Water Technologies

Wallace & Tiernan

Wally Box 65-2000

Digital pressure calibrator
for maintenance / calibration of
pressure transducers

SIEMENS

The Wally Box 65-2000 is used for maintenance, testing and measuring of pressure transducers and for calibration of pressure instruments. The functioning and the mode of operation of this test equipment essentially corresponds to the portable precision calibrators series 65-120 and calibrators FA-235 used worldwide. In addition to exact pressure measurement, the calibration equipment that can be used mobile as well as stationare is able to exactly measure both current and voltage and is also equipped with a 24 V sensor-supply.

General issues

This pressure instrument series 65-2000 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. Pressure readings and electrical measurements are displayed in the LCD simultaneously. The calibrator is integrated in a robust carrying case and 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 V AC.

With two integrated precision pressure regulators, which are working independently of each other, two different 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).

Avantages

- **High accuracy of 0.02 % of reading ± 3 digits**
- **High accuracy for current- and voltage measurements**
- **24 V sensor supply**
- **Different pressure units**
- **Line or battery powered**
- **Battery status display**
- **Simultaneous readout of pressure- and electrical measurements**
- **RS 232-interface**
- **DKD calibration certificate**

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		

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

Pressure units:
mbar, bar, kPa, mmHg, IN.H_2O (20 °C), IN.Hg, PSI
and one programmable unit: default mH_2O (20 °C)

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

Dust- / water tight carrying case, robust, stable und functional

Electrical measurement

Voltage range:
range / accuracy: 0 ... ± 32 V DC
0.04 % FS ± 2 digits

Resolution: 32 000 digits (0.001 V)

Current range:
range / accuracy: 0 ... ± 32 mA DC
0.04 % FS ± 2 digits

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:
24 V 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: 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 (± 10 %)
for line and battery supply

Digital interface:
standard RS 232 serial interface

www.wallace-tiernan.de

Due to continual product development and improvement,
certain specifications may change without prior announcement.

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