





## Emergency Stop Buttons

Push-to-stop/twist-to-release Emergency Stop palm buttons are available in panel-mount or remotely located IP65 enclosures. Illuminated models help operators quickly identify actuated buttons, allowing for a quick return to normal operations.

Series	Description	Options	Mounting	Dimensions H x W x D	Protection Rating
	Easy to install 30 mm mount. page 752	Non-Illuminated Illuminated	30 mm	119.8 x ø 80 mm	IP65
	Flat mount with wide variety of options. page 753	Non-Illuminated Illuminated Non-Illuminated Locking Illuminated Locking	Flat mount	102.1 x 80.8 x 80.3 mm	IP65
	Panel mount E-Stop buttons. page 764	Non-Illuminated Illuminated Locking Illuminated Locking	Panel	Varies by model	IP65
	Mechanical E-Stop button kits. page 768	High current Metal shaft	Panel or flat	106 x 70 x 70 mm	IP65



## E-Stop Buttons

### Illuminated 30 mm Mount


Illumination allows for easy identification of which E-stop has been activated.

- Easy installation and no assembly or individual wiring required
- Push-to-stop, twist-to-release or pull-to-release operation per IEC 60947-5-5
- Compliant with ANSI B11.19, ANSI NFPA79 and IEC/EN 60204-1 Emergency Stop requirements
- Incorporate with OTB/STB optical touch button for a simplified operator station that does not require an additional enclosure.
- "Safe Break Action" ensures NC contacts will open if the contact block is damaged or separated from the actuator
- Models designed to interface with Safety BUS nodes/gateways

### Illuminated Base-mount E-Stop Push-Buttons

Description	Illumination***	Models
2NC / 1NO (PNP)	YEL/RED-Flash/Solid	SSA-EB1PLYR-12ECQ8
2NC / 1NO (PNP)	GREEN/RED-Flash/Solid	SSA-EB1PLGR-12ECQ8
2NC / 1NO (PNP)	OFF/RED-Flash/Solid	SSA-EB1PLXR-12ECQ8
2NC / 1NO (PNP)	OFF/RED-Flash/Solid, with 60 mm button	SSA-EB2PLXR-12ECQ8 <b>NEW</b>
2NC / 1NO (PNP)	OFF/RED-Solid/Solid	SSA-EB1PL-12ECQ8
2NC – Safety BUS node compatible*	YEL/RED-Flash	SSA-EB1PLYR-02ECQ5A
2NC – Safety BUS node compatible*	OFF/RED-Flash	SSA-EB1PLXR-02ECQ5A
2NC – Safety BUS node compatible*	OFF/RED-Solid	SSA-EB1PL-02ECQ5A
2NC – Safety BUS node compatible*	Illuminated button, OFF (armed), RED (solid, PUSH ON)	SSA-EB1PL2-02ECQ5A <b>NEW</b>
2NC – Safety BUS node compatible**	YEL/RED-Flash	SSA-EB1PLYR-02ECQ5B
2NC – Safety BUS node compatible**	OFF/RED-Flash	SSA-EB1PLXR-02ECQ5B
2NC – Safety BUS node compatible**	OFF/RED-Solid	SSA-EB1PL-02ECQ5B
2NC – Safety BUS node compatible**	Illuminated button, OFF (armed) RED (solid, PUSH ON)	SSA-EB1PL2-02ECQ5B <b>NEW</b>

For more specifications see page 761.

 **Connection options:** A model with a QD requires a mating cordset (see page 758).

\* CH1=pins 1 & 2, CH2=pins 4 & 5, 5-pin M12 QD

\*\* CH1=pins 1 & 4, CH2=pins 2 & 5, 5-pin M12 QD

\*\*\* For EZ-LIGHT Illumination logic see page 759.



## E-Stop Buttons

### Illuminated Flush Mount

Illumination allows for easy identification of which E-stop has been activated.

- Easy installation with no assembly or individual wiring required
- Remotely located E-Stop buttons can be positioned to be clearly identified, clearly visible and readily accessible
- Push-to-stop, twist-to-release or pull-to-release operation per IEC 60947-5-5
- Compliant with ANSI B11.19, ANSI NFPA79 and IEC/EN 60204-1 Emergency Stop requirements
- "Safe Break Action" ensures NC contacts will open if the contact block is damaged or separated from the actuator
- Models designed to interface with Safety BUS nodes/gateways

### Illuminated Flush-mount E-Stop Push-Buttons

Description	Illumination***	Models
2NC / 1NO (PNP)	YEL/RED-Flash/Solid	SSA-EB1PLYR-12ED1Q8
2NC / 1NO (PNP)	YEL/RED-Flash/Solid, 1/2" NPT conduit connection with terminal strip	SSA-EB1PLYR-12ED1 <b>NEW</b>
2NC / 1NO (PNP)	GREEN/RED-Flash/Solid	SSA-EB1PLGR-12ED1Q8
2NC / 1NO (PNP)	GREEN/RED-Flash/Solid, 1/2" NPT conduit connection with terminal strip	SSA-EB1PLGR-12ED1 <b>NEW</b>
2NC / 1NO (PNP)	OFF/RED-Flash/Solid	SSA-EB1PLXR-12ED1Q8
2NC / 1NO (PNP)	OFF/RED-Flash/Solid, with 60 mm button	SSA-EB2PLXR-12ED1Q8 <b>NEW</b>
2NC / 1NO (PNP)	OFF/RED-Flash/Solid, 1/2" NPT conduit connection with terminal strip	SSA-EB1PLXR-12ED1 <b>NEW</b>
2NC / 1NO (PNP)	OFF/RED-Solid/Solid	SSA-EB1PL-12ED1Q8
2NC – Safety BUS node compatible*	YEL/RED-Flash	SSA-EB1PLYR-02ED1Q5A
2NC – Safety BUS node compatible*	OFF/RED-Flash	SSA-EB1PLXR-02ED1Q5A
2NC – Safety BUS node compatible*	OFF/RED-Solid	SSA-EB1PL-02ED1Q5A
2NC – Safety BUS node compatible**	YEL/RED-Flash	SSA-EB1PLYR-02ED1Q5B
2NC – Safety BUS node compatible**	OFF/RED-Flash	SSA-EB1PLXR-02ED1Q5B
2NC – Safety BUS node compatible**	OFF/RED-Solid	SSA-EB1PL-02ED1Q5B

For more specifications see page 761.

**Connection options:** A model with a QD requires a mating cordset (see page 758).

\* CH1=pins 1 & 2, CH2=pins 4 & 5, 5-pin M12 QD

\*\* CH1=pins 1 & 4, CH2=pins 2 & 5, 5-pin M12 QD\*\*

\*\*\* For EZ-LIGHT Illumination logic see page 759.



# E-Stop Buttons

## 30 mm Mount


The 30 mm Mount E-Stop Buttons allow for easy installation with no assembly or individual wiring required.

- Rugged design
- Push-to-stop, twist-to-release or pull-to-release operation per IEC 60947-5-5
- Compliant with ANSI B11.19, ANSI NFPA79 and IEC/EN 60204-1 Emergency Stop requirements
- “Safe Break Action” ensures NC contacts will open if the contact block is damaged or separated from the actuator
- Models designed to interface with Safety BUS nodes/gateways

### Base-mount E-Stop Push-Buttons

Description	Models
2NC	SSA-EB1P-02ECQ4
1NC / 1NO	SSA-EB1P-11ECQ4
2NC – Safety BUS node compatible*	SSA-EB1P-02ECQ5A
2NC – Safety BUS node compatible with 60 mm button*	SSA-EB2P-02ECQ5A <b>NEW</b>
2NC – Safety BUS node compatible**	SSA-EB1P-02ECQ5B
2NC – Safety BUS node compatible with 60 mm button**	SSA-EB2P-02ECQ5B <b>NEW</b>
2NC / 2NO	SSA-EB1P-22ECQ8
4NC with 60 mm button	SSA-EB2P-04ECQ8 <b>NEW</b>

For more specifications see page 761.

 **Connection options:** A model with a QD requires a mating cordset (see page 758).

\* CH1=pins 1 & 2, CH2=pins 4 & 5, 5-pin M12 QD

\*\* CH1=pins 1 & 4, CH2=pins 2 & 5, 5-pin M12 QD



## E-Stop Buttons Flush Mount


Flush Mount E-Stop Buttons are easy to install with no assembly or individual wiring required.

- Models designed to interface with Safety BUS nodes/gateways
- Rugged design
- Push-to-stop, twist-to-release or pull-to-release operation per IEC 60947-5-5
- Compliant with ANSI B11.19, ANSI NFPA79 and IEC/EN 60204-1 Emergency Stop requirements
- “Safe Break Action” ensures NC contacts will open if the contact block is damaged or separated from the actuator

### Flush-mount E-Stop Push-Button

Description	Standard Models
2NC	SSA-EB1P-02ED1Q4
2NC - Alternate pinout	SSA-EB1P-02ED1Q4A <b>NEW</b>
1NC/1NO	SSA-EB1P-11ED1Q4
2NC, Safety BUS node compatible*	SSA-EB1P-02ED1Q5A
2NC, Safety BUS node compatible with 60 mm button*	SSA-EB2P-02ED1Q4A <b>NEW</b>
2NC, Safety BUS node compatible**	SSA-EB1P-02ED1Q5B
2NC, Safety BUS node compatible with 60 mm button**	SSA-EB2P-02ED1Q4B <b>NEW</b>
2NC/2NO	SSA-EB1P-22ED1Q8
4NC with 60 mm button	SSA-EB2P-04ED1Q8 <b>NEW</b>
2NC/1NO, Illuminated button—Push ON RED	SSA-EB1PL2-12ED1Q8

For more specifications see page 761.

 **Connection options:** A model with a QD requires a mating cordset (see page 758).

\* CH1=pins 1 & 2, CH2=pins 4 & 5, 5-pin M12 QD

\*\* CH1=pins 1 & 4, CH2=pins 2 & 5, 5-pin M12 QD



# Lockable E-Stop Buttons

## Illuminated Flush Mount


Illuminated Flush Mount Lockable E-Stop Buttons are easy to install and have a locking capability.

- Push-to-stop, twist-to-release operation per IEC 60947-5-5
- Compliant with ANSI B11.19, ANSI NFPA79 and IEC/EN 60204-1 Emergency Stop requirements
- “Safe Break Action” ensures NC contacts will open if the contact block is damaged or separated from the actuator
- Models designed to interface with Safety BUS nodes/gateways
- Rugged design is easy to install with no assembly or individual wiring required

### Lockable Illuminated Flush-mount E-Stop Push-Buttons

Description	Illumination*	Models
2NC / 1NO (PNP)	YEL/RED-Flash/Solid	SSA-EB1MLYRP-12ED1Q8
2NC / 1NO (PNP)	YEL/RED-Flash/Solid, 1/2" NPT conduit connection with terminal strip	SSA-EB1MLYRP-12ED1Q8 <b>NEW</b>
2NC / 1NO (PNP)	GREEN/RED-Flash/Solid	SSA-EB1MLGRP-12ED1Q8
2NC / 1NO (PNP)	GREEN/RED-Flash/Solid, 1/2" NPT conduit connection with terminal strip	SSA-EB1MLGRP-12ED1 <b>NEW</b>
2NC / 1NO (PNP)	OFF/RED-Flash/Solid	SSA-EB1MLXRP-12ED1Q8
2NC / 1NO (PNP)	OFF/RED-Flash/Solid, 1/2" NPT conduit connection with terminal strip	SSA-EB1MLXRP-12ED1 <b>NEW</b>
2NC / 1NO (PNP)	OFF/RED-Solid/Solid	SSA-EB1MLP-12ED1Q8

For more specifications see page 762.

 **Connection options:** A model with a QD requires a mating cordset (see page 758).

\* For EZ-LIGHT Illumination logic see page 759.



## Lockable E-Stop Buttons Flush Mount


Flush Mount Lockable E-Stop Buttons are easy to install and have a locking capability.

- Push-to-stop, twist-to-release operation per IEC 60947-5-5
- Compliant with ANSI B11.19, ANSI NFPA79 and IEC/EN 60204-1 Emergency Stop requirements
- “Safe Break Action” ensures NC contacts will open if the contact block is damaged or separated from the actuator
- Models designed to interface with Safety BUS nodes/gateways
- Rugged design is easy to install with no assembly or individual wiring required

### Lockable Flush-mount E-Stop Push-Button

Description	Models
2NC	SSA-EB1MP-02ED1Q4
2NC - Alternate pinout	SSA-EB1MP-02ED1Q4A <b>NEW</b>
1NC/1NO	SSA-EB1MP-11ED1Q4
2NC, Safety BUS node compatible*	SSA-EB1MP-02ED1Q5A
2NC, Safety BUS node compatible**	SSA-EB1MP-02ED1Q5B
2NC/2NO	SSA-EB1MP-22ED1Q8
2NC/1NO, Illuminated button—Push ON RED	SSA-EB1ML2P-12ED1Q8

For more specifications see page 762.

 **Connection options:** A model with a QD requires a mating cordset (see page 758).

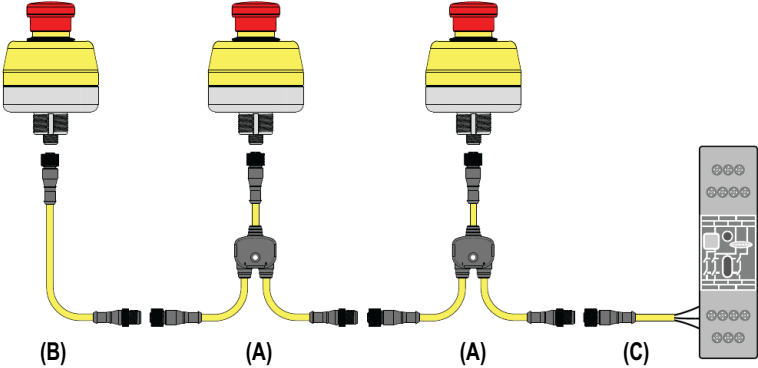
\* CH1=pins 1 & 2, CH2=pins 4 & 5, 5-pin M12 QD

\*\* CH1=pins 1 & 4, CH2=pins 2 & 5, 5-pin M12 QD



Series Hookup Cordset Solution

This interconnection solution allows for quick hookup of a series string of emergency stop buttons. For the CSS models (A) Branch #1 and Branch #2 are 300 mm (12") in length and the length of the trunk is listed below. See "Cordsets" below and specific model E-Stop datasheet for complete information, including installation instructions, hookup, and accessories.



Cordsets

Euro QD Splitter A (for Q4 and Q8 models)

Length	4-Pin
0.31 m	CSS-M12F41M12M41M12F41
0.91 m	CSS-M12F43M12M41M12F41
2.44 m	CSS-M12F48M12M41M12F41
	8-Pin
0.31 m	CSS-M12F81M12M81M12F81
0.91 m	CSS-M12F83M12M81M12F81
2.44 m	CSS-M12F88M12M81M12F81

Additional cordset information available.  
See page 902.

Euro QD–Double-Ended B  
(for Q5 and Q8 models)

See page 912		
Length	5-Pin	8-Pin
0.31 m	DEE2R-51D	DEE2R-81D
0.91 m	DEE2R-53D	DEE2R-83D
2.44 m	DEE2R-58D	DEE2R-88D
4.57 m	DEE2R-515D	DEE2R-815D
7.62 m	DEE2R-525D	DEE2R-825D
15.2 m	DEE2R-550D	DEE2R-850D
22.9 m	DEE2R-575D	DEE2R-875D
30.5 m	DEE2R-5100D	DEE2R-8100D

Euro QD C  
(for Q4 and Q8 models)

See page page 906		
Threaded 4-Pin		Threaded 8-Pin
Length	Straight	
1.83 m	MQDC-406	MQDC2S-806
4.57 m	MQDC-415	MQDC2S-815
9.14 m	MQDC-430	MQDC2S-830
15.2 m	MQDC-450	MQDC2S-850

Brackets



30 mm Mount

See page 860	See page 860	See page 861
SSA-MBK-EEC1	SSA-MBK-EEC2	SSA-MBK-EEC3



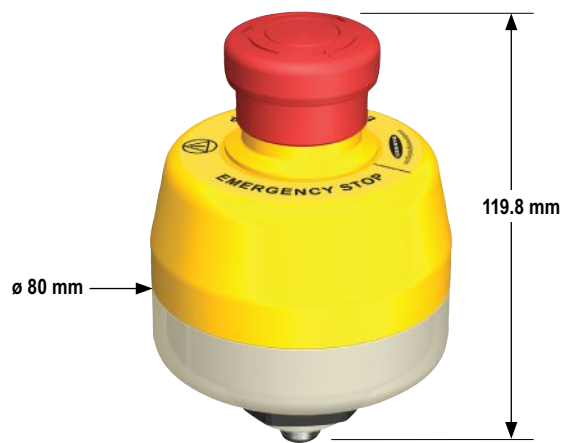
Additional brackets and information available.  
See page 852

**E-Stop Legend Labels** (adhesive backed label)

Product	Description	Language	Inscription	Models <sup>†</sup>
	60 mm diameter (OD) Emergency Stop Legend with inscription and ISO 13850 Emergency Stop symbol (adhesive backed label).  41 mm hole for application around the base of SSA-EB1(2)P... (Pack of 10 each)	English	EMERGENCY STOP	ESL-41/60-10
		English & Spanish	PARADA DE EMERGENCIA	ESL-41/60-ENES-10
		Spanish	PARADA DE EMERGENCIA	ESL-41/60-ES-10
		German	NOT-AUS	ESL-41/60-DE-10
		French	ARRÊT D'URGENCE	ESL-41/60-FR-10
		Italian	EMERGENZA ARRESTO	ESL-41/60-IT-10
		Russian	АВАРИЙНЫЙ ОСТАНОВ	ESL-41/60-RU-10
		Japanese	非常停止	ESL-41/60-JA-10
		Simplified Chinese (Mainland China)	紧急停止	ESL-41/60-CN-10
		Traditional Chinese (Taiwan)	緊急停止	ESL-41/60-TW-10
	70 mm diameter (OD) Emergency Stop Legend with inscription and ISO 13850 Emergency Stop symbol (adhesive backed label).  44 mm hole for application around SSA-EB1M... (Pack of 10 each).	Portuguese	PARADA DE EMERGÊNCIA	ESL-41/60-PT-10
		English	EMERGENCY STOP	ESL-44/70-10
		English & Spanish	PARADA DE EMERGENCIA	ESL-44/70-ENES-10
		Spanish	PARADA DE EMERGENCIA	ESL-44/70-ES-10
		German	NOT-AUS	ESL-44/70-DE-10
		French	ARRÊT D'URGENCE	ESL-44/70-FR-10
		Italian	EMERGENZA ARRESTO	ESL-44/70-IT-10
		Russian	АВАРИЙНЫЙ ОСТАНОВ	ESL-44/70-RU-10
		Japanese	非常停止	ESL-44/70-JA-10
		Simplified Chinese (Mainland China)	紧急停止	ESL-44/70-CN-10
		Traditional Chinese (Taiwan)	緊急停止	ESL-44/70-TW-10
		Portuguese	PARADA DE EMERGÊNCIA	ESL-44/70-PT-10

**EZ-LIGHT™ Illumination Logic for Emergency Stop buttons**

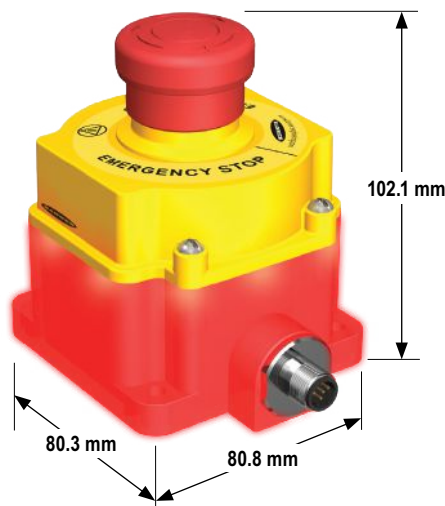
Situation	Indication	Illumination Logic
<b>SSA-EB1xxLYR-xxxxQx or SSA-EB1xxLGR-xxxxQx</b>		
Button Armed Pin 3 open	YELLOW / SOLID or GREEN / SOLID	<ul style="list-style-type: none"> <li>Indicates button is armed</li> <li>If used, ES-FA-11AA Module is in a RESET/RUN condition (31/32 open)</li> </ul>
Button Pushed Pin 3 open or +V dc	RED / FLASH	<ul style="list-style-type: none"> <li>Indicates the button that is pushed (actuated)</li> <li>Signal on Pin 3 has no effect on a button that has been pushed (actuated)</li> </ul>
Button Armed Pin 3 = +V dc	RED / SOLID	<ul style="list-style-type: none"> <li>Indicates the machine is in an Emergency Stop or other stop condition, but that specific button has not been pushed (actuated)</li> <li>This optional signal (12 to 30 V dc) allows the user to indicate a stop condition by turning the armed indication to a RED (steady) Indication</li> </ul>
<b>SSA-EB1xxLXR-xxxxQx</b>		
Button Armed Pin 3 open	OFF	<ul style="list-style-type: none"> <li>Indicates button is armed</li> <li>If used, ES-FA-11AA Module is in a RESET/RUN condition (31/32 open)</li> </ul>
Button Pushed Pin 3 open or +V dc	RED / FLASH	<ul style="list-style-type: none"> <li>Indicates the button that is pushed (actuated)</li> <li>Signal on Pin 3 has no effect on a button that has been pushed (actuated)</li> </ul>
Button Armed Pin 3 = +V dc	RED / SOLID	<ul style="list-style-type: none"> <li>Indicates the machine is in an Emergency Stop or other stop condition, but that specific button has not been pushed (actuated)</li> <li>This optional signal (12 to 30 V dc) allows the user to indicate a stop condition by turning the armed indication to a RED (steady) Indication</li> </ul>
<b>SSA-EB1xxL-xxxxQx</b>		
Button Armed Pin 3 open	OFF	<ul style="list-style-type: none"> <li>Indicates button is armed</li> <li>If used, ES-FA-11AA Module is in a RESET/RUN condition (31/32 open)</li> </ul>
Button Pushed Pin 3 open or +V dc	RED / SOLID	<ul style="list-style-type: none"> <li>Indicates the button that is pushed (actuated)</li> <li>Signal on Pin 3 has no effect on a button that has been pushed (actuated)</li> </ul>
Button Armed Pin 3 = +V dc	RED / SOLID	<ul style="list-style-type: none"> <li>Indicates the machine is in an Emergency Stop or other stop condition, but that specific button has not been pushed (actuated)</li> <li>This optional signal (12 to 30 V dc) allows the user to indicate a stop condition by turning the armed indication to a RED (steady) Indication</li> </ul>



Illuminated models



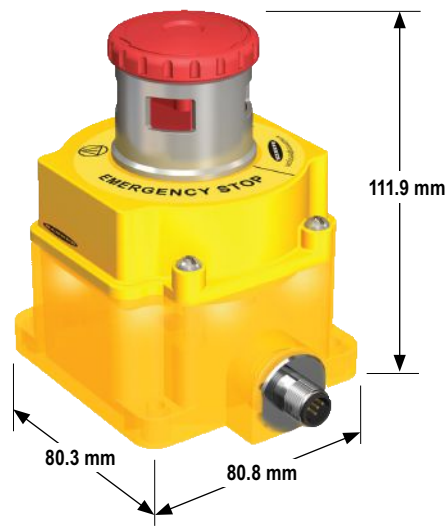
Non-Illuminated models



Illuminated models



Non-Illuminated models





Illuminated models

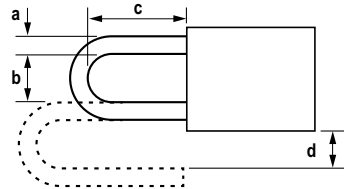




Non-Illuminated models

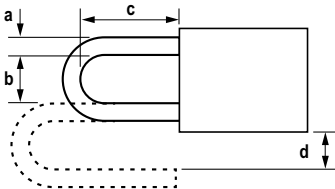


## 30 mm E-Stop Push Button Specifications

Housing / Button Mounting	Polycarbonate / Polyamide Threaded base has M30 x 1.5 external threads.(M30 hardware included) <b>Max. Tightening Torque:</b> 0.56 N m (5 in lbf)																																																																																																													
Operating Temperature	-25 to +55°C																																																																																																													
Environmental rating	IP65 (IEC60529)																																																																																																													
Operating Humidity	45% to 85% RH (no condensation)																																																																																																													
Insulation Resistance	100M minimum (500 V dc megger)																																																																																																													
Impulse Withstand Voltage	2.5 kV																																																																																																													
Pollution Degree	3																																																																																																													
Overvoltage Category	II																																																																																																													
Contact material / bounce*	Gold plated silver / 20 ms																																																																																																													
Electrical Life	100,000 operations minimum, 250,000 operations minimum at 24 V ac/dc, 100 mA																																																																																																													
Mechanical Life	250,000 operations																																																																																																													
B10d	100,000 (based on ISO13849-1(2006))																																																																																																													
Shock & Vibration Resistance	<b>Operating extremes:</b> 150m/s <sup>2</sup> (15G) <b>Operating extremes:</b> 10 to 500 Hz, amplitude 0.35 mm acceleration 50 m/s <sup>2</sup>																																																																																																													
LED Illumination	<b>Color:</b> Yellow - 590 nm, Red - 618 nm, Green - 525 nm; <b>Flash Rate:</b> 1.6 Hz at 50% duty cycle; <b>Voltage/Current:</b> 12 – 30 V dc; 120 mA at 12 V dc, 65 mA at 24 Vdc, 60 mA at 30 V dc, SSA-EB1..LGR-.. <b>(GREEN) only:</b> 12 – 30 V dc; 135 mA @ 12 V dc, 75 mA @ 24 V dc, 70 mA @ 30 V dc																																																																																																													
Electrical Rating	<b>Minimum load:</b> 1 mA @ 5 V ac/dc <b>SSA-EB1xx-.Q5A/Q5B:</b> 3A @ 250 V maximum <b>SSA-EB1xx-xxED1Q8:</b> 2A at 60 V ac/75 V dc maximum <b>UL Applications (UL/cUL):</b> 1.5A @ 250 V ac, 1A @ 30 V dc (pilot duty) <b>CE Applications:</b> AC-15: 1.5A @ 250 V ac, DC-13: 1A @ 30 V dc																																																																																																													
Rated Insulation Voltage (Ui)	250 V																																																																																																													
Rated Current (Ith)	3A																																																																																																													
Rated Operating Voltage (Ue)	See Electrical Rating		30 V	60 V ac/75 V dc	125 V	250 V																																																																																																								
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Safety Contact (NC)	AC 50/60 Hz	Resistive Load (AC-12)	—	—	—	3A																																																																																																								
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Design Standards	Compliant with EN/IEC 60497-1 / -5-1, ISO 13850, ANSI B11.19 , ANSI NFPA79, IEC 60204-1																																																																																																													
Certifications	E-stop button:   (pending)																																																																																																													

## Lockable and Illuminated E-Stop Push-Button Specifications

Housing / Button Mounting	Polycarbonate / Polyamide #10 or M5 (M5 hardware included), <b>Max. Tightening Torque:</b> 0.56 N•m (5 in•lbf)																																																																														
Operating Temperature	–25 to +55°C																																																																														
Environmental rating	IP65 (IEC60529)																																																																														
Operating Humidity	45% to 85% RH (no condensation)																																																																														
Insulation Resistance	100MΩ minimum (500 V dc megger)																																																																														
Impulse Withstand Voltage	2.5kV																																																																														
Pollution Degree	3																																																																														
Overvoltage Category	II																																																																														
Contact material / bounce	Gold plated silver / 20ms																																																																														
Electrical Life	100,000 operations minimum, 250,000 operations minimum at 24 V ac/dc, 100 mA																																																																														
Mechanical Life	250,000 operations,																																																																														
B10d	100,000 (based on ISO13849-1(2006))																																																																														
Total Weight of Padlock and Hasp (SSA-EB1M..P.. only)	<div><div>1500g (3.3 lb) maximum</div><div>Since various form and sizes are available, ensure applicability of padlock and hasp before use. If total weight exceeds 1500g, the switch may malfunction or fail.</div><div><div><b>Padlock size</b></div><table><tr><th>a</th><th>b</th><th>c</th><th>d</th></tr><tr><td>7 mm max</td><td>19 mm min</td><td>39 mm min</td><td>15 mm min</td></tr></table><div><div>Dimension "d" is 6 mm or more when attaching a padlock from the side of a switch.</div></div></div></div>							a	b	c	d	7 mm max	19 mm min	39 mm min	15 mm min																																																																
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Shock Resistance	<b>Operating extremes:</b> 150m/s2 (15G)																																																																														
Vibration Resistance	<b>Operating extremes:</b> 10 to 500 Hz, amplitude 0.35 mm acceleration 50 m/s2																																																																														
LED Illumination	<b>Color:</b> Yellow - 590 nm, Red - 618 nm, Green - 525 nm <b>Flash Rate:</b> 1.6 Hz @ 50% duty cycle <b>Voltage/Current:</b> 12 – 30 V dc; 120 mA @ 12 V dc, 65 mA @ 24 V dc, 60 mA @ 30 V dc, SSA-EB1..LGR..(GREEN) only: 12 - 30 V dc; 135 mA @ 12 V dc, 75 mA @ 24 V dc, 70 mA @ 30 V dc																																																																														
Electrical Rating	<b>Minimum load:</b> 1 mA @ 5 V ac/dc <b>SSA-EB1xx-..Q5A/Q5B:</b> 3A @ 250 V maximum <b>SSA-EB1xx-xxED1Q8:</b> 2A @ 60 V ac/75 V dc maximum <b>UL Applications (UL/cUL):</b> 1.5A @ 250 V ac, 1A @ 30 V dc (pilot duty) <b>CE Applications:</b> AC-15: 1.5A @ 250 V ac, DC-13: 1A @ 30 V dc																																																																														
Rated Insulation Voltage (Ui)	250 V																																																																														
Rated Current (Ith)	3A																																																																														
Rated Operating Voltage (Ue)	See Electrical Rating				30 V	60 V ac/75 V dc	125 V	250 V																																																																							
Rated Operating Current	<table><tr><td colspan="7">SSA-EB1xxLxx-02ED1Q5A/Q5B</td></tr><tr><td rowspan="4">Safety Contact (NC)</td><td rowspan="2">AC 50/60 Hz</td><td>Resistive Load (AC-12)</td><td>—</td><td>—</td><td>—</td><td>3A</td></tr><tr><td>Inductive Load (AC-15)</td><td>—</td><td>—</td><td>3A</td><td>1.5A</td></tr><tr><td rowspan="2">DC</td><td>Resistive Load (DC-12)</td><td>2A</td><td>—</td><td>0.4A</td><td>0.2A</td></tr><tr><td>Inductive Load (DC-13)</td><td>1A</td><td>—</td><td>0.22A</td><td>0.1A</td></tr><tr><td colspan="7">SSA-EB1xx-xxED1Q8</td></tr><tr><td rowspan="4">Safety Contact (NC)</td><td rowspan="2">AC 50/60 Hz</td><td>Resistive Load (AC-12)</td><td>—</td><td>2A</td><td>—</td><td>—</td></tr><tr><td>Inductive Load (AC-15)</td><td>—</td><td>2A</td><td>—</td><td>—</td></tr><tr><td rowspan="2">DC</td><td>Resistive Load (DC-12)</td><td>2A</td><td>0.4A</td><td>—</td><td>—</td></tr><tr><td>Inductive Load (DC-13)</td><td>1A</td><td>0.22A</td><td>—</td><td>—</td></tr><tr><td rowspan="2">Auxiliary Output (NO)</td><td rowspan="2">12 to 30 V dc (from pin 2)</td><td>Resistive Load (DC-12)</td><td>0.25A</td><td>—</td><td>—</td><td>—</td></tr><tr><td>Inductive Load (DC-13)</td><td>0.25A</td><td>—</td><td>—</td><td>—</td></tr></table> <div><div>• The rated operating currents are measured at resistive/inductive load types specified in IEC 60947-5-1.</div><div>• See "Electrical Rating" above for maximum voltage/current rating per model.</div></div>							SSA-EB1xxLxx-02ED1Q5A/Q5B							Safety Contact (NC)	AC 50/60 Hz	Resistive Load (AC-12)	—	—	—	3A	Inductive Load (AC-15)	—	—	3A	1.5A	DC	Resistive Load (DC-12)	2A	—	0.4A	0.2A	Inductive Load (DC-13)	1A	—	0.22A	0.1A	SSA-EB1xx-xxED1Q8							Safety Contact (NC)	AC 50/60 Hz	Resistive Load (AC-12)	—	2A	—	—	Inductive Load (AC-15)	—	2A	—	—	DC	Resistive Load (DC-12)	2A	0.4A	—	—	Inductive Load (DC-13)	1A	0.22A	—	—	Auxiliary Output (NO)	12 to 30 V dc (from pin 2)	Resistive Load (DC-12)	0.25A	—	—	—	Inductive Load (DC-13)	0.25A	—	—	—
SSA-EB1xxLxx-02ED1Q5A/Q5B																																																																															
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		Inductive Load (DC-13)	0.25A	—	—	—																																																																									
Design Standards	Compliant with EN/IEC 60497-1 / -5-1, ISO 13850, ANSI B11.19 , ANSI NFPA79, IEC 60204-1																																																																														
Certifications	<div><div>E-stop button:</div><div><div> (pending)</div><div> <b>LISTED</b> (pending)</div></div></div>																																																																														

## Lockable E-Stop Push-Button Specifications

Housing / Button Mounting	Polycarbonate / Polyamide #10 or M5 (M5 hardware included), <b>Max. Tightening Torque:</b> 0.56 N•m (5 in•lbf)													
Operating Temperature	-25 to +55°C													
Environmental rating	IP65 (IEC60529)													
Operating Humidity	45% to 85% RH (no condensation)													
Insulation Resistance	100MΩ minimum (500 V dc megger)													
Impulse Withstand Voltage	2.5kV													
Pollution Degree	3													
Overvoltage Category	II													
Contact material / bounce	Gold plated silver / 20 ms													
Electrical Life	100,000 operations minimum, 250,000 operations minimum at 24 V ac/dc, 100 mA													
Mechanical Life	250,000 operations,													
B10d	100,000 (based on ISO13849-1(2006))													
Total Weight of Padlock and Hasp (SSA-EB1M..P-.. only)	<div><div>1500g (3.3 lb) maximum</div><div><p>Since various form and sizes are available, ensure applicability of padlock and hasp before use. If total weight exceeds 1500g, the switch may malfunction or fail.</p><p><b>Padlock size</b></p><table><tr><th>a</th><th>b</th><th>c</th><th>d</th></tr><tr><td>7 mm max</td><td>19 mm min</td><td>39 mm min</td><td>15 mm min</td></tr></table><p>Dimension "d" is 6 mm or more when attaching a padlock from the side of a switch.</p></div></div>						a	b	c	d	7 mm max	19 mm min	39 mm min	15 mm min
a	b	c	d											
7 mm max	19 mm min	39 mm min	15 mm min											
Shock Resistance	<b>Operating extremes:</b> 150m/s2 (15G)													
Vibration Resistance	<b>Operating extremes:</b> 10 to 500 Hz, amplitude 0.35mm acceleration 50m/s2													
LED Voltage/Current	24 V ac/dc ±10%, 15mA @ 24 V ac/dc (SSA-EB1PL2-12ED1Q8 only)													
Electrical Rating	<b>Minimum load:</b> 1 mA @ 5 V ac/dc <b>SSA-EB1xx-..Q4 and -..Q5:</b> 3A @ 250 V maximum <b>SSA-EB1xx-..Q8:</b> 2A @ 60 V AC/75 V DC maximum <b>UL Applications (UL/cUL):</b> 1.5A @ 250 V ac, 1A @ 30 V dc (pilot duty) <b>CE Applications:</b> AC-15: 1.5A @ 250 V ac, DC-13: 1A @ 30 V dc													
Rated Insulation Voltage (Ui)	250 V													
Rated Current (Ith)	3A													
Rated Operating Voltage (Ue)	See Electrical Rating			30 V	125 V	250 V								
Rated Operating Current	Safety Contact (NC)	AC 50/60 Hz	Resistive Load (AC-12)	-	-	3A								
			Inductive Load (AC-15)	-	3A	1.5A								
		DC	Resistive Load (DC-12)	2A	0.4A	0.2A								
			Inductive Load (DC-13)	1A	0.22A	0.1A								
	Monitor Contacts (NO)	AC 50/60 Hz	Resistive Load (AC-12)	-	1.2A	0.6A								
			Inductive Load (AC-14)	-	0.6A	0.3A								
		DC	Resistive Load (DC-12)	2A	0.4A	0.2A								
			Inductive Load (DC-13)	1A	0.22A	0.1A								
	<div><div>• The rated operating currents are measured at resistive/inductive load types specified in IEC 60947-5-1.</div><div>• See "Electrical Rating" above for maximum voltage/current rating per model.</div></div>													
Design Standards	Compliant with EN/IEC 60497-1 / -5-1, ISO 13850, ANSI B11.19 , ANSI NFPA79, IEC 60204-1													
Certifications	<div><div>E-stop button:</div><div> (pending)</div><div> (pending)</div></div>													



## E-Stop Buttons

### 30 mm Panel Mount

Easy to install with locking and illuminated models available.

- Up to four contacts; various configurations available
- Push-to-stop, twist-to-release (standard and lockable), or pull-to-release (standard) operation per IEC60947-5-5
- Latching design complies with ISO 13850; direct (positive) opening operation per IEC 60947-5-1
- Compliant with ANSI B11.19, ANSI NFPA79, and IEC/EN 60204-1 Emergency Stop requirements
- "Safe Break Action" ensures N.C. contacts will open if the contact block is separated from the actuator

#### Panel Mount E-Stop Push-Buttons

Description	Models 40 mm Button	Models 60 mm Button
2NC	SSA-EB1P-02	SSA-EB2P-02
4NC	SSA-EB1P-04	SSA-EB2P-04
1NC / 1NO	SSA-EB1P-11	SSA-EB2P-11
3NC / 1NO	SSA-EB1P-13	SSA-EB2P-13
2NC / 2NO	SSA-EB1P-22	SSA-EB2P-22

#### Lockable Panel Mount E-Stop Push-Buttons

Description	Models 44 mm Button
2NC	SSA-EB1MP-02
4NC	SSA-EB1MP-04
1NC / 1NO	SSA-EB1MP-11
3NC / 1NO	SSA-EB1MP-13
2NC / 2NO	SSA-EB1MP-22





## Illuminated E-Stop Buttons

### 30 mm Panel Mount

Easy to install with locking and illuminated models available.

- Up to four contacts; various configurations available
- Push-to-stop, twist-to-release (standard and lockable), or pull-to-release (standard) operation per IEC60947-5-5
- Latching design complies with ISO 13850; direct (positive) opening operation per IEC 60947-5-1
- Compliant with ANSI B11.19, ANSI NFPA79, and IEC/EN 60204-1 Emergency Stop requirements
- “Safe Break Action” ensures N.C. contacts will open if the contact block is separated from the actuator

### Illuminated Panel Mount E-Stop Push-Buttons





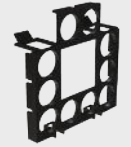


Description	Models 40 mm Button
2NC, LED function per hookup	SSA-EB1PL1-02
4NC, LED function per hookup	SSA-EB1PL1-04
1NC / 1NO, LED function per hookup	SSA-EB1PL1-11
3NC / 1NO, LED function per hookup	SSA-EB1PL1-13
2NC / 2NO, LED function per hookup	SSA-EB1PL1-22
2NC / 1NO, LED function PRESS ON	SSA-EB1PL2-12

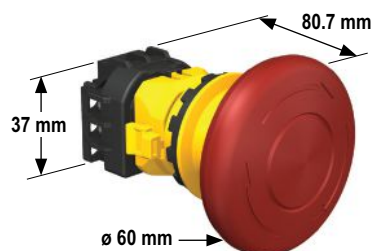
### Illuminated Lockable Panel Mount E-Stop Push-Buttons

Description	Models 44 mm Button
2NC, LED function per hookup	SSA-EB1ML1P-02
4NC, LED function per hookup	SSA-EB1ML1P-04
1NC / 1NO, LED function per hookup	SSA-EB1ML1P-11
3NC / 1NO, LED function per hookup	SSA-EB1ML1P-13
2NC / 2NO, LED function per hookup	SSA-EB1ML1P-22
2NC / 1NO, LED function PRESS ON	SSA-EB1ML2P-12





**E-Stop Legend Labels** (adhesive backed label)

Product	Description	Language	Inscription	Models <sup>†</sup>
	60 mm diameter (OD) Emergency Stop Legend with inscription and ISO 13850 Emergency Stop symbol (adhesive backed label).  41 mm hole for application around the base of SSA-EB1(2)P... (Pack of 10 each)	English	EMERGENCY STOP	ESL-41/60-10
		English & Spanish	PARADA DE EMERGENCIA	ESL-41/60-ENES-10
		Spanish	PARADA DE EMERGENCIA	ESL-41/60-ES-10
		German	NOT-AUS	ESL-41/60-DE-10
		French	ARRÊT D'URGENCE	ESL-41/60-FR-10
		Italian	EMERGENZA ARRESTO	ESL-41/60-IT-10
		Russian	АВАРИЙНЫЙ ОСТАНОВ	ESL-41/60-RU-10
		Japanese	非常停止	ESL-41/60-JA-10
		Simplified Chinese (Mainland China)	紧急停止	ESL-41/60-CN-10
		Traditional Chinese (Taiwan)	緊急停止	ESL-41/60-TW-10
	70 mm diameter (OD) Emergency Stop Legend with inscription and ISO 13850 Emergency Stop symbol (adhesive backed label).  44 mm hole for application around SSA-EB1M... (Pack of 10 each).	English	EMERGENCY STOP	ESL-44/70-10
		English & Spanish	PARADA DE EMERGENCIA	ESL-44/70-ENES-10
		Spanish	PARADA DE EMERGENCIA	ESL-44/70-ES-10
		German	NOT-AUS	ESL-44/70-DE-10
		French	ARRÊT D'URGENCE	ESL-44/70-FR-10
		Italian	EMERGENZA ARRESTO	ESL-44/70-IT-10
		Russian	АВАРИЙНЫЙ ОСТАНОВ	ESL-44/70-RU-10
		Japanese	非常停止	ESL-44/70-JA-10
		Simplified Chinese (Mainland China)	紧急停止	ESL-44/70-CN-10
		Traditional Chinese (Taiwan)	緊急停止	ESL-44/70-TW-10
	60 mm diameter (OD) Emergency Stop Legend with or without inscription (plastic with seal).  30 mm hole for application with SSA-EB1(2)P... or SSA-EB1M... (1 each)	English	EMERGENCY STOP	ESLP1-30/60
		N.A.	(Blank)	ESLP1-30/60-NW
	IP20 Finger-safe terminal cove			SSA-EB1-FSTC
	Standard terminal cover (supplied)			SSA-EB1-TC
	Jam nut wrench			SSA-EB1-LRW
	Jam nut twist wrench			SSA-EB1-LRTW



## E-Stop Push Button Specifications

Button/Locking Collar	Polyamide/Aluminum				
Operating Temperature	<b>Non-illuminated:</b> -25 to +60°C <b>Illuminated:</b> -25 to +55°C				
Environmental rating	IP65 (IEC60529)				
Operating Humidity	45% to 85% RH (no condensation)				
Insulation Resistance	100M minimum (500 V dc megger)				
Impulse Withstand Voltage	2.5kV				
Pollution Degree	3				
Overvoltage Category	II				
Contact material / bounce*	Gold plated silver / 20 ms				
Electrical Life	100,000 operations minimum, 250,000 operations minimum at 24 V ac/dc, 100 mA				
Mechanical Life	250,000 operations				
B10d	100,000 (based on ISO13849-1(2006))				
Shock & Vibration Resistance	<b>Shock Operating extremes:</b> 150m/s2 (15G) <b>Vibration Operating extremes:</b> 10 to 500 Hz, amplitude 0.35 mm acceleration 50 m/s2				
Electrical Rating	<b>Minimum load:</b> 1 mA @ 5 V ac/dc <b>UL Applications:</b> 1.5A @ 250 V ac, 1A @ 30 V dc (pilot duty) <b>CE Applications:</b> AC-15: 1.5A @ 250 V ac, DC-13: 1A @ 30 V dc				
Rated Insulation Voltage (Ui)	250 V				
Rated Current (Ith)	3A				
Rated Operating Current	<b>Safety Contact (NC)</b>		<b>30 V</b>	<b>125 V</b>	<b>250 V</b>
	AC 50/60 Hz	Resistive Load (AC-12)	—	—	—
		Inductive Load (AC-15)	—	—	3A
	DC	Resistive Load (DC-12)	2A	—	0.4A
		Inductive Load (DC-13)	1A	—	0.22A
	<b>Monitor Contact (NO)</b>		<b>30 V</b>	<b>125 V</b>	<b>250 V</b>
	AC 50/60 Hz	Resistive Load (AC-12)	—	1.2A	0.6A
		Inductive Load (AC-15)	—	0.6A	0.3A
	DC	Resistive Load (DC-12)	2A	0.4A	0.2A
		Inductive Load (DC-13)	1A	0.22A	0.1A
	The operating current is classified according to JIS C 8201-5-1-1999 making and breaking capacities and are measured at resistive/inductive load types specified in IEC 60947-5-1. See "Electrical Rating" above for specific model and UL/CE maximum ratings.				
	Design Standards	Compliant with EN/IEC 60497-1 / -5-1, ISO 13850, ANSI B11.19 , ANSI NFPA79, IEC 60204-1			
	Certifications	 			






# E-Stop Buttons

## Emergency Stop Push Buttons




E-Stop button solution available as individual components or as kits for easy ordering.

- Higher current rating
- Modular design makes assembly and installation easy for either panel-mount or enclosure mounting
- Push-to-stop, twist-to-release operation per IEC 60497-5-5
- Compliant with ANSI B11.19, ANSI NFPA79, and IEC/EN 60204-1 Emergency Stop requirements
- Panel mount through 22 mm mounting hole

### E-Stop Push-Button Panel Mount Kits






E-Stop Button	Contacts	Legend	Enclosure	Models
	2 NC			SSA-EBM-02L
 Metal-base	1 NC & 1 NO	Yes	No	SSA-EBM-11L
	2 NC & 1 NO			SSA-EBM-12L

### E-Stop Push-Button Enclosure Kits

E-Stop Button	Contacts	Legend	Enclosure	Models*
	2 NC			SSA-EBM-02E
 Metal	1 NC & 1 NO	Yes	Yes	SSA-EBM-11E
	2 NC & 1 NO			SSA-EBM-12E

NC= Normally closed contact, NO= Normally open contact  
\* The LPZP1A5 enclosure has replaced 8-L2PP-1A5 (discontinued). Please note changes in size (8-L2PP-1A5: 72mm x 85mm) and mounting hole location (8-L2PP-1A5: 49mm x 54mm).

## E-Stop Push-Button Components



Product	Description	Models
	22.5 mm metal button (8-LM2T-AU120 mounting adapter sold separately)	8-LM2T-B6644*
	Metal mounting adapter (for metal button)	8-LM2T-AU120
	Normally closed (NC) positively driven contact element	8-LM2T-C01**
	Normally open (NO) auxiliary contact element	8-LM2T-C10
	One 22 mm button enclosure, maximum of three contact blocks, wire entry through three sides (M16, M20 or M25) or the bottom (M16)	LPZP1A5***

\* Twist to release, mechanical latching ISO 13850 (EN 418) compliant. Diameter 40 mm (without mounting adapter).

\*\* Direct (positive) opening operation per IEC/EN 60947-5-1.

\*\*\* The LPZP1A5 enclosure has replaced 8-L2PP-1A5 (discontinued). Please note changes in size (8-L2PP-1A5: 72mm x 85mm) and mounting hole location (8-L2PP-1A5: 49mm x 54mm).



E-Stop Legend Labels (adhesive backed label)

Product	Description	Language	Inscription	Models <sup>†</sup>
	60 mm diameter, non-adhesive plastic legend with "Emergency Stop" inscription	English	EMERGENCY STOP	8-LM2T-AU115 <sup>†</sup>
	60 mm diameter (OD) Emergency Stop Legend with inscription and ISO 13850 Emergency Stop symbol (adhesive backed label).  44 mm hole for application around SSA-EB1M... (Pack of 10 each).	English	EMERGENCY STOP	ESL-41/60-10
		English & Spanish	PARADA DE EMERGENCIA	ESL-41/60-ENES-10
		Spanish	PARADA DE EMERGENCIA	ESL-41/60-ES-10
		German	NOT-AUS	ESL-41/60-DE-10
		French	ARRÊT D'URGENCE	ESL-41/60-FR-10
		Italian	EMERGENZA ARRESTO	ESL-41/60-IT-10
		Russian	АВАРИЙНЫЙ ОСТАНОВ	ESL-41/60-RU-10
		Japanese	非常停止	ESL-41/60-JA-10
		Simplified Chinese (Mainland China)	紧急停止	ESL-41/60-CN-10
		Traditional Chinese (Taiwan)	緊急停止	ESL-41/60-TW-10
		Portuguese	PARADA DE EMERGÊNCIA	ESL-41/60-PT-10

<sup>†</sup> Additional E-Stop background labels are available (see p/n 121976).



**E-Stop Push-Button Specifications**

<b>Mechanical Life</b>	300,000 operations
<b>Operating Force</b>	0.8 kg
<b>Mounting Adapter</b>	<b>Metal button:</b> The adapter is fixed to the mounting surface by means of incorporated screws ( $T_{max} = 0.8 \text{ Nm}$ )
<b>Construction</b>	<b>Plastic parts:</b> Polyamide and polycarbonate <b>Metal parts:</b> Aluminum and zinc alloy
<b>Environmental Rating</b>	IP65
<b>Operating Temperature</b>	-25° to +60° C
<b>Certifications</b>	  Compliant with EN/IEC 60947-1; -5-1

**Contact Specifications**







Mechanical Life	300,000 operations									
European Rating	<b>Utilization categories:</b> AC15 and DC13 $U_i = 690 \text{ V ac}$ $I_{th} = 10\text{A}$ UL designation = A 600 Q600									
Rated Operating Voltage (Ue) and Current	<b>IEC operational power in AC15</b>									
	V	12	24	48	120	240	400	480	500	600
	A	6	6	6	6	3	1.9	1.5	1.4	1.2
	<b>IEC operational power in DC13</b>									
	V	12	14	48	125	250	440	500	600	
A	3	3	1.5	0.55	0.27	0.15	0.13	0.1		
Mechanical Life	1,000,000 operations									
B10d	8-LM2T-Cxx 1,000,000									
Connections	(1 or 2) 12 AWG (2.5 mm²) maximum wire size, tightening torque: Tmax = 1 Nm									
Construction	Polyamide and polycarbonate									
Environmental Rating	IP20									
Operating Temperature	-25° to +60° C									
Application Notes	Normally Closed safety contacts (8-LM2T-C01) should only be attached to the left and right snap-on positions of the mounting adaptor. A maximum of two contact elements can be used in a single snap-on position.									
Certifications	<div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div></div><div></div></div><div><div></div><div></div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> <div><div></div><div></div></div> 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## Emergency Stop & Stop Control

Rope pull emergency stop switches, when used with steel wire rope, provide emergency stop actuation for conveyors and large machinery.

Series	Description	Application	Dimensions H x W x D	Actuation	Housing Material
	<b>RP-RM83</b> Rated for use in harsh environments and outdoors, and activates if the rope is pulled, becomes loose or breaks. page 774	Emergency Stop	H (varies by model) 90 x 53 mm	Latch	Metal
	<b>RP-LS42</b> Rugged plastic housing to withstand harsh environments and is available with an E-stop button with manual reset. page 775	Emergency Stop	H (varies by model) 42 x 45 mm	Latch	Plastic
	<b>RP-QM72</b> Heavy-duty switch housing withstands harsh environments. page 776	Stop-Control	<b>RP-QM72:</b> 142 x 69 x 82 mm <b>RP-QMT72:</b> 181 x 69 x 82 mm	Latch	Metal
	<b>RP-LM40</b> Heavy-duty switch housing withstands harsh environments. page 777	Stop-Control	<b>RP-LM40D-6:</b> 124.5 x 40 x 37.5 mm <b>RP-LM40D-6L:</b> 147.5 x 40 x 37.5 mm	Trip & Latch	Metal
	<b>RP-QM90</b> Heavy-duty switch housing withstands harsh environments. page 778	Stop-Control	137 x 206 x 90 mm	Latch	Metal
	<b>ED1G</b> Handheld grip-style switch is typically used for manual control of machine functions, including visual observations, minor adjustments, troubleshooting, calibration and more. page 788	Stop-Control	260 x 46 x 58 mm		Plastic





# RP-RM83

## Rope Pull E-Stop Devices

The RP-RM83 Rope Pull Switch has a heavy-duty housing rated to IP67 for use in harsh environments and outdoors, and activates if the rope is pulled, becomes loose or breaks.

- Additional solid-state auxiliary output for remote tension monitoring
- Tension indicators
- Operates in a range up to 75 m
- Design meets positive opening requirements for rope pull switches (IEC 60947-5-1)
- Complies with ANSI NFPA 79, ANSI B11.19, IEC 60204-1, EN 13850 and EN ISO 60947-5-5 for Emergency Stop applications

RP-RM83 Series E-Stop and Stop Control Device

Max. Rope Length	Safety Contacts	Auxiliary Contacts	Action	Contact State				Model*
38 m	2 NC in	2 NO in	 	Safety 1	Safety 2	Auxiliary 1	Auxiliary 2	RP-RM83F-38LTE
				open	open	closed	closed	RP-RM83F-38LRE
				open	open	closed	closed	RP-RM83F-38LT
				open	open	closed	closed	RP-RM83F-38LR
75 m	2 NC in	2 NO in	 	Safety 1	Safety 2	Auxiliary 1	Auxiliary 2	RP-RM83F-75LTE
				open	open	closed	closed	RP-RM83F-75LRE
				open	open	closed	closed	RP-RM83F-75LT
				open	open	closed	closed	RP-RM83F-75LR



Components for wire rope assembly kits (page 781)

Models with T suffix have a Built-in Turnbuckle for rope  
Models with R suffix have a Ring connection to rope  
Models with E suffix have an auxiliary status output

For more specifications see page 784.

Run Position    Cable Pulled    Cable Break    NC = Normally Closed Contact, NO = Normally Open Contact

RP-RM83 rope pulls comply with IEC 60947-5-1 Positive Opening requirements.

\* See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.(page 785)

For dimensions see page 779.



## RP-LS42

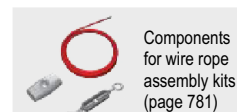
### Rope Pull E-Stop Devices

The RP-LS42 Rope Pull Switch has a rugged plastic housing to withstand harsh environments and has an E-stop button model with manual reset.

- Tension indicators
- Operates in ranges up to 75 m
- Switch activates if the rope is pulled, becomes loose or breaks
- Design meets positive opening requirements for rope pull switches (IEC 60947-5-1)
- Complies with ANSI NFPA 79, ANSI B11.19, IEC 60204-1, EN 13850 and EN ISO 60947-5-5 for Emergency Stop applications

#### RP-LS42 Series E-Stop and Stop Control Device

Max. Rope Length	Safety Contacts	Auxiliary Contacts	Action	Contact State				Model
25 m	2 NC in	2 NO in	 	Safety 1	Safety 2	Auxiliary 1	Auxiliary 2	RP-LS42F-25L
				open	open	closed	closed	RP-LS42F-25LE
				open	open	closed	closed	RP-LS42F-25LF
37.5 m	2 NC in	2 NO in	 	Safety 1	Safety 2	Auxiliary 1	Auxiliary 2	RP-LS42F-38L
				open	open	closed	closed	RP-LS42F-38LE
				open	open	closed	closed	RP-LS42F-38LF
75 m	2 NC in	2 NO in	 	Safety 1	Safety 2	Auxiliary 1	Auxiliary 2	RP-LS42F-75L
				open	open	closed	closed	RP-LS42F-75LE
				open	open	closed	closed	RP-LS42F-75LF



Components  
for wire rope  
assembly kits  
(page 781)

Models with LF suffix have a Built-in Turnbuckle for rope

Models with L suffix have a Ring connection to rope

Models with LE suffix have a Built-in Turnbuckle for rope and an E-stop button

For more specifications see page 784

	Run Position		Cable Pulled		Cable Break	NC = Normally Closed Contact, NO = Normally Open Contact
RP-LM42 rope pulls comply with IEC 60947-5-1 Positive Opening requirements.						
See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.(page 785)						
For dimensions see page 779.						













# RP-QM72/QMT72

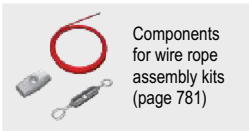
## Rope Pull Switches

Heavy-duty switch housing withstands harsh environments and have a max rope pull length of 6, 12 or 20 m depending on model.

- Switches activate if the rope is pulled, becomes loose or breaks
- Manual reset (Latch) design if the rope is pulled
- Rugged metal housing with protective earth terminal (IEC 60947-1)
- Comply with ANSI NFPA 79 and IEC 60204-1 for Stop Control applications

### RP-QM72/QMT72 Series Stop Control Device

Max. Rope Length	Safety Contacts	Auxiliary Contacts	Action	Contact State				Model
6 m	2 NC in 	—	 	Safety 1	Auxiliary 1	RP-QM72D-6L		
12 m				open	closed	RP-QM72D-12L		
20 m				open	closed	RP-QMT72D-20L		
12 m	4 NC in 	—	 	Safety 1 2	Auxiliary 1 2	RP-QMT72F-12L		
				open open	closed closed			
				closed closed	open open			
12 m	2 NC in 	1 NO in 	 	Safety 1 2	Auxiliary 1 2	RP-QMT72E-12L		
				open closed	closed closed			
				closed open	open open			



Components for wire rope assembly kits (page 781)

For more specifications see page 784

Run Position

Cable Pulled

Cable Break

NC = Normally Closed Contact, NO = Normally Open Contact

RP-RM83 rope pulls comply with IEC 60947-5-1 Positive Opening requirements.

See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.(page 785)

For dimensions see page 780.






## RP-LM40

### Rope Pull Switches

Heavy-duty switch housing withstands harsh environments.

- Manual reset (Latch) design after the rope is pulled and Auto Reset (Trip) models
- Rugged metal housing with protective earth terminal (IEC 60947-1)
- Switches activate if the rope is pulled, becomes loose or breaks
- Design meets positive opening requirements for rope pull switches (IEC 60947-5-1)
- Comply with ANSI NFPA 79 and IEC 60204-1 for Stop Control applications

#### RP-LM40 Series Stop Control Device




Max. Rope Length	Safety Contacts	Auxiliary Contacts	Action	Contact State		Model
6 m	2 NC in 	—		Safety 1 open	Auxiliary 1 closed	RP-LM40D-6
				closed	open	RP-LM40D-6L

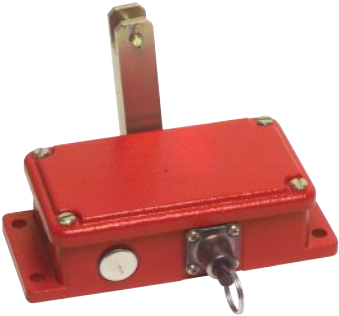
Models with 6 suffix use Trip actuation

Models with 6L suffix use Latch actuation (typical)



For more specifications see page 784

	Run Position		Cable Pulled		Cable Break	NC = Normally Closed Contact, NO = Normally Open Contact
RP-LM42 rope pulls comply with IEC 60947-5-1 Positive Opening requirements.						
See data sheet or Contact Configuration and Switching Diagrams for more information/clarification. (page 786)						
For dimensions see page 780.						



# RP-QM90

## Rope Pull Switches

Heavy-duty switch housing withstands harsh environments.

- Manual reset (Latch) design after the rope is pulled
- Rugged metal housing with protective earth terminal (IEC 60947-1)
- Switch activates if the rope is pulled, becomes loose or breaks
- Operates in a range up to 100 m
- Design meets positive opening requirements for rope pull switches (IEC 60947-5-1)

### RP-QM90 Series Stop Control Device

Max. Rope Length	Safety Contacts	Auxiliary Contacts	Action	Contact State				Model
100 m (50 m each side)	2 NC in	2 NO in		<div>Safety</div> <div>1 2</div> <div>open open</div>	<div>Auxiliary</div> <div>1 2</div> <div>closed closed</div>			RP-QM90F-100L
				open open	closed closed			



Components for wire rope assembly kits (page 781)

For more specifications see page 784

Run Position

Cable Pulled

Cable Break

NC = Normally Closed Contact, NO = Normally Open Contact



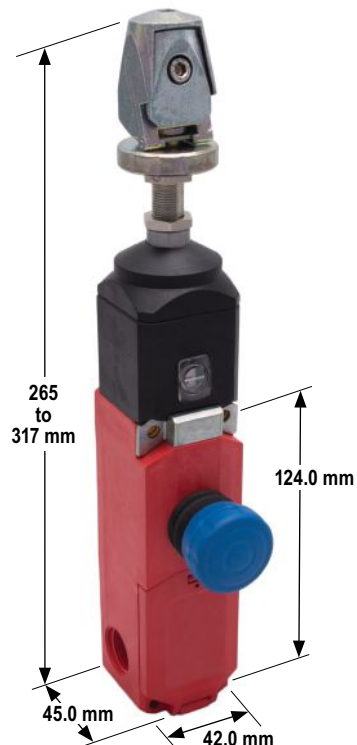
**RP-RM83F-75LT.. and  
RP-RM83F-38LT.. Models**



**RP-RM83F-75LR.. and  
RP-RM83F-38LR.. Models**



**RP-LS42F-..L Model**



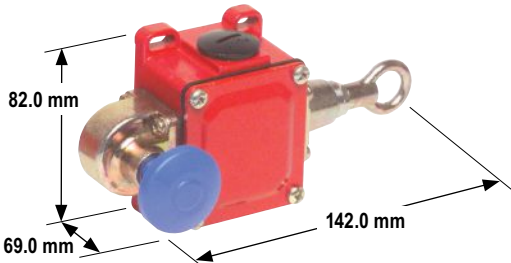
**RP-LS42F-..LF Model**



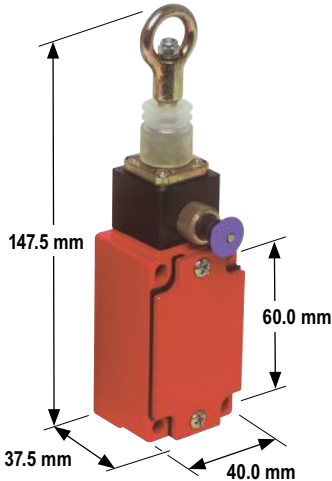
**RP-LS42F-..LE Model  
(with E-Stop Button)**



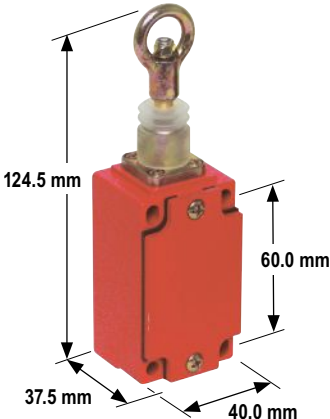
RP-QMT72 Models



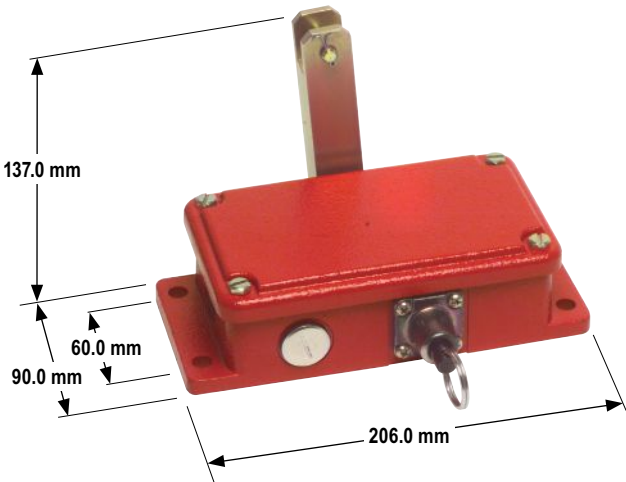
RP-QM72 Models



RP-LM40D-6L Model











RP-LM40D-6 Model





RP-QM90 Model

## Components for Wire Rope Assembly

	Models		Package Quantity	Description		Used With
Wire Ropes		RPA-C1-10	10 m	2 mm steel wire rope with 0.5 mm red PVC jacket (unterminated)		• RP-LM40 models
		RPA-C1-20	20 m			
		RPA-C1-100	100 m			
		RPA-C2-10	10 m	3 mm steel wire rope with 0.25 mm red PVC jacket (unterminated)		• RP-LS42 models • RP-QM72/QMT72 models • RP-RM83 models
		RPA-C2-20	20 m			
		RPA-C2-40	40 m			
		RPA-C2-50	50 m			
		RPA-C2-80	80 m			
		RPA-C3-20	20 m	4 mm steel wire rope with 0.5 mm red PVC jacket (unterminated)		• RP-QM90 models
		RPA-C3-100	100 m			
Thimbles		RPA-T1-4	4 pcs	Thimble for 2 mm wire rope		• RP-LM40 models
		RPA-T2-4	4 pcs	Thimble for 3 mm wire rope		• RP-LS42 models • RP-QM72/QMT72 models • RP-RM83 models
		RPA-T3-4	4 pcs	Thimble for 4 mm wire rope		• RP-QM90 models
Clamps		RPA-CC1-4	4 pcs	Clamp for 2 mm wire rope		• RP-LM40 models
		RPA-CC2-4	4 pcs	Clamp for 3 mm wire rope		• RP-LS42 models • RP-QM72/QMT72 models • RP-RM83 models
		RPA-CC3-4	4 pcs	Clamp for 4 mm wire rope		• RP-QM90 models
Turnbuckles		RPA-TA1-1	1 pc	#4 Turnbuckle		• RP-LM40 models • RP-LS42 models • RP-QM72/QMT72 models • RP-RM83 models
		RPA-TA2-1	1 pc	#5 Turnbuckle		• RP-QM90 models
Eye Bolts		RPA-EB1-1	1 pc	1/4" - 20 Eye bolt (3" bolt shaft)		• RP-LM40 models • RP-LS42 models • RP-QM72/QMT72 models • RP-RM83 models
		RPA-EB2-1	1 pc	5/16" - 18 Eye bolt (3" bolt shaft)		• RP-QM90 models
Pulleys	 RPA-P1-1	 RPA-DP1-1	1 pc	RPA-P1-1 Pulley for in-line use	RPA-DP1-1 Pulley for corner turns ( $< 180^{\circ}$ )	• RP-LM40 models • RP-LS42 models • RP-QM72/QMT72 models • RP-RM83 models • RP-QM90 models
Tensioning Springs		RPA-S1-1	1 pc	Tensioning Spring #1		• RP-QM90 models
		RPA-S2-1	1 pc	Tensioning Spring #2		• RP-QM90 models
		RPA-S3-1	1 pc	Tensioning Spring #3		• RP-LS42 models (75 m) • RP-RM83 models (75 m)
		RPA-S5-1	1 pc	Tensioning Spring #5		• RP-RM83 models (38 m)
		RPA-S4-1	1 pc	Tensioning spring assembly with built-in eye bolt, cable thimble, clamp, tensioning and overload protection		• RP-LS42 models (75 m) • RP-RM83 models (75 m)
		RPA-S6-1	1 pc			• RP-RM83 models (38 m) • RP-LS42 models (25 & 38 m)
Terminal Cover	SI-LS42-COVER		Replacement terminal cover			• RP-LS42 models






## Components for Wire Rope Assembly (cont'd)

	Models	Package Quantity	Description	Used With	
EZ-LIGHT®		SI-K30LGRX7P	1 pc	Green/Red indication	<ul style="list-style-type: none"><li>• RP-LM40</li><li>• RP-LS42F</li><li>• RP-QM90F</li><li>• RP-QM( T)72</li><li>• RP-RM83F</li><li>• SI-LS31</li><li>• SI-LS100</li><li>• SI-QS90</li><li>• SI-LM40</li><li>• SI-LS42SI-QM100</li></ul>
		SI-K30LYRX7P	1 pc	Yellow/Red indication (used with RP-RM83F-xxLTE/-xxLRE with tension alarm)	
		SI-K30LRXX7P	1 pc	Red indication	
	Indicator Lamps		SI-PL3T-R	1 pc	Red with M20 x 1.5 (24 V ac/dc)
SI-PL3A-R			1 pc	Red with M20 x 1.5 (120 V ac)	
SI-PL3T-G			1 pc	Green with M20 x 1.5 (24 V ac/dc)	
SI-PL3A-G			1 pc	Green with M20 x 1.5 (120 V ac)	
Cable Gland		SI-QS-CGM20	1 pc	For 5 to 12 mm diameter cable	<ul style="list-style-type: none"><li>• SI-QS90 Safety Interlock Switches</li><li>• SI-LS100 Safety Interlock Switches</li><li>• SI-LS31 Safety Interlock Switches</li><li>• SI-LS42 Safety Interlock Switches</li><li>• RP-LS42 Rope Pull Switches</li></ul>
Conduit Adaptor		SI-QS-M20	1 pc	M20 x 1.5 to ½ in-14 NPT	<ul style="list-style-type: none"><li>• SI-QS90 Safety Interlock Switches</li><li>• SI-LS100 Safety Interlock Switches</li><li>• SI-LS31 Safety Interlock Switches</li><li>• SI-LS42 Safety Interlock Switches</li><li>• RP-LS42 Rope Pull Switches</li></ul>

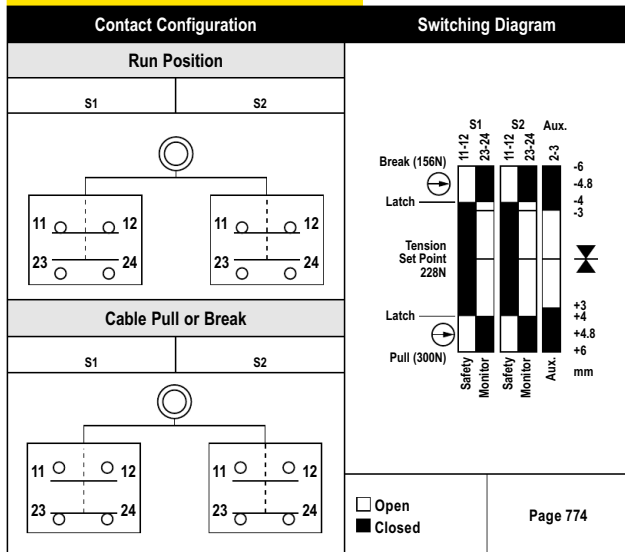
**Wire Rope Assembly Kits** (Tensioning Springs ordered separately)

3 mm Rope (Length)	Thimbles (Each)	Clamps (Each)	Eye Bolts (Each)	In-Line Pulleys (Each)	Turnbuckle (Each)	Kit Model
0.5 m	2	2	—	—	—	RPAK-C2SBP-1
10 m	4	4	3	—	—	RPAK-CH2-10
	4	4	3	3	—	RPAK-CHP2-10
	4	4	3	—	1	RPAK-CH2-10-TA
	4	4	3	3	1	RPAK-CHP2-10-TA
20 m	4	4	6	—	—	RPAK-CH2-20
	4	4	6	6	—	RPAK-CHP2-20
	4	4	6	—	1	RPAK-CH2-20-TA
	4	4	6	6	1	RPAK-CHP2-20-TA
40 m	4	4	11	—	—	RPAK-CH2-40
	4	4	11	11	—	RPAK-CHP2-40
	4	4	11	—	1	RPAK-CH2-40-TA
	4	4	11	11	1	RPAK-CHP2-40-TA
50 m	4	4	14	—	—	RPAK-CH2-50
	4	4	14	14	—	RPAK-CHP2-50
	4	4	14	—	1	RPAK-CH2-50-TA
	4	4	14	14	1	RPAK-CHP2-50-TA
80 m	4	4	21	—	—	RPAK-CH2-80
	4	4	21	21	—	RPAK-CHP2-80
	4	4	21	—	1	RPAK-CH2-80-TA
	4	4	21	21	1	RPAK-CHP2-80-TA

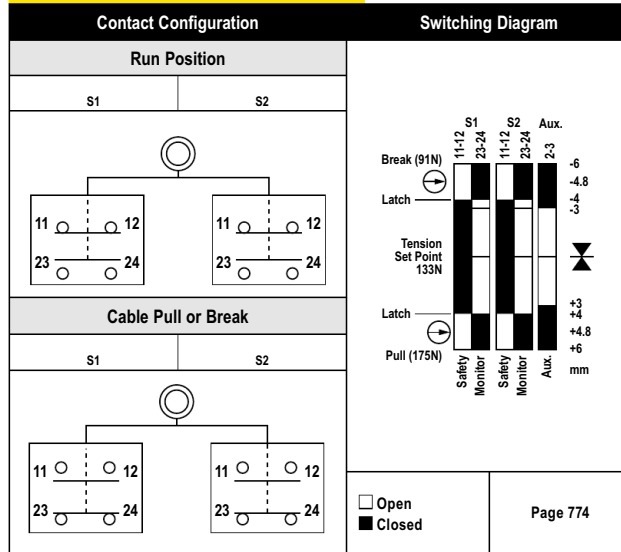
## Rope Pull Switches Specifications

Contact Rating	10A @ 24 V ac, 10A @ 110 V ac, 6A @ 230 V ac, 6A @ 24 V dc 2.5 kV max. transient tolerance NEMA A300 P300																															
Monitoring Solid-State Output Rating	<b>Rated operational voltage:</b> $U_e = 10$ to 30 V dc <b>Rated operational current:</b> $I_e = 50$ mA <b>Utilization category:</b> DC13 Protected against reverse polarity and short circuit.																															
European Rating	<b>Utilization categories:</b> AC15 and DC13 $U = 500V$ ac, $I_{th} = 10A$ <b>Rated Surge Capacity:</b> 2.5 kV (RP-RM83 only)		<table><tr><th colspan="3">RP-RM83 models (40-60 Hz)</th></tr><tr><th>U V</th><th><math>I_e</math>/AC-15 A</th><th><math>I_e</math>/DC-13 A</th></tr><tr><td>120</td><td>6</td><td>0.55</td></tr><tr><td>240</td><td>3</td><td>0.27</td></tr></table>		RP-RM83 models (40-60 Hz)			U V	$I_e$ /AC-15 A	$I_e$ /DC-13 A	120	6	0.55	240	3	0.27	<table><tr><th colspan="3">All others (40-60 Hz)</th></tr><tr><th>U V</th><th><math>I_e</math>/AC-15 A</th><th><math>I_e</math>/DC-13 A</th></tr><tr><td>24</td><td>10</td><td>6</td></tr><tr><td>110</td><td>10</td><td>1</td></tr><tr><td>230</td><td>6</td><td>0.4</td></tr></table>	All others (40-60 Hz)			U V	$I_e$ /AC-15 A	$I_e$ /DC-13 A	24	10	6	110	10	1	230	6	0.4
RP-RM83 models (40-60 Hz)																																
U V	$I_e$ /AC-15 A	$I_e$ /DC-13 A																														
120	6	0.55																														
240	3	0.27																														
All others (40-60 Hz)																																
U V	$I_e$ /AC-15 A	$I_e$ /DC-13 A																														
24	10	6																														
110	10	1																														
230	6	0.4																														
Contact Material	Silver-nickel alloy																															
Maximum Switching Speed	<b>RP-RM83 models:</b> 20 operations per minute <b>All others:</b> 50 operations per minute																															
Recommended Rope Size	<b>40 mm models:</b> 2 mm diameter steel rope <b>42 &amp; 72 mm models:</b> 3 mm diameter steel rope <b>83 mm models:</b> 2-5 mm diameter steel rope (3 mm recommended) <b>90 mm models:</b> 4 mm diameter steel rope																															
Maximum Rope Pull Length	<b>RP-LM40D-6/6L and RP-QM72D-6L:</b> 6 m <b>RP-LS42F-75L/75LE/75LF:</b> 75 m <b>RP-LS42F-38L/38LE/38LF:</b> 37.5 m <b>RP-LS42F-25L/25LE/25LF:</b> 25 m <b>RP-QM72D-12L:</b> 12 m <b>RP-QMT72D-20L:</b> 20 m <b>RP-QMT72E-12L and RP-QMT72F-12L:</b> 12 m <b>RP-RM83F-75LTE/LT/LRE/LR:</b> 75 m <b>RP-RM83F-38LTE/LT/LR/LRE:</b> 38 m <b>RP-QM90F-100L:</b> 100 mm; equal lengths up to 50 m on either side of switch																															
Short Circuit Protection	10 amp Slow Blow, 15 amp Fast Blow. Recommended external fusing or overload protection.																															
Mechanical Life	<b>RP-RM83:</b> 100,000 operations <b>All others:</b> 1 million operations																															
Wire Connections	Screw terminals with pressure plates accept the following wire sizes – <b>Stranded and solid:</b> 20 AWG (0.5 mm <sup>2</sup> ) to 16 AWG (1.5 mm <sup>2</sup> ) for one wire <b>Stranded:</b> 20 AWG (0.5 mm <sup>2</sup> ) to 18 AWG (1.0 mm <sup>2</sup> ) for two wires																															
Cable Entry	M20 x 1.5 threaded entrance Adapter supplied to convert M20 x 1.5 to ½" - 14 NPT threaded entrance																															
Construction	<b>RP-LS42F-...L/...LE/...LF:</b> High-impact thermoplastic housing; zinc die-cast actuator <b>All others:</b> Aluminum alloy die cast																															
Environmental Rating	<b>RP-LS42F and RP-RM83F models:</b> NEMA 4; IEC IP67 <b>All other models:</b> NEMA 4; IP65																															
Operating Temperature	<b>RP-LS42F-...L/...LE/...LF:</b> -25° to +70° C <b>All other models:</b> -30° to +80° C																															
Weight	<table><tr><td><b>RP-LM40D-6:</b> 0.22 Kg <b>RP-LS42F-...L:</b> 0.48 Kg <b>RP-QM72D-6L:</b> 0.49 Kg <b>RP-QMT72D-20L, RP-QMT72E-12L and RP-QMT72F-12L:</b> 0.64 Kg <b>RP-QM90F-100L:</b> 3.8 Kg <b>RP-RM83F-75LT and RP-RM83F-75LTE:</b> 1 Kg <b>RP-RM83F-38LT and RP83FLT8:</b> 1 Kg</td><td><b>RP-LM40D-6L:</b> 0.26 Kg <b>RP-LS42F-...LE and RP-LS42F-...LF:</b> 0.65 Kg <b>RP-QM72D-12L:</b> 0.52 Kg <b>RP-RM83F-75LR and RP-RM83F-75LRE:</b> 0.77 Kg <b>RP-RM83F-38LR and RP-RM83F-38LRE:</b> 0.77 Kg</td></tr></table>					<b>RP-LM40D-6:</b> 0.22 Kg <b>RP-LS42F-...L:</b> 0.48 Kg <b>RP-QM72D-6L:</b> 0.49 Kg <b>RP-QMT72D-20L, RP-QMT72E-12L and RP-QMT72F-12L:</b> 0.64 Kg <b>RP-QM90F-100L:</b> 3.8 Kg <b>RP-RM83F-75LT and RP-RM83F-75LTE:</b> 1 Kg <b>RP-RM83F-38LT and RP83FLT8:</b> 1 Kg	<b>RP-LM40D-6L:</b> 0.26 Kg <b>RP-LS42F-...LE and RP-LS42F-...LF:</b> 0.65 Kg <b>RP-QM72D-12L:</b> 0.52 Kg <b>RP-RM83F-75LR and RP-RM83F-75LRE:</b> 0.77 Kg <b>RP-RM83F-38LR and RP-RM83F-38LRE:</b> 0.77 Kg																									
<b>RP-LM40D-6:</b> 0.22 Kg <b>RP-LS42F-...L:</b> 0.48 Kg <b>RP-QM72D-6L:</b> 0.49 Kg <b>RP-QMT72D-20L, RP-QMT72E-12L and RP-QMT72F-12L:</b> 0.64 Kg <b>RP-QM90F-100L:</b> 3.8 Kg <b>RP-RM83F-75LT and RP-RM83F-75LTE:</b> 1 Kg <b>RP-RM83F-38LT and RP83FLT8:</b> 1 Kg	<b>RP-LM40D-6L:</b> 0.26 Kg <b>RP-LS42F-...LE and RP-LS42F-...LF:</b> 0.65 Kg <b>RP-QM72D-12L:</b> 0.52 Kg <b>RP-RM83F-75LR and RP-RM83F-75LRE:</b> 0.77 Kg <b>RP-RM83F-38LR and RP-RM83F-38LRE:</b> 0.77 Kg																															
Certifications	   (RP-RM83 and RP-LS42 only)																															
Contact Configurations and Switching Diagrams	<b>RP-LM40 models:</b> SD13 (page 786) <b>RP-LS42 models:</b> SD05, SD06 & SD07 (page 785) <b>RP-QM72/QMT72 models:</b> SD07, SD08, SD09, SD10 & SD11 (page 786) <b>RP-RM83 models:</b> SD01, SD02, SD03 & SD04 (page 785) <b>RP-QM90 models:</b> SD15 (page 786)																															

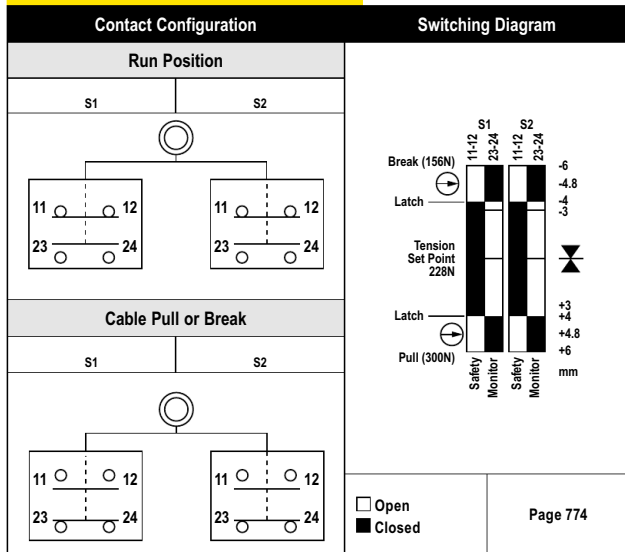
**SD01 - RP-RM83F-75LTE/LRE Series**



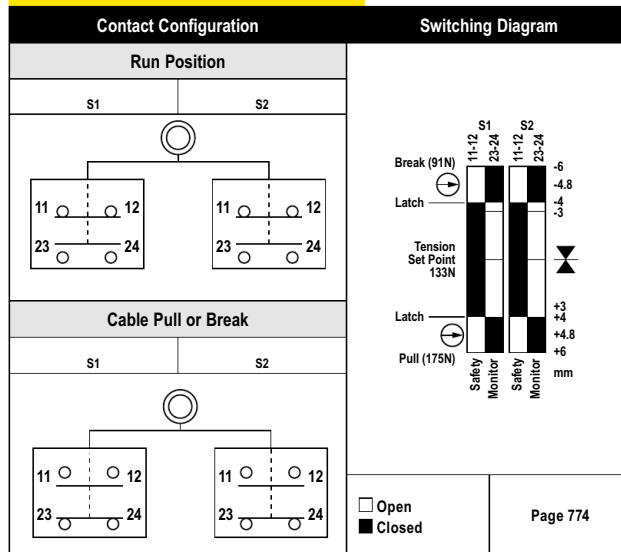
**SD02 - RP-RM83F-38LTE/LRE Series**



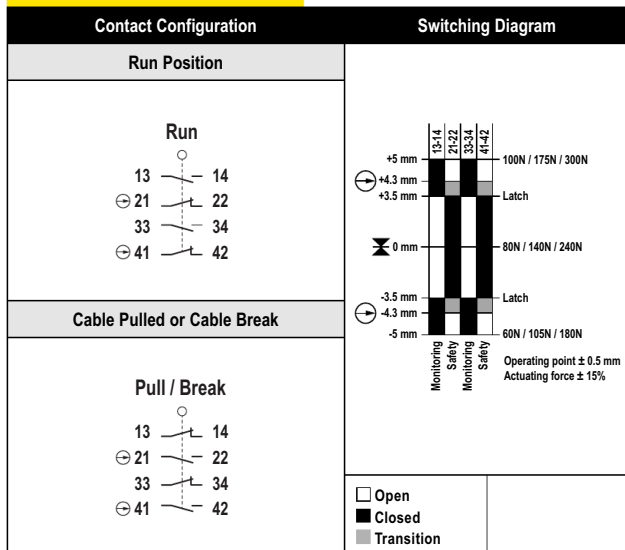
**SD03 - RP-RM83-75LT/LR Series**



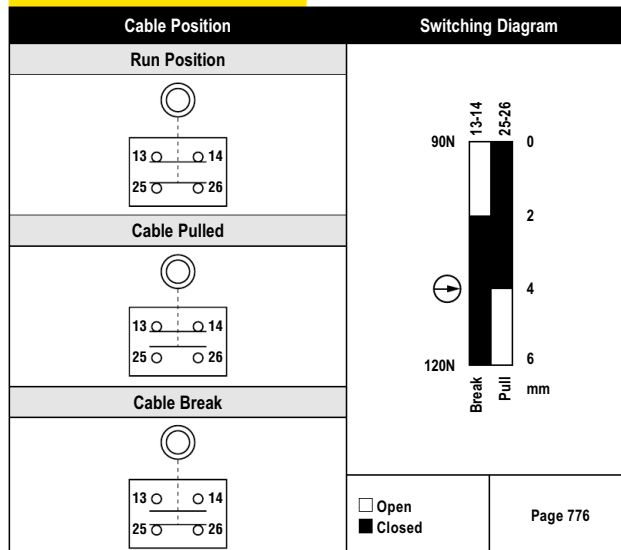
**SD04 - RP-RM83-38LT/LR Series**



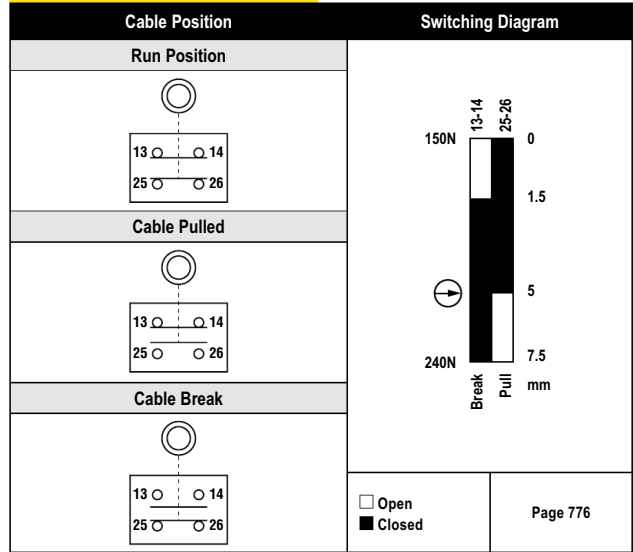
**SD05 - PR-LS42F-25/38/75xx**



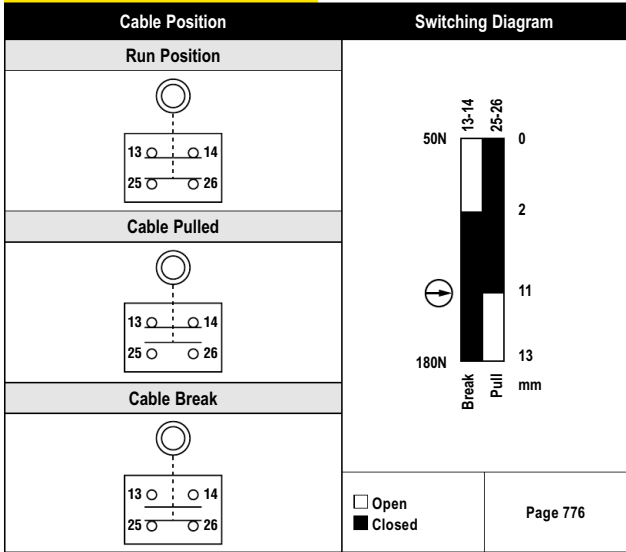
**SD06 - RP-QM72D-6L Series**



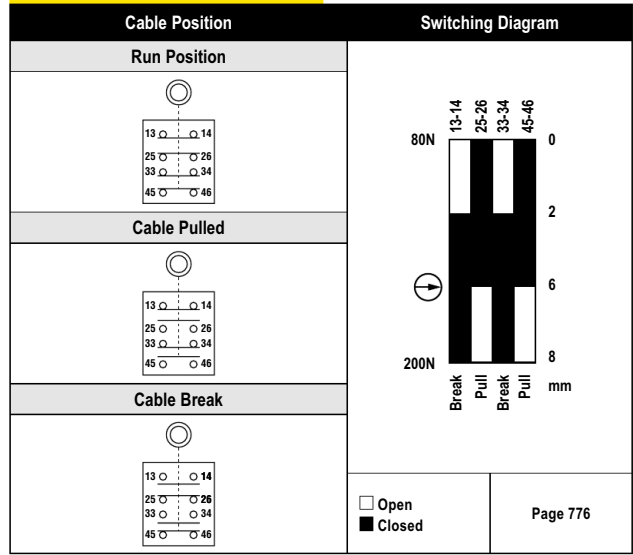
SD07 - RP-QM72D-12L Series



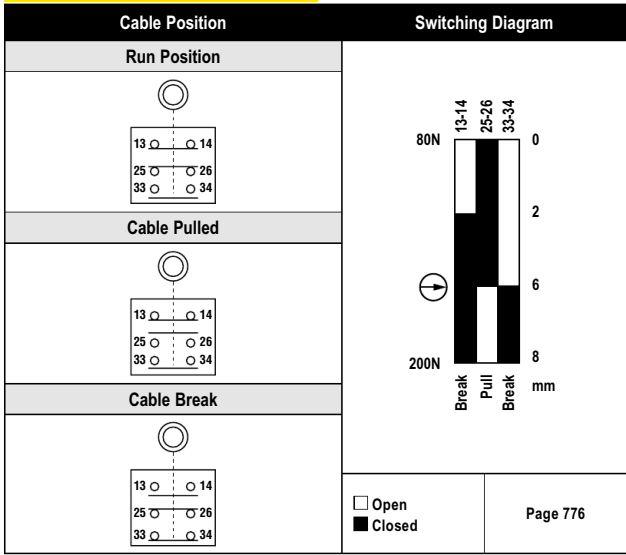
SD08 - RP-QMT72D-20L Series



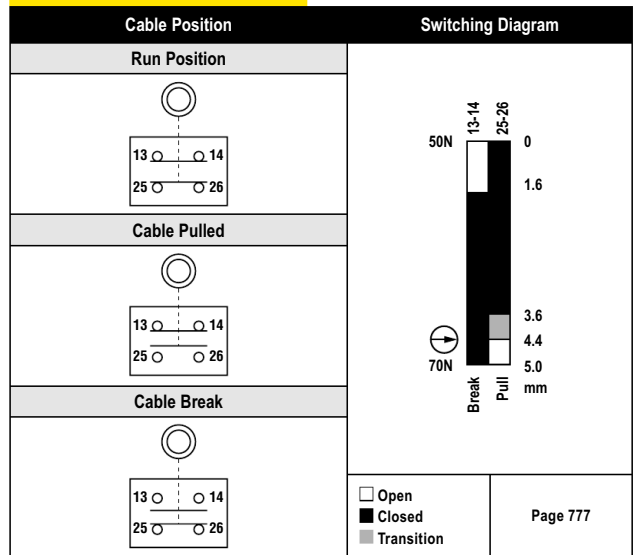
SD09 - RP-QMT72F-12L Series



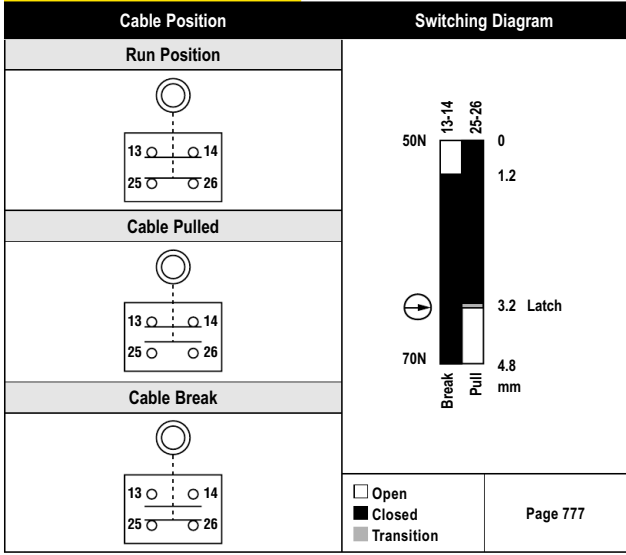
SD10 - RP-QMT72E-12L Series



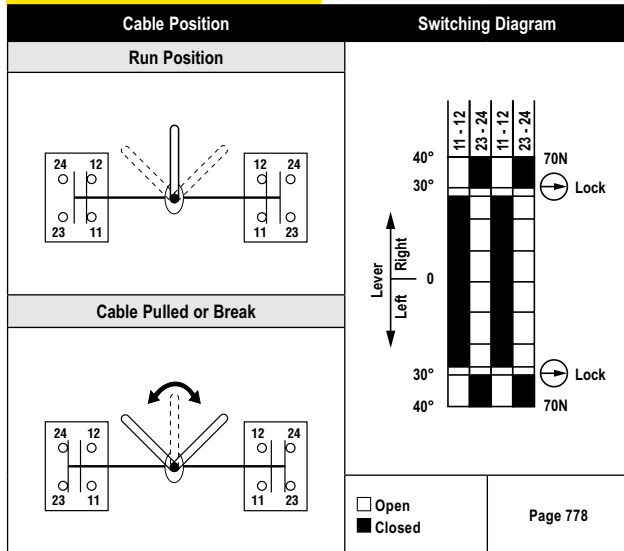
SD11 - RP-LM40D-6 Series



SD12 - RP-LM40D-6L Series



**SD13 - RP-QM90F-100L Series**





# ED1G

## Enabling Devices

Handheld grip-style switch is typically used for manual control of machine functions, including visual observations, minor adjustments, troubleshooting, calibration and more.



- Provides the three-position functionality (OFF-ON-OFF) required for manual control of a machine, including enabling and hold-to-run applications
- Ergonomic design has a detented enable position (position 2)
- Design meets or exceeds: ANSI RIA R15.06 and ISO 10218 Robot safety standard, ANSI B11.19 Performance Criteria for Safeguards, and ANSI NFPA 79 (2007) and IEC 60204-1 (2000) Electrical Requirements for Industrial Machines

ED1G Series Enabling Devices, Stop Control Devices

Contact Configuration	Additional Push-Button Switch	Environmental Rating	Model
2 NO & 1 NC Aux	—	IP66	ED1G-L21SM-1N
1 NO & 1 NC Aux & 1 NO Momentary Push Button	Momentary Push Button	IP65	ED1G-L21SMB-1N
2 NO & 2 NO Momentary Push Button	Momentary Push Button	IP65	ED1G-L20MB-1N



## ED1G Enabling Device Specifications

Supply Voltage and Current	250 V ac/dc																																																																																													
Impulse Withstand Voltage	Three Position Switch: 2.5 kV Momentary pushbutton: 1.5 kV																																																																																													
Output Contact Ratings	<p>Rated Insulation Voltage (UI): 3-position switch 250 V; momentary push button 125 V Rated Thermal Current (Ith): 2.5 A*</p> <p>*40°C ≤ operating temperature &lt; 50° C: 2 A (4 contacts under load) *50°C ≤ operating temperature ≤ 60° C: 1.5 A (3 contacts under load)</p> <table><tr><th colspan="5">Rated Current (Ie) 3-Position Switch Terminals 1-2 and 3-4 (all models)</th></tr><tr><th colspan="2">Rated Voltage Ue</th><th>30 V</th><th>125 V</th><th>250 V</th></tr><tr><td rowspan="2">AC</td><td>Resistive load (AC-12)</td><td>—</td><td>1 A</td><td>0.5 A</td></tr><tr><td>Inductive load (AC-15)</td><td>—</td><td>0.7 A</td><td>0.5 A</td></tr><tr><td rowspan="2">DC</td><td>Resistive load (DC-12)</td><td>1 A</td><td>0.2 A</td><td>—</td></tr><tr><td>Inductive load (DC-13)</td><td>0.7 A</td><td>0.1 A</td><td>—</td></tr></table> <table><tr><th colspan="5">Rated Current (Ie) Monitor Switch Terminals 5-6 (models..-L21SM.. and..-L21SMB..)</th></tr><tr><th colspan="2">Rated Voltage Ue</th><th>30 V</th><th>125 V</th><th>250 V</th></tr><tr><td rowspan="2">AC</td><td>Resistive load (AC-12)</td><td>—</td><td>2 A</td><td>1 A</td></tr><tr><td>Inductive load (AC-15)</td><td>—</td><td>1 A</td><td>0.5 A</td></tr><tr><td rowspan="2">DC</td><td>Resistive load (DC-12)</td><td>2 A</td><td>0.4 A</td><td>0.2 A</td></tr><tr><td>Inductive load (DC-13)</td><td>1 A</td><td>0.22 A</td><td>0.1 A</td></tr></table> <table><tr><th colspan="5">Rated Current (Ie) Momentary Push Button Switch Terminals 7-8 (model ..-ED1G-L21SMB-1N..); 5-6 and 7-8 (model ED1G-L20MB-1N)</th></tr><tr><th colspan="2">Rated Voltage Ue</th><th>30 V</th><th>125 V</th><th>250 V</th></tr><tr><td rowspan="2">AC</td><td>Resistive load (AC-12)</td><td>—</td><td>0.5 A</td><td>—</td></tr><tr><td>Inductive load (DC-15)</td><td>—</td><td>0.3 A</td><td>—</td></tr><tr><td rowspan="2">DC</td><td>Resistive load (AC-12)</td><td>1 A</td><td>0.2 A</td><td>—</td></tr><tr><td>Inductive load (DC-13)</td><td>0.7 A</td><td>0.1 A</td><td>—</td></tr></table>										Rated Current (Ie) 3-Position Switch Terminals 1-2 and 3-4 (all models)					Rated Voltage Ue		30 V	125 V	250 V	AC	Resistive load (AC-12)	—	1 A	0.5 A	Inductive load (AC-15)	—	0.7 A	0.5 A	DC	Resistive load (DC-12)	1 A	0.2 A	—	Inductive load (DC-13)	0.7 A	0.1 A	—	Rated Current (Ie) Monitor Switch Terminals 5-6 (models..-L21SM.. and..-L21SMB..)					Rated Voltage Ue		30 V	125 V	250 V	AC	Resistive load (AC-12)	—	2 A	1 A	Inductive load (AC-15)	—	1 A	0.5 A	DC	Resistive load (DC-12)	2 A	0.4 A	0.2 A	Inductive load (DC-13)	1 A	0.22 A	0.1 A	Rated Current (Ie) Momentary Push Button Switch Terminals 7-8 (model ..-ED1G-L21SMB-1N..); 5-6 and 7-8 (model ED1G-L20MB-1N)					Rated Voltage Ue		30 V	125 V	250 V	AC	Resistive load (AC-12)	—	0.5 A	—	Inductive load (DC-15)	—	0.3 A	—	DC	Resistive load (AC-12)	1 A	0.2 A	—	Inductive load (DC-13)	0.7 A	0.1 A	—
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Contact Resistance	100 mohm max.																																																																																													
Insulation Resistance	Live to dead metal parts: 100 Mohm min. Positive to negative live parts: 100 Mohm min.																																																																																													
Recommended Wire/Cable Size	Wire: 0.14 to 1.5 mm² (25 AWG to 16 AWG) Cable: ø 7 to 13 mm M20 conduit																																																																																													
Short Circuit Protection	250 V / 10A fast blow fuse (IEC 60127-1) Conditional short circuit current: 50 A (250 V)																																																																																													
Vibration Resistance	Operating extremes: 5 to 55 Hz, half amplitude 0.5 mm minimum Damage limits: 16.7 Hz, half amplitude 1.5 mm minimum																																																																																													
Shock Resistance	Operating extremes:150 m/s² (15 G) Damage limits: 1,000 m/s² (100 G)																																																																																													
Mechanical Life	Positions 1 & 2 only: 1,000,000 operations minimum Operating frequency: 1,200 operations per hour maximum Positions 1, 2 & 3: 100,000 operations minimum																																																																																													
Electrical Life	100,000 minimum at rated load																																																																																													
Pollution Degree	3																																																																																													
Terminal Pulling Strength	20 N minimum																																																																																													
Terminal Screw Torque	0.5 to 0.6 N																																																																																													
Operating Conditions (indoor use only)	Temperature: −10° to +60° C (no freezing) Humidity: 45 to 85% RH max. (no condensation) Storage Temperature: −40° to +80° C (no freezing)																																																																																													
Construction	Polyamide housing and cable gland, NBR/PVC polyblend rubber grip switch boot; model ED1G-L21SM-1N meets IP66; other models meet IP65																																																																																													
Design Standards	IEC 60947-5-1, EN 60947-5-1, JIS C8201-5-1, UL 508, CSA C22.2 No. 14, GS-ET-22																																																																																													
Certifications	 																																																																																													
Contact Configurations and Switching Diagrams	SD01, SD02 and SD03 (page 785)																																																																																													

## Brackets

## ED1G

See page 901

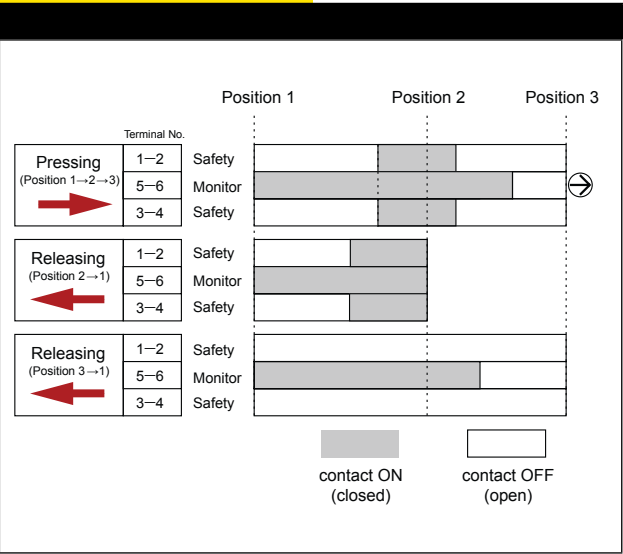
ED9Z-GH1



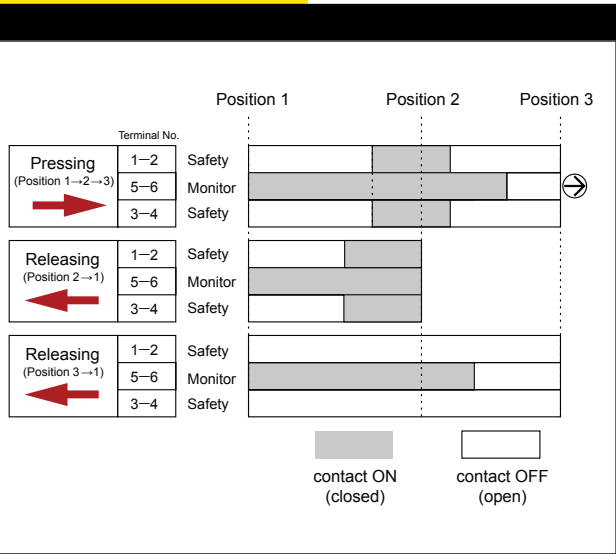
Additional brackets and information available.  
See page 852



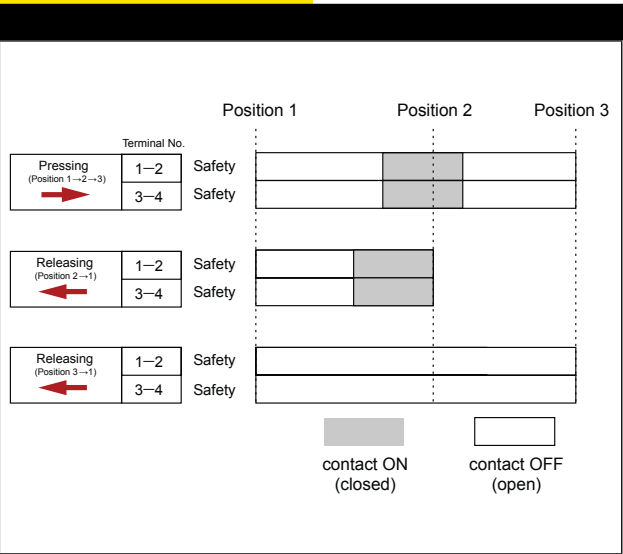
SD01 - ED1G-L21SM-1N Series



SD02 - ED1G-L21SMB-1N Series



SD03 - ED1G-L20MB-1N Series



The following standard products are still available from Banner.  
Please go online to [bannerengineering.com](http://bannerengineering.com) for full descriptions and technical references.



**PICO-GUARD™ Grids & Points**



**PICO-GUARD™ Interlock Switches**