



# DIGITAL PRESSURE CALIBRATOR WALLY BOX 65-2000-II

FOR MAINTENANCE / CALIBRATION OF PRESSURE TRANSDUCERS

## TECHNICAL INFORMATION

The **Wally Box 65-2000-II** is a compact, portable pressure calibrator which was developed for mobile use as well as for stationary workshop and laboratory calibration. A special feature of this test instrument are the two pressure control systems which are working independently of each other. One pneumatic control system is designed for an external pressure supply source while the second system will be supplied by the integrated hand pressure pump. This allows the user to carry out the most various measurement tasks or calibrations completely independently of external pressure and power supplies.



## ADVANTAGES

- high accuracy of 0,02 % of reading  $\pm 3$  digits
- high accuracy for current- and voltage measurements
- 24 V sensor supply
- selectable pressure units
- line or battery powered
- battery status display
- simultaneous readout of pressure- and electrical measurements
- RS232-interface
- integrated pressure supply with internal hand pressure pump and precision pressure controller
- precision pressure regulator for external pressure supply
- DKD calibration certificate

## GENERAL ISSUES

This pressure instrument **series 65-2000-II** controlled by microprocessor offers a wide spectrum of application possibilities with a very high precision in regard of pressure calibration and testing.

With the mobile usable calibration equipment, not only pressure measurements with a very high accuracy are possible, the instrument can also be used for exact current and voltage measurements and provides a 24 V sensor supply. Pressure readings and electrical measurements are displayed in the LCD simultaneously.

The calibrator is integrated in an extremely robust, absolute dust and water tight carrying case. Therefore the **Wally Box 65-2000-II** is suitable for the usage in difficult industrial field areas.

The measurement range of the built-in difference pressure manometer is designed as a plus- / minus pressure range. Therefore gauge-, difference- and compound pressure measurements are possible without any preliminary work or additional requirements.

With an external reference vacuum supply, also absolute pressure measurements can be done. The pressure readout can be displayed in eight different pressure units.

## CONSTRUCTION AND FUNCTION

The digital pressure calibrator is equipped with a standard RS-232 interface and is powered by an integrated NiMH-battery or an external universal plug-in power supply for the line voltage of 100 ... 240 V AC.

With the integrated precision pressure regulator for external air supply and the integrated hand pressure pump with a precision pressure controller for internal air supply, two different pressures can be provided. Both test pressures are working independently of each other. Based on these functions a variety of different application possibilities for the maintenance or calibration of pressure transducers are given.

A flow diagram on the front panel informs the user about the connection of the single pneumatic components. The surface of the digital pressure gauge is covered completely by a front membrane keypad.

The accuracy of the pressure measuring system is 0.02 % of reading (incl. linearity-, hysteresis- and temperature error).

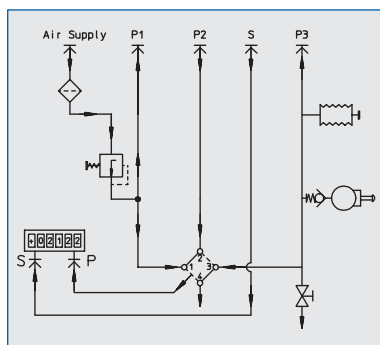
**WALLACE & TIERNAN**  
LEADER IN QUALITY  
DIN EN ISO 9001 certified  
DKD-K-02301 DIN EN ISO/IEC 17025

**US WALLACE & TIERNAN**

a Vivendi Water Company

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# TECHNICAL DATA



Pneumatic flow diagram of Wally Box 65-2000-II

## PRESSURE MEASUREMENT

### Range:

–10 ... 100 PSI (–0.7 ... 7 bar)

### Accuracy:

0.02 % of reading  $\pm$  3 digits  
(incl. linearity-, hysteresis and temperature error)

### Temperature compensation:

compensated in the range of +10 °C up to +40 °C  
(error in specified tolerance by temperature changes less than 6 °C / hour)

### Resolution:

10 000 digits (0.01 PSI)

### T90 – rise time (FS):

< 1 sec (16 conversions / sec) with  
additional display filter (3 samples / sec)

### Pressure units:

mbar, bar, kPa, mmHg, IN.H<sub>2</sub>O (20°), IN.Hg, PSI  
and one programmable unit: default mH<sub>2</sub>O (20°)

### Display:

LCD display 2 x 16 character, 8 mm height,  
with backlight (switchable)

### Static pressure:

max. 100 PSI (7 bar) via connection „S“

### Pressure overload safety:

2 times

### Pressure overload warning:

Optical warning at 5 % overload (blinking display) and  
acoustical warning at 10 % overload.

## ELECTRICAL MEASUREMENT

### Voltage range:

range / accuracy: 0 ...  $\pm$  32 V DC  
0.04 % FS  $\pm$  2 digits

### Resolution:

32 000 digits (0,001 V)

### Current range:

range / accuracy: 0 ...  $\pm$  32 mA DC  
0.04 % FS  $\pm$  2 digits

### Resolution:

32 000 digits (0.001 mA)

### Temperature error:

current- / voltage measurement  
max. 0.002 % / K

### Electrical input impedance:

voltage input  $\geq$  10 MOhm  
current input  $\leq$  1 Ohm

### Sensor supply:

24 V DC  $\pm$  10 %, galv. isolated 500 V DC  
max. current 30 mA

### Operation temperature:

compensated range +10 °C ... +40 °C  
storage temperature –10 °C ... +60 °C

### Safety issue:

CE, MIL-4150H  
protection IP 67 (with closed case cover)

### Dimensions / weight:

l 340 x h 290 x d 152 mm / ca. 5 kg

### Pressure connections:

5 x 1/8" NPT female thread

### Pressure supply:

ext. pressure supply max. 100 PSI  
(only clean dry air)

### Power supply:

100 ... 240 V AC 50/60 Hz ( $\pm$  10 %)  
for line and battery supply

### Digital interface:

standard RS232 serial interface

## STANDARD INSTRUMENTS

Range	Resolution	Ordering No.
<b>Differential Pressure</b>		
–10 ... 100 PSI	0.01 PSI	65-2000-II-E
–0.7 ... 7 bar	0.001 bar	65-2000-II-G
The ordering no. - E includes English instruction manual and documentation		

## WALLACE & TIERNAN PARTNER FOR PRESSURE INSTRUMENTS

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