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**CE** Signal Concept GmbH confirms the conformity of the device according to the directives given by the European Parliament and Council 2004/108/EG (EMC-Directive), 2006/42/EG (Machinery Directive), 2006/95/EG (Low Voltage Directive), 85/374 EG (Product Liability Directive), 2002/95/EG (RoHS-Directive) and 2002/96/EG (WEEE-Directive).

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# Resistor Unit for Axle Resistance Measurement

## SICO 3016

### Manual



**Signal**  
Concept

## Safety Instructions

### ! Warning !

To avoid the damage of persons or products, mind the following guidelines:

Consider the valid guidelines for working on railway facilities when operating the Resistor Unit SICO 3016.

Do not use a damaged resistor. Before using the resistor, check the housing for outer damages.

Do not use the resistor in environments with explosive gases, steam or dust.

Do not use the resistor when it shows a malfunction. The protection devices could be affected. In case of doubt send the resistor to the manufacturer or to a company authorized by the manufacturer for checking.

The manufacturer or companies authorized by the manufacturer are the only ones being responsible for repairing.

Voltages higher than 42 V occur at some parts inside the resistor. For that reason do not use the resistor while it is opened.

Qualified professionals only may use the resistor.

Do not drop or shock the resistor.

### Disposal

Electric and electronic devices must not be given to the general rubbish, since they mostly contain noxious elements. Instead dispose them at the collecting points for special waste.

The manual is part of the product. The user has to keep it until the disposal of the product. When handing the product to other users, the manual must be given too.

### Inspection

It is recommended to have the device inspected in regular intervals.

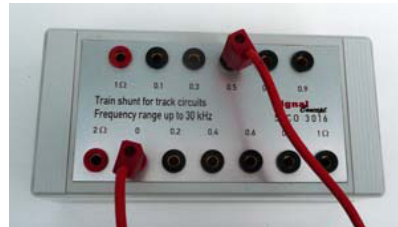
## Working Principle

The resistor unit SICO 3016 is **exclusively** used for acceptance/reconstruction tests and inspection of track circuits. The SICO 3016 determines quickly and reliably the axle resistance, in which the rail relay drops out. Another usage is not permissible.

## Operation

The resistor is connected by 4 mm plugs to the 4 mm sockets on the housing's front.

For connections in the resistance range of 0.1  $\Omega$  to 1  $\Omega$ , please use the socket 0  $\Omega$  and depending on the resistance value needed the sockets 0.1 to 1  $\Omega$  (right socket 1  $\Omega$ ).



Connection 0.5  $\Omega$

For connections in the resistance range of 1.1  $\Omega$  to 2  $\Omega$ , please use the left socket 1  $\Omega$  and depending on the resistance value needed the sockets 0.1 to 1  $\Omega$  (right socket 1  $\Omega$ ).



Connection 1.5  $\Omega$

For connections in the resistance range of 2.1  $\Omega$  to 3  $\Omega$ , please use the socket 2  $\Omega$  and depending on the resistance value needed the sockets 0.1 to 1  $\Omega$  (right socket 1  $\Omega$ ).



Connection 2.5  $\Omega$

## Technical Data

Adjustable resistances	0.1   0.2   0.3   0.4   0.5   0.6   0.7 ... 2.8   2.9   3.0 $\Omega$
Frequency range	up to 30 kHz
Tolerance	$\leq 1\%$
Capacitance	7 W
Operating temperature range	-20°C ... 55°C
Protection class	IP 54
Dimension in mm	80 x 160 x 60
Weight	approx. 840 g

## Accessory

Included in the delivery are the following parts. Please check if all of these components were supplied. If parts are missing or damaged, please contact your reseller.

- Resistor Unit SICO 3016
- Manual
- Acceptance Test Certificate 3.1

## Order number SICO 3016

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