

Insulation tester

UIP



Pore tester for corrosion protection

The devices of the UIP series (UNION Isolationsprüfer) are used to test the non-porous corrosion protection coatings of pipes, containers, and plant components. The battery-powered device generates test voltages between 5 kV and 30 kV, which are applied to the grounded test object via corresponding test electrodes. In the event of a fault, a spark discharge with an additional warning tone indicates the location of the defective coating.

Measured variables: High voltage Applications: Pipes, tanks, containers, structures

Device variants

UIP Type „V“

With type V, any test voltage in the range from 5 kV to 30 kV can be continuously adjusted using a potentiometer. This type is suitable for testing pipes up to DN 500.

UIP Type „NR“

Operates with a fixed test voltage. Voltage drops caused by moisture or high test capacities are automatically compensated. Ideal for nominal diameters above DN 500. Available with high-voltage coils from 5–30 kV. Specify test voltage when ordering.

UIP Type „VNR“

As with the NR type, the test voltage is automatically adjusted. In addition, 6 test voltages (5–30 kV) can be selected manually. Ideal for frequently changing test voltages on pipes > DN 500.

Designation	Item no.
Insulation tester Type „V“ Voltage adjustable from 5–30 kV	04102199998

Designation	Item no.
Insulation tester Type „NR“ with regulated fixed voltage	04102199999

Designation	Item no.
Insulation tester Type „VNR“ with 5-step adjustable, regulated voltage	04100199999

Scope of delivery

Designation	Item no.
Charging cable (230 V)	04302199994
Ground cable, 10 m	04302199993
Ground rod without cable	04301199958
Ground rod with 2 m cable	04301199877
Carrying strap	04401199996
Test probe extension	04301199960
incl. contact bracket holder	04301199961
Spark test gap	04301199959
Dust protection cap	04401099998
Operating instructions	04601099903

Optional accessories

Designation	Item no.
Carrying case (approx. 65 × 26 × 28 cm)	04301199999
Trailing earth for mobile ground- ing, enabling a large working range without re-grounding	04302199991
Various test electrodes	–

Depending on the design of the test electrode, one of the following holders is required for mounting:

Designation	Item no.
Test brush holder	04301199961
Wire spiral holder, fork type	04301199983
Wire spiral holder, cup type	04301199982

Technical data UIP

Electronics weight	3.2 kg
Electronics dimensions – W × H × D (mm)	240 × 200 × 145 mm
High-voltage coil weight	0.7 kg
High-voltage coil dimensions – W × H × D (mm)	700 × 60 mm
High-voltage coil cable length	1.6 m
Mains voltage for charging	220 V, 50/60 Hz
Mains current / power consumption	8–11 mA / approx. 2 W
Battery voltage	12–13.5 V
Battery charging current	approx. 110–180 mA
Battery charging voltage with overload protection	14.5 V
Battery nominal capacity	3 Ah
Discharge current	50–300 mA
Operating time without recharging	8–30 hours
Test high voltage	5–30 kV
Test current	1.5–2 mA (peak), 2 µA RMS
Test tone	2800 Hz / 90 dB

Test electrodes

A wide range of test electrodes enables reliable testing of all types of surfaces. The test brushes feature dense 25 mm long phosphor bronze bristles, ensuring high durability and a long service life.

Straight test brushes:

For testing flat surfaces, e.g., tanks or structures.



Length	Item no.
200 mm	04301199937
300 mm	04301199971
400 mm	04300199995
500 mm	04301199970
600 mm	04301199930

Half-round test brushes:

For testing pipelines. Each pass covers half the circumference of the pipe in a single operation.



Nominal diameter	Item no.
DN 50	04301199943
DN 60	04301199952
DN 70	04301199942
DN 80	04301199941
DN 100	04301199951
DN 125	04301199940
DN 150	04301199950
DN 200	04301199939
DN 250	04301199949
DN 300	04301199938

Segment test brushes:

For testing pipelines with larger nominal diameters. The pipe circumference is checked in segments. The arc length of the test brushes is 500 mm.



Nominal diameter	Item no.
DN 350	04301199918
DN 400	04301199917
DN 500	04301199916
DN 550	04301199906
DN 600	04301199915
DN 700	04301199909
DN 800	04301199914
DN 900	04301199908
DN 1000	04301199913
DN 1200	04301199912
DN 1400	04301199911

Wire spirals:

For testing pipelines with larger nominal diameters in a single pass. The wire spiral covers the entire pipe circumference.



Nominal diameter	Item no.
DN 80	04301199993
DN 100	04301199992
DN 125	04301199991
DN 150	04301199990
DN 200	04301199989
DN 250	04301199859
DN 300	04301199988
DN 350	04301199987
DN 400	04301199986
DN 450	04301199884
DN 500	04301199985
DN 600	04301199962
DN 700	04301199994
DN 750, zweiteilig	04301199929
DN 800, zweiteilig	04301199995
DN 900, zweiteilig	04301199996
DN 1000, zweiteilig	04301199984
DN 1100, zweiteilig	04301199878
DN 1200, zweiteilig	04301199947
DN 1300, zweiteilig	04301199879
DN 1400, zweiteilig	04301199948
DN 1500, zweiteilig	04301199875
DN 1600, zweiteilig	04301199863
DN 1800, zweiteilig	04301199860

Brush test brush:

For testing valves, connections, and all non-uniform surfaces.



Brush test brush	Item no.
Brush electrode with adapter	04301199969

Other test electrode types are available upon request.



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