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November 2021

RECLOSABLE FASTENING FLANGE FOR PROXIMITY SWITCH

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Recommended Citation

Unger, Axel, "RECLOSABLE FASTENING FLANGE FOR PROXIMITY SWITCH", Technical Disclosure Commons, (November 01, 2021)

https://www.tdcommons.org/dpubs_series/4696



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RECLOSABLE FASTENING FLANGE FOR PROXIMITY SWITCH

Initial situation:

Varikont L proximity switches are used for position detection in technical processes or of workpieces and tools. These are fixed with a BF-L2 mounting flange as standard. However, contactless switching cannot be guaranteed 100% for technical reasons. In the event of a collision with the proximity switch, it will be irreparably damaged and cannot be reinstalled. Defined switching states are not guaranteed until replacement with a new proximity switch.

Solution:

After a collision, the proximity switch can be returned to its original position with the help of a reclosing predetermined breaking point.

Advantage:

Position detection in technical processes or of workpieces and tools can be ensured within a short time after collision without replacing components (holder, sensor, component) and readjustment. The proximity switch is brought into its original position by positively plugging it together.

Technische implementation:

Shown below is a possible alternative to the BF-L2 mounting flange.

The form closure is achieved with the help of a reclosing predetermined breaking point, realised by a special tongue and groove connection, which is supported by a connection with 2 disc magnets.

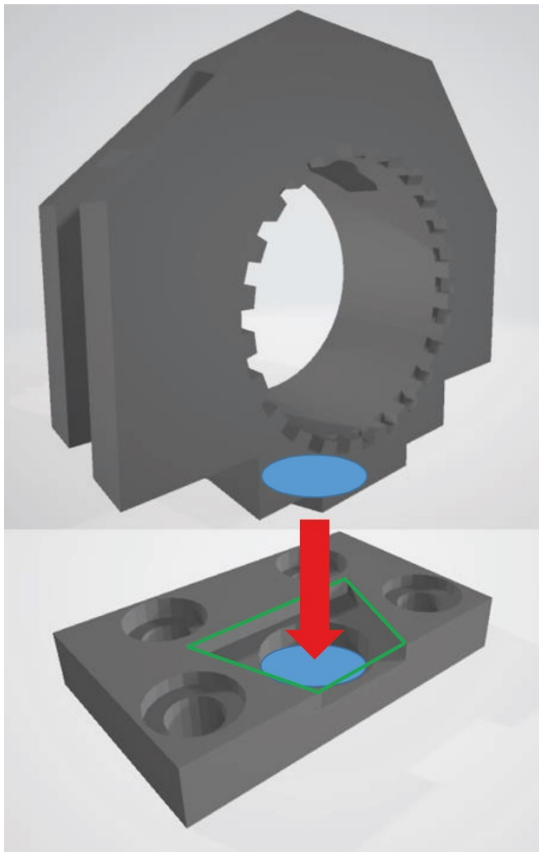


Figure 1: Illustration of the form closure between base plate and base body. The blue marking represents the 2 disc magnets. The tongue and groove connection is shown by the green marking.

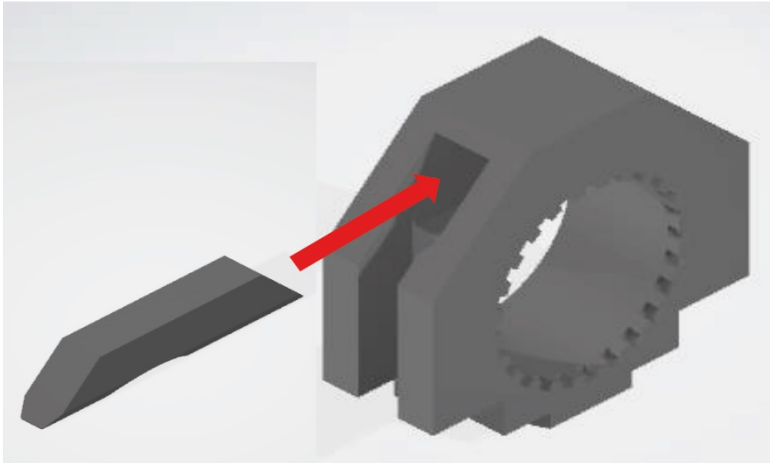


Figure 2: Locking



Figure 3: Front and side view of base body

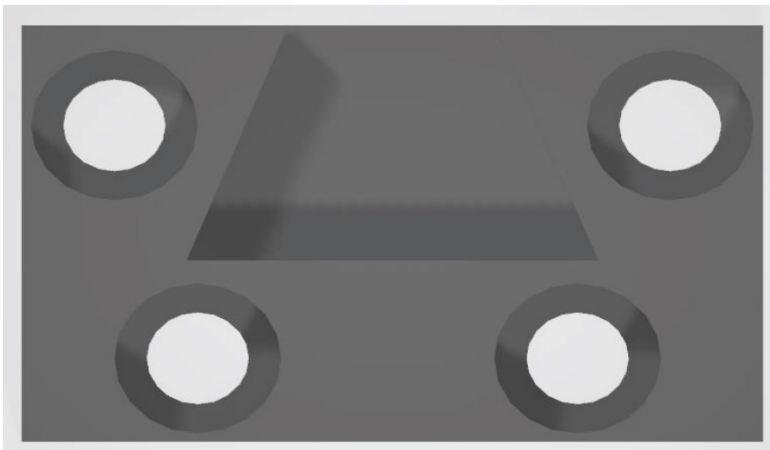


Figure 4: Top view base plate



Figure 5: Front and side view of locking mechanism