CATALOGUE

HAND OPERATED DRIVES
for indoor switching devices

TYP **RPU**

Unser Handelspartner in Deutschland

TEC TRA DO

ISO 9001:2009
ISO 14001:2005

ivep®

GENERAL INFORMATION

The RPU hand operated drive mechanism is used as an actuator for switching devices of indoor design, in particular disconnectors and switch disconnectors. It is intended to be used for switching devicec mounted on the rear side of a switching cell or a switchgear cabinet. Its easy construction provides for high reliability of the operation and only a minimum demands on its maintenance. The link between the switching device and the drive occurs through adjustable metallic or insulated drawbar.
The drive design provides for high reliability of achieving the end positions of the switching device. It is recommended for use on indoor disconnectors and switch disconnectors rated to up to 1600 A.

OPERATING CONDITIONS

The RPP manual drive mechanism is intended for use in indoor operating environments as defined by the ČSN EN 62271-102 and ČSN EN 60439-1 standards.

DESCRIPTION

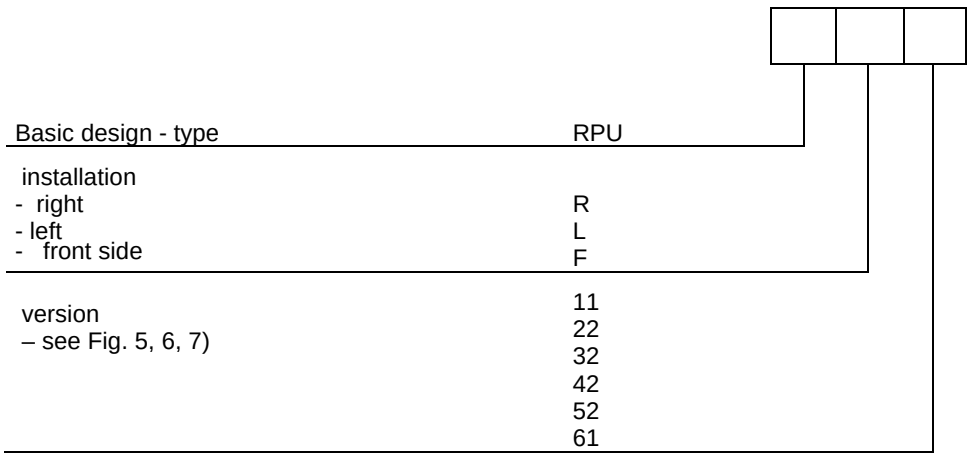
The RPU hand operated drive mechanism consists of the following sub-assemblies:

- drive with clamping termination
- adjustable drawbars of various lengths (metallic – insulated)
- drive shaft clamping terminal (straight or angular)
- cut-in lever

The assembly –see Fig. 5; 6; 7

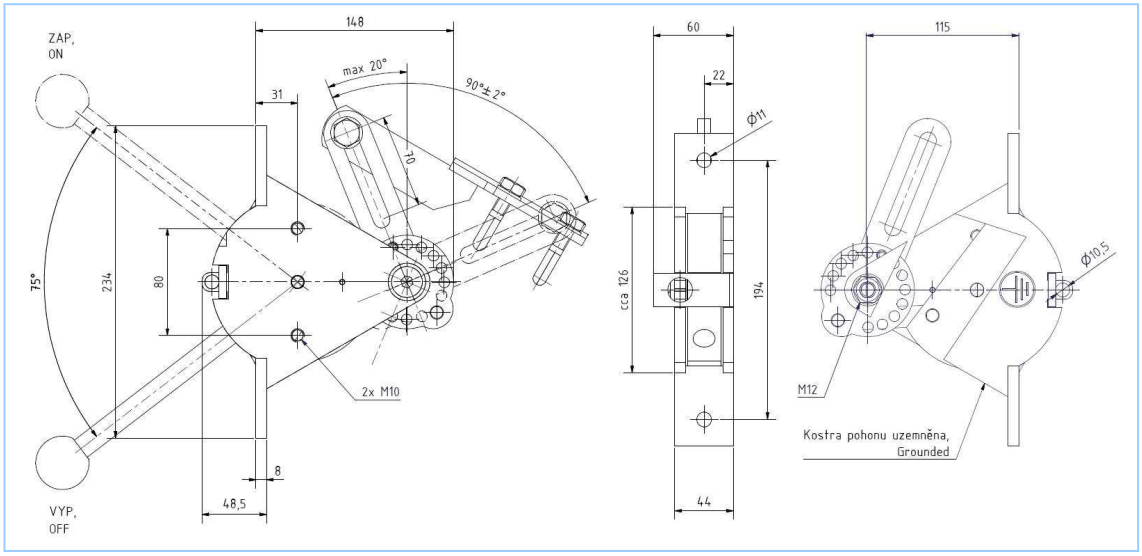
The drive operation occurs through a removable control lever. The drive can be mounted both on the front side and the side walls of a switching cell, either on the left-hand or right-hand side.
The RPU drive can be equipped with a locking mechanism for locking it up in closed or opened switching positions.

ORDERING CODE OF MANUALLY OPERATED DRIVES OF RPU



HAND DRIVE, TYPE RPU

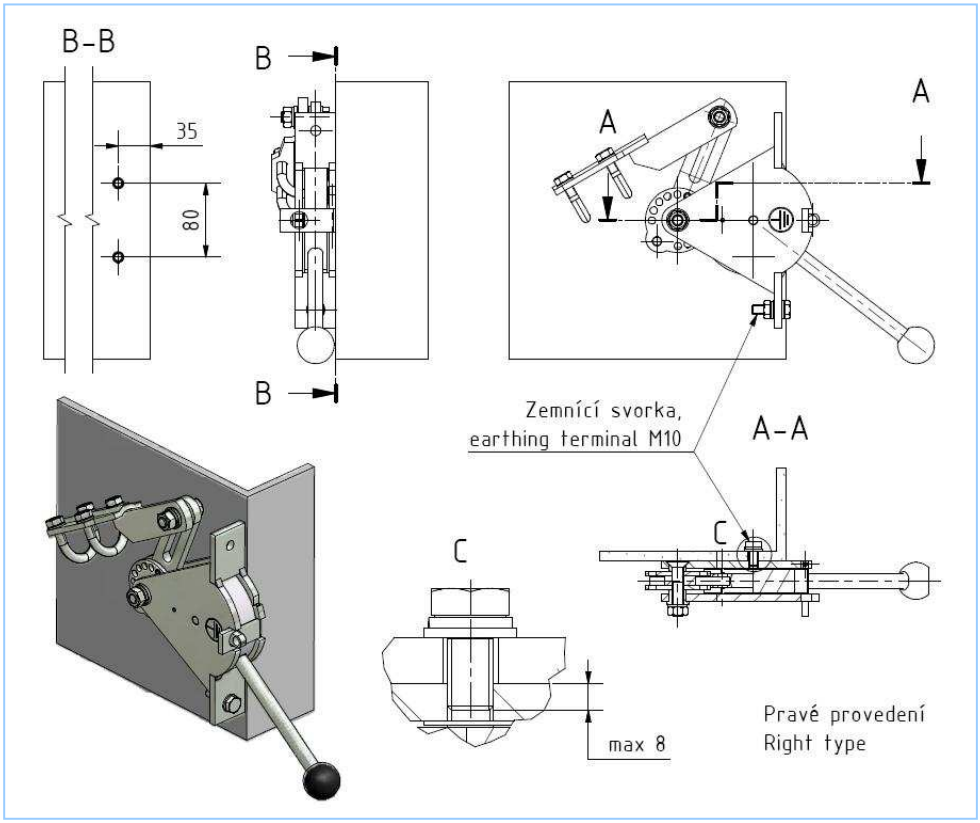
Fig. 1



The control lever is not a part of the drive delivery.
Drive weight: 4.5 kg

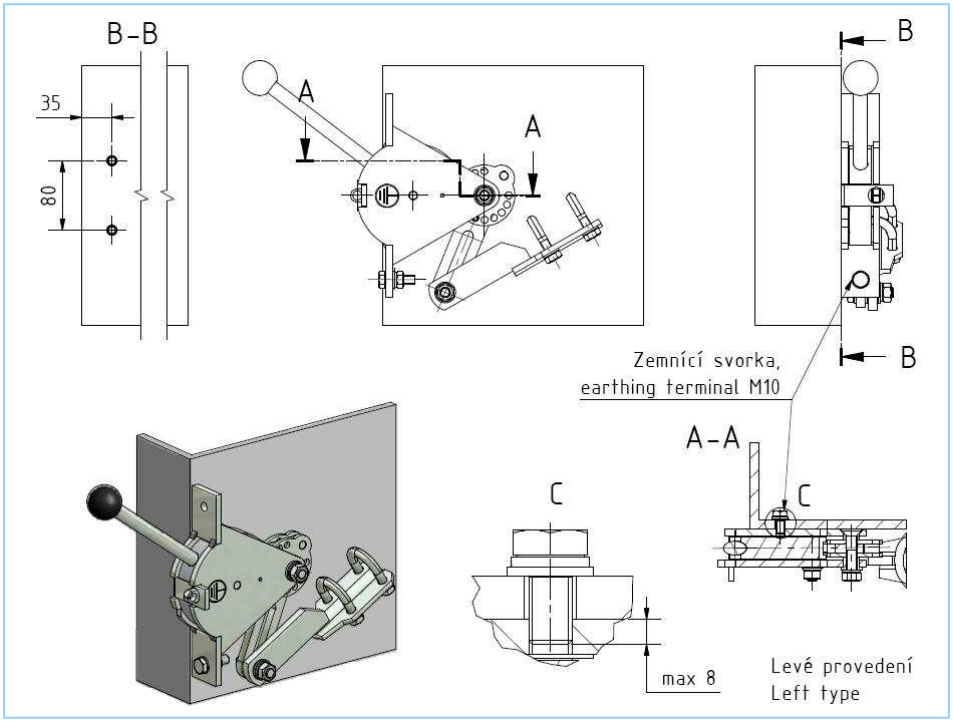
HAND DRIVE, TYPE RPU – RIGHT TYPE

Fig. 2



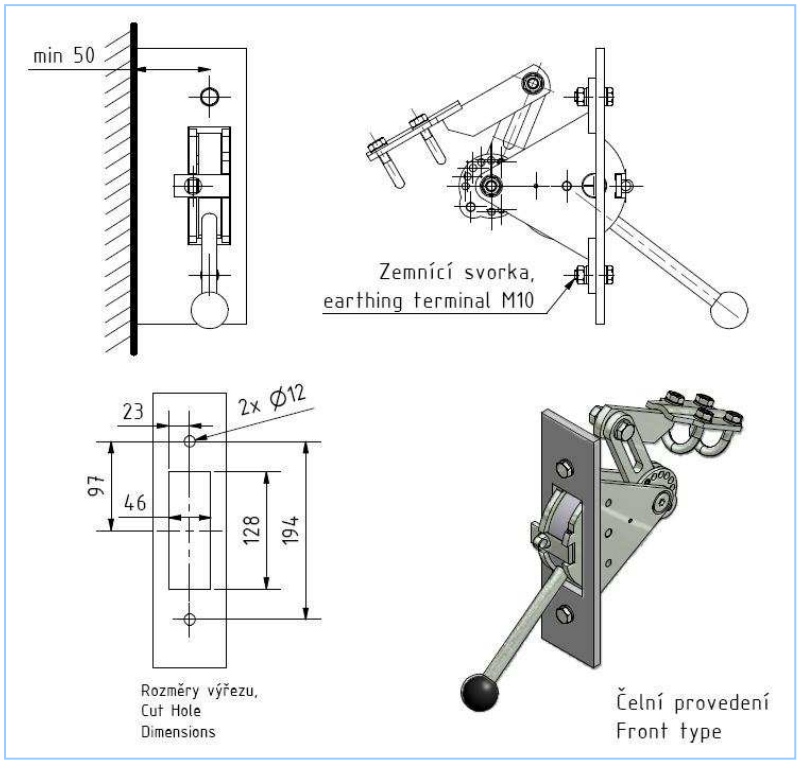
HAND DRIVE, TYPE RPU – LEFT TYPE

Fig. 3



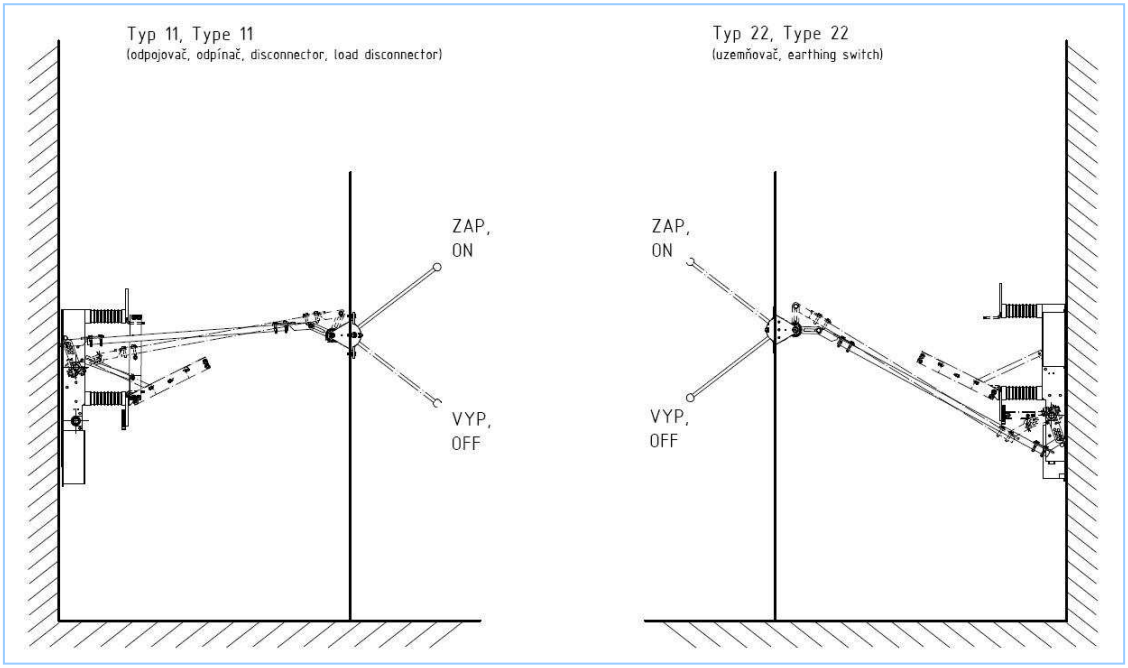
HAND DRIVE, TYPE RPU – FRONT TYPE

Fig. 4



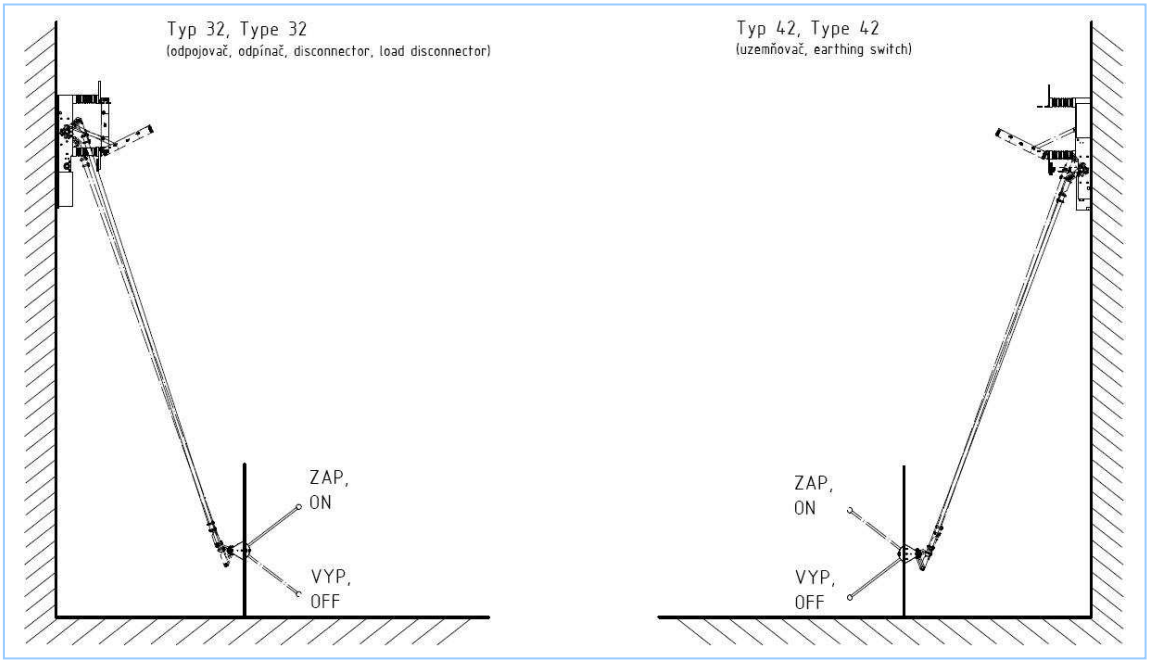
HAND DRIVE, TYPE RPU – VERSION 11; 22

Fig. 5



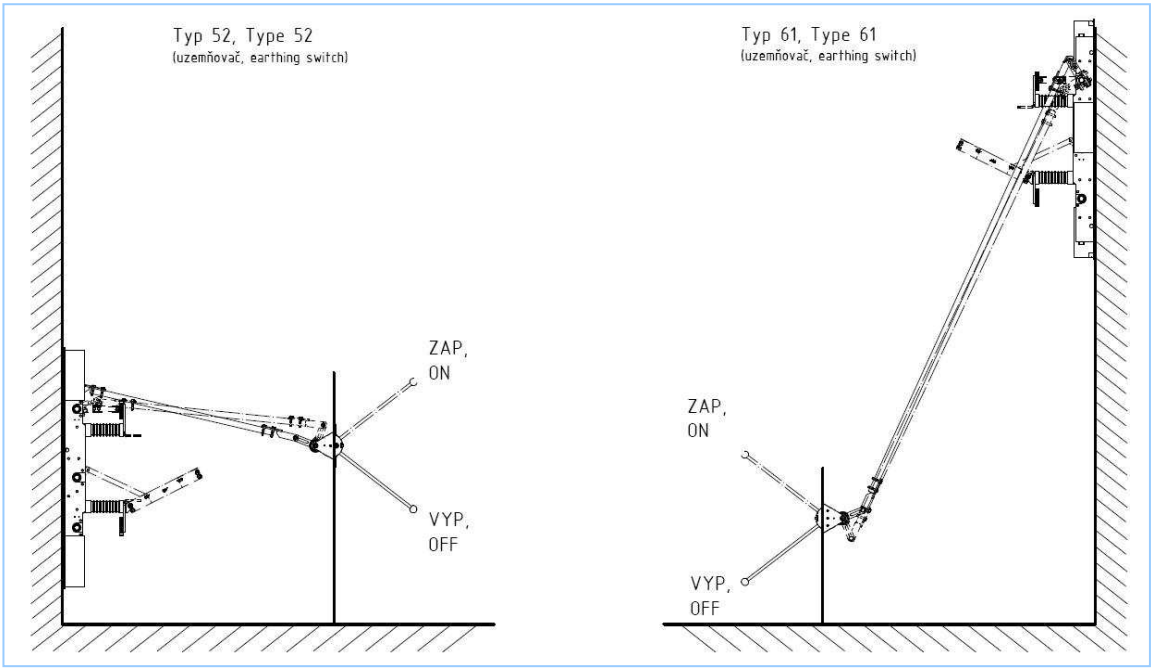
HAND DRIVE, TYPE RPU – VERSION 32; 42

Fig. 6



HAND DRIVE, TYPE RPU – VERSION 52; 61

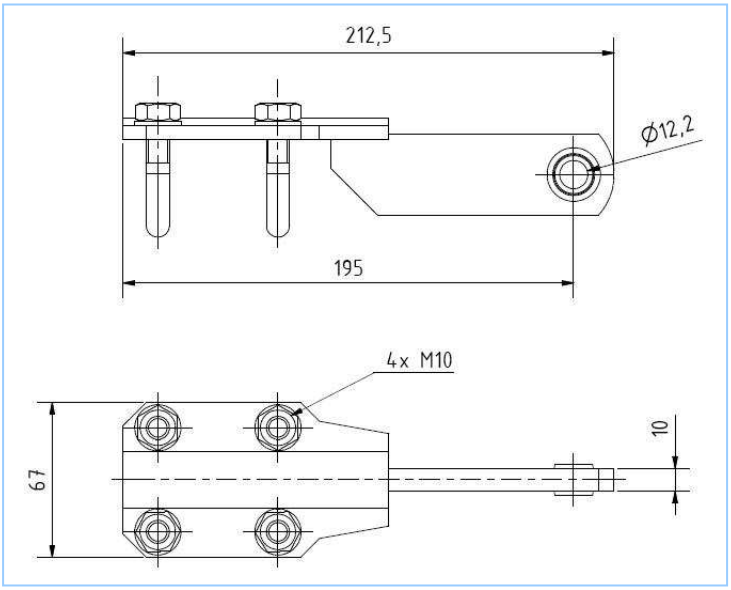
Fig. 7



ACCESSORIES TO THE D RIVE

Fig. 8

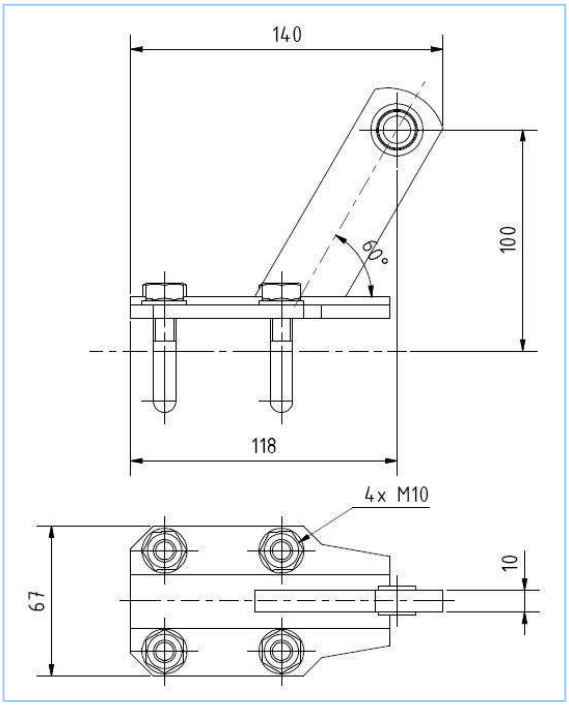
Except for some specific parts all the drive accessories are surface treated with hot galvanization.



Single-type clamping terminal

Is used to connect the actuating drawbar. One of the terminals is a part of the drive, the other is fixed to the shaft of the switching device, along with the cut-in lever – see Fig. 5, 6, 7.

Weight: 0.9 kg



K – Angular clamping terminal

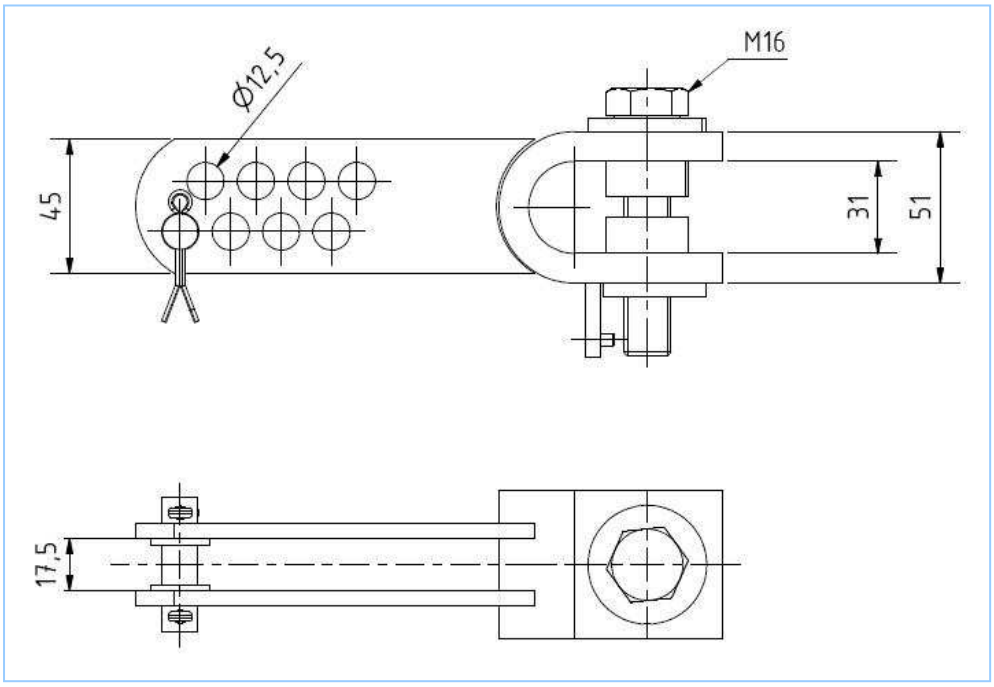
Features the same function as the single-type clamping terminal, i.e. serves for connection purposes. It is used in case the control angle of the pull rod, when using the straight terminal, would be inappropriate for the switch arrangement.

Weight: 0.8 kg

Cut-in lever for 30 mm dia shaft

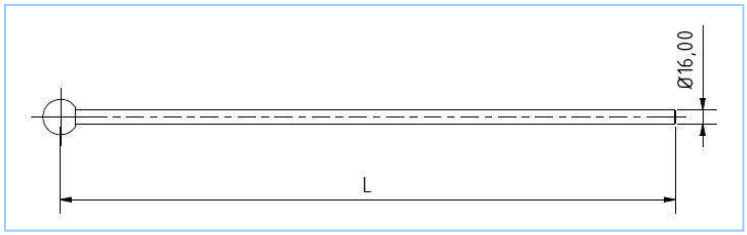
In combination with the clamping terminal the cut-in lever serves as a link to transfer the straight movement of drawbar onto the revolving movement of the shaft. Once the M16 screw is tightened the hardened steel sockets cut in into the shaft.

Weight: 1.4 kg



Control lever (hot galvanized)
The length is determined according to the type device.
Standard length is L = 550 mm.

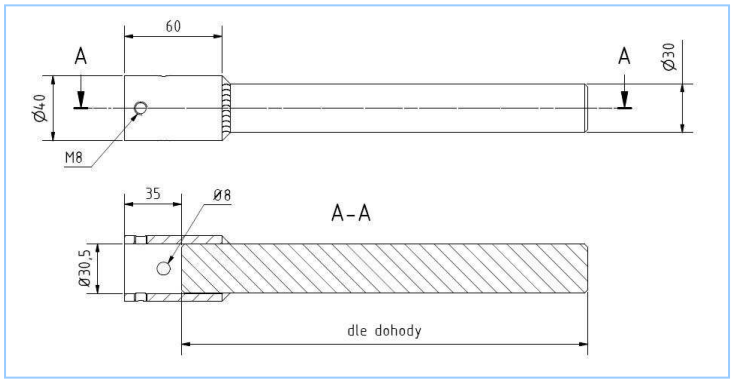
Weight: approx. 1,5 kg



Extension piece (hot galvanized)

- for use on existing switching devices if a request for shaft extension arises
- can be used as an adaptor coupling for various diameters of the shaft

Weight: 1.7 kg with a length of 250 mm

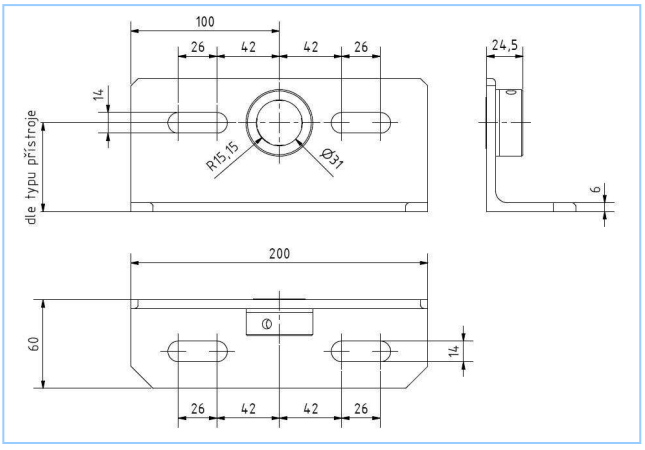


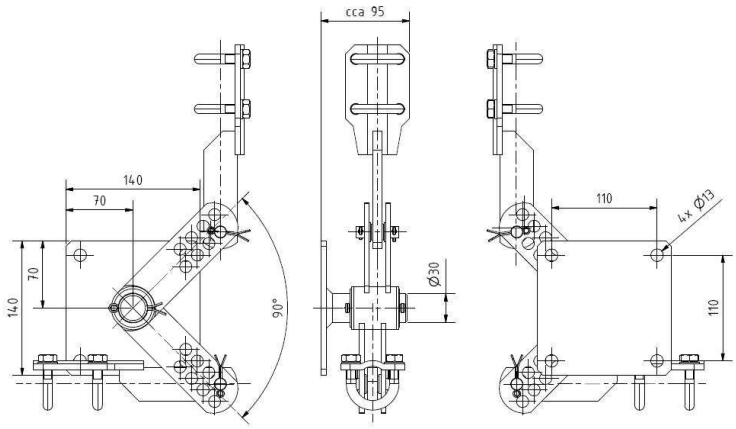
Supporting through-running and end-position bearing (galvanized)

Is used for shafts of a length longer than 200 mm. It supports the shaft in the middle or at its end. The bearing consists of a base, brass liner and a retaining ring.

It can be mounted either on rear or side wall of the switching cell.

Weight: 1.4 kg





Angular rocking bearing

The angular rocking bearing is one of the components of the kinematic string and provides for the transfer of forces from horizontal into vertical direction – see figure.

Weight: 4.2 kg

Insulated metallic drawbars

- metallic drawbars are delivered in diameters of ¾“ or 1“
- insulated drawbares are delivered with a diameter of 30 mm

Drive lock

This padlock can be provided with standard key fitting in for an unlimited number of locks.

INSTALLATION

The drive can be fixed either to the front side or side walls of the switching cell, both on the left-hand and right-hand side. When installed on the switching cell side wall the drive is fixed using two M10 screws. Mounting on the switching cell front side is done using two M10 screws with nuts.

When mounting the drive to the side walls it is necessary to utilize screws of a length not higher than 8 mm – see Fig. 2 and 3. Longer screws might cause the drive to be blocked. Recommended length of the screws is 20 mm when the wall thickness is 10 mm and the washers of diameter 10 mm of DIN 125 and DIN 127 type are used.

Rough adjustment of the assembly of drive and disconnector is done on the cut-in lever (8 holes). Fine adjustment is done on the drive output lever. This lever can be adjusted in 11 angle steps of 22.5° each. This adjustment possibility, along with the adjustable drawbars, provides for accurate alignment between the drive and the disconnector. Highest output torque of the drive: 300 Nm.

The RPU drive is equipped with a locking mechanism to lock the drive up in closing and opening end positions which are clearly visible on the drive.

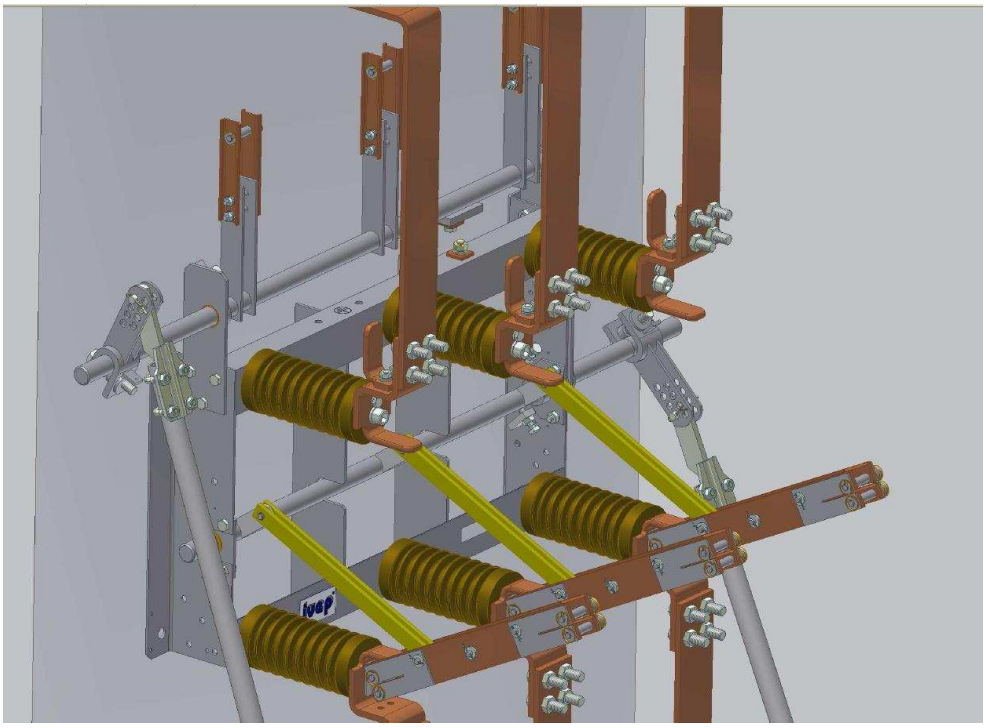
MAINTENANCE INSTRUCTIONS

The RPU drive is a nearly maintenance-free device. To ensure an adequate reliability level we recommend to expose the drive to regular visual inspection (at least once a year). Also we recommend to grease the drive shaft joints and bolts on two-year basis.

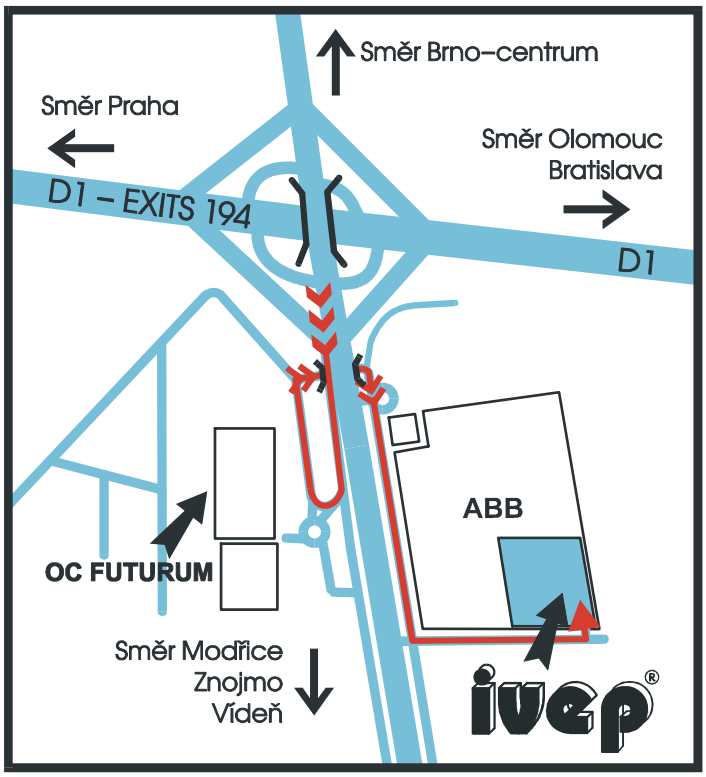
ANGULAR SHAPED KINEMATIC STRING OF THE FOLLOWING DRIVES

INCLINED KINEMATIC STRING OF THE FOLLOWING DRIVES

INCLINED KINEMATIC STRING OF THE FOLLOWING DRIVE



Due to continuous development of the products some dimensions, weights, drawings and descriptions may differ from that shown in this data sheet. In order to satisfy the ever increasing needs of the customers the manufacturer reserves the right to provide modifications to the product described, without previous notice.



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