

CUBE BOX-P

High Accuracy Pressure Calibrator

Accuracy: up to 0.02% FS

The calibrator CUBE BOX-P is designed for the calibration and testing of pressure instruments such as pneumatic and electronic transmitters, analogic gauges, digital pressure gauges, pressure transducers, pressure switches, valves etc.

The integrated pneumatic section allows to generate the desired pressures and to supply the pneumatic instrumentation.



General

Developed with the latest technology, the calibrator CUBE BOX-P is at the forefront in terms of reliability and measurement accuracy. Fully characterized in all the operating range temperatures to ensure the best performance in all weather conditions. The pneumatic section includes a manual pump (vacuum-pressure) a pressure regulator and a vacuum-pressure selection valve can be used.

The CUBE BOX-P is a very robust calibrator suitable for field calibration in harsh environments with high accuracy. Different measuring ranges are available.

Features

- Pressure ranges up to 700 bar
- Accuracy up to 0.02 % FS

- Fully temperature compensated (14...122 °F / -10 °C to 50 °C)
- Large LCD display
- Up to 2 pressure channels simultaneously shown
- Active channel selection
- Backlight
- Contrast regulation
- Barometric option available (to switch from gauge to absolute)
- min/Max pressure value continuously displayed
- leak-rate/stability continuously displayed
- Hold function for a specific pressure value
- Selectable filter weight
- Data-logger
- Auto-power off /Auto-backlight off selectable
- Battery charge indication (%)
- Two colours LED for charge status (in



- charge- end charge)
- Offset selectable
- RS232 connection
- NiMh rechargeable battery

- Dimensions (mm): 305 x 270 x 194
- Weight: 3 kg (6.5 lbs)
- Lock
- Pressurizing valve

Technical Data

Measuring fluid

- Clean gas for the pneumatic section
- Any fluid compatible with Stainless Steel for the external transducer

Type of material

- Wetted part: Stainless Steel
- Case: Polypropylene copolymer

Pressure connections

Stäubli® quick connectors.

Serial Port

D RS-232 connection (9 pin)

Power supply

- 4 rechargeable AAA Ni-Mh batteries (inside the instrument)
- Power supply adapter: 230 Vac - 9 V dc
- Power supply connector 9 V dc - 600 mA

Temperature

- Compensated Temperature: 14°F to 122°F (-10°C...50°C)
 - Storage Temperature: -4°F to 158°F (-20°C to 70°C)
- Humidity: <95%

Case

- In concordance with directive 2002/95/EC: DEF STAN 81-41 (level J), IP67 Dustproof-Waterproof, STANAG 4280 (edition 2)

Pressure Ranges

Transducer Channel 1

Code	Range [bar]	Resolution	Over press
701G	-1...7 bar g	0.00001 bar	120 % FS
402G	-1...40 bar g	0.0001 bar	120 % FS

Code	Range [psi]	Resolution	Over press
701G	-14...100 psi g	0.001 psi g	120 % FS
402G	-14...600 psi g	0.01 psi g	120 % FS

Transducer Channel 2 (optional)

Code	Range [bar]	Resolution	Over press
101A	0...1 bar abs	0.00001 bar	120 % FS
151G	0...1.5 bar g	0.00001 bar	110 % FS
203G	0...200 bar g	0.001 bar	120 % FS
703G	0...700 bag g	0.001 bar	110 % FS

Code	Range [bar]	Resolution	Over press
101A	-14...15 psi g	0.001 psi g	120 % FS
151G	0...20 psi g	0.001 psi g	110 % FS
203G	0...2900 psi g	0.01 psi g	120 % FS
703G	0...10000 psig	0.01 psi g	110 % FS

Other ranges on request.

Measuring unit:

20 measuring unit:

mbar - bar - Pa - hPa - kPa - MPa - kg/cm² - kg/m² - mmHg - cmHg - mHg - mmH₂O - cmH₂O - mH₂O - torr - atm - psi - inHg - inH₂O - ftH₂O (Hg@0 °C; H₂O @ 4°C; p_{atm}=101325 Pa)



Pneumatic Section (Channel 1)

- Vacuum/Pressure Selector
- Fine Volume Variator
- Manual Pump:
 - Vacuum: -900...0 mbar
 - Pressure: 0...30 bar
- Stäubli® quick connectors.

Scope of delivery

- Pressure Calibrator
CUBE BOX-P
- Power Supply 100...240 Vac – 9 Vdc
- Calibration Report
- Operating Manual
- High pressure hose (only if ordered the transducer channel 2)
- One or two Stäubli® quick connectors for 6x4 mm tube (depending on the model).

Options

- Set of adaptors
- High pressure hose
- Hand hydraulic pump model M-10
- Hand pneumatic pump model MVP-600
- Hand pneumatic pump model MP-P
- Hand pneumatic pump model MP-V
- Volume Variator model M-80
- Please contact us for other measuring units
- Calibration certificate by EA authorized laboratory (Accredia, DAkkS, Cofrac, etc.)

Model CI-X-13-090313-01
P-CUBEBOX-P-E-0916-1

How to Order

CUBE BOX-P-XXXX-YYYY-ZZ

Where:

XXXX – Code for the transducer channel 1. See table “Pressure Ranges”.

YYYY – Code for the transducer channel 2 not connected to the pneumatic section. See table “Pressure Ranges”. Write “YYYY” if not desired the transducer channel 2.

ZZ – Code for the certification

- TC – Traceable Calibration Report (6 + 6 points + 2 points for repeatability).
- AC – EA Accredited Calibration Certificate (Accredia, DAkkS, Cofrac, etc.)
- FR – Factory Calibration Report (5 + 5 points).



Model CI-X-13-090313-01
P-CUBEBOXP-E-0916-1

We reserve the rights to change at any time this technical specifications without notice.