

Cable Guide (UV)

Types UV 403 P, ...633 , ...1003, ...1253

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1 General

The cable guide (UV) serves to guide a flexible cable or hose in case it is not possible for the cable resp. hose to sag freely from the cable to the point of deposit or where tension regulation is required.

Apart from the function of guiding the cable or hose the unit can also perform the following tasks by evaluating the movements of the control pendulum and the guide device (see circuit diagram).

1. Protecting the cable/hose from excessive tension (overtension switching)
2. Protecting the cable/hose from being run over in case of insufficient tension (slack switching)
3. Reducing the tension by unwinding the cable/hose by evaluating the position of the control pendulum and the direction switch of the travel device (direction recognition)

In these cases the position of the control pendulum is detected by contact-free working initiators (inductive proximity circuit). The initiators provide a switching procedure when the fixing devices (contact of the switching pendulum/rocker switch) approach the initiator accordingly.

2 Installation of the Initiators

Because of the transport the initiators of the UV are enclosed separately. The following description is based on a complete assembly of four initiators (Alignment see Fig. 1).

For a pay-off to one side only the second side can be dropped, i.e. for direction to the right side B2 and B4 and for direction to the left side B1 and B3 can be dropped.

First the initiators are provisionally placed into the holes provided as shown in Fig. 1 and Fig. 2. The gap between the actuating element (switching contact) and the initiator should be 5 mm to 8 mm. The connection leads should be installed in the UV connection box.

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3 Setting of the Taut Switch Device (Initiators B3 and B4)

The setting of the initiators depends among others on the dimensions of the cable resp. hose which is used. According to DIN 57298 part 3 and VDE 0298 part 3 it is not permissible to exceed the max. cable tension of $F = 15 \text{ N per mm}^2$ (without allowance for a split or reduced protective conductor).

For hoses see the manufacturer's specifications.

By means of angle relations between the tensile stress of the cable/hose and the force effecting via the pendulum on the rocker switch the rocker switch force at which the tension device is activated by the initiators is calculated.

4 Insertion of the Cable resp. Hose

When inserting the cable or hose into the drum or into the UV as well as during the operation particular care must be taken to ensure that as the cable or hose is passed between the two guide rollers on the pendulum no lateral forces are exerted on the pendulum and guide device since these could be bent.

5 Checking the Initiator Settings

The setting of the initiators must be checked in operation and, if necessary, be corrected. Afterwards the initiators have to be locked.

Note: Absolute care has to be taken that the permissible switching power of the initiators (operation and stop power) are higher than the coil power of the contactors. The initiators are suitable from 20 to 250 V.

Max. switching power is obtained at 250 V (500 VA starting power, 100 VA stop power).

The permissible initiator switching power decreases proportional to the operation power).

$S = U \times I$; $I = \text{constant/see initiator print.}$

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6 Maintenance

The maintenance is limited to a regular check of the guide rollers (smooth running and wear). The correct function of the overtension switching circuit should be checked from time to time.

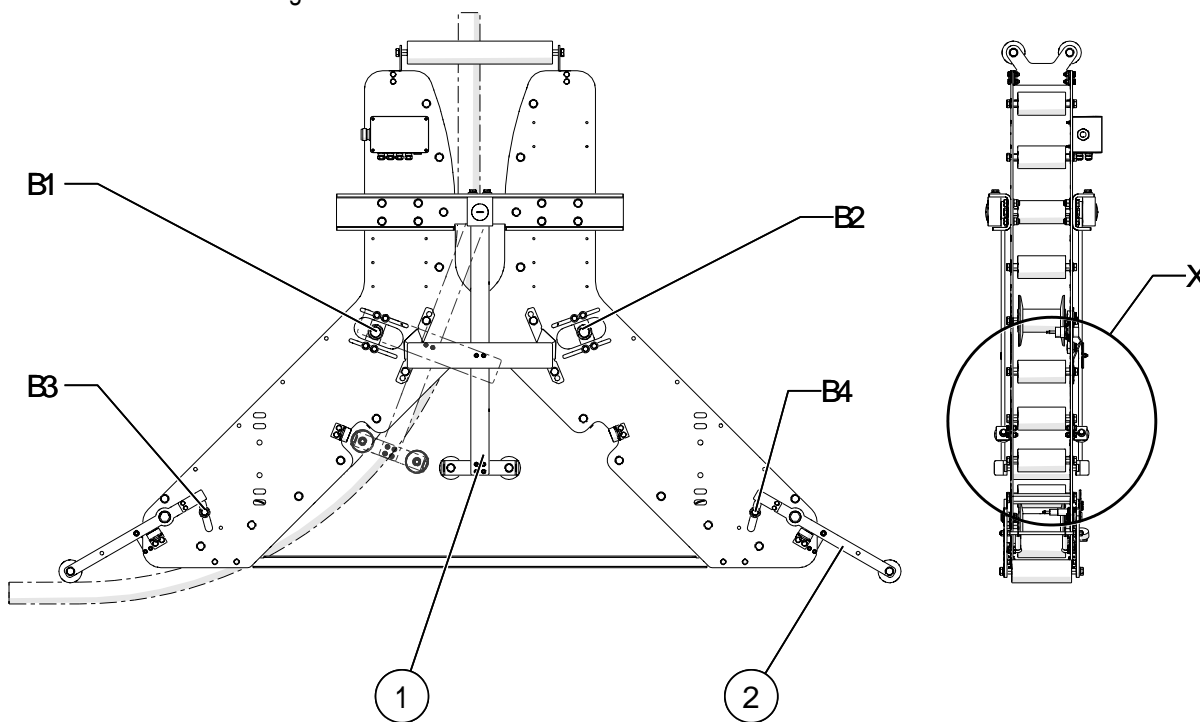


Fig. 1

Fig. 2

Pos.	Designation
1	Pendulum for slack Cable
2	Overtension Switch

B1, B2: Proximity switch (close contact)

B3, B4: Proximity switch (break contact)

