



## Low resistance within range

### Product features

- measurement of very low resistance
- high immunity to disturbances
- easy operation
- big touchscreen
- automatic measurement mode
- autoranging

### Application

The MMR-640 meter is designed to measure very low resistance of resistive objects. This product is made to be used in power plants, railways and maintenance companies to measure resistance of:

- breakers, contacts,
- earthing conductors, equipotential bondings,
- welded and soldered connections,
- bolted connections,
- and other resistive objects.

MMR-640 can be also utilized on production lines (eg. at the final production control stage).



## Device capabilities

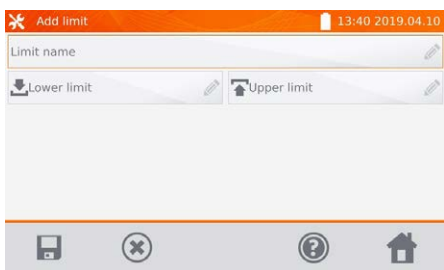
The MMR-640 meter provides an innovative combination of a high-performance measuring device with a modern user interface and advanced data management system.

## Durable and practical casing

In response to the customers needs the MMR-640 has been designed to operate in difficult environmental conditions. A unique casing with the IP67 ingress protection rating ensures that the device is both waterproof and dustproof.

## Easy readout

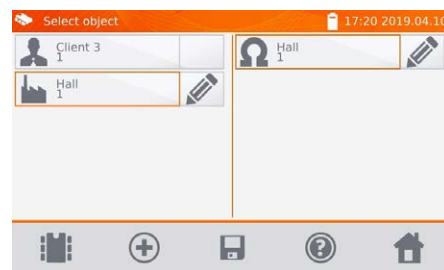
The MMR-640 meter is equipped with a readable colour touchscreen that, due to its 800 x 480 pixel resolution, provides both high comfort of interacting with the interface and high readability of the measurement results.



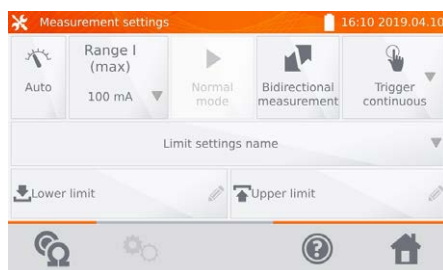
Possibility of setting limits



Readable interface



Extensive memory



## Resistance measurement

Range	Resolution	Test current	Accuracy
0...999.9 μΩ	0.1 μΩ	10 A	±(0.25% m.v. + 2 digits)
1.0000...1.9999 mΩ	0.0001 mΩ		
2.000...19.999 mΩ	0.001 mΩ		
20.00...199.99 mΩ	0.01 mΩ	10 A / 1 A	
200.0...999.9 mΩ	0.1 mΩ	1 A / 0.1 A	
1.0000...1.9999 Ω	0.0001 Ω		
2.000...19.999 Ω	0.001 Ω		
20.00...199.99 Ω	0.01 Ω	10 mA	
200.0...1999.9 Ω	0.1 Ω	1 mA	

„m.v.” - measured value.

# Technical specification

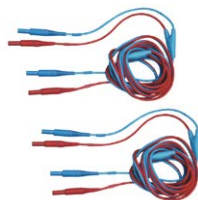
insulation type according to EN 61010-1	double	
measurement category acc. to EN 61010-2-030	III 600 V	
ingress protection according to EN 60529	with closed housing	IP67
	with open housing, powered from the battery pack, installed plugs	IP54
	with open housing, powered from mains and/or without plugs	P40
protection against external voltage	up to 600 V AC for 10 s	
power supply to battery charger	90 V...265 V 50 Hz...60 Hz 2 A	
battery charging time	ca. 3.5 h	
number of measurements (of resistive objects) with 10 A current performed when powered from the battery pack	700...800 depending on the ambient temperature	
maximum wire resistance for 10 A current	300 mΩ	
time of performing the resistance measurement	with selected resistive object type and bidirectional current flow	3 s
	with selected inductive object type, dependent on the resistance and inductance of the object	5 s or more
dimensions	318 x 257 x 152 mm 12.5" x 10.1" x 6.0"	
meter weight	ca. 3.5 kg ca. 7.7 lbs	
operating temperature	-10°C...+50°C 14°F...122°F	
charger operating temperature	0°C...45°C 32°F...113°F	
storage temperature	-20°C...+60°C -4°F...+140°F	
humidity	20%...90%	
reference temperature	23°C ± 2°C 73.4°F ± 3.6°F	
reference humidity	40%...60%	
temperature coefficient	±0.01% of d.v./°C ± 0.1 digit/°C	
time to AUTO-OFF	5...45 minutes or option not active, depending on the setting	
TFT graphic display	800 x 480 pixels	
interface standard	USB	
quality standard	design and manufacturing are ISO 9001 compliant	
the product meets the EMC requirements (emission for industrial environment) according to	EN 61326-1 and EN 61326-2-2	
compliance with FCC Rules	Class A digital device	

"d.v." - displayed value

## Standard accessories



**Kelvin crocodile (2 pcs)**  
WAKROKELK06



**3 m double-wire test lead**  
U1/I1  
WAPRZ003DZBBU111  
U2/I2  
WAPRZ003DZBBU212



**L-11 carrying case**  
WAFUTL11



**Li-Ion rechargeable battery 7.2 V**  
WAAKU27  
**USB cable**  
WAPRZUSB



**Mains cable - IEC C13 plug**  
WAPRZ1X8BLIECUSA



**Factory calibration certificate**

## Additional accessories



**Double pin Kelvin probe (2 pcs.)**  
WASONKEL20GB



**Double-wire cable (10 / 25 A) U1/ I1 6 m / 10 m / 15 m**  
WAPRZ006DZBBU111  
WAPRZ010DZBBU111  
WAPRZ015DZBBU111



**Double-wire cable (10 / 25 A) U2 / I2 6 m / 10 m / 15 m**  
WAPRZ006DZBBU212  
WAPRZ010DZBBU212  
WAPRZ015DZBBU212



**Kelvin clamp with cables**  
WAZACKEL1



**Calibration certificate with accreditation**

