ENABLING/OPERATIONAL UNIT

Operational unit
ZEUS enabling switch with operational unit
Products for Robots and Machine Safety

Safety System Products is exactly the right address for you

- Robot System Products
- Safety PLC
- Protective enclosures
- Emergency stop button
- Safety relays
- Magnetic guard lockings
- Safety guard lockings
- Safety barriers
Enabling - ergonomic and safe

If it is necessary to provide the operator a special operating mode for work such as commissioning, maintenance, repair or process set-up, important legal requirements must be observed.

The enabling mode has proven effective. In this operating mode, the machine operator has the option to bypass certain safety devices, like safety doors, by selecting the operating mode and actuating the enabling unit.

The important point here is the three-level function. The enabling unit allows certain hazardous movements only in the middle position and with additional precautions. If the operator releases the unit or pushes it into the Level 3, the system switches off for safety.

ZEUS guarantees a fatigue-free work thanks to its ergonomic design and low weight. It is suitable for left-handed or right-handed operators and easy to operate even when wearing gloves.
**Important features**

- Ergonomic design
- Dimensions 186 × 70 mm (without mounting bracket and emergency stop switch)
- Robust housing in IP65 and IP67
- Modular design
- Standard delivery of 10 m connection cable (stop switch configurations with M12 8-pole plug)
- Individual connection via terminal block

**Additional functions**

- Operation of up to 120 axes/functions
- Extended LED diagnosis
- Increased protection against manipulation in-hand sensor (hand detection)
- “Operation monitoring” with activity sensor
- Rocker/function button
- Large selection of plug connectors

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**Technical Information**

- **Type code**: ZEUS 10-15 15 31
- **emergency stop/stop switch**
  - 0 no emergency stop switch
  - 0 no function (top)
  - 1 with emergency stop switch
  - 2 with stop switch
- **connection**
  - 0 with fixed connection
  - 1 for individual connection
- **diagnosis**
  - 0 no LED
  - 1 red/green LED
- **control keys**
  - 0 no button
  - 1 front button
  - 2 top button
  - 3 button front and top
  - 4 rocker button
  - 5 front button and rocker button

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**Information**

Please observe following requirements during configuration of your enabling switch: The emergency stop switch cannot be configured with a plug connector acc. to EN ISO 13850.
## Enabling/operational unit with control functions

<table>
<thead>
<tr>
<th>Denomination</th>
<th>Item</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZEUS 00-00 05 00</td>
<td>enabling switch, 10 m cable</td>
<td>SP-X-85-900-01</td>
</tr>
<tr>
<td>ZEUS 01-00 00 00</td>
<td>enabling switch, individual wiring</td>
<td>SP-X-85-900-02</td>
</tr>
<tr>
<td>ZEUS 00-00 01 00</td>
<td>enabling switch, spiral cable 0.5 m/2.5 m</td>
<td>SP-X-85-900-03</td>
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<tr>
<td>ZEUS 00-11 11 00</td>
<td>enabling switch, 1 control key, spiral cable 0.5 m/2.5 m</td>
<td>SP-X-85-900-04</td>
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<tr>
<td>ZEUS 00-13 11 00</td>
<td>enabling switch, 2 control keys, spiral cable 0.5 m/2.5 m</td>
<td>SP-X-85-900-05</td>
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<tr>
<td>ZEUS 11-13 15 30</td>
<td>enabling switch, 2 control keys, sensor function, 10 m cable</td>
<td>SP-X-85-900-06</td>
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<tr>
<td>ZEUS 10-00 05 00</td>
<td>enabling switch, emergency stop switch, 10 m cable</td>
<td>SP-X-85-900-07</td>
</tr>
<tr>
<td>ZEUS 11-00 00 00</td>
<td>enabling switch, emergency stop button individual wiring</td>
<td>SP-X-85-900-08</td>
</tr>
<tr>
<td>ZEUS 11-14 15 31</td>
<td>enabling switch, emergency stop switch, control and sensor function, 10 m line</td>
<td>SP-X-85-900-09</td>
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<tr>
<td>ZEUS 01-14 1A 31</td>
<td>enabling switch, control and sensor function, M23 19-pole plug</td>
<td>SP-X-85-900-10</td>
</tr>
<tr>
<td>ZEUS 20-00 07 00</td>
<td>enabling switch, stop switch black, M12 8-pole plug</td>
<td>SP-X-85-900-11</td>
</tr>
<tr>
<td>ZEUS 21-00 00 00</td>
<td>enabling switch, stop switch black, individual wiring</td>
<td>SP-X-85-900-12</td>
</tr>
</tbody>
</table>

*additional configurations are available on request.*

## ZEUS equipment

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ZEUS H</td>
<td>holding bracket for ZEUS enabling/operational unit</td>
<td>SP-X-85-800-00</td>
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</table>

## Safe Control Technology

<table>
<thead>
<tr>
<th>Denomination</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MOSAIC M1</td>
<td>safety PLC</td>
<td>SP-R-11-000-00</td>
</tr>
<tr>
<td>Safety relay S</td>
<td>Safety relay for emergency off and safety door applications</td>
<td>SP-S-00-001-02</td>
</tr>
<tr>
<td>Safety relay T</td>
<td>Safety relay with integrated time delay</td>
<td>SP-S-00-002-02</td>
</tr>
</tbody>
</table>

## Order data

- **base plate**
  - 0 base plate without mounting bracket
  - 1 base plate with mounting bracket

- **wiring**
  - 1 spiral line 0.5 m/2.5 m
  - 2 spiral line 1 m/5 m
  - 3 spiral line 2 m/10 m
  - 4 connection line 5 m
  - 5 connection line 10 m
  - 6 M12 5-pole plug
  - 7 M12 8-pole plug
  - 8 M12 12-pole plug
  - 9 M23 12-pole plug
  - A M23 19-pole plug
  - B special item

- **sensor functions**
  - 1 activity sensor
  - 3 in-hand and activity sensor

- **control functions**
  - 1 32 control functions
  - 2 120 control functions
Individual selection, control and detection

Maximum operating comfort and reliable protection against manipulation

With the operating terminal ZEUS enabling/operational unit, up to 120 functions can be triggered in the binary-coded, such as axes, valves or grippers. The seven-segment display integrated in the interface indicates the selected function and makes the operation easier for you. The extended LED diagnosis provides you a helpful feedback.

The in-hand sensor provides protection against manipulation; it detects the operators hand and reliably protects against bypass or other manipulations. The ZEUS enabling/operational unit detects via activity sensor when it is removed from the support bracket. Only then it is switched into the special operating mode. This makes sure that no unwanted operation errors occur.

The ZEUS enabling/operational unit can be integrated easily into your system thanks to the universal connection via a plug, cable or terminal.

Fully equipped ZEUS

Dimensioning

ZEUS

[Diagram showing dimensions: 35, 70, 77, 186, 24]
Wiring examples

Wiring with SSP safety relay S series

Three-Position-Switch

Wiring with MOSAIC and emergency stop switch

Three-Position-Switch

E-STOP pushbutton

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