

DIGITAL PRESSURE CALIBRATOR

Wally Box 65-2000

for maintenance / calibration of pressure transducers

TECHNICAL INFORMATION

The **Wally Box 65-2000** is the result of the permanent and continuous reengineering by WALLACE & TIERNAN and WIKAL Instrument. The instrument is used for the maintenance, testing and measuring of pressure transducers and for the calibration of pressure instruments. The functioning and the mode of operation of this test equipment essentially corresponds to the world wide working instrument series 65-120 and the precision pressure calibration case FA 235 G. Additionally to an exact pressure measurement, the mobile or stationary usable calibration equipment also makes exact current and voltage measurements as well as a 24 V sensor supply.



ADVANTAGES

- high accuracy of 0,02% of reading +/- 3 digit
- high accuracy for current- and voltage measurements
- 24V sensor supply
- different pressure units
- line or battery powered
- battery status display
- simultaneous readout of pressure- and electrical measurements
- RS232 interface
- DKD calibration certificate

GENERAL ISSUES

This new microprocessor controlled pressure instrument series 65-2000 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. 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 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 battery or an external universal plug-in power supply for the line voltage of 100...240 VAC.

With two integrated precision pressure regulators, which are working independently of each other, two various pressures can be provided. 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).

TECHNICAL DATA



protection IP 67, MIL-4150H
dust-/ water tight carrying case



... robust, stable and functional



... usable in difficult industrial environments

PRESSURE MEASUREMENT

Range:

-10 ... 100 PSI (-0,7 ... 7 bar)

Accuracy:

0,02% of reading +/- 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):

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

Pressure units:

mbar, bar, kPa, mmHg, IN.H₂O(20°), mmH₂O(4°), IN.Hg, PSI

Display:

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

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...± 32 V DC
0,04% FS ± 2 digit

Resolution:

32.000 digits (0,001 V)

Current range:

range / accuracy
0...± 32 mA DC
0,04% FS ± 2 digit

Resolution:

32.000 digits (0,001 mA)

Temperature error:

current- / voltage measurement
max. 0,002% / K

Electrical input impedance:

voltage input = 10 MOhm
current input = 1 Ohm

Sensor supply:

24V DC +/- 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:

5x 1/8"-NPT female thread

Pressure supply:

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

Power supply:

100 ... 240V AC 50/60 Hz (+/- 10%)
for line and battery supply

Digital interface:

standard RS232 serial interface

Standard instruments

range	resolution	ordering no.
differential pressure		
-10 ... 100 PSI	0,01 PSI	65-2000-00-E
-0,7 ... 7 bar	0,001 bar	65-2000-00-G

The ordering no. - **E** includes English instruction manual and documentation