

## Information sheet

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The device was manufactured in conformity with  
ROHS Directive 2011/65/EU



**Lukasiewicz Research Network-  
Tele- and Radio Research Institute**

03-450 Warsaw, Ratuszowa 11

e-mail: [energetyka@itr.lukasiewicz.gov.pl](mailto:energetyka@itr.lukasiewicz.gov.pl)

www: [energetyka.itr.org.pl](http://energetyka.itr.org.pl)



The national and industry safety regulations must be observed during installation and operation.

If the transformer is improperly used or used not for its intended purpose, the user shall be fully responsible for any possible risks to safety and resulting damage.

Operating a damaged device may result in the improper functioning of the protected unit, which may result in risks to life or health.



Correct and trouble-free operation of the device requires proper transport, storage, assembly, installation and commissioning as well as proper operation, maintenance and service.

The installation and operation of the equipment should only be carried out by qualified personnel.



The UR 90 voltage transformer is designed for supervision and monitoring in industrial facilities

We reserve the right to introduce changes to the device.

## Intended use

The UR 90 low-power voltage transformer is intended for use in an industrial environment for measuring voltage in MV networks equipped with bushings compliant with PN-EN 50180 and PN-EN 50181 standards, interface C.

The UR 90 is made in the form of a highly stable resistance divider with linear characteristics, in accordance with the standards: PE EN 61869-6: 2017-03, PN-EN IEC 61869-11: 2018-07. Therefore, a very high accuracy of the division coefficient, thermal stability in a very wide range of working temperatures and a wide measuring band have been achieved.

The UR 90 is supplied with a special connection cable with a length of 5/8/10 m. The transformer has capacity compensation. It can operate with a load of 200 k $\Omega$ , 2 M $\Omega$  or 10 M $\Omega$ .



## Assembly

The assembly of the transformer involves screwing it into a bushing or surge arrester by means of a hexagonal M24 holder. The connection cable with an M8 3-pin female connector is terminated with free wires.



To maintain the measurement parameters, the connection cable delivered together with the transformer must be used and its length should not be altered.

The transformer should be earthed using an M8 screw located in the hexagonal holder or using the attached earthing cable terminated with an M8 eye terminal.



Before connecting to a bushing or surge arrester, the voltage transformer must be covered with a suitable silicone grease, e.g. silicone grease PE1352 WT 0 offered by Nexans.

## Technical parameters

### Input/output circuit

Rated primary voltage Un	24/√3 kV 20/√3 kV 15/√3 kV 10/√3 kV 6/√3 kV
Rated secondary voltage Un	3,25/√3 V
Insulation level	24/50/125 kV
Maximum operating voltage	24/√3 kV
Rated voltage factor	1,2 Un/cont. 1,9 Un/8h
Rated frequency	50..60Hz
Nominal load	200 kΩ, 300 pF 10 MΩ, 300 pF 2 MΩ, 50 pF
Accuracy class	0.5/3P

### Environmental conditions

Operating temperature	-25°C ... +75°C
Storage temperature	-40°C ... +85°C
Air humidity	no condensation of water vapour and no frost formation

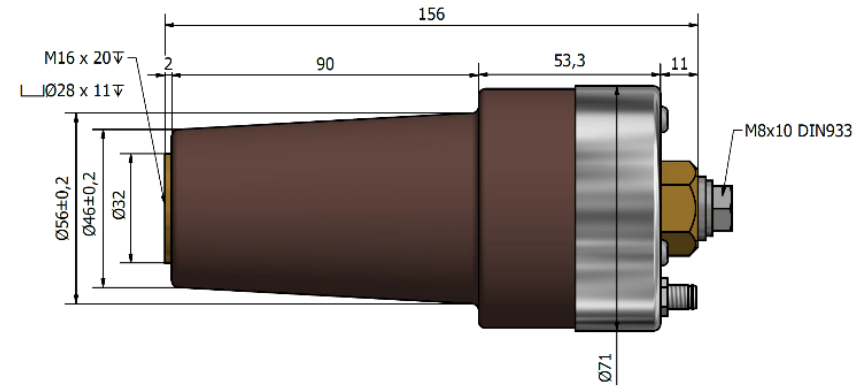
### Connectors

Connector type	M8 3-pin male
Conductor type	With M8 connector, shielded, terminals 2 x 0.34..0.8 mm2
Leads	a - brown n - black

## Weight and dimensions

Weight 900 g

Dimensions



## Order specification

	A	B	C	D
<b>Rated primary voltage Un</b>				
Un = 24/√3 kV	24			
Un = 20/√3 kV	20			
Un = 15/√3 kV	15			
Un = 10/√3 kV	10			
Un = 6/√3 kV	6			
<b>Cable length</b>				
5 m		5		
8 m		8		
10 m		10		
<b>Nominal load</b>				
200 kΩ, 300 pF			200	
10 MΩ, 300 pF			10	
2 MΩ, 50 pF			2	

### Example of an order: UR90-20-8-2

UR 90	low power voltage transformer UR 90
A-20	rated primary voltage Un 20/√3 kV
B-8	8 m connection cable
C-2	nominal load 2 MΩ, 50 pF