carrying out pressure fall measurements in a programmable time interval.

## General specifications

Size	130 x 120 x 70 mm
Weight	Nett: 1.4 kg Gross: 2.5 kg
Display	Liquid crystal graphical display with automatic and manual backlite
Measurement sampling time	250 ms
Battery	Type: Rechargeable Ni-Mh with external charger Charging time: 5 h at 90% and 6 h at 99%, if instrument switched off Life time: 10 h in measurement mode without backlight
Communication ports	RS 232, full bidirectional
Storage capacity	1,500 measured values with date and time stamp

## Environmental specifications

Reference range	23°C ±5°C
Operating reference range	-10 to 55°C (RH: 95 % non condensing)
Storage temperature limits	-30°C to +60°C (without battery)
IP protection	IP65 according to EN60529



## Models and accessories

#### Instrument:

Ordering code structure: P200 PRO basic - A - B - C - D - E or P200 PRO plus - A - B - C - D - E Please select the required options from tables A, B... below to define the right device reference. P200 PRO basic Calibrateur portable de pression Delivered in standard with:

- Internal pressure module to select from the list below
- External sensor connector
- Adapter kit: ½ NPT.F, ½BSP.F, 3/8NPT.F, 3/8BSP.F, 1/8NPT.F, 1/8BSP.F, 1/4BSP.F
- Hoses
- Battery charger
- User manual

P200 PRO plus Calibrateur portable de pression Delivered in standard with:

- Internal pressure module to select from the list below
- External sensor connector
- mA / V input / output
- Adapter kit: ½ NPT.F, ½BSP.F, 3/8NPT.F, 3/8BSP.F, 1/8NPT.F, 1/8BSP.F, 1/4BSP.F
- Hoses
- Battery charger
- User manual

#### Table A - Accuracy of internal pressure

Table A - Accuracy of internal pressure			
sensor 1	±0.05% FS 2	±0.025% FS	
Table B - Internal pressure sensor (1 choice only)			
0.010G	-100 / 100 mbar, Gauge – R	Resolution: 0.001 mbar	
0.050G	-500 to 500 mbar, Gauge -	Resolution: 0.01 mbar	
0001G	-0.95 to 1 bar, Gauge - Res	olution: 0.01 mbar	
0002G	-0.95 to 2 bar, Gauge - Res	olution: 0.01 mbar	
0007G	-0.95 to 7 bar, Gauge - Res	olution. 0.1 mbar	
0020G	-0.95 to 20 bar, Gauge – Re	esolution. 0.1 mbar	
0035G	0 to 35 bar, Gauge - Resolu	ıtion: 1 mbar	
0070G	0 to 70 bar, Gauge - Resolu	ıtion: 1 mbar	
0150G	0 to 150 bar, Gauge - Reso	lution. 1 mbar	
0350G	0 to 350 bar, Gauge - Reso	lution. 10 mbar	
0700G	0 to 700 bar, Gauge - Reso	lution: 10 mbar	
0002A	0 to 2 bar, Absolute - Reso	lution: 0.01 mbar	
0020A	0 to 20 bar, Absolute - Res	solution. 0.1 mbar	
Table C - Alimentation			
A	120 V - 50/60 Hz with US plu	ug	
В	100 V - 50/60 Hz with US/Ja <sub>l</sub>		
С	230 V - 50/60 Hz with Europ		
D	230 V - 50/60 Hz with UK pl		
E	230 V - 50/60 Hz with Schuk	co plug	

**Table D - Accessories** 

0 None

LP Pneumatic pump, -0.85 to 3 bar P Pneumatic pump, -0.95 to 40 bar



H Hydraulic pump, 700 bar

HF Hydraulic pump, 700 bar + high pressure hydraulic hose

**Table E - Calibration report** 

E Factory calibration report

## External pressure sensors - AISI316SS - ± 0.025% FS:

EE812009	-100 / 100 mbar, Gauge - Resolution: 0.001 mbar
EE812010	-500 to 500 mbar, Gauge - Resolution: 0.01 mbar
EE812011	-0.95 to 1 bar, Gauge - Resolution: 0.01 mbar
EE812012	-0.95 to 2 bar, Gauge - Resolution: 0.01 mbar
EE812013	-0.95 to 7 bar, Gauge - Resolution. 0.1 mbar
EE812014	-0.95 to 20 bar, Gauge - Resolution. 0.1 mbar
EE812015	0 to 35 bar, Gauge - Resolution: 1 mbar
EE812016	0 to 70 bar, Gauge - Resolution: 1 mbar
EE812017	0 to 150 bar, Gauge - Resolution. 1 mbar
EE812018	0 to 350 bar, Gauge - Resolution. 10 mbar
EE812019	0 to 700 bar, Gauge - Resolution: 10 mbar
EE812020	0 to 2 bar, Absolute - Resolution: 0.01 mbar
EE812021	0 to 20 bar, Absolute - Resolution. 0.1 mbar

### Pompes à main:

EE300203 2 test leads 2 mm with clamps

EE880052 ABS carrying case for pump, calibrator and accessories

TP1-40 Pneumatic pump, -0.95 to 40 bar HTP1-700

Hydraulic pump, 700 bar LTP1 Pneumatic pump -0.85 to 3 bar

### Further accessories:

BB530203 RS232 cable BB530213 USB cable

BB260198 LogMan data management software

### Packing information:

Size 130 x 120 x 70 mm

Weight (nett) 1.4 kg Weight (gross) 2.5 kg