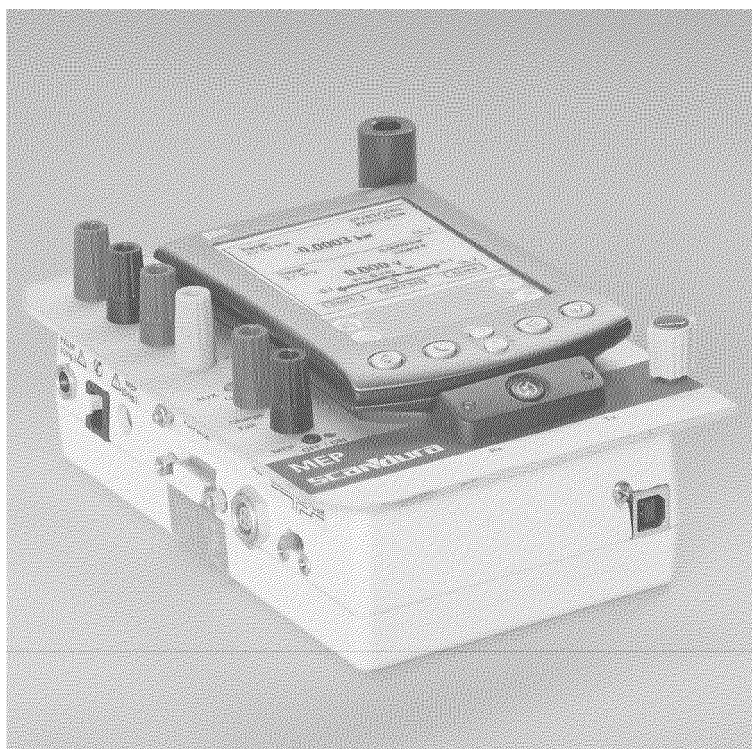


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ULTRACOMPACT ELECTRO- PNEUMATIC CALIBRATORS MEP 1000/2000 WITH PALM

Class 0.04 %



Fields of application

Designed to be integrated in our two-hand pressure calibrators, the MEP 1000/2000 system offers even at exposed sites hitherto unknown possibilities for the calibration and test of

- » manometers and pressure gauges
- » pressure transmitters, sensors and switches

The system is composed of a perfected measuring module SCANDURA MEP and a commercially available PALM handheld contributing the user interface and the complete calibration intelligence.

The PALM is securely fixed on a base unit serving as universal cradle permitting all the connections towards PC's, printers etc. Calibration reports can be viewed, printed and stored on-site, or even transmitted as E-Mail.

Special Features

- » Quick-change pressure references measure relative, differential or absolute pressure as well as current, voltage and continuity with an ease unimaginable up till now using the PALM technology
- » Pressure units bar, mbar, Pa, kPa, mmH₂O, inH₂O, mmHg, inHg, psi and user defined unit
- » User interface at permanent choice in English, French, German, Italian and Spanish; clicking on menu items rather than complicated key combinations
- » Preconfigured calibration procedures
- » Auxiliary transmitter supply 24 V DC
- » Simultaneous display of reference pressure and output of specimen under test
- » Display of pressure trend with maximum and minimum values
- » Storage of measuring results barely limited: time, date, number of test specimen and order, type of specimen, operator, error limit, 40 values ea. distributed between up, down, initial (as found), final (as left)
- » Display and printing of calibration

results on-site by IrDa or RS-232 or even sent as E-Mail

- » Base unit as a universal dock offering all united possibilities of PALM cradles: Connection for charger, USB (HotSync) and RS-232
- » Complete system conceived as quick-change unit to be used even in already existing Two-Hand Pressure Calibrators, thus no cables or tubes except those to the specimen under test
- » Application program emulates the PALM PDA normally used on a PC, therefore identical calibration procedures on-site and in the calibration laboratory and in the workshop
- » In addition come the multiple possibilities of the PALM itself such as the Date Book and the Note Pad as the most important. With a ZIRE71 the measuring place can even be retained as image.

Technical Characteristics

Pressure Part

Depending on the Two-Hand Calibrator used, pressure up to 1600 kPa and vacuum down to -80 kPa can be generated by a hand pump and regulated to 0.01 kPa by a variable volume or using the pressurised air network and precision pressure regulators of different ranges to set pressures and a selector valve to introduce these to the system.

Ranges, internal:	(MEP 1000 no exchange)
relative (§ prepared)	0...60 Pa §
	0...100 Pa §
	0...250 Pa §
	0...400 Pa §
	0...600 Pa §
	0...1.0 kPa §
	0...2.5 kPa §
	0...4.0 kPa §
	0...6.0 kPa §
	0...10 kPa §
	0...25 kPa §
	0...40 kPa §
	0...60 kPa §
	0...150 kPa
	0...700 kPa
	0...2100 kPa
differential	as relative (MEP 2000 only)
absolute	0...250 kPa _{abs}
	0...700 kPa _{abs}
Ranges, external:	(relative only)
	0...5 MPa
	0...10 MPa
	0...20 MPa *
	0...40 MPa *
	0...70 MPa *
Error limits (of range):	0.04 % (* 0.1 / § 0.07 %)
Selectable measuring units:	bar, mbar, Pa, kPa, PSI, mmHg, mmH ₂ O, inH ₂ O, inHg
Pressure media:	compatible with AISI 316
Pressure connections:	Spec. connection plugs

Electric Part

Supply:	4 batteries/accus type AA (charging connection)
Auxillary supply:	24 V for transmitter

Measurements

Direct voltage:	0...30.000 V
Direct current:	0...24.000 mA
Error limits:	0.03 % of display + 0.003 % of range
Continuity:	open/closed

Interfaces

Kind (connector)	USB (type B, f, switched) RS-232 (subminiature D 9, f) remote MEP (spec) charger MEP charger PALM (standard)
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Generalities

Conditions of use,	(Storage)
Temperature:	(-20) 0...50 (60) °C
Temperature effect:	0.002 % of display / °C
Humidity:	20...90 % non-condensating
Electro-magnetic compatibility according procedures:	IEC 61326-1 (1998) EN 55011 (1999) EN 6100-4-2 (1995) EN 6100-4-3 (1996) EN 6100-4-4 (1995)
Dimensions:	Special front panel for integration into Two-Hand Calibrator 115 x 174 mm (4.5 x 6.9 in), protruding 19 mm (.75 in), receding 46 mm (1.8 in)
Weight:	940 g (2.1 lbs) (incl. reference sensor, accus and PALM)

Standard Accessories

MEP 1000 or 2000 incl. accus Ni-Mh type AA
Charger model EC 100
Cable MEP - PC/printer with nullmodem/9/25 adapter
Software MCSW
Conformity and Producers Calibration Certificates
Directions for use

Pt.	Referenz [kPa]	Objekt [mPa]	Fehler [%]
1	-0.1	3.986	-0.070
2	120.2	7.200	-0.033
3	240.1	10.403	0.002
4	360.3	13.605	-0.018
5	480.2	16.795	-0.064
6	600.2	19.972	-0.208

Options

Specific Accessories

Compatible PALM PDA's: M1XX, M5XX, ZIRE71 (PALM-OS 3.5.2 à 5.2.1 are validated)
Cable MEP - remote MEP
Supply model PS 500 (in place of batteries)
IrDA Pocket Printer GEBE FLASH GBT-4378

Emulation Program MEP@PC

Our application program permits to replace the PALM by a normal PC (WIN 9X up) and to connect that to the MEP by a nullmodem cable. This way, for calibrations and tests in the calibration laboratory and in the workshop it is possible to use the identic user interface as on-site. For the establishment of the program, we need the PALM intended for the application to extract its ROM and all supplemental programs scheduled for the application.

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