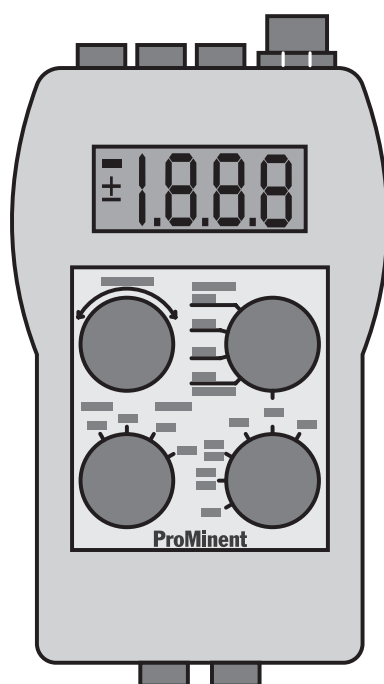


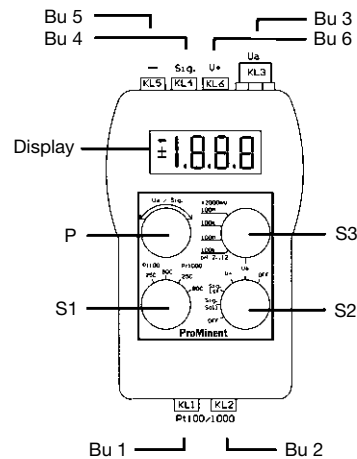
Short Instruction Manual ProMinent® Simulator



pk_5_108

Unit overview / Functional Description

1 Unit overview



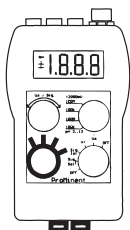
The ProMinent® Simulator simulates measuring signals for DULCOMETER® equipment.

2 Functional Description

The rotary knobs on the simulator have the following functions:

Switch S1:	Selects the temperature sensor (Pt 100 or Pt 1000) and a temperature (25 °C or 80 °C)
Switch S2:	Selects and switches on and off the measuring range that appears in the display
Switch S3:	Selects the simulated probe (Redox or pH) and the output resistance (100 kΩ or 100 MΩ)
Potentiometer P:	Adjusts the voltage signal (Redox or pH) and the mA signal: The two signal types change simultaneously when P is adjusted!
Arranging the sockets:	
Bu 1, Bu 2:	Temperature sensor signal (Pt 100 or Pt 1000)
Bu 3 (SN6):	Probe signal (Redox or pH)
Bu 4, Bu 5:	mA signal
Bu 5, Bu 6:	Connection for external voltage U ₀ (for voltage loop)

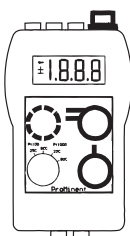
3 Controls



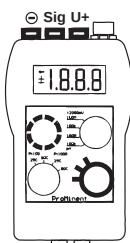
To simulate Pt 100/Pt 1000:
Connect controller to Bu 1 and Bu 2,
use S1 to select the required simulation.

NOTE

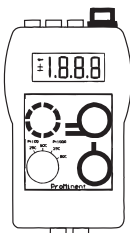
Unit does not have to be switched on for this simulation.



To simulate Redox probe:
Connect controller to Bu 3,
Set S2 to "Ua",
Set S3 to "100 k" under " ± 2000 mV",
Use P to set the required (Redox) voltage –
Value appears in the display.
Note voltage value on controller; Set S3 to "100 M" –
The voltage value on the controller must not change!



Simulate mA signal:
Connect controller to Bu 4, Bu 5 and Bu 6 (see Page 4),
Set S2 to "Sig. Soll",
Use P to set mA signal – the display indicates the mA signal,
which corresponds to the P setting.
Set S2 to "Sig. Ist" – the display shows the actual mA signal
in the signal cable.
Set S2 to "U+" – the display shows U+.



Simulate pH probe:
Connect controller to Bu 3,
Set S2 to "Ua"
Set S3 to "100 k" over "pH 2...12"
Use P to set the required pH value – the display indicates this
value.
Note pH value on controller.
Set S3 to "100 M" – the pH value on the controller must not
change!

Technical Data

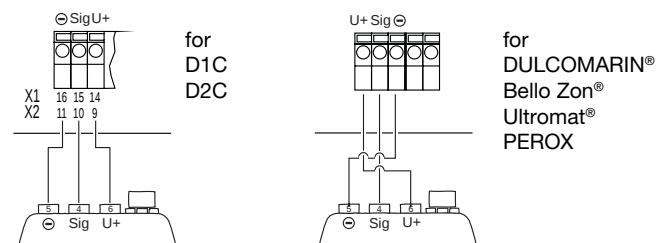
4 Technical Data

Measuring range U+: 5...30 V DC
 Voltage supply: 9 V battery unit or charger
 Battery life: approx. 150 hours at 550 mAh capacity

NOTE:

Switch off the unit after use to save the battery.

Terminal connection to standard signal input (mA)



Simulation	Output	Display
Pt 100, 25 °C	109.73 Ω	-
Pt 100, 80 °C	130.89 Ω	-
Pt 1000, 25 °C	1097.3 Ω	-
Pt 1000, 80 °C	1308.9 Ω	-
± 2000 mV, 100 M	± 1999 mV	± 1999
± 2000 mV, 100 k	± 1999 mV	± 1999
pH 2...12, 100 M	± 295 mV	12.00...2.00*
pH 2...12, 100 k	± 295 mV	12.00...2.00*
Sig. Ist	0...19.99 mA	0...19.99
Sig. Soll	0...19.99 mA	0...19.99

* Slope of 59 mV/pH and zero point at 0 mV is assumed.

We reserve the right to make technical changes.

**Proof of address and delivery
by the manufacturer:**

ProMinent Dosiertechnik GmbH
 Im Schuhmachergewann 5-11
 D-69123 Heidelberg
 Postfach 101760 · D-69007 Heidelberg
 Phone: +49 (6221) 842-0 · Fax: +49 (6221) 842-419
 info@prominent.de · www.prominent.de