GKey is a robust safety lock with a die cast housing for hinged and sliding doors. It offers an interlocking function reaching PL e/SIL 3 with high level coding. Power is needed to unlock GKey which makes GKey a safety lock.

GKey is fitted with a rear escape release button and manual unlocking (auxiliary release). It offers four positions for 22 mm pilot devices.

**Safety and protection**
- **Escape release**
  The door can always be opened from inside the danger zone using the escape release button.
- **High level coding**
  A standard mechanical interlock combined with RFID coding offers high level coding.
- **Lockout function**
  GKey can be padlocked off for safe working.

**Easy to install**
- **Integrated buttons**
  There are four positions in the key housing that can be used for integrating push buttons, switches or pilot lights.

**Reliable in extreme conditions**
- **Robust design**
  Made of die cast aluminum alloy with a robust construction, GKey is ideal for use in mechanically demanding environments.
Ordering details

GKey

Ordering Details
For a complete safety lock, a switch and a mounting plate with front handle must be ordered separately. Rear handle, spring catch, pilot devices and blanking plugs for the unused positions are available and also ordered separately.

Switches
All models are fitted with an escape release button and delivered with a high level coded RFID actuator.

<table>
<thead>
<tr>
<th>Material (body)</th>
<th>Positions for pilot devices</th>
<th>Manual unlock</th>
<th>Type</th>
<th>Order code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Die cast</td>
<td>4</td>
<td>Yes</td>
<td>GKey4 RU</td>
<td>2TLA050040R0002</td>
</tr>
</tbody>
</table>

Mounting plate with front handle
The handle can be mounted on hinged doors and sliding doors, on the left or on the right. Note that door and frame must be aligned when the door is closed. Each order code includes a mounting plate for the switch and a front handle.

<table>
<thead>
<tr>
<th>Type of handle</th>
<th>Material (mounting plates and sliding bolt)</th>
<th>Type</th>
<th>Order code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sliding</td>
<td>Die cast</td>
<td>FHS GKey4</td>
<td>2TLA050040R0032</td>
</tr>
</tbody>
</table>

Accessories - Rear handle and spring loaded catch
The spring loaded catch prevents from closing the door by mistake. When the sliding handle is in open position, the catch must be pulled in order to be able to push back the handle to closed position.

<table>
<thead>
<tr>
<th>Type of handle</th>
<th>Material</th>
<th>Description</th>
<th>Type</th>
<th>Order code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sliding</td>
<td>Die cast</td>
<td>Rear handle</td>
<td>RHS GKey MKey</td>
<td>2TLA050040R0510</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring catch</td>
<td>SCS GKey MKey</td>
<td>2TLA050040R0511</td>
</tr>
</tbody>
</table>

Accessories - Pilot devices
Pilot devices and blanking plugs must be ordered separately. Make sure that the total amount is 4, so that all holes in GKey4 are covered.

<table>
<thead>
<tr>
<th>Description</th>
<th>Contacts</th>
<th>Illuminated</th>
<th>Voltage</th>
<th>Type</th>
<th>Order code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency stop button</td>
<td>2NC</td>
<td>No</td>
<td>24 V AC/DC</td>
<td>CE3P</td>
<td>CE3P-10R-02</td>
</tr>
<tr>
<td>Selector switch</td>
<td>2NO</td>
<td>No</td>
<td>24 V AC/DC</td>
<td>C2S51</td>
<td>C2S51-10B-20</td>
</tr>
<tr>
<td>Push button Green</td>
<td>1NO</td>
<td>Yes</td>
<td>24 V AC/DC</td>
<td>CP1</td>
<td>CP1-11G-10</td>
</tr>
<tr>
<td>Push button Yellow</td>
<td>1NO</td>
<td>Yes</td>
<td>24 V AC/DC</td>
<td>CP1</td>
<td>CP1-11Y-10</td>
</tr>
<tr>
<td>Push button Blue</td>
<td>1NO</td>
<td>Yes</td>
<td>24 V AC/DC</td>
<td>CP1</td>
<td>CP1-11L-10</td>
</tr>
<tr>
<td>Push button White/Clear</td>
<td>1NO</td>
<td>Yes</td>
<td>24 V AC/DC</td>
<td>CP1</td>
<td>CP1-11C-10</td>
</tr>
<tr>
<td>Push button Black</td>
<td>1NO</td>
<td>No</td>
<td>24 V AC/DC</td>
<td>CP2</td>
<td>CP2-10B-10</td>
</tr>
<tr>
<td>Blanking plug Black</td>
<td>MA1</td>
<td>MA1-8130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legend plate holder (without insert)</td>
<td>KA1</td>
<td>KA1-8120</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

More information
For more optional pilot devices, pre-printed legend plate inserts and other accessories, please see the Compact range of ABB pilot devices:
Technical data

GKey

Approvals

Conformity

2006/42/EC
EN 60947-5-3
EN ISO 14119
EN ISO 13849-1
EN 62061
UL 508

Functional safety data

SIL3
PFH = 4.77 x 10\(^{-10}\) (corresponds to 4.8% of SIL3),
PFD = 4.18 x 10\(^{-5}\) (corresponds to 4.2% of SIL3)
Proof test interval \(T_p = 20\) a

EN ISO 13849-1:2008
PL e (if both channels are used in conjunction with a SIL3/PL e control device),
Category 4, MTTF\(_d\) = 1100 a, DC high

Assumptions

\(d_{op} = 365\) d, \(h_{op} = 24\) h
If the product usage differs from these assumptions (different load, operating frequency, etc.) the values must be adjusted accordingly.

Electrical data

Operating voltage
+24 VDC ± 10%
Holding force
3000 N

Mechanical data

Connection
M20 (x3)
Operating temperature
-25 °C ... +40 °C
Protection class
IP65. (If pilot devices have better protection class a higher rating can be achieved.)

More information

For more information, e.g. the complete technical information, see product manual:
GKey 2TLC010048M0201

Electrical connection

Actuator must be in place and RFID coding verified for the safety contacts to close.
Dimension drawings

GKey

Dimensions - GKey4 switch and actuator

Dimensions - FHS GKey4 with rear handle and spring loaded catch

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