Preface

The AS-Interface Emergency stop slave system is a safety system for the AS-Interface network. Up to 30 slaves can be connected to one AS-Interface line, the 31st connection is the safety monitor. The digital output*1 can be used for the control of external pilot lights, annunciators or for the illumination of LED+. LED-:

Technical Data

Failure Probability according to IEC 61508

For calculating the failure probability of the whole system, the AS slave with the appropriate characteristic numbers:

PFH: 1.03 * 10^-10 PFD: 1.80 * 10^-5 SFF: 99.53 % SIL 3

Together with the failure probability of the other components used in the safety system (e.g. safety monitor), the allowable failure probability can be determined. With the result computed from this, a classification into the appropriate safety class can be made according to IEC 61508.

Reliability Parameters according to EN ISO 13849-1

The parameters referred to the reliability acc. to EN ISO 13849-1 are as follows:

MTBF: 100 years DCavg: 99 % Category: 4 PE e

Maintenance and Repair

It is recommended to activate the E-STOP at least once a year in order to examine the proper function of the safety switching system.

Reparis, particularly the opening of the housing, may be made only by the manufacturer or by a person authorised by the manufacturer.

Shutdown / Waste Disposal

When decommissioning the E-STOP must be dismantled / removed. The AS-Interface E-STOP does not contain batteries, which would have to be removed before disposal. Electronic trash is hazardous waste, so, please consider the local regulations for disposal.

Connection Assignment

A + A-: Connection to the AS-Interface network. Using IDC technology, the connections are set up via the 2-pole connector (ref. no.: "ASI_SAW16A, ASI_SAW22A") or "ASI_K2"). The single conductors are pressed into the IDC connector by means of the tool "ASI_MRT" (refer to the accessories).

LED+: LED-: Connection for digital output*1 2-pole connector to connect an external pilot light, or for the illumination of the E-STOP, via the connection cable (ref. no.: "VK_JST025BKL", "BK_JST034", "ASI_SB2AWG18", "ASI_SB2AWG22", "ASI_SAW16A, ASI_SAW22A") (refer to the accessories).

The safety slave can be combined with different E-STOP actuators (refer to "Models and Accessories"), which are operated by pushing and reset by twisting the upper part. With the foolproof trigger function, which is realised by power storing and a snap mechanism, the switching-off function (open + latching) is proceeded in a defined manner.

For the external E-STOP, an additional addressing jack (ref. no.: "ASI_MS22A", "ASI_MS22B") and A- (refer to the description of the addressing device).

As the starting-up operation means a safety-related procedure it has to be carried out by the safety officer who is responsible for the application.

Installation of the Network

The AS-Interface network is a PELV network. The relevant rules for the installation have to be considered.

Configuration of the Safety Network

The AS-Interface E-STOP can only fulfill its safety function acc. to the relevant standards in interaction with the AS-Interface safety monitor. For starting up the safety monitor must be configured accordingly (please refer to the operating instructions of the safety monitor). After installation a functional check must be carried out.

Failure Probability on demand accord. to IEC 61508

For the calculation of the failure probability of the whole system the AS-Interface EMERGENCY-STOP slave supplies one component.
Operating Instructions
(Translation of the orig. Operating Instructions)

AS-Interface Emergency-Stop Slave
Safety at Work

Installation: ASI_SAW16(A), ASI_SAW22(A)

Put slave and E-STOP together
... and snap them into place by a clockwise rotation

Optional: Connection of the E-Stop lighting via the connection cable

Models and Accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASi safety slave for E-STOP (16 mm mounting dia.)</td>
<td>ASI_SAW16E</td>
</tr>
<tr>
<td>ASi safety slave for E-STOP actuators (22 mm mounting dia.)</td>
<td>ASI_SAW22E</td>
</tr>
<tr>
<td>ASi safety slave for E-STOP actuators (16 mm mounting dia.), with safety shutdown, addressing jack and digital output</td>
<td>ASI_SAW16A</td>
</tr>
<tr>
<td>ASi safety slave for E-STOP actuators (22 mm mounting dia.), with safety shutdown, addressing jack and digital output</td>
<td>ASI_SAW22A</td>
</tr>
<tr>
<td>Connecting cable between dig. output of ASI_SAW16(A), ASI_SAW22(A) and E-STOP actuators with illuminated anti-lock collar, length approx. 10 cm</td>
<td>VK_JST025BK</td>
</tr>
<tr>
<td>Connecting cable between dig. output of ASI_SAW16(A), ASI_SAW22(A) and an external pilot light; open end, length approx. 10 cm</td>
<td>VK_JST034</td>
</tr>
<tr>
<td>Hand tool to press the single conductors &quot;ASI_SL2AWG18&quot; into the IDC connector &quot;ASI_SB2AWG18&quot;</td>
<td>ASI_MRT</td>
</tr>
<tr>
<td>Addressing cable to address the slaves with commercial ASi hand addressing device!</td>
<td>ASI_PK500M12</td>
</tr>
<tr>
<td>Flexible equipment wire, 2-core cable, brown/blue, to connect the slaves to the AS-Interface by insulation piercing.</td>
<td>ASI_SL2AWG18</td>
</tr>
<tr>
<td>Flat cable branch, transition from the flexible equipment wire &quot;ASI_SL2AWG18&quot; to the yellow ASi profile line</td>
<td>LA925NTB</td>
</tr>
</tbody>
</table>

*1) refers only to the types ASI_SAW16A, ASI_SAW22A
*2) refers only to the types ASI_SAW16A, ASI_SAW22A (with additional addressing jack)