

SSP (Safety System Products)

Three-Position Safety Enabling Switches



Enabling switches, commonly referred to as “dead-man switches”), can be designed into a safety system to provide a special operating mode for specific tasks such as commissioning, maintenance, repair, or process set-up.

The safety system can be designed in a way that allows the enabling switch to activate other safety devices (for example, the enabling switch can allow slow-speed motion while a guard door is opened) in order to accomplish the specified tasks. The enabling unit consists of a spring-return, three-position grip (resting position (NO), middle position (NC), and fully squeezed position (NO)). If the operator releases the grip on the enabling device or squeezes it too much, then the safety system will activate and return the machine to a safe state.

Additional normally open pushbuttons are available on select models to wire into your system to perform actions such as machine reset, position setting, jogging the machine, inputs to a plc and more.

Features

- Ergonomic (right- or left-handed)
- Easy to operate (even when wearing gloves)
- Robust housing in IP67
- Optional increased protection against manipulation with in-hand detection
- Optional built-in Estop, LED, pushbuttons, and activity (“home” position) sensor
- Universal connection via cable or terminals

SSP ZEUS Three-Position Safety Enabling Switches Selection Guide

Part Number	Price	Three-Position Enabling Device	Estop Pushbutton	LED Diagnostic	Number of Momentary Pushbuttons	Activity (“Home”) Sensor	In-Hand Sensor	Connection	Drawing
ZEUS01-000000	\$05nkv:	✓	–	–	–	–	–	Terminals	PDF
ZEUS01-000400	\$05nkv:	✓	–	–	–	–	–	5m [16.4 ft] cable	PDF
ZEUS01-100000	\$05nky:	✓	–	✓	–	–	–	Terminals	PDF
ZEUS01-100400	\$05nkz:	✓	–	✓	–	–	–	5m [16.4 ft] cable	PDF
ZEUS01-120000	\$05nkq:	✓	–	✓	1	–	–	Terminals	PDF
ZEUS01-120400	\$05nks:	✓	–	✓	1	–	–	5m [16.4 ft] cable	PDF
ZEUS01-130000	\$05nk#:	✓	–	✓	2	–	–	Terminals	PDF
ZEUS01-130400	\$05nkl:	✓	–	✓	2	–	–	5m [16.4 ft] cable	PDF
ZEUS11-030000	\$05nkj:	✓	✓	–	2	–	–	Terminals	PDF
ZEUS11-030400	\$05nk_:	✓	✓	–	2	–	–	5m [16.4 ft] cable	PDF
ZEUS11-100000	\$05nkj:	✓	✓	✓	–	–	–	Terminals	PDF
ZEUS11-100400	\$05nkp:	✓	✓	✓	–	–	–	5m [16.4 ft] cable	PDF
ZEUS11-120000	\$05nkt:	✓	✓	✓	1	–	–	Terminals	PDF
ZEUS11-120400	\$05nku:	✓	✓	✓	1	–	–	5m [16.4 ft] cable	PDF
ZEUS11-130000	\$05nk?:	✓	✓	✓	2	–	–	Terminals	PDF
ZEUS11-130400	\$05nl0:	✓	✓	✓	2	–	–	5m [16.4 ft] cable	PDF

Three-Position Safety Enabling Switches With Enhanced Sensors

In addition to the standard models listed above, the following three SSP ZEUS Safety Enabling Switches feature two enhanced sensing capabilities. The activity sensor, or “home” position sensor, detects when the switch is placed in the ZEUS-H mounting bracket. The in-hand sensor detects when the sensor is being held in the user’s hand.

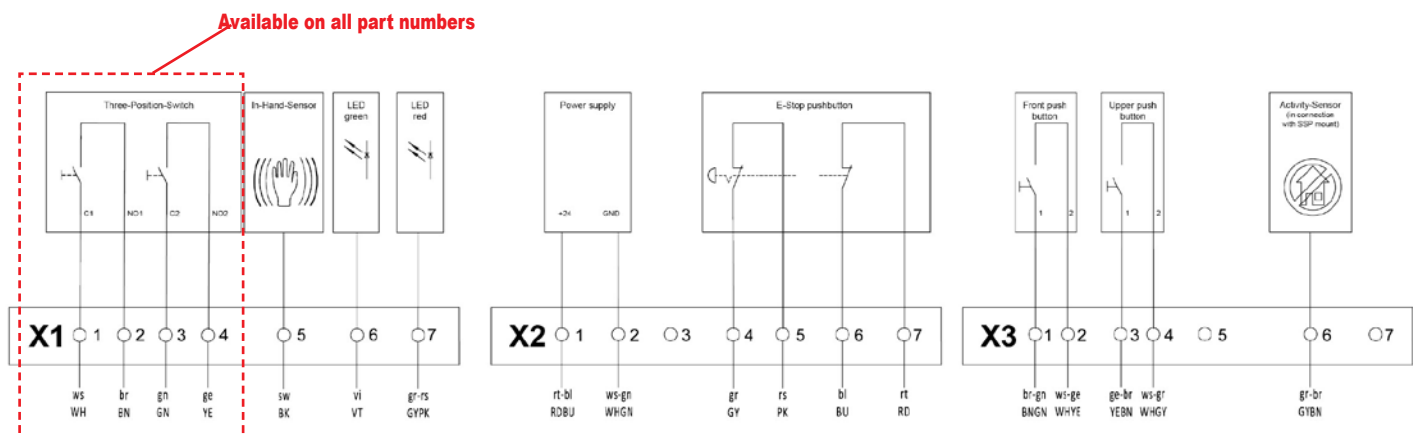
SSP ZEUS Three-Position Safety Enabling Switches With Enhanced Sensors Selection Guide

Part Number	Price	Three-Position Enabling Device	Estop Pushbutton	LED Diagnostic	Number of Momentary Pushbuttons	Activity (“Home”) Sensor	In-Hand Sensor	Connection	Drawing
ZEUS01-131430	\$05nl1:	✓	–	✓	2	✓	✓	5m [16.4 ft] cable	PDF
ZEUS11-121430	\$05nl2:	✓	✓	✓	1	✓	✓	5m [16.4 ft] cable	PDF
ZEUS11-131430	\$05nl3:	✓	✓	✓	2	✓	✓	5m [16.4 ft] cable	PDF

SSP (Safety System Products) Three-Position Safety Enabling Switches

SSP ZEUS Three-Position Safety Enabling Switches Specifications	
Operating Voltage	24VDC +-5%
Storage Temperature	-40°C to 80°C [-40°F to 176°F]
Operating Temperature	-5°C to 60°C [23°F to 140°F]
Wire Size for Terminal	0.14 to 0.34 mm ² [25 to 22AWG]
Terminal Type	Spring-loaded
Base Plate Connection	M20 female thread
Screw Torque (Base Plate Attachment)	0.8 N•m [0.59 ft•lb]
Cable Maximum Outer Diameter	7mm [0.28 in]
Material	Handle body: Glass fiber reinforced thermoplastic Enable button: Silicone Base plate: Stainless steel
Weight	330g [11.64 oz]
Ingress Protection Rating	IP65, IP67
B10d Value (for Enable Button)	100,000
Service Life	Position 1>2>1: 1,000,000 cycles Position 1>2>3>1: 100,000 cycles
Agency Approvals	cULus, TÜV, and CE

Connection Diagram Example



NOTE: The connection diagram above shows the terminals for all functions of the ZEUS.

Not all functions will be available on all part numbers.

Please refer to the data sheet for each specific part number for the corresponding connection diagram.

SSP (Safety System Products) Three-Position Safety Enabling Switches Mounting Brackets

SSP ZEUS Three-Position Safety Enabling Switch Mounting Brackets

SSP ZEUS Mounting Bracket Selection Guide				
Part Number	Price	Material	Weight g [oz]	Drawing
<u>ZEUS-H</u> *	\$-05n14:	Glass-fiber reinforced thermoplastic	30 [1.1]	<u>PDF</u>
<u>ZEUS-H2</u>	\$;5nk,:	Stainless steel	119 [4.2]	<u>PDF</u>

* For the Activity Sensor to work, a ZEUS-H is required.



[ZEUS-H](#)



[ZEUS-H2](#)

Examples of Mounting Brackets Attached to Unit



[ZEUS01-000000](#) resting in the [ZEUS-H2](#)
stainless steel mounting bracket



[ZEUS11-131430](#) resting in the [ZEUS-H](#)
glass-fiber reinforced mounting
bracket

Safety Products



Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.

AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.