VOLTAGE DETECTOR WITH COMBINED SIGNALLING HV - 38.5 kV

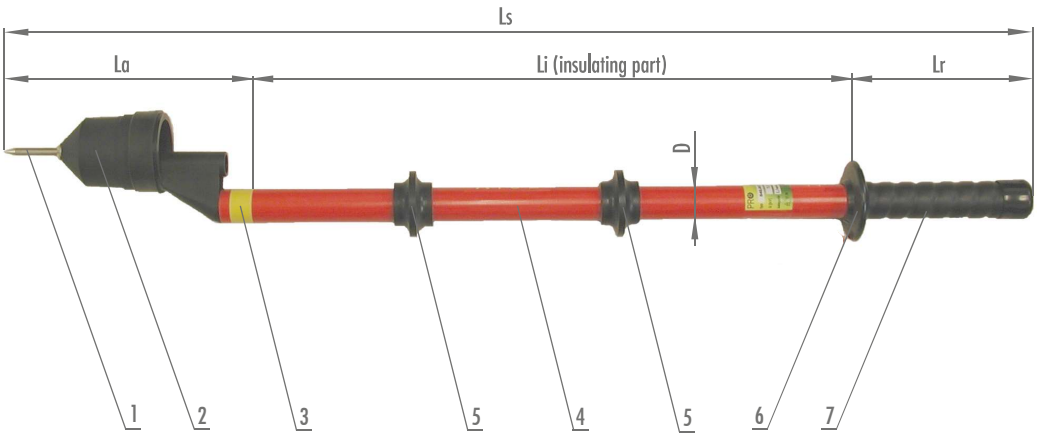
Group III

for outdoor use

TYPE 840.040

General Information

Voltage detectors are designed for detecting the presence of high voltage (frequency of 50 Hz). Presence of voltage is indicated by light and acoustic signal during direct contact with hot part. Insulating pole is made of glass - fibre laminate which is suitable for its high electrical and mechanical resistance and stability. It fulfills the requirements on the protective equipment for outdoor use. The detector is determined for outdoor use under normal climatic conditions. The indication head is water resistant. The handle is equipped with a protective rubber ring (hand guard) and insulating part with rubber rings to stop water (rain shed). Voltage detectors comply with standards ČSN EN 61243-1, IEC 61243-1, PNE 35 9700.



Contact electrode 3.6 - 38.5kV

850.055
prolonged contact electrode
3,6 - 38,5 kV
on request

1 - contact electrode
2 - indicator (voltage head)
3 - limit mark
4 - insulating element
5 - rain sheds
6 - hand guard
7 - handle
8 - red LED
9 - TEST button
10 - label for outdoor use

Technical Data

Rated voltage [kV] network/equipment	Type	Size [mm] Ls	Lr	Li	La	D	Total weight [kg]
35 / 38.5	840.040	950	160	560	230	31	0.7
Indication type		capacitive detector					
Group III		indication with one active signal - voltage present					
Climatic Class N		temperature -25°C - +55°C, humidity 20% - 96%					

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Changes excepted!
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1.0 Signalling

Groupe III - Red LED and an alternatig sound of the buzzer indicate presence of hig voltage (HV).

2.0 Operability test

The check whether the detector is operable, press the **TEST** button properly until the red LED starts blinking and the buzzer sounds. If the capacity of the feeding cells (two independent alkaline batteries) drops below the set value the red LED does not go on and there is no acoustic signal. In this case it is necessary to replace the baterries. If one of batteries is out of order, the detector is still operable.

3.0 In-operation testing procedure

a) Visual check - the detector must be in condition, it must not be mechanically damaged

b) Function test - before the use check the proper function of comparator by pressing the **TEST** button. The detector is operable if the both red LEDs are blinking and the buzzer gives a alternate sound signal until the **TEST** button is pressed. When the **TEST** button is released, both red LEDs must stop light and the buzzer must stop giving a sound. Now the comparator is ready for use

c) Indication process - each phase is tested separately as follows. The detector must be held below the hand guard by the handle while the contact electrode is attached to the checked part. The part of pole below the yellow mark (insulating part - between the handle and the yellow mark) must not get into the space under voltage.
Red LEDs and an alternatig sound of the buzzer indicate presence of hig voltage (HV). If there is no voltage, red LEDs do not light and the buzzer do not give a sound

d) Final operability - the detector operability must be retested after each detection in accordance with point 2.0 - Operability test. Only if the operability test is successful it is possible to say whether the tested parts are under voltage or not. It is possible to perform further operations (e.g. short-circuiting)

4.0 Replacement of feeding cells

The feeding is secured by two alkaline batteries type E23A (VA23GA, MS21, MN21) with tthe tension 12V built-in in the indication head. The neccessity of their replacement is checked by the testing button (point 2.0 see above).
1) Release the check nut of the contact electrode
2) Unscrew the contact electrode
3) Unscrew the plastic cover of the indication head
The batteries are fast held in the holder. Use a small screwdriver or a pocketknife for the replacement. Get under the batterie the screwdriver (knife) and gently press out of holder. Put on the holder the new batterie according to the polarity and gently press into the holder.

5.0 Operating conditions

The detectors are intended for use in ordinary indoor and outdoor conditions, normal climatic group with the temperature -25°C - +55°C, the humidity 20% - 96% (class N). **They can be used in the rain, fog and snowfall.** The indication head is water resistant. The handle is equipped with a protective rubber ring (hand guard) and the insulating part with rubber rings to stop water (rain shed). The nominal voltage of the detector is always marked on the detector's pole.

The voltage detector should only be used on electrical facilities with nominal voltage for which it is designed.

The instructions for use should be incorporated into the local operating and safety regulations.

The detector may only be used by qualified personnel.

6.0 Testing

The detector is type-tested according to valid standards by the authorised labratory. Each detector is separately tested piece by piece before expedition and labeled too. The label includes the test date (quarter/year) and the number of the authorised laboratory. The detector must be tested regularly by the authorised labratory.

7.0 Packing

The detector is expedited foil wrapped. The set can be delivered in the water-resistant cloth wrapping after the agreement with the producer. There is enclosed the function description and the directions for use, the Certificate about quality and completeness of product and product test.

8.0 Storage and maintenance

The detector must be kept in condition. The storage place must by dry and dust-free. The equipment must be protected against the mechanical damage. The humidity should be 70% as a maximum and the temperature 40°C as a maximum.
For common cleaning use damp cloth, for more resistance dirt use technical alcohol. Do not use any organic solvents or any substances which may have a decolorizing effect.

9.0 Guarantee

The guarantee period is 24 months long and starts on the day the product is delivered to the customer. It applies to any defects probably caused by the manufacture. The guarantee does not cover any defects resulting from improper use, unprofessional handling, or unsuitable storing.

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