

Enabling "Dead Man" Switches

What is an enabling switch?

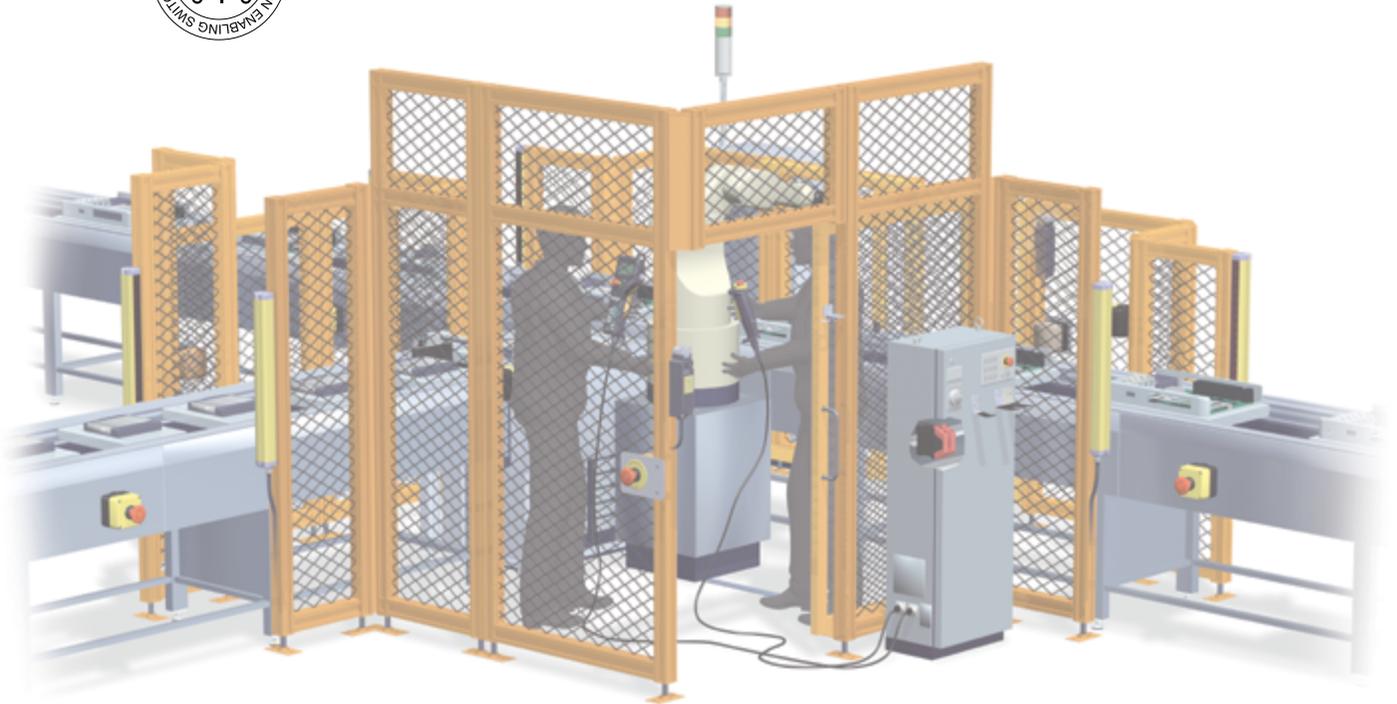
An enabling switch is a 3-position (OFF-ON-OFF) switch to allow a machine operation only when the switch is lightly pressed and held in the middle position (position 2). Because it disables machine operation when released (position 1) or further depressed (position 3) by a panicked operator, the safety of operators is ensured.

IDEC was a pioneer in developing these type of switches and championed the additional IEC60947-5-8 requirements for enabling switches to be used in automated manufacturing cells.

Because operators use pendants in dangerous environments performing teaching, system changeover, and maintenance of robots, they must have protection against unpredictable motion of robots, and therefore teach pendants are equipped with 3-position enabling switches.

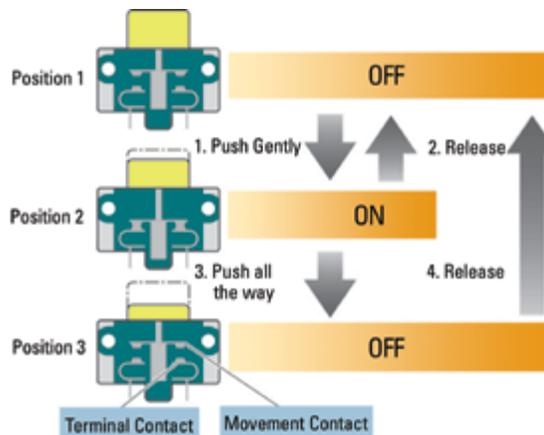


IEC symbol designating a 3-position enabling switch as specified in IEC60947-5-8



HE1B Enabling Switch Movement

3 Position Enabling Switch
 Position 1 - Normal position - Contact Open
 Position 2 - Push half way - Contact Closed
 Position 3 - Push all the way - Contact Open



When releasing switch from position 3 back to position 1, the switch will not enter the ON state.

Overview

XW Series E-Stops

Interlock Switches

Enabling Switches

Safety Control Relays

Light Curtains

AS-Interface Safety at Work

Selection Guide

Enabling Switches

Series	HE1B	HE2B	HE3B	HE5B	HE6B
Appearance					
Page	394	396	399	402	405
Description	Basic Switch	Full Size Contacts	16mm Panel Mount	16mm Panel Mount	Compact Size
Main Contacts	1NO	DPDT/DPDT, 2NC/DPDT, 4NC	DPDT	DPDT	DPDT
Monitor Contacts	-	2NC, 4NC	-	-	2NC

Grip Switches

Series	HE1G	HE1G-L	HE2G	HE5B Housing
Appearance				
Page	408	412	415	419
Description	Grip Switch	Light Force Grip Switch	Compact, Ergonomic Grip Switch	Grip switch housing for HE5B
Maximum Contacts	DPDT, 1NC/DPDT, 2NC	DPDT, 1NC/DPDT, 2NC	DPDT	DPDT
Options	E Stop or Push Button	E Stop or Push Button	E Stop, Push Button, Key Switch, Pilot Light	-

Application Example



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