

Emergency-Stop YVD- Operation Instruction

(Translation of the Original Operating Instructions)

V1.2, 12.09.2018, Art.-Nr.: 615409940



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- The herein specified product properties and technical data do not represent any warranty -

1 About Safety

- 1.1 **⚠ Safety Regulations:** This operation instruction must be provided to the person who installs the emergency-stop device. Please read it carefully and keep it for future reference.
- 1.2 **Application:** Schlegel emergency-stop devices are electromechanical switch components serving to protect persons working with machinery or close to it. They are used to stop or switch off machinery and equipments in order to avert impending or minimize existing dangers to persons or damages on machines or material.

Application possibilities for the illuminated "active/inactive" emergency-stop:

- pluggable operation stations
- wireless operation stations
- pluggable plant parts (plant components, stationary available but only temporarily in operation)

in connection with at least one emergency-stop available on the machine.

The following (inter)national statutory provisions apply to installation, commissioning and regular technical inspections, especially the:

- Low-voltage Directive 2006/42/EG
- Low-voltage Directive 2014/35/EU
- Safety Regulations as well as the
- Regulations of the Accident Preventions / Safety Rules.

Manufacturers and operators of machines using emergency-stop devices should retain the responsibility for the adherence of these instructions as well as for compliance with the relevant Safety Regulations and Rules.

For the application of emergency-stops as directed the respective requirements for installation and operation must be observed:

- EN60204-1
- EN13849-1
- EN ISO 13850

- ⚠ Disconnect equipment and device from the mains before installation!
- ⚠ Emergency-stops fulfil the function of personal protection. Improper installation or unauthorized modifications may lead to severe personal injuries!
- ⚠ Emergency-stops should not be bypassed, removed or otherwise disabled!
- ⚠ The perceptibility of the active status of the emergency-stop is indicated by the change of colour of the mushroom head by illumination (Fig. 3).
- (!) Improper installation or tampering may result in machine and material damages!
- (!) The emergency-stop function should not replace the applicable safety precautions or other safety functions but should rather be used as a back-up safeguarding measure.
- (!) The emergency-stop function should not impair the effectiveness of other safety devices or equipment with other safety functions.
- (!) Based on his hazard analysis the design engineer must ensure that in combination with the control system the emergency-stop meets the required safety category.
- ⚠ A correct voltage and current supply acc. to the data sheet has to be provided for the illumination of the emergency-stop in order to ensure the perceptibility of the "active" operation status.

- ⚠ The emergency-stop may only be used in light conditions ensuring a clear and definite perceptibility of the red illuminated (active) mushroom head.
- ⚠ The emergency-stop may only be used indoors or in covered places without direct sunlight (normal industrial environment).
- ⚠ Before using the emergency-stop a safety appraisal of the entire system is necessary.
- ⚠ Depending on the risk analysis of the machine designer the emergency-stop illumination has to be monitored by a "diagnostic unit" and in case of a failure necessary action acc. to the risk assessment has to be taken.
- ⚠ The illumination of the emergency-stop has to be checked regularly as to its clear perceptibility. The emergency-stop has to be exchanged in case the clear perceptibility is no longer given.

1.3 **Approvals and Technical Data:** Refer to the catalogue information of the respective actuators and contact blocks or to the product configurator under www.schlegel.biz.

2 Product Description

2.1 **Construction:** The emergency-stops are available in different variants of contact equipment. They are operated by pressing the button and released by turning to the left or right side.

Features:

Connection: Faston or PCB-mount terminals
Illumination, status indication "active"/"inactive": acc. to EN ISO 13850:2015(D)
Mushroom head non-illuminated = "grey": "inactive", no emergency-stop
Mushroom head illuminated = "red": "active" emergency-stop

2.2 Actuators and Contact Blocks

Actuators	Ø	Contact Blocks
YVD(O)(OO)(OI) (P) (L)AU (L)R0 *1)	16,2	Actuators with integrated contact unit

3 Assembly and Commissioning

3.1 Assembly Instruction

- 1) Provide the required mounting hole in an appropriate mounting plate (refer to the relative catalogue drawings)
 - 2) Insert the emergency-stop in the cutout.
 - 3) Fasten the emergency-stop with the plastic nut (max. tightening torque to be considered: actuator with 16 mm thread = 1.5 Nm)
- ⚠ Make sure that the emergency-stop is always easily accessible.
 - ⚠ Connecting the R0 versions:
Do not connect terminals S1-X2 directly to voltage. Observe LED data in the data sheet! The LED must not be operated without a series resistor.

4 Testing Before First Operation:

Mechanical Test: Emergency-stop latches when operated

Electrical Test:

- Mushroom head is illuminated in "red" in "active" condition (Fig. 3)
- Mushroom head is non-illuminated "grey" in "inactive" condition (Fig. 3)
- Machine stops / shuts down when operated

5 Regular Technical Inspection

- Based on the risk assessment, the machine designer has to determine the inspection interval. It is, however, recommended that the competent safety officer activates and tests the emergency-stop at least once a year to ensure its proper function.
- mechanical and electrical functional test acc. to paragraph 4
- secure mounting
- no visible unauthorised modifications or damages
- no loose connections
- The E-stop must be replaced if the clear visibility is no longer guaranteed

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6 Dismounting:

⚠ Before dismounting disconnect equipment and device from the mains!

7 Incident Management:

⚠ Mechanical overload or external impact damage may impair the function of the emergency-stop. Make functional tests as mentioned in paragraph 5.

8 Recycling and Disposal

The low-polluting control and signal devices, terminal blocks and enclosures can be recycled. For an environmentally friendly recycling and disposal of your waste device please contact a company certified to deal with electronic waste.



Fig. 3: active inactive

9 EC Declaration of Conformity:

(Download under <http://www.schlegel.biz/web/de/manuals.php>)

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Responsible for documentation:	Georg Schlegel GmbH & Co. KG, Kapellenweg 4, 88525 Dürmentingen
Product description	Emergency-stop devices
Typen references:	refer to table 2.2

The specified products comply with the provisions of the following directive:

Directive:	of:	applied norms:
2006/42/EG	17.05.2006	EN 60947-5-5:1997+A1:2005+ A11:2013 EN ISO 13850:2015 (D)

*1) Versions with Faston: use partially or all-insulated Faston clamps