

**UPO - the insulating cover system for devices assembled in rows**  
**In this article are presented rules of the usage and assembly and the advantages of new technical solution - prefabricated insulating cover system UPO for modular devices assembled on the TH 35 rail and manufactured by ETI - POLAM.**

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Redundant-current switches, differential-current switches and other devices for the modular montage are intended for installation in switch boxes, casings, control panels etc., provided that at least IP 40 protection degree will be ensured.

The required protection degree can be obtained using in the empty switch box mounted on TH 35 x 7, 5 assembly rails of isolating covers - UPO. The above mentioned system includes the following parts: (Fig. 1) - General view of the system with the modular equipment mounted in two lines.

1. Carrier UPO
2. Flat profile UPO ( 1 meter length)
3. Angular profile UPO( 1 meter length)
4. Isolating cover ( 0, 21 m length)
5. Descriptive slat

Carriers of the UPO system are mounted on TH 35 rail on its beginning and the end or in case of long rail sections - between modular devices. The indicated distance between carriers - 0, 5 m. Then choosing the suitable length of the angular profile, profile is mounted to the locks (Fig. 2) of carriers protecting consequently upper clamps {connectors} of the modular equipment. If we deal with modular devices arranged in one row, bottom clamps {connectors} should be also protected with the angular profile -(3). Such wise all clamps and connectors are protected against an accidental touch annexation. In case when modular devices are mounted in two or more lines, between neighboring lines should be used flat profile- (2), but angular profiles similarly as at single line - protecting just upper clamps {connectors} of the first-row and bottom clamps {connectors} of the last row (Fig. 1). For the purpose of the correct use of the UPO system in the multi row arrangement of modular devices, mounting rails TH 35 between neighboring lines should be assembled in the distance within 125 mms (counting from longitudinal axes of rails TH 35). The isolating cover (4) serves for covering of unemployed or reserve- places on the rail TH 35. The cover has on full length transverse narrowings in intervals of 8, 5 mms ( ½ basic module) cuttable for the purpose of the adaptation of the length of the cover to the quantity of lacking elements. The UPO carrier has in its construction three pairs of cuts - (Fig. 2) permissive to use three horizontal assembly levels in the dependence from the height of electric devices mounted on the rail TH 35. As other height is possessed by the basic modular apparatus and still other by porcelain- fuse-holders D0 or DII and DIII. Both profiles flat and angular have the place for plate insertion describing the electric circuit - (5) to which was assigned given device installed on the rail.

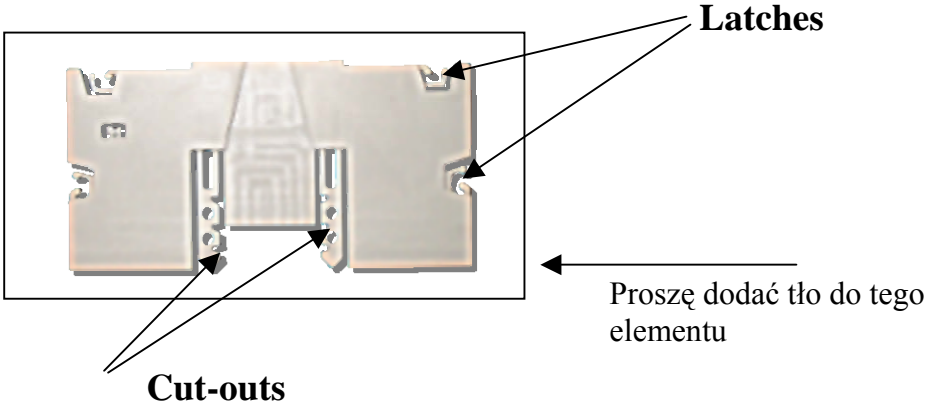
Isolating covers system UPO is made from high percussive non-flammable thermoplastic material - Palamid 6.6 in the grey color - RAL 1014. This material has high temperature resistance ranging from - 40°C to +100°C and the stability of shapes and measurements. This parameter is required by norm PN-IEC 695-2-1. Besides this, material has large aging and tearing resistance. Its structure has anti-gustatory compounds for the purpose of the possible rodents discourage. A most important advantage of the isolating covers system (UPO) is its aesthetics look and the ease montage - without the use of screws. Made easy is also the local

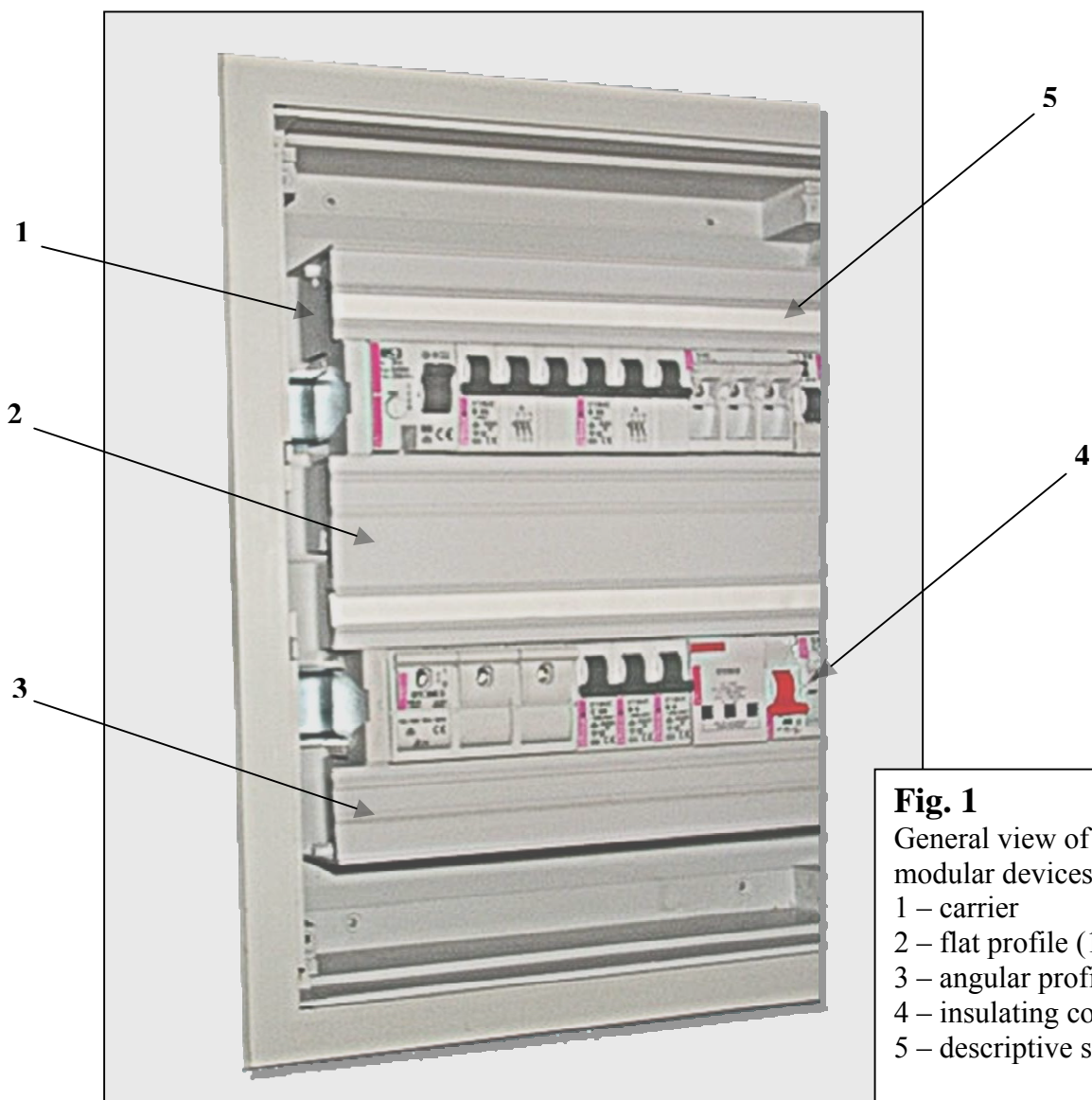
disassembly of the system in case of carrying service works at installed modular equipment. System can replace metal masks used by many switch boxes manufacturers.

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**Rys. 2**  
UPO carrier





**Fig. 1**  
General view of the system with modular devices in two rows.  
1 – carrier  
2 – flat profile (1 meter length)  
3 – angular profile (1 meter length)  
4 – insulating cover (0,21 m)  
5 – descriptive slat