

# Pressure Calibrator Modules

## For the Measurement Against Atmosphere, Vacuum, Absolute, Compound Pressure and Differential

Series 7132

Code:	7132 EN
Delivery:	4 weeks
Warranty:	24 months



- Measuring chain in conjunction with the DIGISTANT® 4423
- 29 standard ranges from 20 mbar ... 700 bar
- Accuracy up to  $\pm 0.025$  % F.S.
- Isolated and non-isolated measurements
- Easy handling
- Over pressure up to 400 % F.S.

### Application

The pressure measuring modules have been designed particularly for mobile use on pressurized equipment requiring calibration. They are sturdily designed for rugged applications and with only 150 grams extremely light-weight.

With the pressure module series 7132 and the 7131 USB adapter pressure measurement values can be transmitted directly to a PC. Additionally the pressure module as measuring chain together with the DIGISTANT® model 4423 can be used for on-site calibration. In this way, pressures can be quickly and economically checked for compliance with required specifications and calibrated.

Modules with very different measuring ranges are available.

The pressure is introduced through a connector or two connectors (differential) with a 1/8" NPT female.

### Description

The "against atmosphere", vacuum and dual-pressure types measure in relation to atmospheric pressure. The absolute pressure sensors measure with a reference to absolute zero. The difference pressure measures on one side with reference to an indicated direction.

Units for displaying are psi, mbar, kg/cm<sup>2</sup>, atmos, kPa, Mpa, inHg, mmHg, inH<sub>2</sub>O, mmH<sub>2</sub>O or a pressure unit defined by the user.

"Against atmosphere" and absolute-pressure types are insulated and medium-compatible with stainless steel 316SS. Compound, vacuum and difference sensors must be pressurized only with clean, dry pressure media.

Manual pumps are built as grip-type pumps, spindle pumps or lever pumps, depending on the pressure range. The majority have a fine adjustment system which allows the pressure to be adjusted very precisely. In this way a customer's pressure measuring system can easily and economically be checked using the pressure module connected to the DIGISTANT® model 4423 and a pump.

**Technical Data**

Order Code	Parameter <sup>2)</sup>	Measurement Range	Accuracy <sup>1) u. 5)</sup>	Overpressure
7132-4020 <input type="checkbox"/>	against atmosphere	0 ... 20 mbar	± 0.1 %	400 %
7132-4067 <input type="checkbox"/>		0 ... 67 mbar	± 0.05 %	400 %
7132-4350 <input checked="" type="checkbox"/>		0 ... 350 mbar	± 0.025 %	400 %
7132-4500 <sup>4) a. 6)</sup> <input checked="" type="checkbox"/>		0 ... 500 mbar	± 0.207 mbar ± 0.035 %	300 %
7132-4700 <input checked="" type="checkbox"/>		0 ... 700 mbar	± 0.172 mbar ± 0.025 %	300 %
7132-5001 <input checked="" type="checkbox"/>		0 ... 1 bar	± 0.025 % ± 0.172 mbar	300 %
7132-5002 <input checked="" type="checkbox"/>		0 ... 2 bar	± 0.025 %	300 %
7132-50035 <input checked="" type="checkbox"/>		0 ... 3.5 bar	± 0.03 %	300 %
7132-5007 <input checked="" type="checkbox"/>		0 ... 7 bar	± 0.025 %	300 %
7132-5010 <sup>3)</sup> <input checked="" type="checkbox"/>		0 ... 10 bar	± 0.035 %	200 %
7132-5020 <input checked="" type="checkbox"/>		0 ... 20 bar	± 0.025 %	200 %
7132-5034 <input checked="" type="checkbox"/>		0 ... 34 bar	± 0.025 %	200 %
7132-5070 <input checked="" type="checkbox"/>		0 ... 70 bar	± 0.025 %	200 %
7132-5100 <sup>3)</sup> <input checked="" type="checkbox"/>		0 ... 100 bar	± 0.035 %	200 %
7132-5200 <input checked="" type="checkbox"/>		0 ... 200 bar	± 0.1 %	200 %
7132-5340 <input checked="" type="checkbox"/>		0 ... 340 bar	± 0.1 %	200 %
7132-5700 <sup>9)</sup> <input checked="" type="checkbox"/>		0 ... 700 bar	± 0.1 %	150 %
7132-4350-V001 <input type="checkbox"/>	vacuum	0 ... -350 mbar	± 0.025 % ± 0.207 mbar	400 %
7132-5001-V001 <sup>6)</sup> <input type="checkbox"/>		0 ... -1 bar	± 0.025 % ± 0.172 mbar	300 %
7132-5001-V002 <sup>6) a. 10)</sup> <input checked="" type="checkbox"/>	absolute	0 ... 1 bar	± 0.025 % ± 0.172 mbar	300 %
7132-5002-V002 <input checked="" type="checkbox"/>		0 ... 2 bar	± 0.025 %	300 %
7132-50035-V002 <input checked="" type="checkbox"/>		0 ... 3.5 bar	± 0.03 %	300 %
7132-5007-V002 <input checked="" type="checkbox"/>		0 ... 7 bar	± 0.025 %	300 %
7132-5020-V002 <input checked="" type="checkbox"/>		0 ... 20 bar	± 0.025 %	200 %
7132-5001-V003 <sup>6)</sup> <input type="checkbox"/>	compound pressure	-1 ... 1 bar	± 0.025 % ± 0.172 mbar	300 %
7132-5002-V003 <input type="checkbox"/>		-1 ... 2 bar	± 0.025 % + 0.172 mbar	300 %
7132-4350-V004 <sup>7)</sup> <input type="checkbox"/>	differential <sup>4)</sup>	0 ... 350 mbar	± 0.025 % ± 0.207 mbar	400 %
7132-5002-V004 <input type="checkbox"/>		0 ... 2 bar	± 0.025 %	300 %
7132-50035-V004 <input type="checkbox"/>		0 ... 3.5 bar	± 0.03 %	300 %

uninsulated  
 insulated

- The accuracy is relative to full scale in a temperature range from 15 °C ... 35 °C. Contains the pressure/temperature hysteresis in mbar, where listed, for six months after the last calibration. The accuracy data in the table refers to basic precision over the temperature range from 15 °C up to 35 °C. Outside this temperature range, an additional error of ± 0.0015 % of full scale/K must be added. A further error of 0.005 % of full scale/K must be added for the 20 mbar and 67 mbar ranges.
- The "against atmosphere", vacuum and dual pressure types measure relatively against atmospheric pressure. The absolute pressure sensors measure with reference to absolute zero. The difference type measures on one side with reference to an indicated direction.
- Range reduced, as the calibrated range of the module does not extend over the entire measuring range.
- The maximum static pressure is 14 bar.
- Relative to the calibration standard.
- Thermal and pressure hysteresis = 0.1724 mbar.
- Thermal and pressure hysteresis = 0.2068 mbar; all other ranges without hysteresis.
- The "against atmospheric", absolute and compound pressure types are insulated and medium-compatible with stainless steel 316SS. Vacuum and difference sensors must be pressurized only with clean, dry pressure media; corrosive air or gas are not suitable.
- Accuracy is valid over the range from 18 °C ... 28 °C. Outside this range, 0.0015 %/K must be added to this.
- If the module is used as a barometric reference without resetting zero before each use then the specification shows an additional error of ± 0.25 % F.S. because the zero drift is greater than the span drift over time.

**Order Example**

Universal Calibrator DIGISTANT®

**Model 4423**

**Accessories**

Adapter for pressure module

**Model 7130**

Adapter for pressure module direct to PC via USB **Model 7131-USB**

Pneumatic hand pump - 850 mbar ... 7 bar **Model 7106-V0007**

Pressure hand pump -960 mbar ... 34 bar **Model 7106-V0034**

Hydraulic hand pump 0 bar ... 690 bar **Model 7106-V0690**

For further comprehensive information please see data sheet 4423 in product group 4 and data sheet 7106 in product group 7.