



Safe switchgear for difficult and critical applications.

Emergency pull-wire/Pull-wire switches
Belt-alignment/Slack-wire switches

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Application

Emergency pull-wire switches are of great importance for the man-machine interface in the area of industrial applications. They are, for example, applied on transport and conveyor systems. After manual actuation, work and functional processes are initiated or switched off.

When the new harmonised European standard EN 60947-5-5 concerning functional aspects and design guidelines for emergency-stop devices has come into effect, new requirements must have to be met by these command devices. All emergency pull-wire switches described in this chapter meet the requirements of this standard.

Belt-alignment and slack-wire switches are suitable for applications with handling equipment.

Pull-wire switches are suitable as transducers for starting machines or to open and close electrically-powered doors, gates and barriers.

Design and mode of operation

On emergency pull-wire switches the emergency-stop command can be initiated from any point along the pull-wire. They have a positive linkage between the NC contacts and the pull-wire. The emergency pull-wire switches are brought into the operational condition by pre-tensioning the pull-wire, i.e. the NC contacts are then closed and the NO contacts are open. All devices are equipped with wire-breakage detection.

Emergency pull-wire switches without mechanical latching VD or VS do not conform with EN 418. Though it is possible by means of suitable control and circuitry measurements to meet the requirements of EN 418.

The belt-alignment switches are actuated when the conveyor belt becomes misaligned. Depending on the plant arrangements, this signal can either be used to switch the equipment off or to provide automatic correction of the belt alignment.

The slack-wire switches monitor the pull-wire tension. With correct tension present, the switch is actuated. The pull-wire switch is actuated manually by pulling.

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