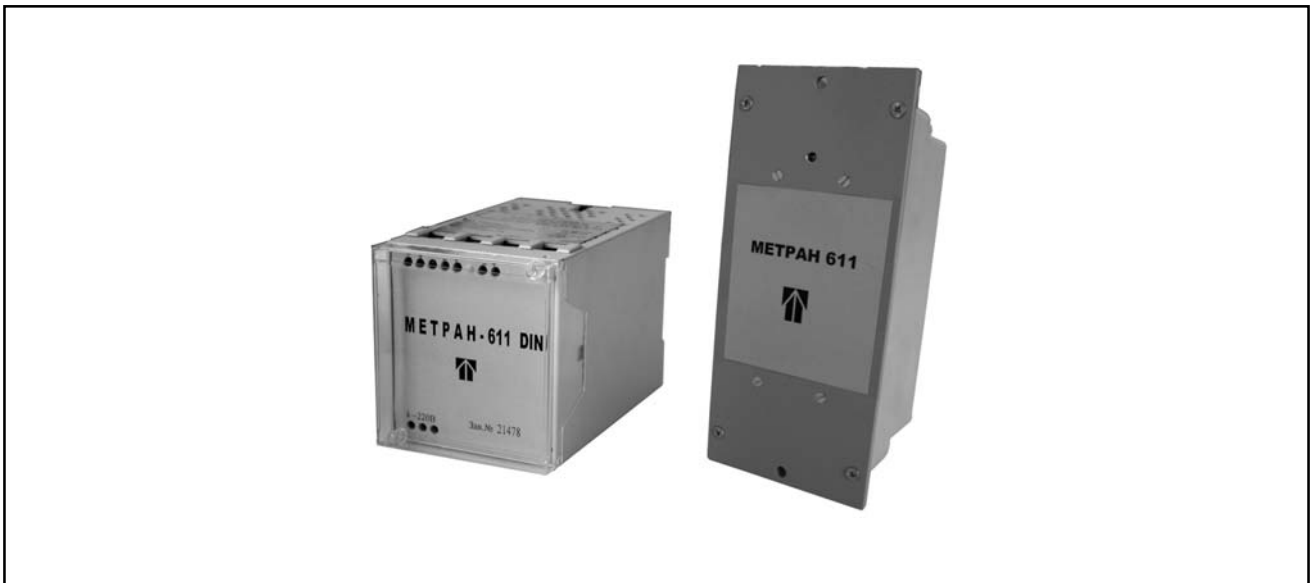


## Metran-611 Power Supply and Root-Extracting Unit

OKP code: 4218



- **Number of channels: 1**
- **Electrical circuit of overcurrent and short circuit protection**
- **Automatic return to operation mode after failure elimination**
- **On/off LED indication**
- **DIN-mounted power supply units are made per DIN43700 Euronorm**
- **Panel-mounted power supply replaces BPK power supply and root-extracting units as per design and functions.**

The Power Supply and Root-extracting Unit is designed for supply of Metran Series Differential Pressure Transmitters with unified output by 24 V or 36 V stabilized voltage, and for functional conversion of the signal into other levels via root-extracting dependence channel.

### SPECIFICATIONS

- Number of channels: 1
- Supply Voltage:  $(220^{+22}_{-33})$  V, (50±1) Hz
- Output Voltage: 24 or 36 V
- Input Turndown: 0-5, 4-20 mA (optional 0-20 mA)
- Output Turndown: 0-5, 4-20 mA (optional 0-20 mA)
- Reference accuracy limit in % of output turndown:
 

±2.0 %	at 0 to 5% of input signal change;
±0.15% (±0.25%)	at 5 to 100% of input signal change;
- Output signal change due to ambient temperature change within the range of 10 to 60°C, not above reference accuracy limit per every 10°C
- Output signal change in % of output turndown, max:
 

±0.1% at supply voltage change within $(220^{+22}_{-33})$ V range;
±0.2% at vibration effect
- Change of supply voltage value at rated load current, max:
 

±0.1% at supply voltage change within the range of $(220^{+22}_{-33})$ V;
±0.1% per every 10°C at ambient temperature change within the range of 10 to 60°C
- Load resistance for output signal:
 

2.5 kOhm for 0-5 mA output signal;
1.0 kOhm for 4-20, 0-20 mA output signal
- Resistance of communication cables between the power supply and the transmitter, max: 100 Ohm
- Power Consumption, max: 5 VA
- Mounting:
 

Panel for Metran-611-01;
DIN-bus for Metran-611-DIN
- Weight, max: 0.5 kg

### DESIGN AND OPERATING PRINCIPLE

The Unit consists of the housing and the printed-circuit board with electric elements. There is LED indicator on the front panel.

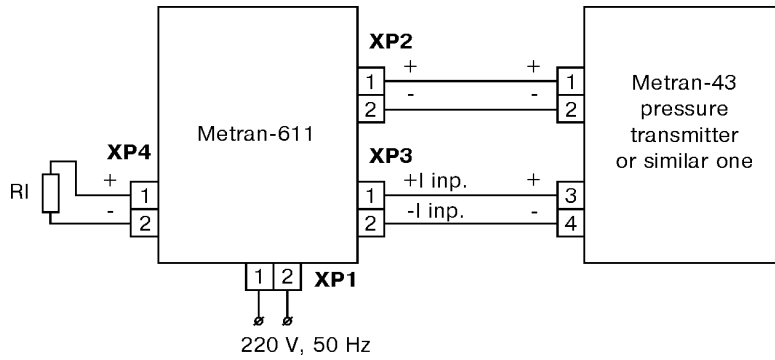
The Power Supply Unit provides stabilized direct output voltage of 24 or 36V and is overcurrent- and short circuit-protected.

The Unit automatically returns to operation mode after failure elimination.

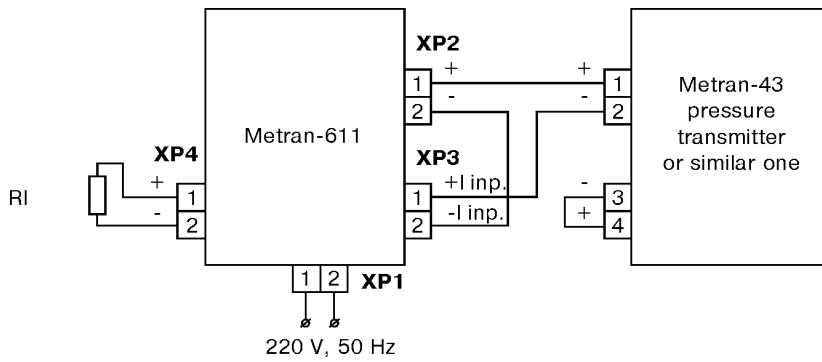
Input analog signal of 0-5, 4-20 or 0-20 mA transforms into voltage and comes to root-extracting circuit, providing output signal, proportional to input signal square root. Then the signal is filtered by a low-frequency filter and converted into 0-5, 4-20 or 0-20 mA current.

**EXTERNAL WIRING DIAGRAMS**

**Metran-611 (0-5 mA)**

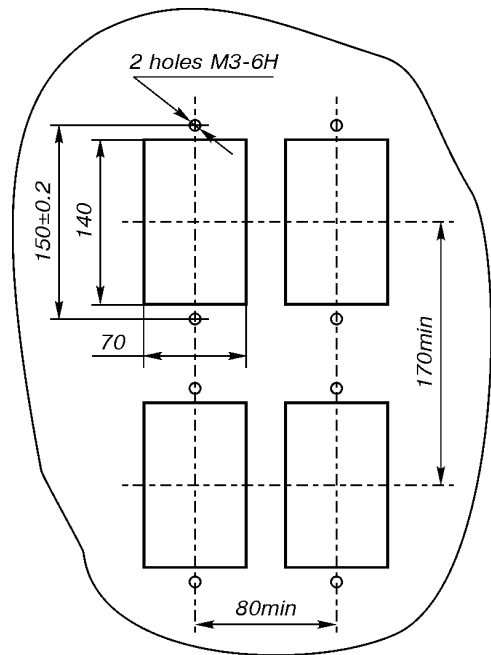
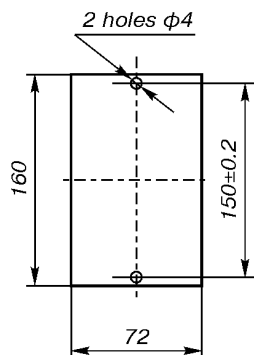
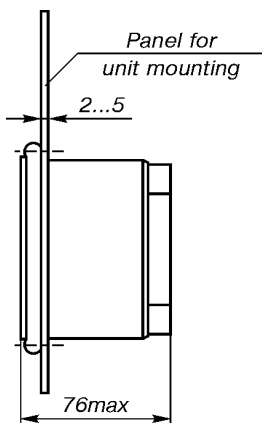


**Metran-611 (4-20 mA)**



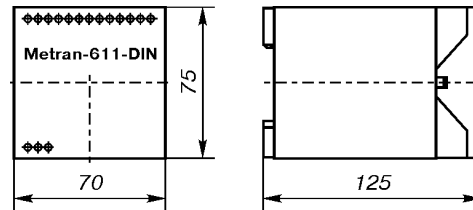
**OVERALL AND MOUNTING DIMENSIONS**

**Metran-611-01**



Unit Mounting Layout

## Metran-611-DIN



## CLIMATIC TYPE

Type groups:

- **C3** per GOST 12997 and UHL 3 class per GOST 15150, for operation at -10 to 60°C of ambient temperature and 30 to 80% of relative humidity;
- **T3** per GOST 15150.

**Dust and water tightness:** IP30 per GOST 14254.

## RELIABILITY

Mean time between failures: 120 000 h.  
Average service life: 12 years.

## WARRANTY

Warranty period: 18 months from the date of commissioning.

## DELIVERY SET

- Metran-611 Power Supply and Root-extracting Unit 1 unit
- Product Data Sheet, Operation Manual 1 copy
- Socket 2RM14KPN4G1V1\* 1 unit
- DIN rail NS35/7.5\*\* m (length by order)

\* Delivered for panel-mounted Metran-611.

\*\* Delivered for rail-mounted Metran-611.

## ORDERING INFORMATION

**Metran-611 - 005 - 420 - 36 - 1 - 01 - T3 - TU...**

1 2 3 4 5 6 7 8

1. Unit type.
2. Input signal:
  - 005** 0-5 mA
  - 420** 4-20 mA
  - 020** 0-20 mA
3. Output signal:
  - 005** 0-5 mA
  - 420** 4-20 mA
  - 020** 0-20 mA
4. Output voltage: 24 or 36 V.
5. Digital index of reference accuracy limit:
  - 1** ±0.15%
  - 2** ±0.25%
6. Mounting:
  - 01** panel mounting;
  - DIN** DIN-bus mounting
7. **T3** for tropical type (by order).
8. Specification: TU 4218-002-51465965-2002.