



## RN 5306

Onsite pyrotechnical safety  
ohmmeter

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## Description

RN 5306 portable rugged safety ohmmeter is dedicated to the control of electro-pyrotechnical devices. It provides all necessary safety conditions for such measurements where user safety is at stake.

Several ranges are available, from 10 m $\Omega$  (resolution) to 2 M $\Omega$  using 4-wire or 2-wire configuration with automatic range adjustment.

Key-features that guarantee safe use in pyrotechnical environment:

- Less than 1 V at terminals in open circuit
- In case of internal fault, current is always limited to less than 5 mA when a single fault occurs, and less than 10 mA when two fault occur simultaneously.
- Before measurement, the maximum current is kept below 0.5 mA

IP 65, robust, light and with a high level of autonomy (400 hours), RN 5306 is perfect for field measurements.

Yearly calibration is highly recommended in order to control the safety functions of your equipment.

# Specifications

## Ohmmeter function

Measurement principle	Range	Resolution	Accuracy (1)	Acceptable line resistance	Max. measuring current	Max. voltage
4 wires	20 $\Omega$	10 m $\Omega$	0.3% + 10 m $\Omega$	50 $\Omega$ per wire	0.5 mA	$\leq 1$ V
	200 $\Omega$	100 m $\Omega$	0.3% + 100 m $\Omega$		0.5 mA	
	2 k $\Omega$	1 $\Omega$	0.3% + 1 $\Omega$		0.5 mA	
2 wires	20 $\Omega$	10 m $\Omega$	0.3% + 10 m $\Omega$	Taring: 10 $\Omega$ for both wires	0.5 mA	$\leq 1$ V
	200 $\Omega$	100 m $\Omega$	0.3% + 100 m $\Omega$		0.5 mA	
	2 k $\Omega$	1 $\Omega$	0.3% + 1 $\Omega$		0.5 mA	
	20 k $\Omega$	10 $\Omega$	0.3% + 10 $\Omega$		50 $\mu$ A	
	200 k $\Omega$	100 $\Omega$	0.3% + 100 $\Omega$		5 $\mu$ A	
	2 M $\Omega$	1 k $\Omega$	0.3% + 1 k $\Omega$		0.5 $\mu$ A	

(1)  $\pm$  (% reading + number of digits) at 23°C  $\pm$ 1°C for one year

## Further features

Sampling time	2.5 measurements / s
Balance settling time	$\leq 2$ s
Measurement safety	In case of overranging: 3 last digits switched off In case of breakdown of a wire or mistaken connection: Display of negative polarity
Temperature coefficient	$\leq (0.01\% \text{ RDG} + 0.1 \text{ d})/^\circ\text{C}$

## General specifications

Size	196 x 87 x 41 mm
Weight	380 g
Display	LCD display, 2,000 points, 3 ½ digits, 13 mm high
Battery	Type: 9 V standard (6 LF 22) Battery life: $\geq 400$ h

## Environmental specifications

Reference range	23°C ±1°C (45 to 75% w/o condensing)
Operating reference range	5 to 55°C (RH ≤ 95% at 40°C)
Limit operating range	-10°C to +55°C (RH ≤ 95% at 40°C)
Storage temperature limits	-30°C to +60°C
IP protection	IP65

## Safety specifications

Electrical safety	<ul style="list-style-type: none"><li>- For position 0 (stop) and T (test), measurement pins are short-circuited</li><li>- Positions T (test) check the maximum current measurement (<math>\leq 0.5</math> mA)</li><li>- In case of internal failure, current is limited to less than 5mA (for only one failure) or less than 10mA (for two simultaneous failures)</li></ul>
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## Models and accessories

### Instrument:

RN5306                      Pyrotechnical ohmmeter

### Delivered in standard:

- Protection rubber case
- Pair of measuring cables