

Cabling

The structure of the manhole can accommodate cables of any cross section and core characteristics and type of insulation.

 BASIC TECHNICAL DATA

Rated operational voltage:	230 V / 400 V
Insulation rated voltage:	500 V
Rated frequency:	50 Hz
Impulse withstand voltage:	2,5 kV
Busbar rated continuous current:	do 910 A
IP protection level:	55-66 or complete immersion
IK level of protection against mechanical impact:	10
Appliance class:	I / II
Dimensions of incoming / outgoing terminals:	2x240 mm ² / 120 mm ²
Network arrangements:	TN-S, TN-C, TN-C-S, TT, IT
Height / width / depth:	without limitations
Load capacity of the manhole structure:	40 ton (D400)

 COMPLIANCE WITH STANDARDS

- **PN-EN 61439-1**
„Low-voltage switchgear and controlgear assemblies. Part 1: General rules“;
- **PN-EN 61439-5**
„Low-voltage switchgear and controlgear assemblies - Part 5: Assemblies for power distribution in public networks“;
- **PN-EN 124**
„Gully tops and manhole tops for vehicular and pedestrian areas - Design requirements, testing, marking, quality control.“;
- **PN-EN 60529**
„Degrees of protection provided by enclosures (IP Code)“;
- **PN-EN 50274**
„Low-voltage switchgear and controlgear assemblies - Protection against electric shock - Protection against unintentional direct contact with hazardous live parts.“;
- **PN-EN 62262**
„Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code) (IDT PN-EN 50102:2001)“;
- **PN-EN ISO 4628**
„Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 6: Assessment of degree of chalking by tape method.“;
- **PN-EN ISO 2409**
„Paints and varnishes - Cross-cut test.“.

 EQUIPMENT

Manhole

Executed in segments, allows quick installation, without concreting. Made of plastic in the modular system to handle any change in depth and width of the manhole. High strength against dynamic loads. No elements protrude above the ground surface. Durability considerably exceeds that of concrete wells.

The structure is very flexible, which allows 25 mm sag along with the pavement of the roadway, considerably increasing life of the system.

The structure is made of fire resistant material.

The structure is resistant to erosion, vibration, low temperature, fire, water, road salt, small leaks of oil, fuels and caustic substances, and exposure to light. The system of segments is made of polymer materials.

The structure is resistant to loads of up to 40 t. Cable and drainage ducts supplement the manhole design. Openings for cables may be provided in any place to meet any dimension requirements.

Cover

The cover of the manhole is made of concrete, steel, cast iron or plastic. The filling material of the cover matches the type, shape and colour of the pavement (blocks, concrete slabs, asphalt).

Platform

The structure is fitted with a lift mechanism along with a platform with the internal enclosure installed. The lift mechanism enables vertical relocation of the distribution board installed in the structure with a manual crank or an automatic motor mechanism.

Enclosure

Aluminium OU-1S

The enclosure made of aluminium sheet (welded or riveted). Powder painted in any colour. The size matching the type and range of devices and individual needs of the Client. The enclosure is highly resistant to degradation, environmental factors and UV radiation.

The enclosure is executed in the Class I and II appliance protection standard.

Class II appliance protection rating of the enclosure is achieved with an additional insulation layer permanently applied on the internal surfaces of the enclosure. The thickness of the layer ensures the required insulation.

Labyrinth ventilation allows continuous flow of air with simultaneous elimination of penetration of pollutants and accumulation of water and moisture.

The door with internal hinges with anti-burglary lock and multiple bolts, an espag lock with a padlock or a system cylinder.

The bottom of the enclosure has high IP glands to run cabling without compromising the integrity of the enclosure. The enclosure may be set at a certain level in the manhole to prevent its flooding. A water level sensor along with a high water level alarm system can be installed.

The enclosures ensure IP 55 to IP 66 rating leak-tightness, IK 06 to IK 10 mechanical resistance and Class II appliance rating.

With an additional cover of the internal enclosure, the distribution board can be completely immersed in water without any time restrictions.

Accessories

The manhole and the internal enclosure are ready for installation of any distribution board, ZK, W, ZPP, ZPP-P, ZZP, SZR, SSA, RB, SON, SON-R and other, as required.


 APPLICATION

- Low voltage distribution systems, signalling and telecommunication cabinets seated below the ground level.
- Overhead line trunk return points.
- Masking and protection against devastation or in view of aesthetics of the landscape.

