

Portacal 1000

Calibration device for current and voltage signals

The Portacal 1000 is a calibration device which is controlled by microprocessor. It is used for current and voltage signals. It has three output modes for simulating signals:

- **Voltage source:** for the simulation of externally-supplied voltage transmitters
- **Current source:** for the simulation of externally-supplied current sensors
- **Current sink mode:** simulates the outputs of a two-wire (loop-powered) transmitter.

Commonly used calibration functions can be invoked for each mode by pressing a button. Up to 9 storage locations per mode are available to save the individual values.

Furthermore, the Portacal 1000 can be programmed in a way that all modes can be cycled automatically. The corresponding values are controlled continually for a pre-defined time by means of a value storage. The following values can be checked and parameterised:

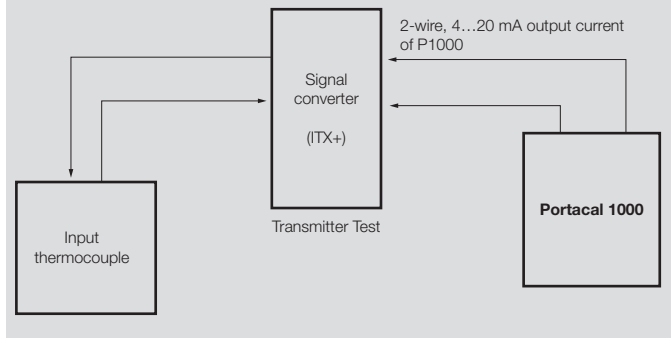
- Voltage outputs
- Current outputs
- Two-wire transmitter outputs

The Portacal 1000 provides the necessary voltage supply for the sensor in order to check a two-wire transmitter.

Technical features:

- Complete diagnosis tool for current and voltage supply
- Measuring and simulating of voltage and current signals
- Simulation of function of signal transmitter, which can be auxiliary-powered or process-powered (two-wire type)
- Continually adjustable step and ramping function
- Accuracy < 0.05 % in all signal domains
- Light and portable
- Supply via NiMH rechargeable battery or comparable battery
- Signal tone at the press of a button

Typical application of Portacal 1000



Portacal 1000

Instrument Calibrator

Technical data

Output voltage mode	
Output voltage	0...13 V
Resolution	0.01 V
Load current	0...10 mA
Accuracy	±5 mV
Residual ripple	< 1 mV
Interner Speicher	Nine user-defined voltages
Output current mode	
Output current	0...26 mA
Resolution	0.01 mA
Load resistance	600 Ω @ 20 mA (power source) 100 Ω (current sink)
max. input voltage current sink	9...45 V DC
Accuracy	±5 µA
Residual ripple	< 1 µA
Internal storage	Nine user-defined currents
Input voltage mode	
Input voltage	0...13 V
Input resistance	200 kΩ
Accuracy	±5 mV or ±1 digital step
Input current mode	
Input current	0...26 mA
Input resistance	47 Ω
Accuracy	±5 µA or ±1 digital step
Loop powered mode	
Type	Mode for loop-powered signal-converters
Input current	0...26 mA
Feed voltage	16 V ±10 %
Accuracy	±5 µA or ±1 digital step
Auto step/ramp mode	
Step	Output of each value within a certain time period
Ramp	Output via a programmed ramp function
Number of recorded values	2...9
Time interval	10...4200 s
Display	
Type	Four-digit display with LCD, 12 mm
Status indicator	Five LEDs for output mode, signal amplification and reduction
Display value	Percent or real-value displayed
Keyboard	
Type	16 buttons with acoustic signal
Calibration	Adjustable fixed values: 0, 2, 4, 8, 10, 12, 16, 18, 20 mA 0, 1, 2, 4, 5, 6, 8, 9, 10 V Nine freely-definable values
Memory	1 / 0.1 / 0.01 mA or V
Decimals	
General data	
Supply voltage	Battery, 4x type 'AA'
Temperature coefficient	< 0.01 % / °C at 100 %
Ambient temperature (operational)/storage temperature	0 °C...60 °C / -25 °C...+70 °C
Type of connection	Sockets
EMC standard	DIN EN 61326
Approvals	CE, cULus
Dimensions	
Length x width x height	44 x 100 x 180 mm
Note	

Ordering data

Type	Qty.	Order No.
Portacal 1000	1	7940010194
2x 1 m test cable sw/rt with banana plug/terminal		

Accessories

Note

