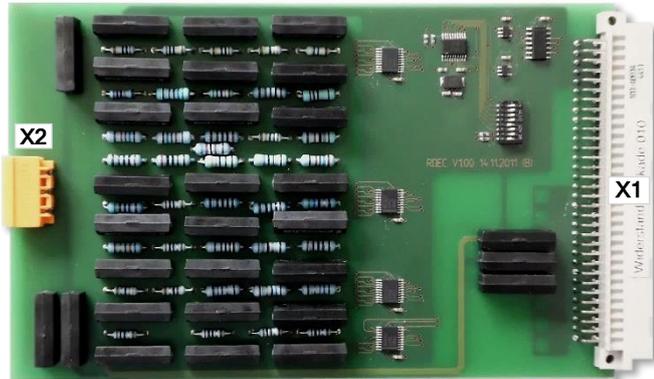# RDC1

GUARDIAN TESTSYSTEM   Item no. 21132

Features

- 24–step resistance decade
- 10 Ohm to 16.77 MOhm

The RDC1 card is a programmable resistor. A series connection of 24 binary graded resistors (1, 2, 4, 8, 16 Ω etc.) is bridged by relay contacts, whereby resistance values in the range from 0Ω to 16.77MΩ can be set. For values below 63Ω, a separate tap is used to keep the transition resistance of the contacts connected in series as low as possible. The total resistance can be switched to either connector X1 or X2.

Pinout

X1, system connector

| Pin	Signal
AC1	+5V
A2	GND
C2	RXD +
A3	RXD -
C3	GND
A4	TXD +
C4	TXD -
AC5	GND
AC21	analog bus 3
AC23	analog bus 4
AC32	GND

X2

Pin	Signal
1	Output
2	Output
3	GND for shielding

Application

- Programmable ohmic resistor for test purposes
- Simulation of NTC or PTC conductors
- Testing of temperature regulators and measuring transducer

Addressing

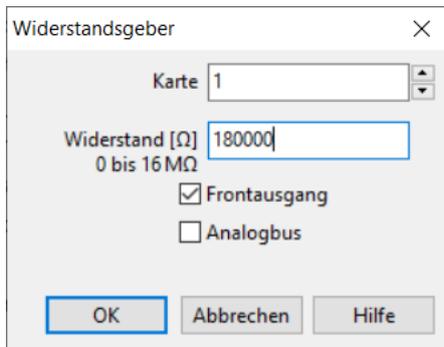The card address is set with an 8-pole coding switch.
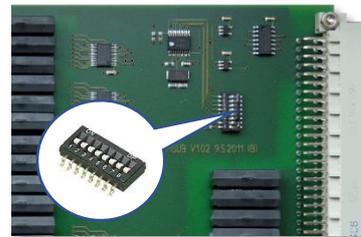
	switch number 8 7 6 5 4 3 2 1
adress 144	0 1 1 1 0 1 1 1
adress 145	0 1 1 1 0 1 1 0

1 stands for switch position „ON"
0 stands for switch position „OFF"

The bits are low-active and switch 8 MUST be always set to OFF.

The WinGuard standard base address is 144, two cards are supported.

RDC1

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WinGuard

The resistance decade is controlled with this dialog. Values and variables can be specified in the "Resistance" text field. The resistance can be continuously increased or decreased using the software, e.g., to determine a switching threshold. Disturbing transition resistances from the card to the test item can be subtract as an offset when calculating the value.

If the output is switched to the analog bus of the Guardian system, the resistor can be routed to any test points using the relay matrix (see MSU card).