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AOWN-4 SOUND-OPTICAL VOLTAGE DETECTOR

The AOWN-4 sound-optical voltage detector is designed for acoustic and optical signalling of the presence of alternating voltage in 50 Hz networks with the rated voltage from 0.23 kV up to 400 kV. It works in conjunction with the UDI universal insulating pole designed for appropriate rated voltage. The producer recommends using the UDI-B insulating poles filled with isolation foam.

The AOWN-4 detector operates within the following rated voltage ranges:

Symbol of the detector	Value or range of rated voltages [kV]	Clear indication PN-EN 61243-1:1998	Gross weight [kg]
AOWN-4/1	0.23 – 1	D	0.50
AOWN-4/2	2 – 6	C	0.50
AOWN-4/3	6 – 15	C	0.55
AOWN-4/4	12 – 36	C	0.55
AOWN-4/5	30 – 75	D	0.60
AOWN-4/6	110 – 400	D	0.65

The AOWN-4 detector is equipped with cylindrical bridging resistant housing “2” made of black colour plastic. It is shock resistant according to the PN-EN 61243-1:1998 Polish Standard. Its design assures splash proofing.

One side of the detector is terminated with aluminium contact pin “1” of L category (i.e. with no extension), of the length specified for the ranges according to the PN-EN 61243-1:1998 Polish Standard. The other side of the detector is terminated by the holder “5” for fastening in the UDI universal insulating pole quick clamping head. The shape of the detector enables to introduce it together with the insulating pole into switchgear through appropriate measuring holes with no necessity for the serviceman to enter into switching station, if the switchgear has been equipped with such holes.

The AOWN-4 detector is made according to the I-st type group of signalling (i.e. the detector with wide range of rating voltage) defined by the PN-EN 61243-1:1998 Polish Standard. The detector has two different signals: acoustic and visual and additionally is equipped with a self-test. It is destined for internal and external usage in the range of temperatures from -25°C up to $+55^{\circ}\text{C}$ and relative humidity from 20 % up to 96 % - it responds to the N climatic category according to the PN-EN 61243-1:1998.

The detector is powered with an alkaline hermetic 9V battery of 6LR661 type. It is permissible to use - environment friendly - nickel-metallic-hydrogen 8.4 V, 150 mAh battery of 6F22 NiMH type and suitable charger e.g. of the GP Batteries. The detector is not equipped with batteries and chargers (user must buy them). The battery can be replaced easily; the procedure is described in the Operating Manual.

The AOWN-4 Detector is equipped with a microprocessor electronic system assuring high stability of adjusted signalling voltage and high stolidity to decrease the supply voltage (there is no possibility to adjust the sensitivity of the detector by the user). Occasional switching the detector on will not cause the battery to discharge because after 2 minutes the detector automatically will switch off.

During self-testing and during indicating the presence of voltage, the AOWN-4 detector is emitting very well audible and visible acoustic and visual signals.

AOWN-4 operates as follows:

The self-testing follows automatically the switching on of the switch “8” by pressing it for about 2 sec. At the same time red diodes “7” and “9” are switching on and a continuous modulated audible signal is emitted for about 1 sec. Then the detector is in the “standby” state. During this state the detector is emitting continuous modulated acoustic and visual signals.

Discharging the battery is signalled with a separate signal code: 3 times acoustic and visual signal and after that the detector is switched off.

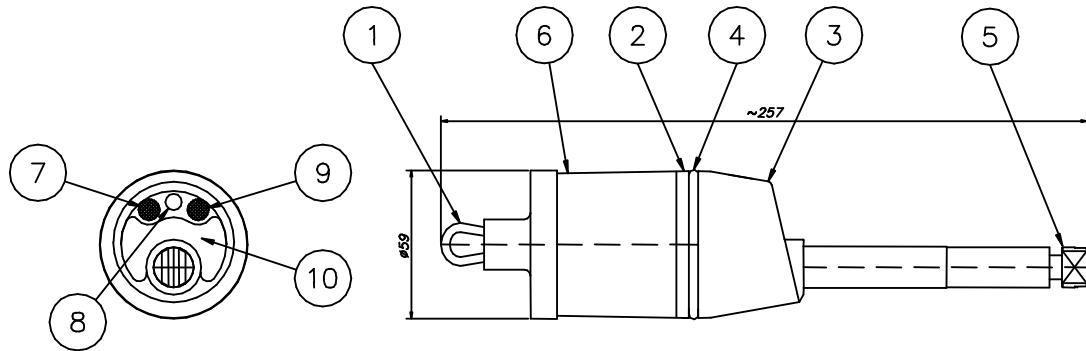
The AOWN detector is supplied with protective cover made of coated fabric. The set also includes the Operating Manual and a Quality Certificate.

Reference documents:

PN-EN 61243-1:1998	Live working. Voltage Detectors. Capacity type detectors for alternating current with voltage range from 1 kV up to 52 kV.
PN-EN 60832:2002	Insulating poles and universal working elements for live working.
WTO-8/02	AOWN-4 Sound-optical voltage detector.

AOWN-4 SOUND-OPTICAL VOLTAGE DETECTOR

See version AOWN-4/4



1. Contact electrode – different for AOWN-4/1-6 version
2. Cylindrical housing
3. Body
4. Rubber sealing
5. Holder
6. Name plate
7. Red diode
8. Switch
9. Red diode
10. Audible signalling device
11. Screen
12. Plate of battery polarity
13. Battery

Battery replacement

