

PADD

Partial Discharge Detector



Contact-based arrester defect detection, without disconnecting the line

PADD

Arrester flaw detector

amperis

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Description and advantages



PADD handheld unit with hook electrode



Light-indicator panel with the six partial-discharge levels

The PADD is a portable partial discharge detector for inspecting in-service metal-oxide arresters and other overhead medium-voltage accessories, such as dry-type transformers, bushings and insulators. The unit is applied by direct contact on the bare conductor, as close as possible to the accessory being checked, and indicates the detected discharge level through light indicators arranged in two colour zones.

Accurate location of the defective arrester

Unlike directional radio-frequency detection equipment, the PADD makes it possible to identify exactly which arrester is causing radio or TV interference, so only the defective part needs to be replaced instead of the whole group of nearby accessories.

Two-zone, six-level indication

The PADD's light indicators are arranged in two colour zones: the blue zone shows three low levels of partial discharge and the red zone three high levels, with an additional audible signal when the detected activity is very high.

Prior verification with the Auto-Test function

The unit includes a self-test (Auto-Test) function that confirms the detector is working correctly before each inspection, together with its own battery-status indicator.

Lightweight design ready for an insulated hotstick

The PADD is a very lightweight unit, adapted for use under voltage and compatible with an adapter for an insulated handling bar, and is carried in an included case together with its contact electrodes.



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Applications and operation



Checking an arrester with the PADD on an energised line

Applications

- Partial discharge detection on metal-oxide arresters installed on overhead lines up to 69 kV.
- Inspection of in-service dry-type transformers, bushings and insulators on medium-voltage networks.
- Locating the specific arrester causing radio or TV interference in the area.
- Preventive arrester maintenance programmes on overhead distribution networks.

Operation

Hotstick inspection on lines up to 69 kV

The PADD is applied by direct contact on the bare conductor, as close as possible to the arrester being checked, on overhead medium-voltage lines up to 69 kV (or 45 kV phase-to-neutral).

Two-zone, six-level indication

The panel of light indicators is arranged in two zones: the blue zone shows three low levels of partial discharge and the red zone three high levels, with an additional audible signal at the highest levels.

Self-test before use

The Auto-Test function allows the unit's correct operation to be verified before each inspection, together with an independent battery-status indicator.

Locating the defective accessory

By checking each arrester individually, the PADD makes it possible to identify exactly which accessory is causing radio or TV interference, avoiding the replacement of accessories that are not actually defective.



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Accessories and options



Hook-type contact electrode (60 mm)



Y-type contact electrode

Hook-type electrode (60 mm)

60mm hook-shaped contact electrode, hooked onto the bare live conductor as close as possible to the arrester being checked.

Y-type electrode

Alternative Y-shaped contact electrode, intended for the same use as the hook electrode, to adapt to the layout of the conductor or the accessory being inspected.

Adapter for insulated handling bar

Universal adapter built into the handheld unit, compatible with the insulated hotsticks commonly used in the industry, allowing the check to be carried out without direct contact between the operator and the energised part.

Carrying case

Included case that holds the handheld unit, the contact electrodes and the alkaline battery, making it easier to transport the equipment between sites.



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PADD – TECHNICAL SPECIFICATIONS

Detection technology	Direct-contact method with ultra-wide-band radio-frequency detection, for use on energised lines
Application	Metal-oxide arresters, dry-type transformers, bushings and insulators on medium-voltage networks
Maximum line voltage	Up to 69 kV (45 kV phase-to-neutral)
Indication levels	6 levels in 2 colour zones: 3 low levels (blue) and 3 high levels (red)
Indication type	Visual (light indicators) and audible
Self-test	Built-in Auto-Test function, prior to each use
Contact electrode	60mm hook-type electrode; Y-type electrode available as an alternative
Hotstick adapter	Built-in universal adapter, compatible with an insulated handling bar
Power supply	1 9V alkaline battery
Battery indicator	Independent battery-status indicator
Carrying case	Included; holds the unit and the contact electrodes
Weight and design	Very lightweight unit, adapted for use under voltage
Operation	Operated by a single person

Specifications subject to change without notice.

The hook-type contact electrode is supplied as standard; the Y-type electrode is available as an alternative accessory.



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