Conveyor belt **Motion control**

FW3

DITTELBACH UND KERZLER

Installation and operation manual

Principle: Before any work shall be carried out it has to be checked that the whole line is circuit-free, isolated and any specific and general security instruction has been fulfilled.

Motion controls detect standstill, overspeed or underspeed of conveyor belts.

A roller of this control is pressed against the lower side of the conveyor belt. This roller drives a step motor. The stepper generates the voltage for alimentation of the electronic evaluation and generates the frequency dependent on the speed and direction of the roller rotation also for evaluation. Therefore no power source is necessary. The contacts are potential free.

Each direction or rotation acts on an own relay with a potential free SPDT contact 5A. The threshold of each direction is individually adjustable.

Mounting: The roller of this switch should run in the middle of the belt. The roller should be pressed against the lower side. Fastening on a plane console by 2 screws M12 or equivalent.

Electrical connection: This device needs no external source for the electronic evaluation. The supply voltage is generated internal by shaft rotation. Open the lid by left-hand rotation. The M20-threaded cable conduit on the lower side of the control is sealed with a sticker. Replace this seal by the attached cable gland before cable mounting. Each rotation direction acts on an own individually adjustable potetial-free single-circuit two-way contact (SPDT). Wire these contacts according to your demands.

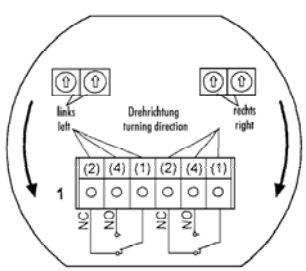
For adjusting the set points program the two pairs of code switches, one pair for left rotation and the other pair independent of the first for right rotation direction. Programming 0:2 effects a trip speed of 02 x 60rpm=120rpm at indreasing speeds, 0:3 effects 03 x 60rpm, 4:3 effects 43 x 60rpm. Attention: 0:1 is not defined. For calculating the trip speed of the belt in the unit metre/minute, this value is to multiplyed with the perimeter of the roller. At decreasing speeds the hysteresis is smaller then 30rpm.

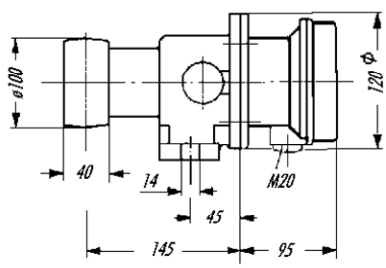
Put on the lid again and tighten it well as cable gland. Pay absolute attention to water- and dust-proof protection.

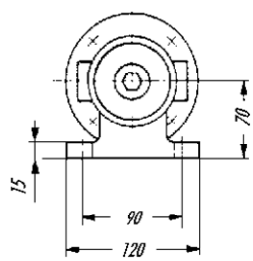
No further maintenance is required as the switch is long-life lubricated .

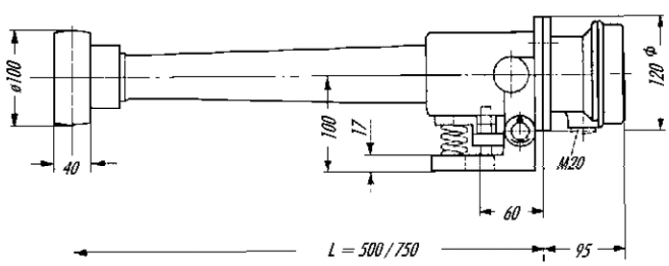
Technical data

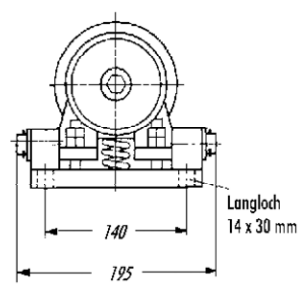
Supply voltage	Internally generated
Relay contacts	1 SPDT for left turning, 1 SPDT for right turning individually adjustable max 400VAC max 5A max 1250VA max 240VDC max 5A max 150W
Connecting ports	max 2,5mm²
Cable conduit	1x M20
Ambient temperature operating	-25°C ...+70°C
storage	-40°C ...+80°C
Protection	IP65











DITTELBACH UND KERZLER GmbH & Co. KG Talstrasse 27 D-35394 Giessen
Tel.: +49 641 97224-0 Fax: +49 641 97224-22 e-mail: info@DUKswitch.com