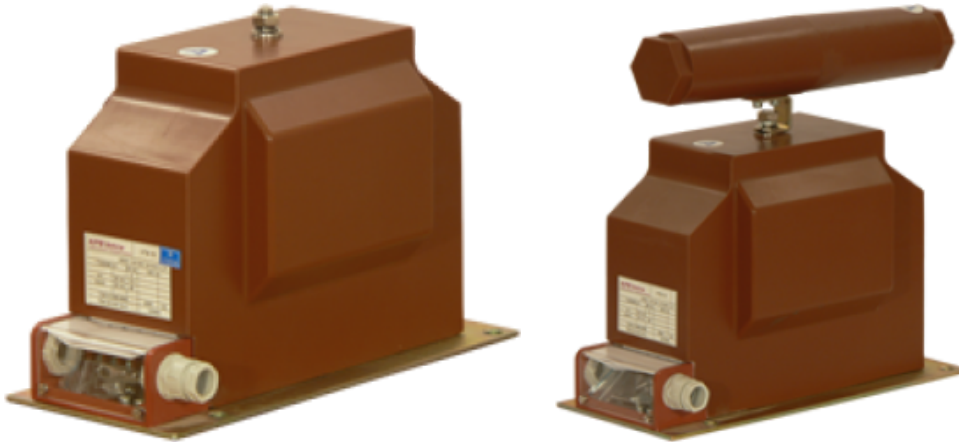


# KPB Intra

## Instrument Transformers

### Voltage instrument supporting transformer VTS 12



Voltage instrument transformers VTS 12 are single-phase transformers isolated with one pole. They are designed for the use in the high voltage systems. They are designed for measuring and protection of high voltage distributing equipment for indoor design. The instruments can be equipped with high voltage fuse protecting the surrounding distributing system.

The values of secondary voltage are  $100/\sqrt{3}$ ,  $110/\sqrt{3}$ ,  $120/\sqrt{3}$ ,  $100/3$ ,  $110/3$ ,  $120/3$  V. The accuracy classes for measuring winding are 0.2, 0.5, 1, 3, for the securing winding are 3P and 6P. The transformers satisfy required accuracy class at intervals from 25% to 100% of rated load.

Transformers VTS 12 with fuse are provided with epoxy extender, holder and fuse enclosure of type JT 6 (0.3 A or 0.6 A). Extender with fuse can be dismantled.

Magnetic circuit of voltage transformers VTS 12 is made of oriented transformer strips in the shape of "C" of core.

All active parts of transformer are compound-insulated with epoxy-mixture. This material performs both the electrical insulating and the mechanical functions.

Transformers are fixed by the means of four screws M12 in the holes in the basic plate. The outlet of primary winding "A" is brought out by the means of bolt M10.

**ATTENTION: The isolators must not be pre-stressed mechanically in the direction away from the body of transformer during the other way of contacting.**

#### Technical specifications

Highest voltage for equipment:

17.5 kV

Power frequency test voltage:

38 kV

Lightning impulse test voltage:

95 kV

Nominal primary voltage:

$3000/\sqrt{3}$  –  $15000/\sqrt{3}$  V

Nominal secondary current:

$100/\sqrt{3}$ ,  $110/\sqrt{3}$ ,  $120/\sqrt{3}$  V

Nominal auxiliary voltage:

$100/3$ ,  $110/3$ ,  $120/3$  V

Nominal power:

10, 30, 50, 75, 100, 150 VA

Max power:

400 VA

Nominal frequency:

50 Hz

Weight:

21 kg

The temperature class:

E

Operation conditions:

operating temperature from  $-45^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$

Transport and storage conditions:

We recommend use terminal ends corresponding to the used cross-section of the conductor for attaching to the secondary outlets. The secondary terminal plate is provided with the cover with sealing screw. Inside, there is the set with jumpers and small screws for the possibility of earth connection and short circuiting of the wiring. (See "The Instructions for the mounting and operation").

In cases where the substitution for the older types of transformers (various producers) is required, we supply transformers VTS 12 with modified basic plates that have identical mounting spacing to spacing of the substituted types.

Voltage instrument transformers VTS 12 complied with all the tests according to ČSN EN 60044-2.

For the customer's request we provide official calibration.

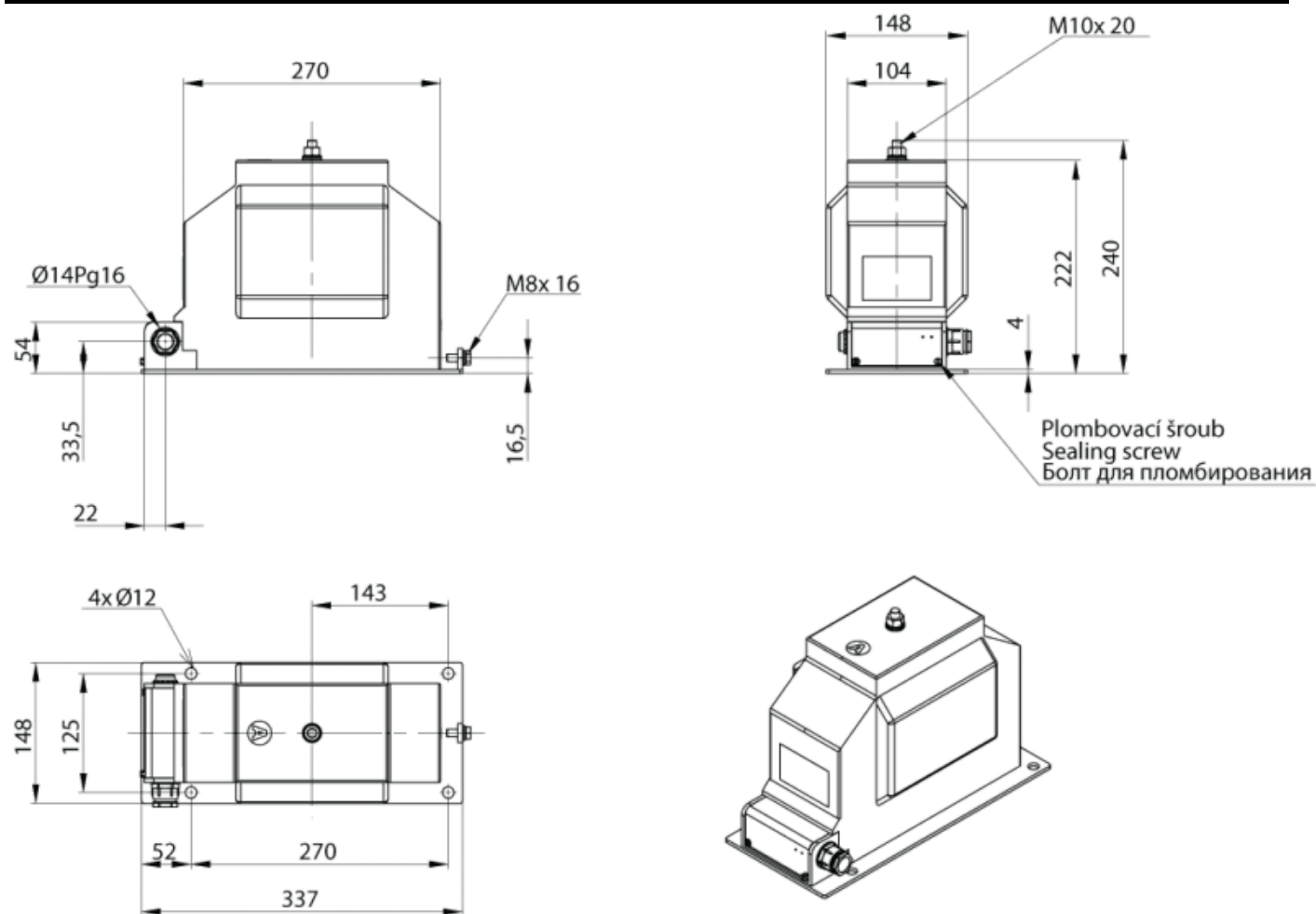
It is possible to consult other technical parameters with the producer.

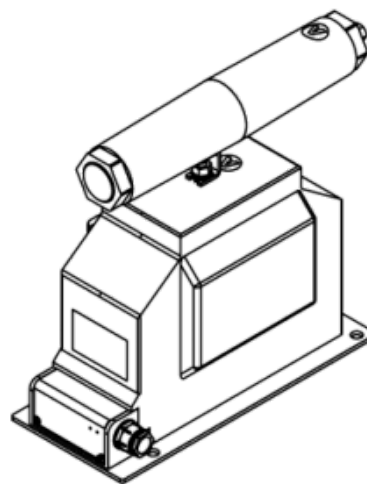
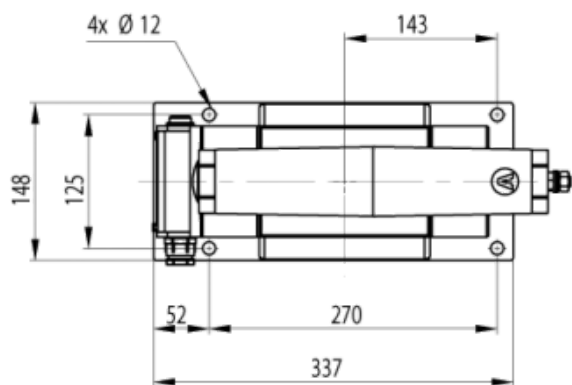
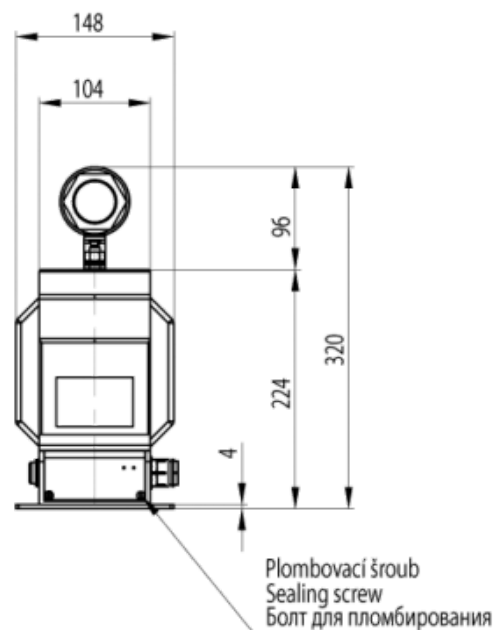
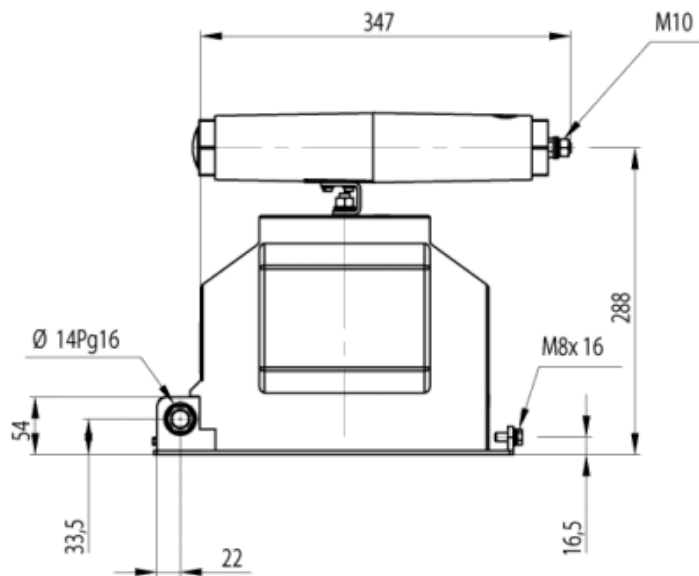
ship tightly fasten to a palette

store in temperatures from -50°C to +60°C

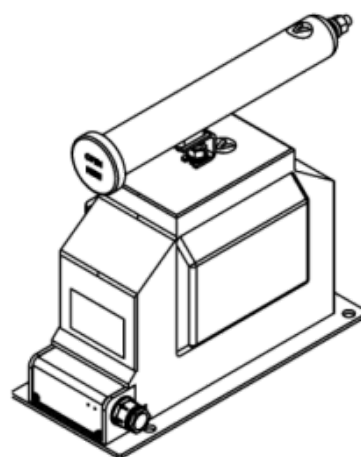
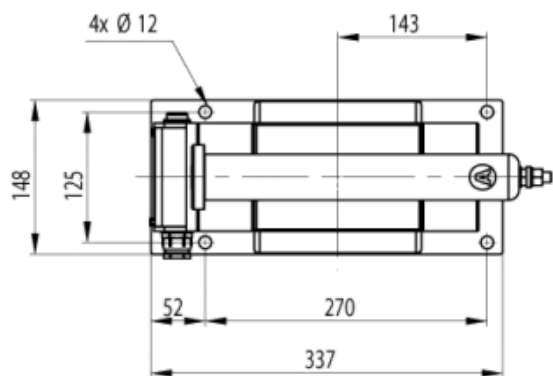
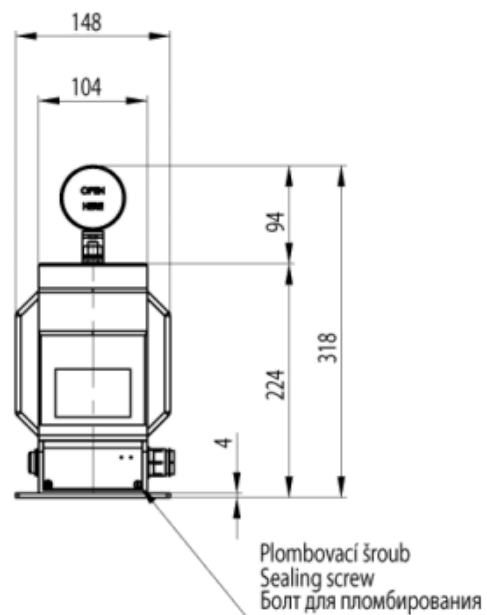
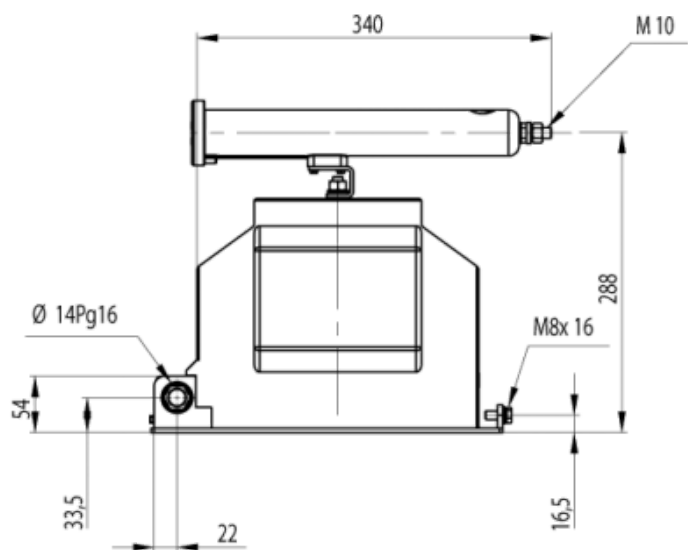
**Standard:**  
IEC 60044-2

**Technical drawings:**

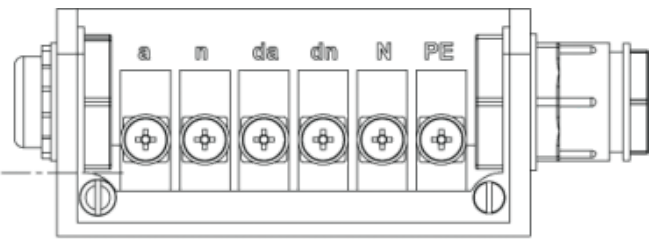




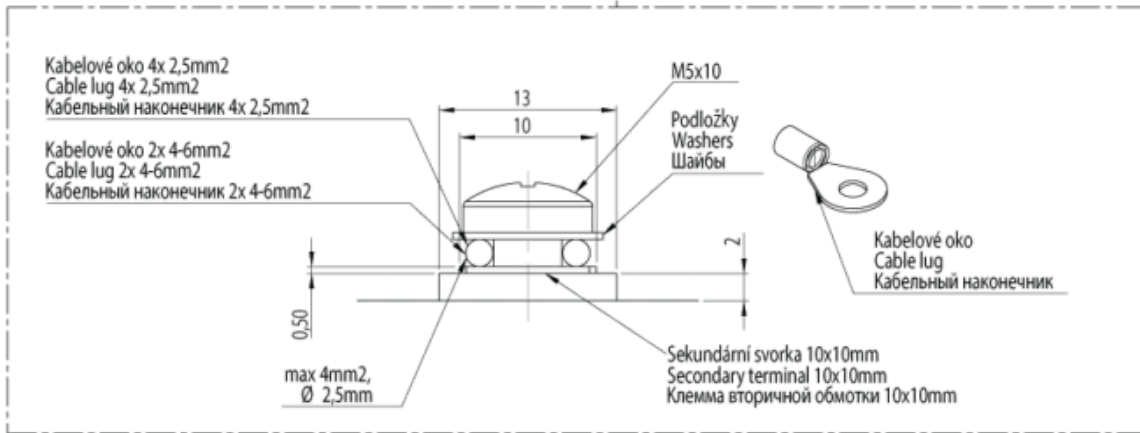
VTS 12 with epoxy fuse



VTS 12 with plastic fuse

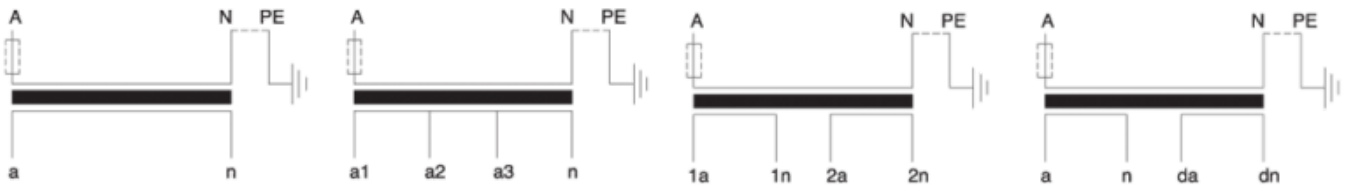


Sekundární svorkovnice  
Secondary terminal  
Клеммы вторичной обмотки



## secondary terminal

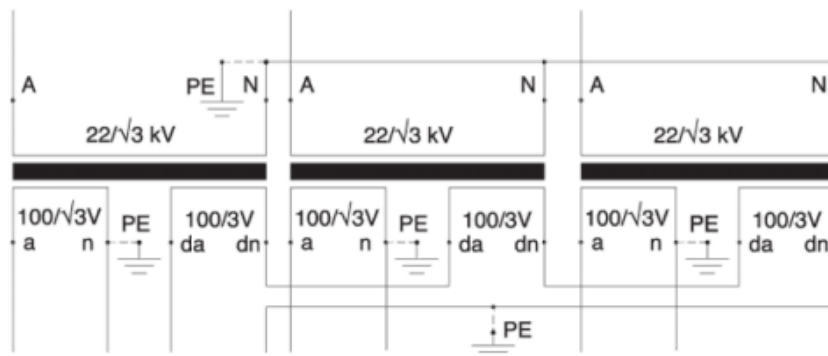
### WIRING DIAGRAM



One end of primary winding is isolated from ground, the other is earthed during the operation. Before starting of the operation it is necessary to assure the earth connection of one of the secondary terminals of every outlet (See "The Instructions for the operation and mounting").

In case of connection of auxiliary winding in the open triangle terminal has to be earthed at only one instrument out of the triplet.

### The diagram of connection of three single-poled transformers



ATTENTION! After every connection it is necessary to check if the secondary winding is not earthed by the means of one terminal at the terminal box of the instrument and by the means of the second terminal in outlet in the

low-voltage part. On the other case the instrument is connected in the shortcircuit and after the connection of high voltage there will be the destruction.

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