EVSE ADAPTER
KEW 8602

COSINUS® MESSTECHNIK GMBH

Dedicated adapter for EVSE (Electric Vehicle Supply Equipment) installation inspections, maintenance and troubleshooting

Compact adapter for complete testing of Mode 3 AC EVSE

- EVSE tests under various simulations
  - CP State / PP State simulation
  - CP Error / PE Error simulation
- Touch pad for PE voltage check
- L1, L2, L3, N, PE measuring terminals for electrical tests of EVSE
- CP signal terminals for CP signal monitoring
- Mains socket for load current test (MAX. 10A)
- CAT Ⅱ 300V rating

What you can do with KEW 8602

Measuring terminals

PE, N, L1 (Single phase)
PE, N, L1, L2, L3 (Three phase)

Live LED

Lights up when the voltage is LIVE.

CP signal output terminals

Terminals for measuring CP signals with oscilloscope, etc.

PE PRE-TEST

Touch pad to test for dangerous voltages present on the PE.

CP error simulation button

The case of an earth fault in the CP line can be simulated. While this button is pressed, the EVSE output is stopped.

PE error simulation button

This button can be used to simulate the case of a broken earth wire. While this button is pressed, the EVSE output is stopped.

Actual Size

CP(Control Pilot) state selector

By operating this selector, the connection state of the vehicle can be simulated.

PP(Proximity Pilot) state selector

This selector can be used to simulate the rated capacity of the cable in the Untethered EVSE.

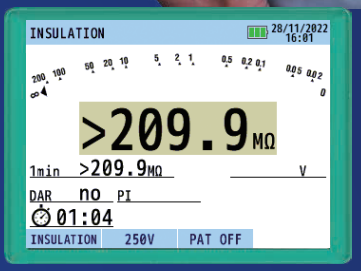
Test overview for EVSE using the KEW 6516 series

*Can be used with other insulation resistance testers, DMMs, etc.

Tests conducted under dead-line conditions (CP STATE A)

Insulation test (for cable)

By connecting the test leads to the adapter terminal, the insulation resistance of cables can be measured for both single phase and three phase EVSE. (*Insulation measurement between wires (N, L1, L2, L3) other than PE is not possible.)



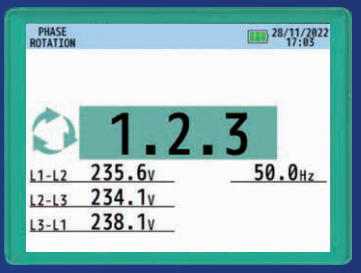
Earth Continuity test (200mA)

It is possible to check continuity between the PE terminal of the adapter and the outer metal part or the earth of the electrical circuit.

Earth test (3-wire & 2-wire)

The resistance of the earth to which the EVSE is connected can be measured.

Tests conducted under live line conditions (CP STATE C, D)



Voltage

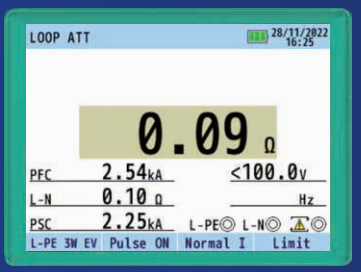
Voltage/frequency between each terminal can be measured.

Phase rotation

Phase rotation of three phase power supply can be measured.

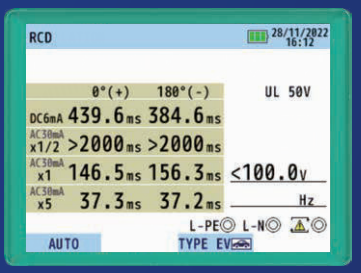
Loop Impedance (Loop ATT function)

Loop impedance between Line-Earth can be measured.
Typical measuring instruments are designed to make Loop impedance measurements on circuits where RCDs are installed, at currents that do not trip the RCD, which is rated at 30mA.
However, the 6mA DC RCDs built into the EVSE often trip even at this current, so the KEW 6516 series has a dedicated EVSE range that measures Loop impedance at even lower currents.



RCD test

The EVSE's built-in 6mA DC RCD can be tested for operation.
Polarity (+,-), x1/2, x1 and x5 tests can be auto tested.
Type AC, A, B and F RCDs can also be tested.



Connection to Type 1 EVSE

The EVSE of Type 1 can be tested by using the optional conversion adapter (KEW 8603).

Mains socket

Load current tests up to 10A can be carried out with this socket.

*Sockets are available in EU and UK types.

KEW 8602 Specification

Plug	IEC 62196-2 Type 2
Rated voltage	AC 250V Max.(Single-phase) AC 430V Max.(Three-phase)
Rated Frequency	50/60Hz
Rated voltage/ current of mains socket	AC 10A/250V ※8602(EU):Type E socket, 8602(UK):Type BF socket
Fuse rating	AC 10A/250V, φ5×20mm
Operating temp. & humidity range	0 – 40℃, RH 80% or less (no condensation)
Storage temp. & humidity range	-10 – 50℃, RH 80% or less (no condensation)
Applicable standards	IEC 61010-1 CAT Ⅱ 300V, IEC 61010-2-030, IEC 61851-1, IEC 60529(IP40)
Altitude	2000m or less
Cable length	Approx. 250mm
Dimension	Unit: 172(L) x 105(W) x 57(D) mm Plug part: 175(L) x 60(W) x 53(D) mm
Weight	Approx. 840g
Accessories	8930 (Fuse) 9202 (Carrying case) Instruction manual
Optional Accessories	8603 (TYPE1 to TYPE2 conversion adapter)

Measurable tests by KEW 8602 only or in combination with MFT (KEW 6516/6516BT)

	8602 only	8602+6516 or 6516BT(MFT)
CP state	A, B, C, D	
PP state	OPEN, 13A, 20A, 32A, 63A	
Terminal	E, N, L1, L2, L3, CP	
PE PRE-TEST	✓	
CP Error	✓	
PE Error	✓	
Mains socket	10A/250V	
Continuity	-	✓
Insulation	-	✓ (between conductors and earth)
Earth	-	✓ (2W, 3W)
Loop impedance	-	✓
Volts	-	✓
RCD	-	✓ (AC, A, B, F, 6mA DC)
Phase rotation	-	✓

Accessories

9202
Carrying case

8930
Fuse

Optional Accessories

8603
TYPE1 to TYPE2
conversion adapter

Kits

KIT 1 **KEW 6516-EV2**

KEW 6516×1, KEW 8602×1

KIT 2 **KEW 6516BT-EV2**

KEW 6516BT×1, KEW 8602×1

Safety Warnings : Please read the "Safety Warnings" in the instruction manual supplied with the instrument thoroughly and completely for correct use. Failure to follow the safety rules can cause fire, trouble, electrical shock, etc. Therefore, make sure to operate the instrument on a correct power supply and voltage rating marked on each instrument.

●This leaflet was produced in September 2023. The contents of this leaflet are subject to change without notice.

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COSINUS Messtechnik - Ihr Partner für Messlösung in allen elektrischen und physikalischen Anwendungen

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