

## METROLOGY RANGE



# DPG8

## Absolute Digital Primary Pressure Standard

DPG8 digital primary pressure standards are built around an original concept first introduced by DESGRANGES & HUOT in the early 80's. The DPG8 technology combines a piston-cylinder assembly with an electronic dynamometer. It is the only pressure standard to associate the metrological performances of pressure balances with the convenience of digital transfer

- ACCURACY: 15 PPM
- CONTINUOUS PRESSURE MEASUREMENT
- STANDARD BAROMETER
- SELF-CALIBRATING
- INTEGRATED ENVIRONMENT CONTROL SENSORS
- 3 GAUGE & ABSOLUTE RANGES FROM 0 TO 8000 MBAR
- RESOLUTION TO 0.2 Pa
- FULL AUTOMATION CAPABILITY
- TRACEABLE ACCREDITED CALIBRATION CERTIFICATE AS STANDARD

## UNIVERSAL PRESSURE STANDARD

The DPG8 is specifically designed for the calibration of last generation electronic pressure measuring devices such as automatic controllers, electronic pressure calibrators, barometers, transmitters and transducers.

DPG8 are intended to be used by :

- calibration laboratories,
- meteorological centres,
- instruments R & D and production departments,
- measuring instruments manufacturers.

Thanks to the measuring principle and the high-level performances of the DPG8, it can be integrated in an accredited calibration chain.

### ABSOLUTE PRESSURE MEASUREMENT

The absolute pressure measurement is obtained by connecting a vacuum pump to the pressure standard. Unlike the absolute traditional pressure balances, the DPG8 enables any continuous absolute pressure measurement, without breaking the vacuum, which reduces calibration times to a few minutes.

### SELF-CALIBRATING FUNCTION

The DPG8 is the only pressure standard to be equipped with a unique Environment Monitoring Module coupled with an Auto-Calibrating Function. The EMM warns the user when he must set the ACF. The ACF can also be programmed to operate automatically. This new concept ensures the stability of the DPG8 so that re-calibrations need only take place every 3 years or even less frequently.

### ENVIRONMENT ADAPTABILITY

The EMM provides real-time environment influence compensation. Mechanical and electronic protections permanently adapt the DPG8 to external conditions. This makes it the perfect instrument for working safely in the most varied conditions, with no alteration of the measurement quality.

### USER FRIENDLINESS

The user interface has a large graphical screen displaying clear messages and function keys and short cuts giving easy access to the menus. Passwords protect sensitive information in order to meet Quality Assurance requirements.

## WIDE DIVERSITY OF RANGES

DESIGNATION	RANGE	MODE	RESOLUTION
DPG8 – A02B	0 – 1,600 mbar	absolute/gauge	0.002 mbar
DPG8 – A05B	0 – 4,000 mbar	absolute/gauge	0.005 mbar
DPG8 – A1B	0 – 8,000 mbar	absolute/gauge	0.01 mbar

## METROLOGICAL SPECIFICATIONS

Accuracy\* over 3 years : 15 PPM

Repeatability	1 10 <sup>-5</sup>	Precision	0.7 10 <sup>-5</sup>
Hysteresis	0.2 10 <sup>-5</sup>	Linearity	0.2 10 <sup>-5</sup>
Resolution	0.125 10 <sup>-5</sup>	Long-term stability	0.2 10 <sup>-5</sup>

(\*) Accuracy statements include the uncertainty on repeatability, hysteresis, linearity and stability over 3 years.

## TECHNICAL SPECIFICATIONS

Dimensions (L x W x H):	50 x 36 x 20 cm	Measuring fluid:	Dry and clean gas
Weight:	17 kg	Operating temperature:	10 to 40 ° C
Computer interface:	RS232C	Power supply:	110 – 220 VAC
Residual vacuum measurement:	Pirani gauge	Power consumption:	20 VA

**DH•BUDENBERG SA**  
56 rue des Ecoles - BP125  
93303 Aubervilliers Cedex  
FRANCE  
Téléphone : 33 (0)1 48 39 83 00  
Téléfax : 33 (0)1 48 33 65 90  
E-mail : dhonline@desgranges.com

**DH•BUDENBERG LTD**  
PO BOX 224, Woodfield Road  
Altrincham, Cheshire WA14 4FY  
UNITED KINGDOM  
Telephone : 44 (0)161 942 4700  
Telefax : 44 (0)161 942 4701  
E-mail : sales@dh-budenberg.co.uk

**DH•BUDENBERG GMBH**  
Raiffeisenstrasse 2  
D – 63110 Rodgau  
DEUTSCHLAND  
Telefon : 49 (0)6106/8294-0  
Telefax : 49 (0)6106/8294-17  
E-mail : k.el-chami@t-online.de