Position & Safety switches

- General purpose Switches
- Limit & Safety Switches
- Reset Switches
- Safety Gate Switches
- Safety Hinge Switches
- Safety Switches 5-way Key
- Rope Switches
Introduction to the Limit and Safety Switches

Carlo Gavazzi widens its range of products tailored for the Industrial Automation world, like...

Sensors
- Inductive Sensors
- Capacitive Sensors
- Photoelectric sensors
- Level Sensors
- Magnetic Switches
- Hall and Ultrasonic Sensors

Safety Systems
- Coded Magnetic Switches
- Safety Modules
- Safety Mats
- Safety Light Curtains

Controls
- Timers
- Transducers
- Monitoring Relays
- Digital Panel Meters
- Energy Management Modules

Solid State Switching
- Solid State Relays
- Motor Controllers

with its new and complete range of Mechanical Switches:
- Limit Switches
- Safety Switches

and provides the machine manufacturers and panel builders with a global and exhaustive solution to their systems, without compromises or restrictions to the more and more demanding requirements. Safety Switches allow Machinery to operate properly and minimize process stops and personnel risk, satisfying all safety categories, from 1 to 4.

Over 1600 different types of Limit and Safety Switches for Industrial Automation as well as for Elevator and Door Application requirements allow a reliable and safe operation of machinery and personnel. More than 22 different contact units are available, most of them with positive opening safety contacts, acc. to IEC60947-5-1, coupled with over 34 different actuating head types, for a huge variety of systems:

- 5 different housing sizes LS21, LS42, LS43 small, LS31, and LS43 big allowing 1-3 cable entries and up to 4 different contact functions, in compliance with EN50041 or EN50047, for the utmost flexibility required by the system design.
- 2 additional miniature housings, LS21M and LS31M, where space saving and rapid wiring are decisive factors.

Limit and Safety Switches, classified by application, allow an easier selection of the right switch:

- General Purpose Switches (L),
- Door/Gate Switches (G),
- Safety Hinge Switches (H),
- Safety Reset Knob Switches (K),
- Safety Pull-Wire Switches (R),
- Safety Switches with Separate Actuators with (E) and without (S), electromagnetic Interlock Systems
- Miniature Pre-wired Switches (M)

Each specific family integrates Carlo Gavazzi’s well known offer for Sensors and Safety allowing the most demanding technicians to find a reliable system solution from a unique manufacturer.

All switches, except Pre-Wired types, are available in the ordinary Pg13,5 cable entry, but can be delivered in the NPT or the new Metric M2O version as well.

Contact units can be easily wired and guarantee an IP20 protection degree, while the cover provided with gasket guarantees an overall IP66 protection rating, once the wiring has been completed.

An extraction force up to 1800 N, when the key is locked, is offered by the LS43E switch.

LS43E safety switches satisfy all relevant safety standards, like EN292, EN294, EN60204, EN1088, and EN945-1.

Signal Towers
To indicate status of a machine and systems Carlo Gavazzi offers a range of signal towers with a diameter of 35 mm and 50 mm with 6 different colours which can be combined with continuous-beam, blinking-light, or flashing-light. In addition it is possible to mount an acoustic module. Please ask for separate catalogue.
## Safety Switches
### Limit switches

### General technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating speed</td>
<td>1...1500 mm/s (5...500 mm/s for key and hinge switches)</td>
</tr>
<tr>
<td>Operating frequency</td>
<td>30 Operations/min.</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>100 MΩ/500 VDC</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>50/60 Hz for 1&quot;/2500 VAC</td>
</tr>
<tr>
<td>Rated insulation voltage</td>
<td>500 VAC</td>
</tr>
<tr>
<td>Rated thermal current</td>
<td>10 A</td>
</tr>
<tr>
<td>Rated operating current</td>
<td>Series E, G, H, K, L, R, and S</td>
</tr>
<tr>
<td>Category AC15</td>
<td>le</td>
</tr>
<tr>
<td>A300</td>
<td>6 A/4 VAC, 10 A/4 VAC</td>
</tr>
<tr>
<td>5 A/125 VAC</td>
<td>5 A/125 VAC</td>
</tr>
<tr>
<td>3 A/230 VAC</td>
<td>3 A/230 VAC</td>
</tr>
<tr>
<td>1.8 A/400 VAC</td>
<td>1.8 A/400 VAC</td>
</tr>
<tr>
<td>1.4 A/500 VAC</td>
<td>1.4 A/500 VAC</td>
</tr>
<tr>
<td>Category DC13</td>
<td>le</td>
</tr>
<tr>
<td>Q300</td>
<td>3 A/2 VDC</td>
</tr>
<tr>
<td>1.5 A/4 VDC</td>
<td>1.5 A/4 VDC</td>
</tr>
<tr>
<td>0.55 A/120 VDC</td>
<td>0.55 A/120 VDC</td>
</tr>
<tr>
<td>0.27 A/250 VDC</td>
<td>0.27 A/250 VDC</td>
</tr>
<tr>
<td>Contact resistance</td>
<td>Without cable: 25 mΩ</td>
</tr>
<tr>
<td>Short circuit protective devices</td>
<td>IEC269 (IEC947-5-1)</td>
</tr>
<tr>
<td>Rated conditional short circuit current</td>
<td>Series M: 6 A gl or gG type fuse</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>IEC947-5-1</td>
</tr>
<tr>
<td>Protection degree</td>
<td>EN 60929</td>
</tr>
<tr>
<td>Protection - electric shock</td>
<td>Class II</td>
</tr>
<tr>
<td>Vibration resistance</td>
<td>IEC68-2-6</td>
</tr>
<tr>
<td>Shock resistance</td>
<td>IEC68-2-7</td>
</tr>
<tr>
<td>Mechanical life</td>
<td>Series E, H, K, R, and S</td>
</tr>
<tr>
<td>Series M:</td>
<td>1,000,000 cycles</td>
</tr>
<tr>
<td>Series G and L</td>
<td>10,000,000 cycles</td>
</tr>
<tr>
<td>Electrical life</td>
<td>at 250 VAC 3 A</td>
</tr>
<tr>
<td>w/resistant load cosφ = 1</td>
<td>500,000/min. cycles</td>
</tr>
<tr>
<td>w/resistant load cosφ = 0.4</td>
<td>500,000/min. cycles</td>
</tr>
<tr>
<td>Distance between contacts</td>
<td>2 x 2 mm</td>
</tr>
<tr>
<td>Snap action type</td>
<td>2 x 1.25 mm</td>
</tr>
<tr>
<td>Slow action type</td>
<td></td>
</tr>
<tr>
<td>Screw type</td>
<td>with combined notch and retractable plate (notch Ph, size 1)</td>
</tr>
<tr>
<td>Protection degree</td>
<td>M 3.5</td>
</tr>
<tr>
<td>Material</td>
<td>IP 20 A</td>
</tr>
<tr>
<td>Steel class 8.8/galvanised</td>
<td>iridescent yellow 6-8 μ</td>
</tr>
<tr>
<td>Max. screw tightening torque</td>
<td>2 x 1.5 mm²</td>
</tr>
<tr>
<td>Max. connecting capacity</td>
<td>2 x 1.5 mm²</td>
</tr>
<tr>
<td>rigid cable</td>
<td>1 x 1.5 mm²</td>
</tr>
<tr>
<td>flexible cable</td>
<td></td>
</tr>
<tr>
<td>Terminal numbering</td>
<td>In accordance w/EN50013</td>
</tr>
<tr>
<td>Series M - Cable</td>
<td>Model V4 o 5F - 4 o</td>
</tr>
<tr>
<td>Standard series/cable</td>
<td>PVC - UL/CSA cable</td>
</tr>
<tr>
<td>Sheet colour</td>
<td>PUR - UL/CSA cable</td>
</tr>
<tr>
<td>Length **</td>
<td>PVC - UL/CSA cable</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>PUR - UL/CSA cable</td>
</tr>
<tr>
<td>Operation voltage</td>
<td>PVC - UL/CSA cable</td>
</tr>
<tr>
<td>Operation voltage</td>
<td>PUR - UL/CSA cable</td>
</tr>
<tr>
<td>PVC - UL/CSA cable</td>
<td>Model 4 o</td>
</tr>
<tr>
<td>Sheet colour</td>
<td>RAL 7035/grey</td>
</tr>
<tr>
<td>Length **</td>
<td>2 m</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>60 m/min.</td>
</tr>
<tr>
<td>Operation voltage</td>
<td>300/500 V</td>
</tr>
<tr>
<td>PUR - UL/CSA cable</td>
<td>Model 4 o</td>
</tr>
<tr>
<td>Sheet colour</td>
<td>RAL 7001/grey</td>
</tr>
<tr>
<td>Length **</td>
<td>2 m</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>600 V</td>
</tr>
<tr>
<td>Operation voltage</td>
<td>PVC - UL/CSA cable</td>
</tr>
<tr>
<td>PUR - UL/CSA cable</td>
<td>Model 4 o</td>
</tr>
<tr>
<td>Sheet colour</td>
<td>Black</td>
</tr>
<tr>
<td>Length **</td>
<td>2 m</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>180 m/min.</td>
</tr>
<tr>
<td>Operation voltage</td>
<td>600 V</td>
</tr>
<tr>
<td>Cable colours</td>
<td>PVC - UL/CSA cable</td>
</tr>
<tr>
<td>Brown-blue (NO)</td>
<td>Black</td>
</tr>
<tr>
<td>Black-black (NC)</td>
<td>2 m</td>
</tr>
<tr>
<td>Yellow-green (GND)</td>
<td>180 m/min.</td>
</tr>
<tr>
<td>Connector</td>
<td>4-pole M12 x 1</td>
</tr>
<tr>
<td>Air ambient temperature</td>
<td>35 to +85°C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>95% max.</td>
</tr>
</tbody>
</table>

* Between terminals of the same polarity
* Between terminals of different polarity
* Between live mechanical parts and ground
* Between live mechanical parts and non-current-carrying metal parts
** On request, cable length more than 2 m
* All cables resistant to flame and cutting oils.
* CEI 20-22 cable does not spread fire.
## Type L - General Purpose Switches
- **Type LS21 Model**
- **Type LS31 Model**
- **Type LS21M Model**

## Type M - Limit & Safety Switches
- **Miniature/Pre-wired or Connector**
- **Type LS31M Model**
- **Type LS21M Model**

## Type K - Reset Switches
- **Type LS31 Model**
- **Type LS21 Model**

## Type G - Safety Gate Switches
- **Type LS42 Model**
- **Type LS43 Model**
- **Type LS31 Model**
- **Type LS21 Model**

### Dimensions
- **W x H x D (mm)** (basic actuating head P0)
- **Mounting Holes Distance (mm)**
- **Cable Entries (1, 2, or 3)**

<table>
<thead>
<tr>
<th>Model</th>
<th>LS21 Model</th>
<th>LS31 Model</th>
<th>LS21M Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>20/22</td>
<td>30</td>
<td>25</td>
</tr>
</tbody>
</table>

### Application (0)
- **General Purpose**
- **Gate**
- **Hinge**
- **Rope**
- **Safety**
- **Safety Electromagnetic**
- **Reset**

### Conduit / Connection Type (1)
- **PG 13.5 (P)**
- **M20 (M)**
- **NPT (N)**
- **Cable (PVC) (C)**
- **M12 Connector (A)**
- **AMP Connector (A)**

### Contact Unit Type (2)
- **S22 snap action 2NO+2NC**
- **S11 snap action 1NO+1NC**
- **T11 slide action 1NO+1NC**
- **O11 overlapping slide action 1NO+1NC**
- **T20 slide action 2NO**
- **T22 slide action 2NC**
- **S22 snap action 2NC**
- **T11 overlapping slide action 1NO+1NC**
- **T13 slide action 1NO+3NC**
- **T22 slide action 2NO+2NC**
- **T11 slide action 1NO+1NC**
- **A02 slide action 2NC**
- **S11 snap action 1NO+1NC**
- **S11 snap action 1NO+1NC**
- **T11 slide action 1NO+1NC**

### Actuating Head Type (3)
- **5-way Key (05 / 15 / 25 / D5)**
- **Hinge Lever (HL Left / HC Central / HR Right)**
- **Hinge Pin (H2 10/15 / H1 10/50 / H0 12/24 / H3 8/114 / H2 8/63)**
- **Lev er 0 Adj Roller (RT)**
- **Lev er 1 Adj Roller (R1)**
- **Lev er Roller 0 - 0 Adj (W0) / Adj (W1) / Adj (W2)**
- **Lev er Bonded Roller 0 (B0)**
- **Lev er Bonded Roller Reverse (BR)**
- **Lev er Reversib le Adj Roller (LR)**
- **Lev er Ceramic Reel (LC)**
- **Lev er Aluminium Rod (LA) / Fibre Glass Rod (LG)**
- **Lev er Offset Roller Hor. (RH w/o / RJ w/ Gasket)**
- **Lev er Offset Roller Ver. (RV w/o / RW w/ Gasket)**
- **Lev er Offset Roller Hor. (RH w/o / RW w/ Gasket)**
- **Lev er Spring Rod (LS w/o / LP w/ Plastic End, LW Wire)**
- **Plunger Routed (P0 w/o / PH w/ Gasket)**
- **Plunger Roller (PR)**
- **Plunger Roller 90° (P9)**
- **Rope 0N (N6) / 50N (N7) / 250N (N8)**

### Material (Housing/Head) (4)
- **Thermoplastic/Metal (H)**
- **Metal/Metal (M)**
- **Thermoplastic/Thermoplastic (T)**

### Electromagnetic Locking (5) (only Type E) or Reset Knob (only Type R, K)
- **E Type: Locking Mech. w/o Key (O), with Key (L), Electrical (U)**
- **K, R Types: (K)**

### Panel Mount Version (5) (only for Type M)
- **Not available for Actuating Head Type RT**

### Protection Degree
- **IP66**
- **IP67**

### Definition:
- **Model-Code0-Code1-Code2-Code3-Code4-Code5**

---

Elmatik AS, Türi 9, 11314 Tallinn Estonia tel. +372 650 3875 tel. +372 650 3876 fax +372 655 8019 e-mail: elmatik@elmatik.ee
<table>
<thead>
<tr>
<th>Type K</th>
<th>Type K</th>
<th>Type G</th>
<th>Type G</th>
<th>Type G</th>
<th>Type G</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS21 Model</td>
<td>LS42 Model</td>
<td>LS21 Model</td>
<td>LS42 Model</td>
<td>LS43 Model</td>
<td>LS31 Model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actuating Heads - Direct movement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P0</strong></td>
</tr>
<tr>
<td><strong>PH</strong></td>
</tr>
<tr>
<td><strong>PR</strong></td>
</tr>
<tr>
<td><strong>P0..L</strong></td>
</tr>
<tr>
<td><strong>PH..L</strong></td>
</tr>
<tr>
<td><strong>PR..L</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actuating Heads - Angular movement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RH</strong></td>
</tr>
<tr>
<td><strong>RJ</strong></td>
</tr>
<tr>
<td><strong>LR</strong></td>
</tr>
<tr>
<td><strong>RV</strong></td>
</tr>
<tr>
<td><strong>RW</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actuating Heads - Multi-directional movement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RT</strong></td>
</tr>
<tr>
<td><strong>B0</strong></td>
</tr>
<tr>
<td><strong>R1</strong></td>
</tr>
<tr>
<td><strong>W0</strong></td>
</tr>
<tr>
<td><strong>W1/W2</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connectors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LS</strong></td>
</tr>
<tr>
<td><strong>LP</strong></td>
</tr>
<tr>
<td><strong>LW</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cable 2 m PVC (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 x 0.75 mm² (for Metal Housing)</td>
</tr>
<tr>
<td>4 x 0.75 mm² (for Thermoplastic Housing)</td>
</tr>
<tr>
<td><strong>M12 connector (1)</strong></td>
</tr>
<tr>
<td>5 x 0.75 mm² (for Metal Housing)</td>
</tr>
<tr>
<td>4 x 0.75 mm² (for Thermoplastic Housing)</td>
</tr>
<tr>
<td><strong>Connector (A)</strong></td>
</tr>
<tr>
<td>AMP 4-pole Superseal 4-pole female</td>
</tr>
<tr>
<td>4 x 0.75 mm² (for Thermoplastic Housing)</td>
</tr>
</tbody>
</table>
### Type H - Safety Hinge Switches
- Model: LS21 Model
- Dimensions: 100
- Mounting Holes Distance: 20/22
- Cable Entries: 1
- Application: - General Purpose (L)
- - Gate (G)
- - Hinge (H)
- - Rope (R)
- - Safety (S)
- - Safety Electromagnetic (E)
- - Reset (K)
- Conduit / Connection Type: - PG 13.5 (P)
- - M20 (M)
- - NPT (N)
- - Cable (PVC) (C)
- - M12 Connector (1)
- - AMP Connector (A)
- Contact Unit Type: 000 - S22 snap action 2NO+2NC
- 00 - S11 snap action 1NO+1NC
- 01 - T11 slide action 1NO+1NC
- 02 - O11 overlapping slide action 1NO+1NC
- 03 - T20 slide action 2NO
- 04 - T02 slide action 2NC
- 05 - S02 snap action 2NC
- 07 - T11 overlapping slide action 1NO+1NC
- 80 - T13 slide action 1NO+3NC
- 81 - TD2 slide action 2NO+2NC
- 10 - T11 slide action 1NO+1NC
- 40 - A02 slide action 2NC
- 40S - AD2 slide action 2NC
- 00S - S11 snap action 1NO+1NC
- 00S/M - S11 snap action 1NO+1NC
- 05S - S02 snap action 2NC
- 05/M - S02 snap action 2NC
- 0 - S11 slide action 1NO+1NC
- 1 - T11 slide action 1NO+1NC

### Type S - Safety Switches 5-way Key
- Model: LS42 Model
- Dimensions: 40
- Mounting Holes Distance: 3
- Cable Entries: 1
- Application: - General Purpose (L)
- - Gate (G)
- - Hinge (H)
- - Rope (R)
- - Safety (S)
- - Safety Electromagnetic (E)
- - Reset (K)
- Conduit / Connection Type: - PG 13.5 (P)
- - M20 (M)
- - NPT (N)
- - Cable (PVC) (C)
- - M12 Connector (1)
- - AMP Connector (A)
- Contact Unit Type: 000 - S22 snap action 2NO+2NC
- 00 - S11 snap action 1NO+1NC
- 01 - T11 slide action 1NO+1NC
- 02 - O11 overlapping slide action 1NO+1NC
- 03 - T20 slide action 2NO
- 04 - T02 slide action 2NC
- 05 - S02 snap action 2NC
- 07 - T11 overlapping slide action 1NO+1NC
- 80 - T13 slide action 1NO+3NC
- 81 - TD2 slide action 2NO+2NC
- 10 - T11 slide action 1NO+1NC
- 40 - A02 slide action 2NC
- 40S - AD2 slide action 2NC
- 00S - S11 snap action 1NO+1NC
- 00S/M - S11 snap action 1NO+1NC
- 05S - S02 snap action 2NC
- 05S/M - S02 snap action 2NC
- 0 - S11 slide action 1NO+1NC
- 1 - T11 slide action 1NO+1NC

### Type S - Safety Switches 5-way Key with Interlock Switches
- Model: LS43 Model
- Dimensions: 30
- Mounting Holes Distance: 1
- Cable Entries: 3
- Application: - General Purpose (L)
- - Gate (G)
- - Hinge (H)
- - Rope (R)
- - Safety (S)
- - Safety Electromagnetic (E)
- - Reset (K)
- Conduit / Connection Type: - PG 13.5 (P)
- - M20 (M)
- - NPT (N)
- - Cable (PVC) (C)
- - M12 Connector (1)
- - AMP Connector (A)
- Contact Unit Type: 000 - S22 snap action 2NO+2NC
- 00 - S11 snap action 1NO+1NC
- 01 - T11 slide action 1NO+1NC
- 02 - O11 overlapping slide action 1NO+1NC
- 03 - T20 slide action 2NO
- 04 - T02 slide action 2NC
- 05 - S02 snap action 2NC
- 07 - T11 overlapping slide action 1NO+1NC
- 80 - T13 slide action 1NO+3NC
- 81 - TD2 slide action 2NO+2NC
- 10 - T11 slide action 1NO+1NC
- 40 - A02 slide action 2NC
- 40S - AD2 slide action 2NC
- 00S - S11 snap action 1NO+1NC
- 00S/M - S11 snap action 1NO+1NC
- 05S - S02 snap action 2NC
- 05S/M - S02 snap action 2NC
- 0 - S11 slide action 1NO+1NC
- 1 - T11 slide action 1NO+1NC

### Type R - Rope Switches
- Model: LS31 Model
- Dimensions: 40
- Mounting Holes Distance: 3
- Cable Entries: 1
- Application: - General Purpose (L)
- - Gate (G)
- - Hinge (H)
- - Rope (R)
- - Safety (S)
- - Safety Electromagnetic (E)
- - Reset (K)
- Conduit / Connection Type: - PG 13.5 (P)
- - M20 (M)
- - NPT (N)
- - Cable (PVC) (C)
- - M12 Connector (1)
- - AMP Connector (A)
- Contact Unit Type: 000 - S22 snap action 2NO+2NC
- 00 - S11 snap action 1NO+1NC
- 01 - T11 slide action 1NO+1NC
- 02 - O11 overlapping slide action 1NO+1NC
- 03 - T20 slide action 2NO
- 04 - T02 slide action 2NC
- 05 - S02 snap action 2NC
- 07 - T11 overlapping slide action 1NO+1NC
- 80 - T13 slide action 1NO+3NC
- 81 - TD2 slide action 2NO+2NC
- 10 - T11 slide action 1NO+1NC
- 40 - A02 slide action 2NC
- 40S - AD2 slide action 2NC
- 00S - S11 snap action 1NO+1NC
- 00S/M - S11 snap action 1NO+1NC
- 05S - S02 snap action 2NC
- 05S/M - S02 snap action 2NC
- 0 - S11 slide action 1NO+1NC
- 1 - T11 slide action 1NO+1NC

### Material (Housing/Head) (4)
- Thermoplastic/Metal (H)
- - Metal/Metal (M)
- - Thermoplastic/Thermoplastic (T)

### Electromagnetic Locking (5) (only Type E) or Reset Knob (only Type R, K)
- E Type: Locking Mechanism w/o Key (0), with Key (L), Electrical (U)
- K, R Types: (K)

### Panel Mount Version (5) (only for Type M)
- Not available for Actuating Head Type RT

**Definition:** Model-Codex-Code1-Code2-Code3-Code4-Code5
- LS21H-F111NC-H00
- LS21H-F112NC-H00
- LS42H-F11110S-H00
- LS42H-F11120S-H00
- LS42H-F11130S-H00
- LS42H-F11140S-H00
- LS42H-F11150S-H00
- LS42H-F11160S-H00
- LS42H-F11170S-H00

**Remarks:**
- \( V = 24 \text{ Vdc} \) (D5), \( V = 110 \text{ Vac} \) (15), \( V = 230 \text{ Vac} \) (25)
<table>
<thead>
<tr>
<th>Type R LS21 Model</th>
<th>Type R LS42 Model</th>
<th>Type R LS43 Model</th>
<th>Type R LS31 Model</th>
<th>Type R LS43 Model 50N/250N</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>E00</td>
</tr>
<tr>
<td>20/22</td>
<td>20/22-40/42</td>
<td>30</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>07</td>
<td>07</td>
<td>07</td>
<td>07</td>
<td>07</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>N6</td>
<td>N6</td>
<td>N6</td>
<td>N6</td>
<td>N6</td>
</tr>
<tr>
<td>H</td>
<td>H</td>
<td>H</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>K</td>
<td>K</td>
<td>K</td>
<td>K</td>
<td>K</td>
</tr>
</tbody>
</table>

**Actuators/Lever with slot for precise fixing point**

- **HR** - Actuators for levers 90°
  - Right operating
- **HC** - Actuators for levers 90°
  - Central operating
- **HL** - Actuators for levers 90°
  - Central operating

- **H0 - H4** - Actuator with metal shaft:
  - 24.5 mm
  - 50 mm, 190 mm
  - 115 mm, 63.5 mm

**5-way Key - LSACC-KEY xxx-M00**

- **005** - Angel key
  - with fixing perpendicular
  - Direct mounting
- **105** - Straight key
  - Linear actuating
- **205** - Hinged key with screw
  - for key angel regulation

- **305** - Long straight key
  - Linear actuating
- **405** - Long key
  - with fixing perpendicular
  - Direct mounting

**Metal actuator tower with cable connector ring**

- **N6 / N7 / N8**
  - N6 = max. cable 6 m
  - N7 = 50 N - max. cable 12 m
  - N8 = 250 N - max. cable 50 m
- **N6_K**
  - N6 = max. cable 6 m
  - Reset control button

---

Elmatik AS, Türi 9, 11314 Tallinn Estonia tel. +372 650 3875 tel. +372 650 3876 fax +372 655 8019 e-mail: elmatik@elmatik.ee
The CARLO GAVAZZI Group is an innovator in the design, manufacture, and marketing of electric and electronic equipment targeted at the global markets of industrial automation, energy and environment and information processing.

Since 1931 when the company was founded in Milan, Italy, products and services have set quality standards.

Today, CARLO GAVAZZI is divided into the two business units Automation Components and Electronic Packaging.

The Automation Components Business Unit is an innovator in the design, manufacture, and marketing of electronic control components for the global industrial automation markets.

A dedication to automation

Automation is a fast-moving, high-tech world in which we have four core groups of products. Each group is designed and manufactured in a centre of excellence to be sure that each individual product is the best in the field. Through CARLO GAVAZZI, all our products are integrated with each other to provide complete solutions.


The CARLO GAVAZZI Group is an innovator in the design, manufacture, and marketing of electric and electronic equipment targeted at the global markets of industrial automation, energy and environment and information processing.

Since 1931 when the company was founded in Milan, Italy, products and services have set quality standards.

Today, CARLO GAVAZZI is divided into the two business units Automation Components and Electronic Packaging.

The Automation Components Business Unit is an innovator in the design, manufacture, and marketing of electronic control components for the global industrial automation markets.

A dedication to automation

Automation is a fast-moving, high-tech world in which we have four core groups of products. Each group is designed and manufactured in a centre of excellence to be sure that each individual product is the best in the field. Through CARLO GAVAZZI, all our products are integrated with each other to provide complete solutions.


