SLC Keyed Interlock Safety Switches
The new generation of safe mechanical interlock switches

The safe solution
Safety switches with keyed interlock such as the SLC ensure that safety grilles, doors and other covers remain closed as long as a dangerous condition persists.

An interlocking device with a safety control combines two safety functions in one product:

1. Monitoring of the door position (interlock)
2. Monitoring of the safety control
User-friendly and cost-effective

The coded SLC is a product evolution with many optimized functions.

Mechanically stressed components - such as the rotating head - are made of metal. This makes it extremely sturdy and durable. The plastic housing, on the other hand, is light and functional.

A variant with M12 plug connector allows a particularly simple connection to the machine. Another user-friendly feature is the possibility of flexible contact assembly.

The contact combination of NC and NO contacts for monitoring the door position (interlock) and the safety control can be selected / combined when ordering.

If it is necessary to open the safety control when the machine is switched off - for maintenance work, SLC switches are equipped with an auxiliary release as standard, which can be operated with an Allen key.

Features:

- Flexible contact assembly
- Integrated manual release
- Five actuating positions
- Rotatable head (4 × 90°)
- Fail-safe locking system
- Optional emergency release
- Optional escape release
- Optional M12 connector
- 2 locking options:
  - Spring-To-Lock
    Locked by spring force.
    To unlock, the solenoid needs to be energized.
  - Power-To-Lock
    Locked by energized solenoid.
    To unlock, the energy needs to be switched off.
Specifications:

- **Electrical data**
  
  **Contacts:**
  Rated operational voltage $U_e$: 240 V AC / 24 V DC Utilization category:
  AC-15, $U_e$ / $I_e$ 240 V AC / 1.5 A (B300)
  DC-13, $U_e$ / $I_e$ 24 V DC / 1.5 A; 250 V / 0.11 A (R300)

  **Solenoid:**
  Operating voltage: 24 V AC / DC or 120 V AC or 230 V AC

- **Mechanical data**
  
  Body: Thermoplastic, fibreglass reinforced (UL 94-V0)
  Head: Metal
  Latching force: 1500 N (EN ISO 14119)
  Operating temperature: -25 to +55 °C
  Switching: 4 slow-action-contacts
  IP Rating: IP67

- **Safety data**
  
  $B_{10D}$: $2 \times 10^6$ cycles (EN ISO 13849-1)

- **Approvals:** cCSAus (# 018950)
SLC Modular concept

- **Straight actuator (ACS-1)**
  Standard model actuator.

- **Rotating Actuator ACR-1**
  Radius actuator - for use with small actuating radii.

- **Floating actuator (ACF-1)**
  Designed to compensate for a slight vertical/horizontal offset.

- **90 deg Actuator (ACC-1)**
  for vertical / horizontal mounting.

- **Manual release (standard)**
  Possibility of manually unlocking the switch using a tool - for example for maintenance work.

- **New symbol according to ISO 14119 for the interlocking contact**
  Contacts labelled with this symbol monitor the Safety Control locking position. Since the SLC is a fail-safe locking switch, it is sufficient to integrate only these into the safety circuit.

- **2 locking options:**
  
  **Spring-To-Lock**
  Safety Control locked by spring force. To unlock, the solenoid needs to be energized.

  **Power-To-Lock**
  Safety Control locked by energized solenoid. To unlock, the energy needs to be switched off.
In addition to the manual release, the SLC offers further functions that enable quick intervention if required.

**Emergency release**
As a ready-to-use switch or as an accessory, mounted on the front of the SLC, enables immediate opening from outside the dangerous area.

**Escape release**
Optionally mounted on the rear of the SLC, the escape release enables immediate opening from within the dangerous area.

**M20 side entries**
Possible on the sides and bottom.

**M12 connector**
Available on bottom entry.
Emergency and escape releases

Emergency release for immediate opening from outside the danger area in case of an emergency.

Escape release enables immediate opening from inside the dangerous area in case of an emergency.

Escape release basic set ESCR-B-1

Extension module * 20mm ESCR-20-1

Extension module * 40mm ESCR-40-1

* Extension modules require the basic set ESCR-B-1
SLC Sliding Handle Actuator

The handle for the SLC combines various functions:

- Ergonomic handle to open the door
- Prevents lateral forces onto the switch head
- Prevents using the switch head as an end stop
- Guarantees optimum actuator insertion

These features simplify fault exclusion and enable PL d (*) to be achieved in the door monitoring and locking function.

The version with escape release (BF1-SLC ES) includes an additional handle, which allows opening the door from within the danger area when using the function. This requires at least the basic set (ESCR-B).

* PL d: Probability of failure between $10^{-7}$ and $10^{-6}$ per hour
## Ordering SLC switches and Accessories

### SLC key interlock safety switch (Order by Part No.)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Model</th>
<th>Lock Type</th>
<th>Solenoid Voltage</th>
<th>Keyed / Actuator</th>
<th>Safety Control / Solenoid</th>
<th>Emergency Release</th>
<th>Connection type</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE601.8200.001</td>
<td>SLC-F-024-11/11-R4</td>
<td>Spring</td>
<td>24 V AC/DC</td>
<td>1 NC / 1 NO</td>
<td>1 NC / 1 NO</td>
<td>No</td>
<td>M20 Thread</td>
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<tr>
<td>BE601.8200.007</td>
<td>SLC-F-024-20/20-R4</td>
<td>Spring</td>
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<td>SLC-F-024-11/20-R4</td>
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<td>BE601.8200.018</td>
<td>SLC-F-024-10/20-R4-01</td>
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<td>BE601.8200.002</td>
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<td>BE601.8200.015</td>
<td>SLC-M-024-20/20-R4</td>
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<td>1 NC / 1 NO</td>
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<td>M20 Thread</td>
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<td>BE601.8200.016</td>
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<td>No</td>
<td>M20 Thread</td>
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<tr>
<td>BE601.8200.017</td>
<td>SLC-M-024-20/20-R4</td>
<td>Power</td>
<td>24 V AC/DC</td>
<td>2 NC</td>
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<td>M20 Thread</td>
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<td>BE601.8200.003</td>
<td>SLC-F-120-11/11-R4</td>
<td>Spring</td>
<td>120 V AC</td>
<td>1 NC / 1 NO</td>
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<td>M20 Thread</td>
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<td>BE601.8200.005</td>
<td>SLC-F-230-11/11-R4</td>
<td>Spring</td>
<td>230 V AC</td>
<td>1 NC / 1 NO</td>
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<td>BE601.8200.004</td>
<td>SLC-M-120-11/11-R4</td>
<td>Power</td>
<td>120 V AC</td>
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<td>BE601.8200.006</td>
<td>SLC-M-230-11/11-R4</td>
<td>Power</td>
<td>230 V AC</td>
<td>1 NC / 1 NO</td>
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<td>No</td>
<td>M20 Thread</td>
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</tbody>
</table>

Information subject to change without notice

### Accessories: Actuators / emergency releases / sliding handles (Order by Part No.)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE391.1742.390</td>
<td>ACS-1</td>
<td>Straight actuator; stainless steel; min actuating radius: 800mm</td>
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<tr>
<td>BE391.1742.391</td>
<td>ACF-1</td>
<td>Floating actuator; stainless steel / GD-Zn; min actuating radius: 400mm</td>
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<tr>
<td>BE391.1742.392</td>
<td>ACC-1</td>
<td>90-degree actuator; stainless steel; min actuating radius: 600mm</td>
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<tr>
<td>BE391.1742.398</td>
<td>ACR-1</td>
<td>Rotating actuator; stainless steel; min actuating radius: 150mm</td>
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<tr>
<td>BE605.1101.003</td>
<td>EMR-F-1</td>
<td>Emergency release front; black/red</td>
</tr>
<tr>
<td>BE605.1101.004</td>
<td>EMR-B-1</td>
<td>Emergency release BACK; black/red</td>
</tr>
<tr>
<td>BE605.1201.005</td>
<td>ESCR-B-1</td>
<td>Escape release; basic set</td>
</tr>
<tr>
<td>BE605.1201.007</td>
<td>ESCR-20-1</td>
<td>Extension module for escape release; 20mm</td>
</tr>
<tr>
<td>BE605.1201.006</td>
<td>ESCR-40-1</td>
<td>Extension module for escape release; 40mm</td>
</tr>
<tr>
<td>BE605.0101.002</td>
<td>BF1-SLC</td>
<td>Sliding handle for SLC</td>
</tr>
<tr>
<td>BE605.1201.008</td>
<td>BF1-SLC-ES</td>
<td>Sliding handle for SLC with escape release</td>
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</tbody>
</table>

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