

Belt Tear Detector

BTD2



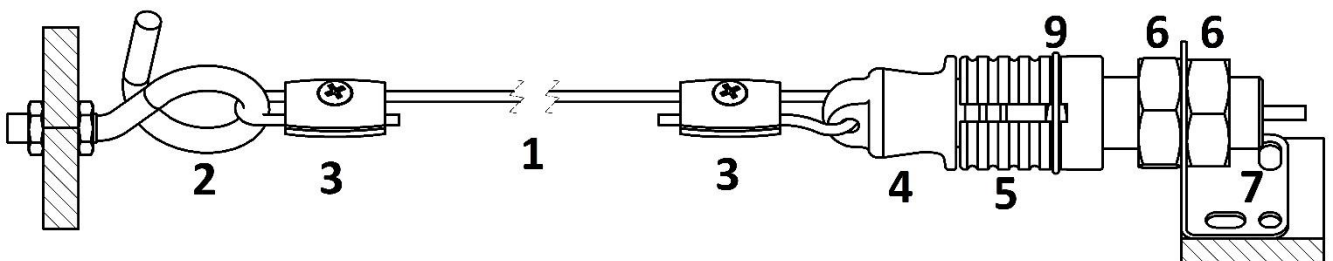
DITTELBACH UND KERZLER

Installation manual

Function: In order to be able to detect damages to the conveyor belt as best as possible, a rope (Fig. 1) is installed transversely and as close as possible under the conveyor belt. One end of this rope is fix attached to one side of the structure of the conveyor. The eye bolt enclosed with the set (Fig. 2) as well as the attached cable clamp (Fig. 3) can be used for this purpose, but any other secure fixing is possible also. The other end of the rope has to be attached to the male plug socket (Fig. 4) by a further cable clamp. This male plug socket is plugged into a female plug socket (Fig. 5) fixed to the structure of the conveyor. If the rope is pulled by the damaged belt, the male plug socket will be pulled out from the female plug socket. In this moment a proximity switch within the female plug socket will switch over. The closer the rope is guided under the conveyor belt, the greater the sensitivity to detection.

Mounting: Secure the mounting points for the eye bolt as well as for the female plug socket. In order to guide the rope as close as possible to the troughing of the belt, further guidings can be used. From a vertical perspective, all guidings should be in one line and approximately transversely to the direction of travel of the belt. The female plug socket can either be fastened directly to its thread M20 with the two plastic nuts (Fig. 6) or indirectly using one of the two mounting plates (Fig. 7 or Fig. 8). Fix the eyebolt and the female plug socket accordingly. Adjust the nuts of the female plug socket so that the rope can be shortened later. Now the rope is attached to the eyebolt by means of the cable clamp. The male plug socket is then inserted into the female plug socket and the rope is fastened to the male socket by means of the second cable clamp. At the same time, shorten the rope far as possible. If now the rope is pulled transversely, the male socket jumps out and the proximity switch incorporated in the female socket switches over. The release force can be increased by displacing the ring spring (Fig. 9) into another groove. For optimization, the rope can be further pre-tensioned, for this purpose the female plug socket offers a wide longitudinal adjustment range on the M20 thread.

The electrical installation is carried out according to the specifications of the manufacturer ifm according to their instructions enclosed with this set.

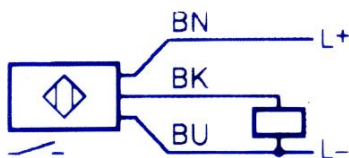


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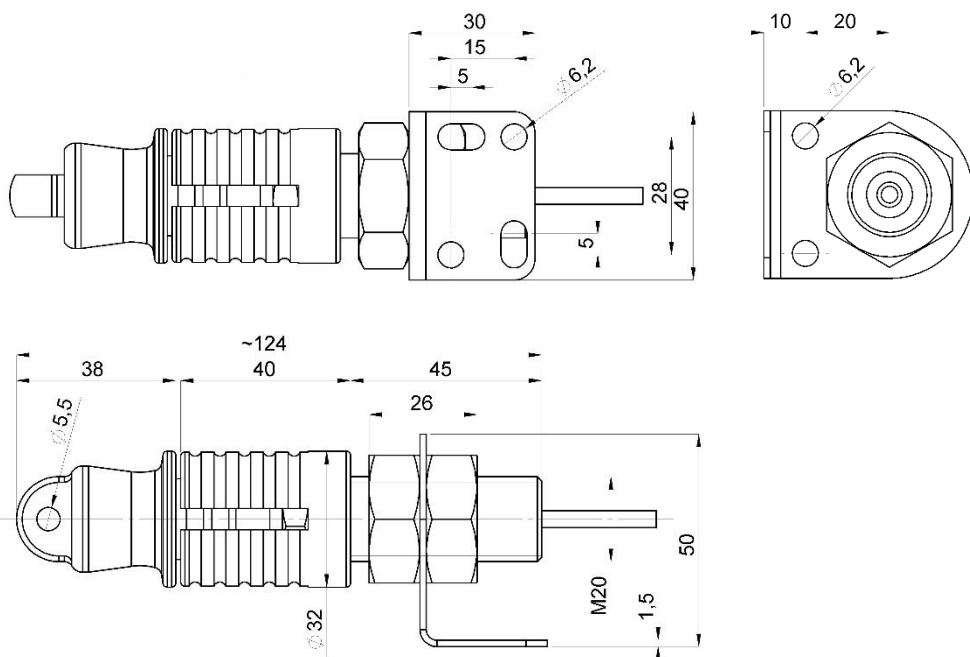
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Technical data

Proximity switch	PNP, 1 NO contact
Manufacturer / type	ifm / IFS703
Conformity	EN 60947-5-2
Voltage U_b	10 up to 30VDC supply class 2 acc UL
Consumption	<10mA
Current I_e	max 100mA
Connection cable	ca. 2m, PUR, 3 x 0.34mm ²
MTTF	861 years
Mounting	1 angled bracket or 1 plane bracket or direct on the M20-thread of the socket
Protection	IP69K
Materials	Sockets: POM proximity switch: nickelled brass brackets: stainless steel rope, fastening fittings: zinc coated steel
Operation temperature	-25°C up to +70°C



BN	braun	brown	brun	marrone	коричневый
BK	schwarz	black	noir	nero	чёрный
BU	blau	blue	bleu	blu	синий



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