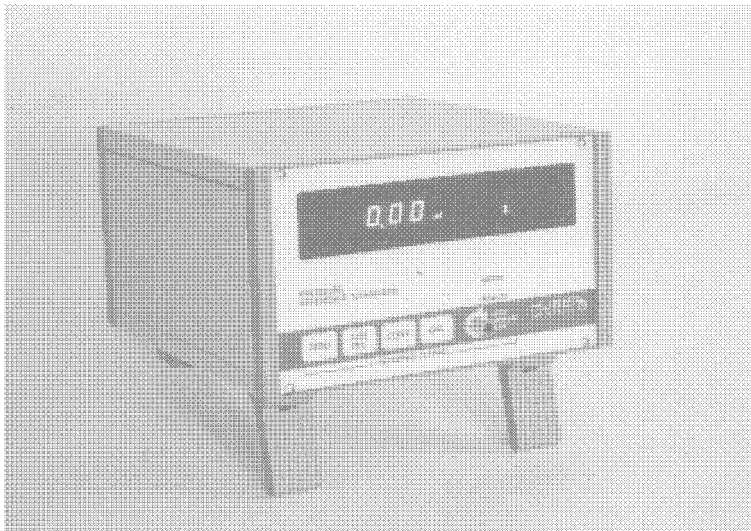


HUBER INSTRUMENTE

Militärstrasse 15, CH-4410 Liestal
 Tel. +41 (0)61 921 50 60
 Fax +41 (0)61 921 0121
 www.huber-i-l.com
 E-Mail: info@huber-i-l.com

PRESSURE REFERENCE STANDARDS Types DRS 3000

Class 0.05 %



Fields of Application

The Pressure Reference Standards are used as a working standards for the adjustment test and calibration of

- » pressure transmitters
- » pressure transducers
- » pressure controllers
- » pressure switches
- » pressure gauges etc.

They help to realize more efficient procedures and to meet all requirements of ISO 9000/EN 29000, FDA, OSHA with respect to traceability, record of calibration etc.

Combined with an Automatic Pressure Calibrator, a PC and software such as C³ (Computer Controlled Calibration) the utilisation range of fully automatic calibration systems can be extended.

Special Features

- » Measuring ranges from 20 kPa to 140 MPa relative and/or absolute pressure
- » Three measuring ranges in each pressure standard, available in nine versions permitting an optimal adaption to the assigned application
- » Maximum error 0.05 % of the active measuring range
- » Nine different engineering units plus percent
- » Clear presentation of measured value, measuring unit and kind of calibration on big display
- » Quick response, 12 measurements per second
- » Easy operation from keyboard and range selector switch
- » Integrated self test of the calibration by microprocessor
- » Access to simple calibration adjustment only after passing safety barriers
- » Economic expansion to additional ranges of Automatic Pressure Calibrators by cascading them downwards
- » Convertible between table top and 19" rack mount unit.

Technical Characteristics

Executions / Measuring Ranges / Calibrations:

Type	DRS 3000	Table top
	DRS 3001	Rackmount
	DRS 3000-H	0...140/70/30 MPa**
	-G	0...70/35/15 MPa**
	-A	0...35/17.5/7 MPa
	-F	0...15/7/3 MPa
	-B	0...7'000/3'500/1500 kPa
	-C	0...3'500/1'750/700 kPa
	-D	0...700/350/150 kPa*
	-E	0...350/175/70 kPa*
	-J	0...100/50/20 kPa**
	- A	relative (gage)
	- B	absolute
	- C	relative and absolute

* available relative only or absolute only

** available in relative calibration only

Engineering Units: kPa, mbar, bar, mmHg, cmH₂O, kg/cm², PSI, inHg, inH₂O, %

Max. Error: 0.05% of active range; incl. linearity, hysteresis and reproducibility

Technical Characteristics (continued)

Resolution, Display: 0.02% of active range
7-segment-LED 14 mm, red

Overload, max.: 750% low range
300% medium range
150% high range

Pressure Media: Instrument air, nitrogen or
non-aggressive liquids

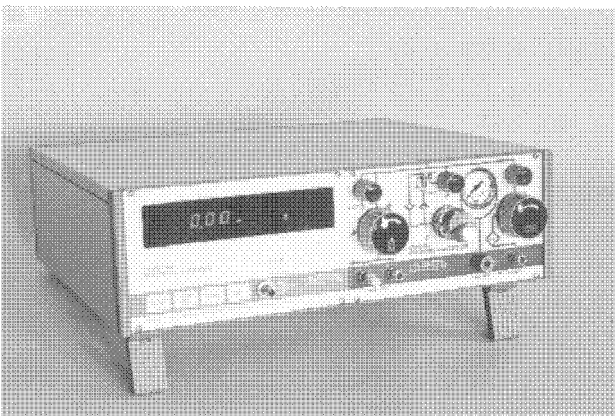
Operating Temperat.: 10...43 °C
Storage Temperature: -18...65 °C
Relative Humidity: 0...95% non-condensing
Pressure Connections: 1/8" NPT
Power Supply: 220-240 VAC, 50-60 Hz
Power Consumption: ~ 8 W (VA)
Power Line Fuse: 0.125 A, 220 VAC
Net Weight: ~ 2.8 kg
Dimensions: 235 x 155 x 275 mm
Data Interfaces: TTY (20 mA current loop)
Option Analogue Out: 4...20 mA, 0...5 or 0...10 V
(Optional RS-232-C simplex;
via ADK 4000: IEEE488/GPIB)

Special Versions

Pressure Reference Standards Series DRS 3000 used to extend to lower pressures the range of Automatic Pressure Calibrators ADK 4000 are equipped with pressure limiters for their own protection and for that of the units under test. In addition, the ADK 4000 gets a REMOTE switch/interface. The same is fitted to DRS 3000's which in turn are cascaded to lower pressures.

Depending on the request of the operator, two DRS 3000 can be combined in one single 19" case or, as shown beside, one DRS 3000 and a Digital Multimeter for system integration.

Further versions permit peak hold, min./max., freeze mode, analog output, battery operation or, as below, with a manual pressure generation/control unit, the use as an independent, very precise and easily portable pressure calibrator.



© HUBER INSTRUMENTE 1996...2002-06-21

Published on the PC with

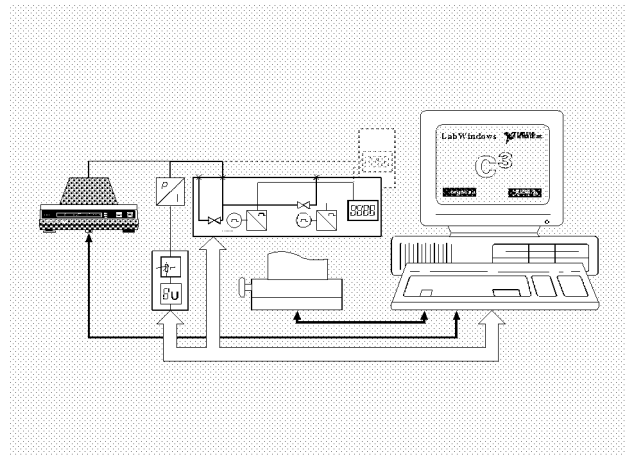
CORELDRAW! and *Wondershare*

Transformed to ADOBE .pdf format with
the EscapeE Converter of

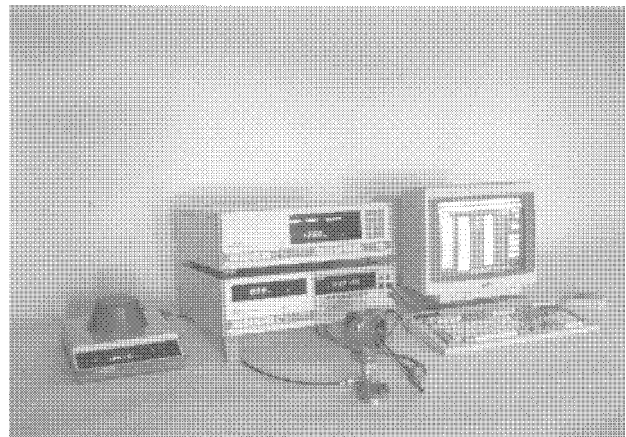


Options

Calibration and Quality Assurance Software



For the realisation of fully automatic, optimum pressure calibration processes, several versions of software are available to the operator: So one for Computer Aided (CAC) and one for Computer Controlled Calibration (C³) with modules for relative, absolute, negative and/or differential pressure as well as an integrated solution for quality assurance and inventory control the Instrument Maintenance Management System (IMMS).



Increase of Accuracy

For applications where a maximum error of 0.05 % of the active range or a lowest range of 0...20 kPa are not acceptable, digital Pressure Primary Standards with a maximum error of 0.03 % depicted at the left of above schematic are available. Measuring ranges for relative or absolute pressure are available in steps between 0...1 kPa and 0...60 MPa.

Integrated in the calibration software mentioned above, the limitation of the uncertainty to only 0.01 % can be reached.

Technical specifications, data and design are subject to change without notice
Printed in Switzerland HIL DRS 2002-06-09

HUBER
INSTRUMENTE

Militärstrasse 15
CH-4410 Liestal
Tel. +41 (0)61 921 50 60
Fax +41 (0)61 921 0121
info@huber-i-l.com