

Safely secured in position

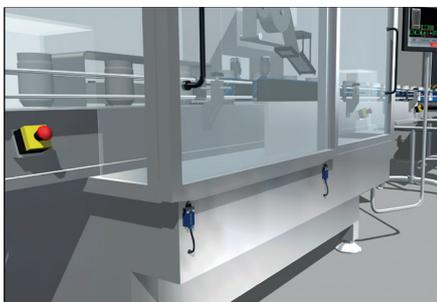
Compact position switches PS116

Schmersal's new compact position switches with safety function reliably monitor laterally shiftable or rotatable protective equipment.

Electromechanical position switches are standard components in automated handling equipment for items such as piece goods for example. They deliver the location of moving machinery and equipment parts, and, as position switches, monitor the location of laterally shiftable or rotatable protective equipment. Over the years, the use of so-called ISO 14119 type 1 switches in machine construction has become so widespread that two norms, EN 50041 and EN 50047, now exist to specify their dimensions.

A major challenge of the new development is fulfilling the expectations of a mature product. Emphasis is on enhancing the net benefit for the customer and clearly differentiating the new series from already marketed ones.

One of the features particularly important to customers is maximal compactness. And because position switches are used in a variety of machine building applications, the component should be a universal one for simpler stock keeping.



The new position switches with safety function are suitable as safety guard monitors.

The result: PS116 position switches are once again smaller than the dimensions specified in the EN 50041/ 50047 standards. This allows them to be installed in confined spaces as well.

The switches are available in four types of housing: two with an output cable and two with an M12 flush-type socket fitted on the bottom or at the side as required. Other features have also been developed for the requested universal deployment: The housing is symmetrical and the actuator heads can be moved in steps of 45°. This means designers can use the same switch for both left and right handed versions. Thanks to the prefabricated switches in the cable and plug version, customers also benefit from faster installation times.

Large range of actuators

The switches come with a variety of inter-exchangeable actuator heads which can be rotated or fixed in steps of 45°. The spectrum ranges from plungers through offset and angle roller levers to roller and rod levers. All roller levers can also be fixed in steps of 15°.

Different contact versions for snap and slow action allow a wide range of switching and monitoring functions to be implemented. The three contact variants permit a redundant shut down with an additional signal contact. There are also models with snap-action switching and latching function which require the actuator head to be put manually into the start position. With protection types IP66 or IP67, the position switches can be used in adverse ambient conditions.

All the new PS116 position switches are fitted with IEC 60947-5-1 compliant positive opening contacts. They can be used as ISO 14119 type 1 switches in safety-relevant applications such as safety guard position monitoring. In conjunction with suitable safety evaluations, individual position switches can be used for performance levels up to PL d. With two position switches, PL e can be achieved as per EN ISO 13849.

Info !

The selection options available to users even go beyond those described in the accompanying article. If combined with a safe input module, a dual NC PS 116 position switch can be „plug and played“ into the „AS-Interface Safety at Work“ safe communications protocol via a standard M12 connecting cable.

Images:

K.A. Schmersal GmbH & Co. KG, Wuppertal

K. A. Schmersal GmbH & Co. KG

Mödinghofe 30

42279 Wuppertal

Telefon: +49 202 6474-0

info@schmersal.com

www.schmersal.com