Voltage detectors - DETECT type - for MV power installations

SR EN 61243-1:2021

Code: DETECT 3-10 kV / DETETC 6-20 kV / DETECT 10-36 kV

The new **DETECT** series of voltage detectors with **multi-sensor and microprocessor technology** is designed for checking the presence/absence of voltage by direct contact with conductive elements of indoor and outdoor medium voltage installations, in dry weather or wet weather conditions. This new series of MV detectors ensures **precise indications in conflicting electric field areas**. Voltage detectors are capacitive type according to **SR EN 61243-1:2021**.
The voltage detectors are manufactured in three constructive versions for three different voltage ranges: **3-10 kV, 6-20 kV** and **10-36 kV**.

Voltage detectors – DETECT type – have housings made of red transparent polycarbonate, a material with excellent mechanical and dielectric properties. On the lower part, the housing is provided with an **"universal" coupling system**. In order to be used with the telescopic insulating sticks provided with "hexagon 12" socket coupling system, the voltage detector is supplied along with an **hexagonal adapter.**

Optical indicators (12 red LEDs, 1 green LED, 3 orange LEDs) as well as the acoustic signalling of the **buzzer** provide an extremely perceptible signalling in strong light and noisy environments. In order to ensure the best visibility of optical indicators, extremely bright red flashing LEDs are arranged on the **control panel** (4 LEDs) and **laterally, diametrically opposed, in the middle part of the housing** (2×4 LEDs). This positioning of red LEDs allows the observing the optical signalling both by the operator and another person standing sideways.

The **control panel** contains:
- **test button** for checking of electronic circuits;
- **acoustic signalling buzzer**;
- **four red LEDs** for checking the presence/absence of voltage by direct contact with conductive elements of indoor and outdoor MV installations
- **three orange LEDs** to indicate an malfunction of electronic circuits noticed during the checking or the battery discharge warning;
- **one high luminosity green LED**.

The DETECT type voltage detectors are calibrated on real voltage in our High Voltage Laboratory, by remote control and they are in a permanent **"stand-by" state.**

Prior and after each use, the voltage detectors **DETECT** type must be functionally tested by pressing the test button, as this check includes the test of the electronic circuits and the appropriate charging level of the battery. The **"ready for operation" period of detector is signaled** by the **green LED**, **for two minutes**. During this period of time an automatic self-checking being performed.
After the performing of the operational test, the voltage detector fixed on the appropriate insulating stick is brought closer to the conductor to be checked until the detector's electrode gets in contact with checked conductor. If the conductor is **live**, the detector will indicate the **presence of voltage by red flashing lights** and **acoustic intermittent signalling**.

For store and transport, the voltage detectors DETECT type are packed in an shock protective casing.





DETAIL
OPTICAL SIGNALLING



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Detector type	DETECT 3-10 kV	DETECT 6-20 kV	DETECT 10-36 kV
Rated operating voltage (kV)	3 ÷ 10	6 ÷ 20	10 ÷ 36
Operating temperature range (^{0}C)	-25 ...+55	-25 ...+55	-25 ...+55
Supply - alkaline battery	9 V type 6LR61	9 V type 6LR61	9 V type 6LR61
Overall size - without contact electrode (mm)	Ø 60 x 245	Ø 60 x 245	Ø 60 x 245
Overall size - with contact electrode (mm)	Ø 60 x 303	Ø 60 x 303	Ø 60 x 303
Detector weight with battery (kg)	0,365	0,365	0,365
Usable in wet weather	YES	YES	YES