

Precision Pressure Controller / Calibrator

DPC 3800**HD****High pressure calibrations up to 2500 bar gauge pressure**

Applications

- Calibration laboratories
- Service industries and calibration services
- Laboratories for research and development
- Pressure gauge, pressure switch and sensor manufacturing as well as transmitter calibration and creation of certificates
- Long-term measurements
- Aerospace industry

Construction

- **Pressure range** (gauge pressure) 0 – 400 bar to 0 – 2500 bar
(0 – 5000 psi to 0 – 35000 psi)
- measurement uncertainty (k = 2) 0.01 % FS up to 1000 bar
(15000 psi)
- measurement uncertainty (k = 2) 0.04 % FS from 1600 bar
(20000 psi)
- Medium water or oil
- Pressure controller with precision pressure sensor
- Customised configurations of the pressure controller available
- Very high measuring rate
- Colour touchscreen, LED backlight
- Easily calibrated
- Modular construction
- Fully digital measuring instrument
- Automatic creation of test certificates via full version calibration software DynaCal

Description

Functionality

This instrument stands out due to its precision sensor that combines maximum precision with highest long-term stability. The DPC 3800 HD achieves a control stability of 0.003 % of the pressure range (up to 1000 bar (15000 psi), then 0.015 %).

The instrument is operated intuitively via touchscreen. All advanced functions are accessible via submenus.

Software

Besides the full version calibration software DynaCal, which allows for comfortable calibration of pressure measuring instruments including automatic creation of test certificates, the user is able to create own software programmes, e.g. via LabVIEW®.

Interfaces

For integration in already existing infrastructures, an RS-232, Ethernet or optionally an IEEE-488.2 interface or an analogue output is available. Customer-specific control commands can be translated.

Complete Testing and Calibrating Systems

Fully mobile or stationary test benches can be manufactured upon customer request.

barotec
KALIBRIERTECHNIK

Technical Data

Pressure Ranges

Gauge pressure	0 – 400 bar	0 – 5000 psi
	0 – 600 bar	0 – 8000 psi
	0 – 1000 bar	0 – 15000 psi
	0 – 1600 bar	0 – 20000 psi
	0 – 2500 bar	0 – 35000 psi

Pressure Units

23 fixed and 1 freely programmable

Instrument Version

Desktop case and hydraulic cabinet

Display

Screen division	actual value, reference value, steps
Resolution	6 digits
Keypad	colour touchscreen
Warm-up time	< 10 minutes
Response time	approx. 10 ms

Pressure Range

1 pressure range

Pressure Connections

M 16x1.5 high pressure screw fitting
Optional: G ½ quick clamp adapter

Medium

Water
Optional: oil

Overrange Protection

25 % of the pressure range
Optional: mechanical overpressure protection

Supply Voltage

Auxiliary energy 88...264 V AC, 47...63 Hz

ARMANO

ARMANO Messtechnik GmbH

Location Beierfeld

Am Gewerbepark 9 • 08344 Grünhain-Beierfeld
Tel.: +49 3774 58 – 0 • Fax: +49 3774 58 – 545
mail@armano-beierfeld.com

Location Wesel

Manometerstraße 5 • 46487 Wesel-Ginderich
Tel.: +49 2803 9130 – 0 • Fax: +49 2803 1035
mail@armano-wesel.com

www.armano-messtechnik.com**10462****05/23**

Technical Data, Options, Scope of Delivery, Accessory, Ordering Information

Compressed Air Supply

≥ 10 bar

Optional: integrated compressor

Permissible Ambient Conditions

Operating temperature +10 °C to +40 °C (+50 °F to +104 °F)

Storage temperature 0 °C to +70 °C (+32 °F to +158 °F)

regard frost protection for medium water

Relative humidity 0 to 95 % r. h. (non-condensing)

Compensated

temperature range +15 °C to +35 °C (+59 °F to +95 °F)

Communication

Interfaces RS-232, USB, Ethernet

Optional: IEEE-488.2

Analogue outputs 0...1 V, 0...5 V, 0...10 V or 4...20 mA
resolution 16 bit

Switching outputs 24 V DC PWM or TTL level

Analogue inputs 4...20 mA or 0...10 V, others upon request

Instruction Sets

DPC 3800 HD

Optional: alternative instruction sets available,
alignment to existing HOST software upon request

Approvals and Certificates

EMC directive 2014/30/EU, DIN EN 61326-1 emission
(group 1, class A) and stability (industrial sector)

Calibration certificate 3.1 according to DIN EN 10204

Optional: internationally traceable calibration certificate
(e.g. DAkkS)

Further certificates and approvals upon request, e.g. GOST
(see also website)

Options

The DPC 3800 HD is equipped with 4 switching outputs that can be used for options. Furthermore, up to four precision sensors can be actuated.

Option M

The following features were integrated:

- On and off switch for a vacuum pump
- Internal separation of regulator and test item
- An additional ventilation valve for the test item side

This option is suitable, for example, for pressure gauge adjustment.

Option Vac

With this option, a 24 V signal can be actuated in order to switch a vacuum pump on or off, for example.

Calibration Work Station

Extensions of the standard version

- 1 work bench
- 1 desk with wheels
- 1 complete high pressure piping

Scope of Delivery

- Precision pressure controller / calibrator in desktop case
- Hydraulic cabinet
- Full version calibration software DynaCal
- Mains cable 1.5 m
- Operating instructions
- Calibration certificate 3.1 according to DIN EN 10204

Accessory

- Portable case
- Pressure generators
- Vacuum pumps

Ordering Information

Please specify in your order:

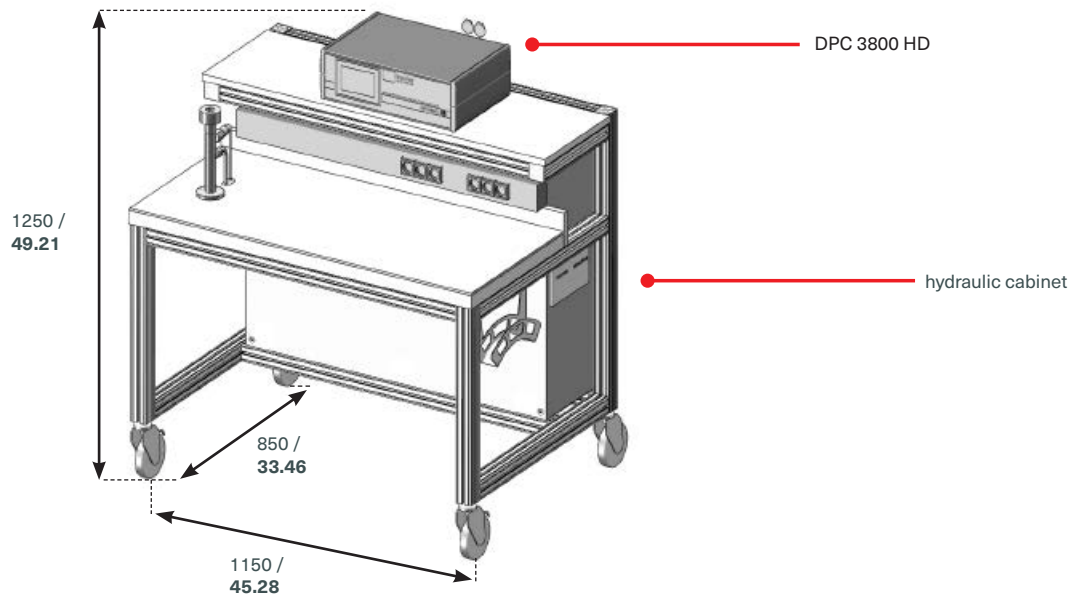
Basic model	DPC 3800 HD
Pressure range	e.g. 0 – 400 bar
Options	e.g. Option M

Example	DPC 3800 HD, 0 – 400 bar, Option M
----------------	---

Dimensional Data and Weight

Dimensional Data in mm / inch

Recommended instrument version: calibration work station



Weight

- Approx. 7.0 kg (15.43 lb)
- + 52 kg (114.64 lb) hydraulic cabinet up to 1000 bar (15000 psi)
- + 65 kg (143.30 lb) hydraulic cabinet from 1600 bar (20000 psi)