



Rope Pull Switches

- Models that comply with cable break/slack detection with manual reset for Emergency Stop applications.
- Available spans range from 6 to 100 m.
- Trip and latch switch models are available.
- Minimum switch life is 1-million operations.
- Heavy-duty switch housings withstand harsh environments and outdoor use.
- Switch activates if the rope is pulled, becomes loose or breaks.
- Design meets positive opening requirements for rope pull switches (IEC 60947-5-1) ⊕.
- RP-RM83 and RP-LS42 comply with ANSI NFPA 79, ANSI B11.19, IEC 60204-1, EN 13850 and EN ISO 60947-5-5 for Emergency Stop applications.
- RP-QM72/QMT72, RP-LM40 and RP-QM90 comply with ANSI NFPA 79 and IEC 60204-1 for Stop Control applications.

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Safety
Laser Scanners
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Safety Systems
Safety Controllers &
Modules
Safety Two-Hand
Control Modules
Safety Interlock
Switches
**Emergency Stop &
Stop Control**



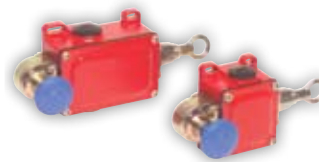
RP-RM83 page 606

- Cable break/slack detection with manual reset
- Manual reset (Latch) design
- Heavy-duty housing to withstand harsh environments and outdoor use; IP67 rated
- Rope span up to 75 meters
- E-stop button with manual reset
- Tension indicators
- Additional solid-state auxiliary output for remote tension monitoring
- Extra contacts for switch monitoring
- 90 mm wide at base
- Rugged metal housing with protective earth terminal (IEC 60947-1) ⊕



RP-LS42 page 607

- Cable break/slack detection with manual reset
- Manual reset (Latch) design
- Rope span up to 75 meters
- Model with E-stop button for manual reset
- Quick rope fixing and tensioning
- Tension indicator
- Extra contacts for switch monitoring
- 42 mm wide at base
- Insulated device (IEC 60947-5-1) ⊞



RP-QM72/QMT72 page 608

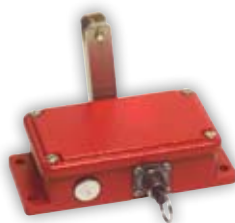
- Manual reset (Latch) design
- Rope span up to 6, 12 or 20 meters
- Tension Indicator
- Models with additional contacts for monitoring or dual channel hookup
- 82 mm wide at base
- Rugged metal housing with protective earth terminal (IEC 60947-1) ⊕
- Cable break/slack detection (note: does not comply with manual reset requirement per EN IEC 60947-5-5 for Emergency Stop applications.)

E-STOP BUTTONS
ROPE PULLS
ENABLING
DEVICES



RP-LM40 page 609

- Manual reset (Latch) and Auto Reset (Trip) models
- Rope span up to 6 meters
- Tension Indicator
- Limit-switch style housing (EN 50041)
- 40 mm wide at base
- Rugged metal housing with protective earth terminal (IEC 60947-1) ⊕
- Cable break/slack detection (note: does not comply with manual reset requirement per EN IEC 60947-5-5 for Emergency Stop applications.)



RP-QM90 page 609

- Manual reset (Latch) design
- Rope span up to 100 meters, with switch in center
- Manual reset
- Extra contacts for switch monitoring
- 90 mm wide at base
- Rugged metal housing with protective earth terminal (IEC 60947-1) ⊕
- Cable break/slack detection (note: does not comply with manual reset requirement per EN IEC 60947-5-5 for Emergency Stop applications.)

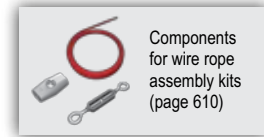
RP-RM83 Series



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



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



ACCESSORIES
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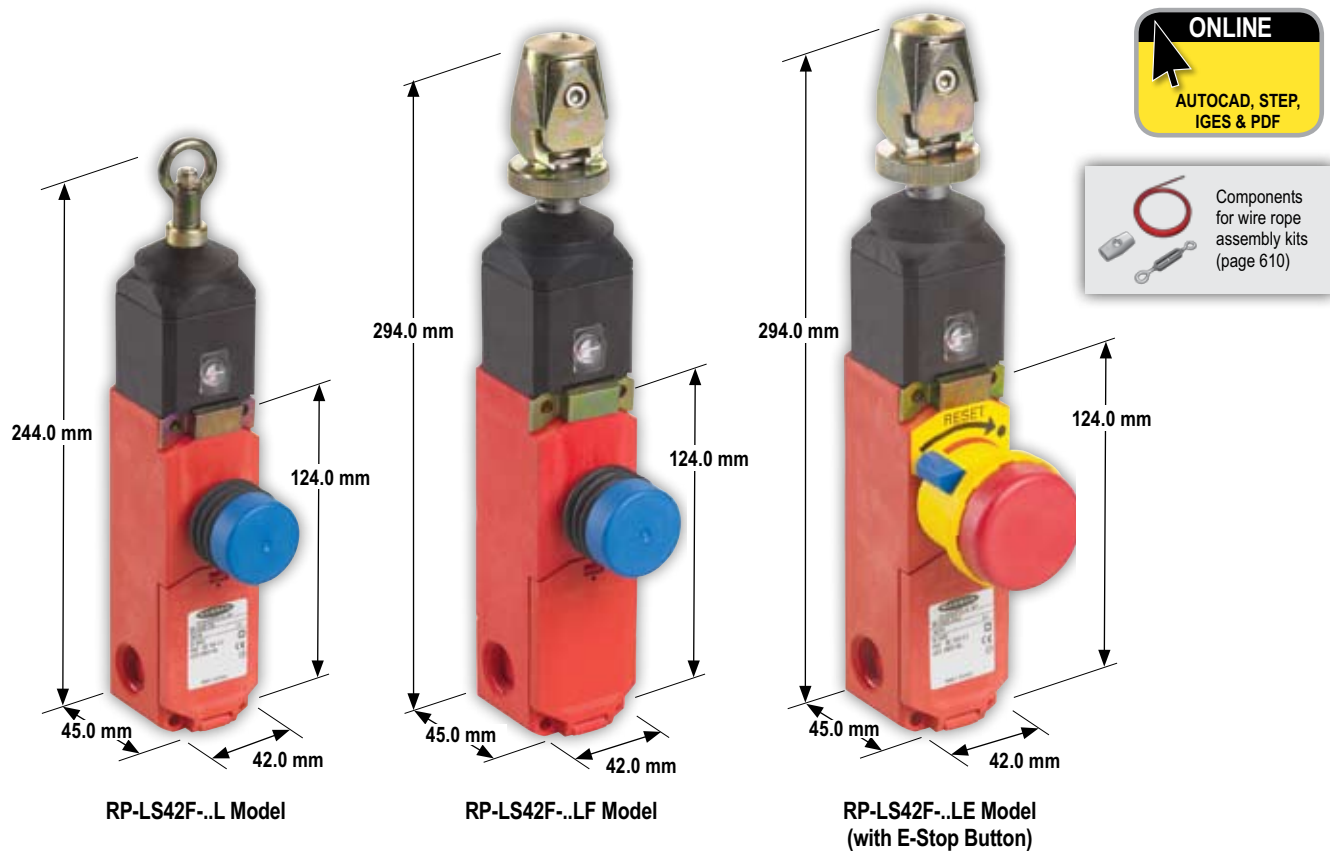
RP-RM83 Series E-Stop and Stop Control Device

Actuation	Safety Contacts*	Auxiliary Contacts	Action/ Contact State*	Aux. Status Output	Model		Contact Config. & Switch Diagram
					Max. Rope Length 75 m	Max. Rope Length 38 m	
Latch (Rope Pulled)	2 NC in 	2 NO in 	 open open closed closed  open open closed closed	Yes	RP-RM83F-75LTE	RP-RM83F-38LTE	SD01 & SD02 (p. 612)
				Yes	RP-RM83F-75LRE	RP-RM83F-38LRE	
				—	RP-RM83F-75LT	RP-RM83F-38LT	SD03 & SD04 (p. 612)
				—	RP-RM83F-75LR	RP-RM83F-38LR	

 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.

RP-LS42 Series



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Safety
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Safety Two-Hand
Control Modules

Safety Interlock
Switches

**Emergency Stop &
Stop Control**

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E-STOP BUTTONS

ROPE PULLS

RP-RM83

RP-LS42

RP-QM72/QMT72

RP-LM40

RP-QM90

ENABLING
DEVICES

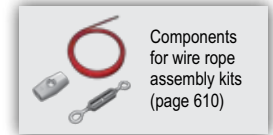
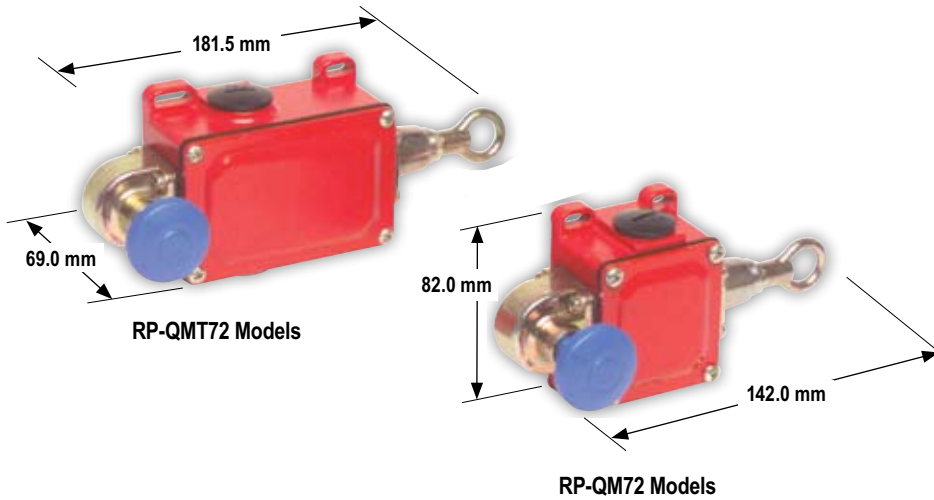
RP-LS42 Series E-Stop and Stop Control Device

Actuation	Max. Rope Length	Safety Contacts*	Auxiliary Contact	Action/ Contact State*	Model	Contact Config. & Switch Diagram
Latch (Rope Pulled)	25 m	2 NC in	2 NO in	Safety open open closed closed	RP-LS42F-25L	SD07 (p. 613)
				Auxiliary open open closed closed	RP-LS42F-25LE	
					RP-LS42F-25LF	
	37.5 m	2 NC in	2 NO in	Safety open open closed closed	RP-LS42F-38L	SD06 (p. 612)
				Auxiliary open open closed closed	RP-LS42F-38LE	
					RP-LS42F-38LF	
	75 m	2 NC in	2 NO in	Safety open open closed closed	RP-LS42F-75L	SD05 (p. 612)
				Auxiliary open open closed closed	RP-LS42F-75LE	
					RP-LS42F-75LF	

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

* RP-LS42 rope pulls comply with IEC 60947-5-1 Positive Opening requirements. See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.

RP-QM72/QMT72 Series



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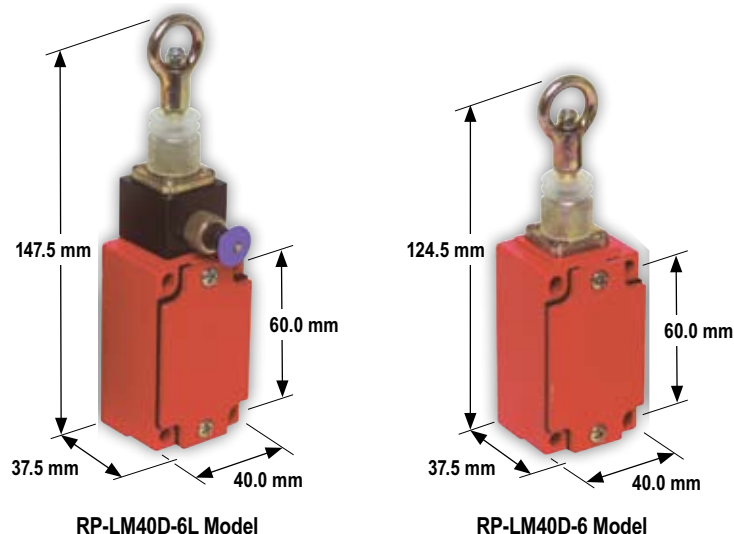
RP-QM72/QMT72 Series Stop Control Device

Actuation	Max. Rope Length	Safety Contacts*	Auxiliary Contact	Action/ Contact State*	Model	Contact Config. & Switch Diagram
Latch (Rope Pulled)	6 m	2 NC in	—	Safety open closed closed open	RP-QM72D-6L	SD08 (p. 613)
	12 m				RP-QM72D-12L	SD09 (p. 613)
	20 m				RP-QMT72D-20L	SD10 (p. 613)
	12 m	4 NC in	—	Safety open open closed closed closed closed open open	RP-QMT72F-12L	SD11 (p. 613)
	12 m	2 NC in	1 NO in	Safety Auxiliary open closed closed closed open open	RP-QMT72E-12L	SD12 (p. 613)

Run Position
 Cable Pulled
 Cable Break
 NC = Normally Closed Contact

* RP-QM72/QMT72 rope pulls comply with IEC 60947-5-1 Positive Opening requirements. See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.

RP-LM40 Series



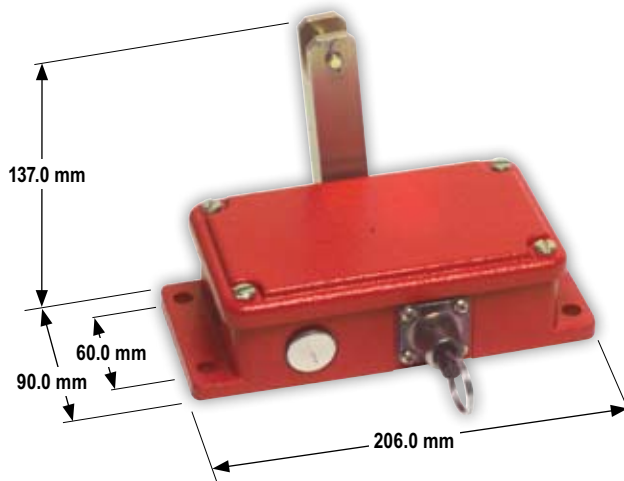
RP-LM40 Series Stop Control Device

Actuation	Max. Rope Length	Safety Contact*	Auxiliary Contact	Action/Contact State*	Model	Contact Config. & Switch Diagram
Trip	6 m	2 NC in 	—	open closed	RP-LM40D-6	SD13 (p. 614)
Latch				closed open	RP-LM40D-6L	SD14 (p. 614)

Run Position Cable Pulled Cable Break NC = Normally Closed Contact

* RP-LM40 rope pulls comply with IEC 60947-5-1 positive Opening requirements. See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.

RP-QM90 Series



RP-QM90 Series Stop Control Device

Actuation	Max. Rope Length	Safety Contacts*	Auxiliary Contacts	Action/ Contact State*				Model	Contact Config. & Switch Diagram
Latch (Rope Pulled)	100 m (50 m each side)	2 NC in 	2 NO in 	 open  open	open open closed closed	closed closed closed closed	RP-QM90F-100L	SD15 (p. 614)	

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

* RP-QM90 rope pulls comply with IEC 60947-5-1 Positive Opening requirements. See data sheet or Contact Configuration and Switching Diagrams for more information/clarification.

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Control Modules

Safety Interlock
Switches

Emergency Stop &
Stop Control

ACCESSORIES
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E-STOP BUTTONS

ROPE PULLS

RP-RM83

RP-LS42

RP-QM72/QMT72

RP-LM40

RP-QM90

ENABLING
DEVICES

Rope Pull Switches Specifications

Contact Rating	10A @ 24V ac, 10A @ 110V ac, 6A @ 230V ac, 6A @ 24V dc 2.5 kV max. transient tolerance NEMA A300 P300																													
Monitoring Solid-State Output Rating	Rated operational voltage: $U_e = 10$ to 30V dc Rated operational current: $I_e = 50$ mA Utilization category: DC13 Protected against reverse polarity and short circuit.																													
European Rating	Utilization categories: AC15 and DC13 $U = 500V$ ac, $I_n = 10A$ Rated Surge Capacity: 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>$I_e/AC-15$ A</th><th>$I_e/DC-13$ 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>$I_e/AC-15$ A</th><th>$I_e/DC-13$ 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	RP-RM83 models: 20 operations per minute All others: 50 operations per minute																													
Recommended Rope Size	40 mm models: 2 mm diameter steel rope 42 & 72 mm models: 3 mm diameter steel rope 83 mm models: 2-5 mm diameter steel rope (3 mm recommended) 90 mm models: 4 mm diameter steel rope																													
Maximum Rope Pull Length	RP-LM40D-6/6L and RP-QM72D-6L: 6 m RP-LS42F-75L/75LE/75LF: 75 m RP-LS42F-38L/38LE/38LF: 37.5 m RP-LS42F-25L/25LE/25LF: 25 m RP-QM72D-12L: 12 m RP-QMT72D-20L: 20 m RP-QMT72E-12L and RP-QMT72F-12L: 12 m RP-RM83F-75LTE/LT/LRE/LR: 75 m RP-RM83F-38LTE/LT/LR/LRE: 38 m RP-QM90F-100L: 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	RP-RM83: 100,000 operations All others: 1 million operations																													
Wire Connections	Screw terminals with pressure plates accept the following wire sizes – Stranded and solid: 20 AWG (0.5 mm ²) to 16 AWG (1.5 mm ²) for one wire Stranded: 20 AWG (0.5 mm ²) to 18 AWG (1.0 mm ²) 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	RP-LS42F-..L/..LE/..LF: High-impact thermoplastic housing; zinc die-cast actuator All others: Aluminum alloy die cast																													
Environmental Rating	RP-LS42F and RP-RM83F models: NEMA 4; IEC IP67 All other models: NEMA 4; IP65																													
Operating Temperature	RP-LS42F-..L/..LE/..LF: -25° to +70° C All other models: -30° to +80° C																													
Weight	RP-LM40D-6: 0.22 Kg RP-LM40D-6L: 0.26 Kg RP-LS42F-..L: 0.48 Kg RP-LS42F-..LE and RP-LS42F-..LF: 0.65 Kg RP-QM72D-6L: 0.49 Kg RP-QM72D-12L: 0.52 Kg RP-QMT72D-20L, RP-QMT72E-12L and RP-QMT72F-12L: 0.64 Kg RP-QM90F-100L: 3.8 Kg RP-RM83F-75LT and RP-RM83F-75LTE: 1 Kg RP-RM83F-75LR and RP-RM83F-75LRE: 0.77 Kg RP-RM83F-38LT and RP83FLT8: 1 Kg RP-RM83F-38LR and RP-RM83F-38LRE: 0.77 Kg																													
Certifications	   (RP-RM83 and RP-LS42 only)																													
Contact Configurations and Switching Diagrams	RP-LM40 models: SD13 & SD14 (p. 614) RP-LS42 models: SD05, SD06 & SD07 (pp. 612-613) RP-QM72/QMT72 models: SD07, SD08, SD09, SD10 & SD11 (p. 613) RP-RM83 models: SD01, SD02, SD03 & SD04 (p. 612) RP-QM90 models: SD15 (p. 614)																													

Wire Rope Assembly Kits (Tensioning Springs ordered separately)

Description	Rope Length 10 m	Rope Length 20 m	Rope Length 40 m	Rope Length 50 m	Rope Length 80 m	Used With
3 mm steel rope, eye bolts, clamps and thimbles	RPAK-CH2-10	RPAK-CH2-20	RPAK-CH2-40	RPAK-CH2-50	RPAK-CH2-80	• RP-LS42 models • RP-QM72/QMT72 Models • RP-RM83 models
3 mm steel rope, eye bolts, pulleys, clamps and thimbles	RPAK-CHP2-10	RPAK-CHP2-20	RPAK-CHP2-40	RPAK-CHP2-50	RPAK-CHP2-80	
3 mm steel rope, eye bolts, clamps, thimbles and turnbuckle	RPAK-CH2-10-TA	RPAK-CH2-20-TA	RPAK-CH2-40-TA	RPAK-CH2-50-TA	RPAK-CH2-80-TA	
3 mm steel rope, eye bolts, pulleys, clamps, thimbles and turnbuckle	RPAK-CHP2-10-TA	RPAK-CHP2-20-TA	RPAK-CHP2-40-TA	RPAK-CHP2-50-TA	RPAK-CHP2-80-TA	

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 0.5 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 (90-180°)	• 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 • RP-RM83 models
		RPA-S5-1	1 pc	Tensioning Spring #5		• RP-RM83 models
		RPA-S4-1	1 pc	Tensioning spring assembly with built-in eye bolt, cable thimble, clamp, tensioning and overload protection		• RP-LS42 models • RP-RM83 models
		RPA-S6-1	1 pc			• RP-RM83 models
Terminal Cover	SI-LS42-COVER		Replacement terminal cover			• RP-LS42 models
Indicator Lamps		SI-PL3T-R	1 pc	Red with M20 x 1.5 (24V ac/dc)		• RP-LS42 • RP-QM72/QMT72 • RP-RM83 • RP-QM90
		SI-PL3A-R	1 pc	Red with M20 x 1.5 (120V ac)		
		SI-PL3T-G	1 pc	Green with M20 x 1.5 (24V ac/dc)		
		SI-PL3A-G	1 pc	Green with M20 x 1.5 (120V ac)		

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Emergency Stop &
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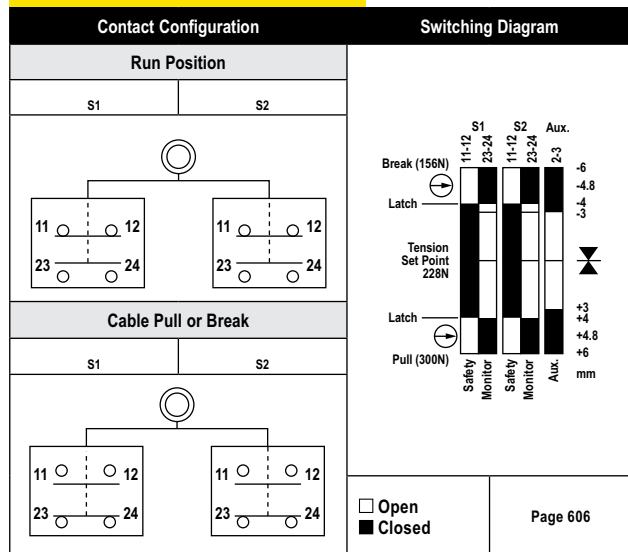
E-STOP BUTTONS

ROPE PULLS

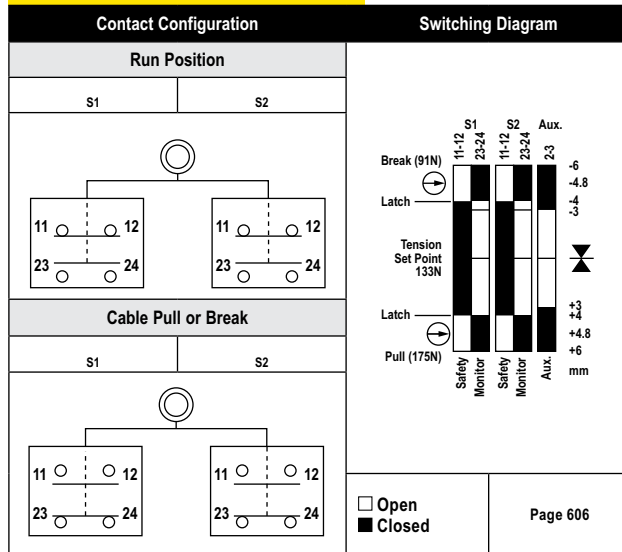
ENABLING
DEVICES

Contact/Switching Diagrams

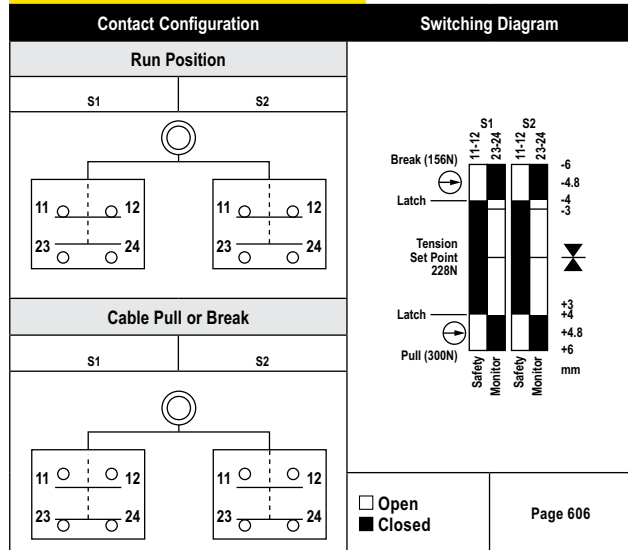
SD01 - RP-RM83F-75LTE/LRE Series



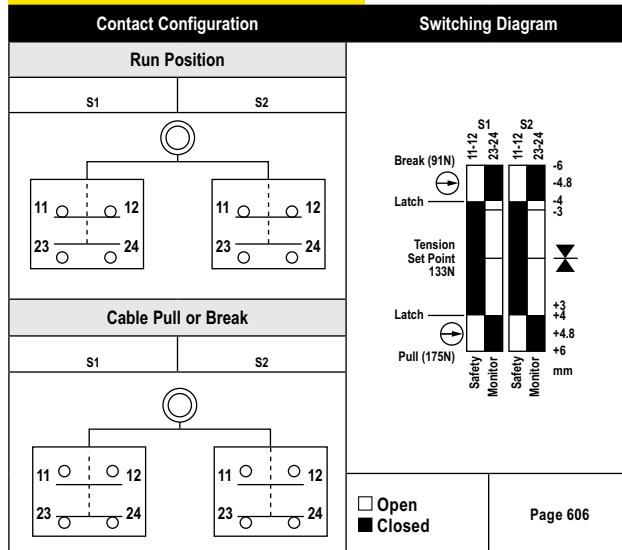
SD02 - RP-RM83F-38LTE/LRE Series



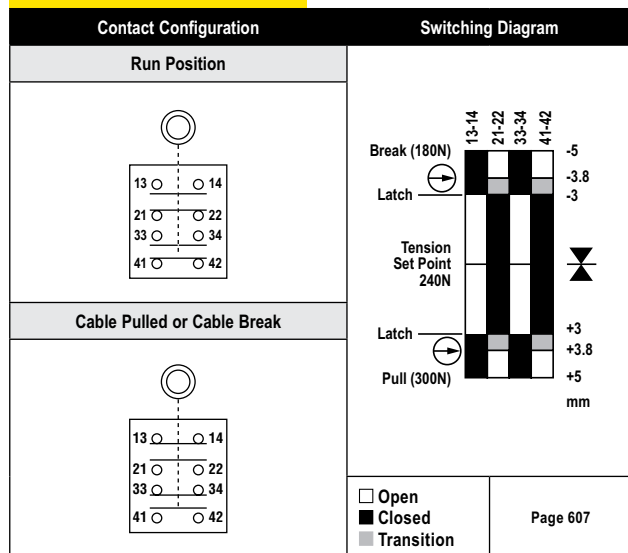
SD03 - RP-RM83-75LT/LR Series



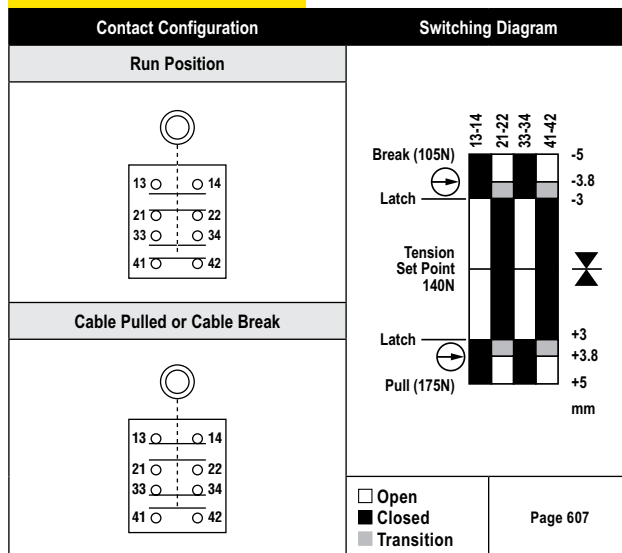
SD04 - RP-RM83-38LT/LR Series



SD05 - RP-LS42F-75L Series



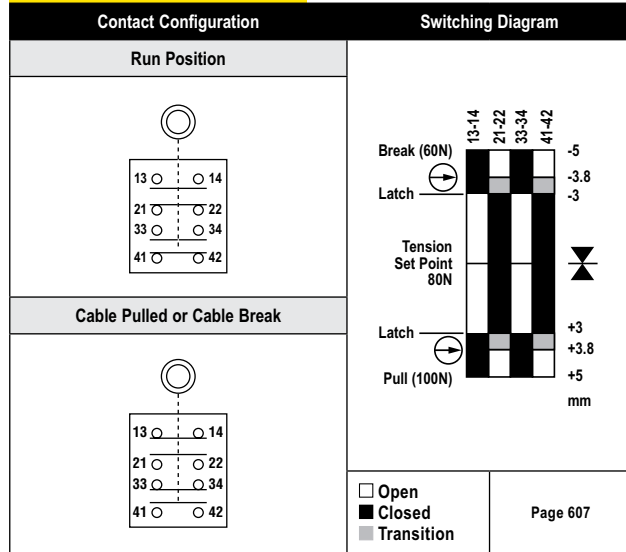
SD06 - RP-LS42F-38L Series



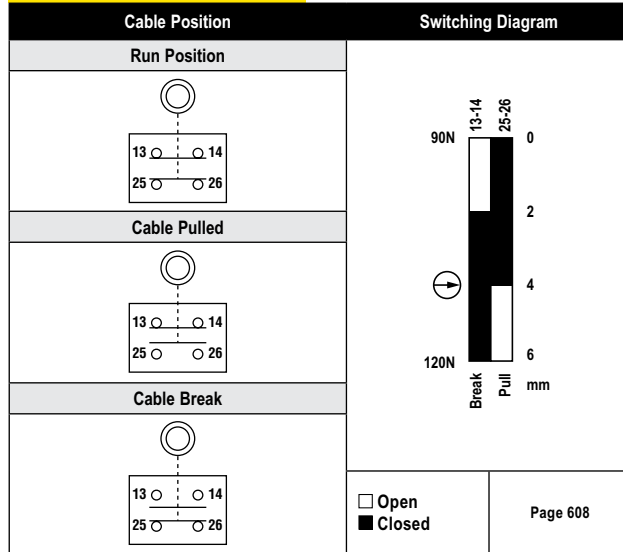
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Contact/Switching Diagrams

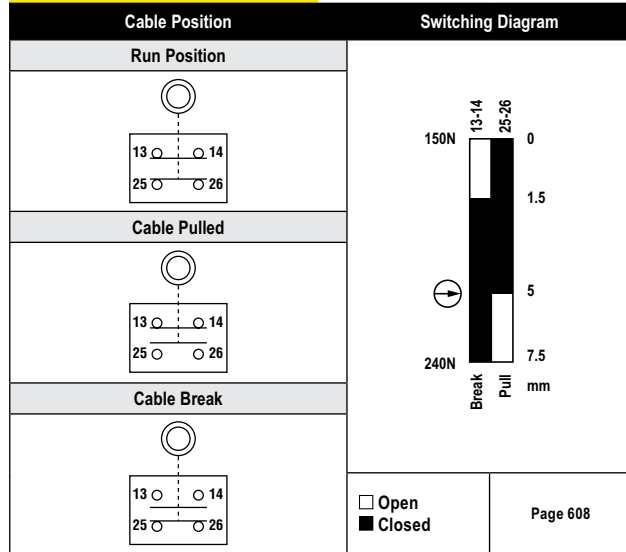
SD07 - RP-LS42F-25L Series



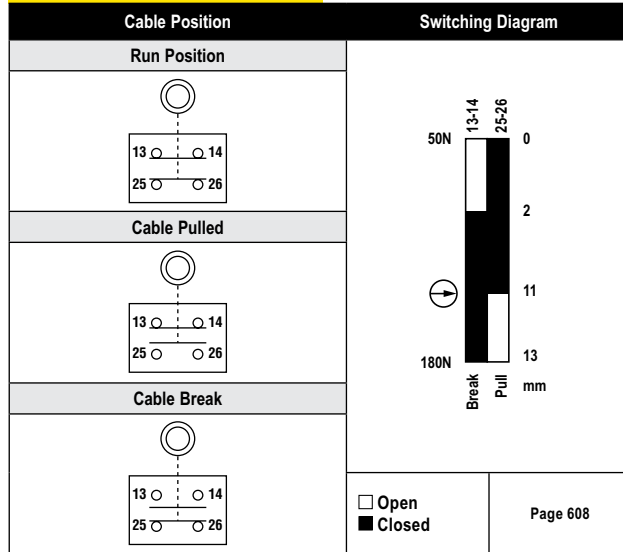
SD08 - RP-QM72D-6L Series



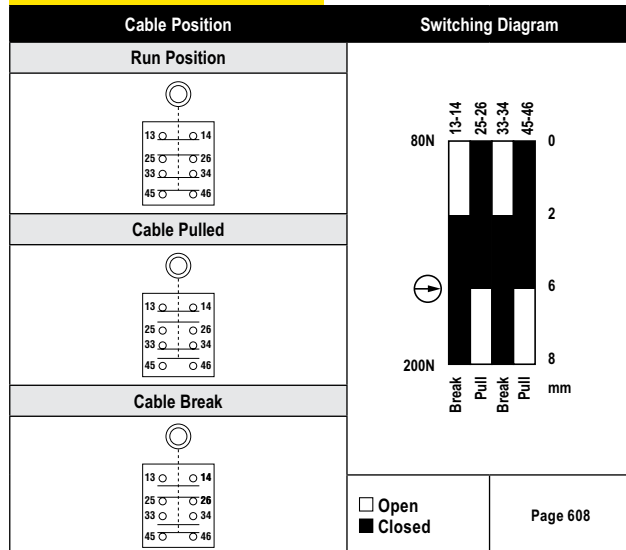
SD09 - RP-QM72D-12L Series



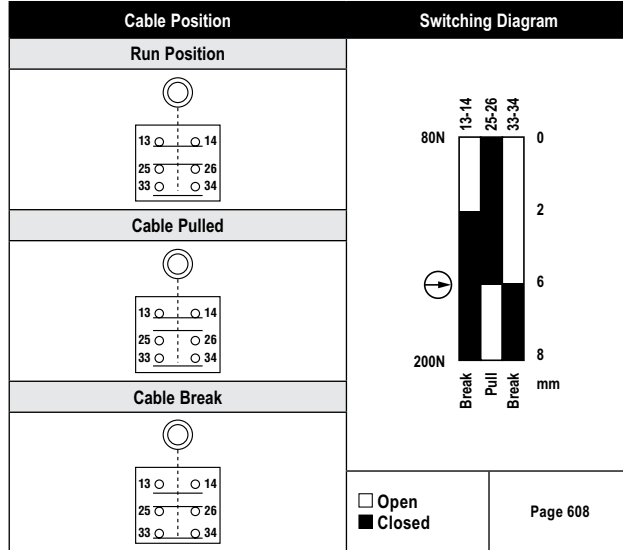
SD10 - RP-QMT72D-20L Series



SD11 - RP-QMT72F-12L Series



SD12 - RP-QMT72E-12L Series



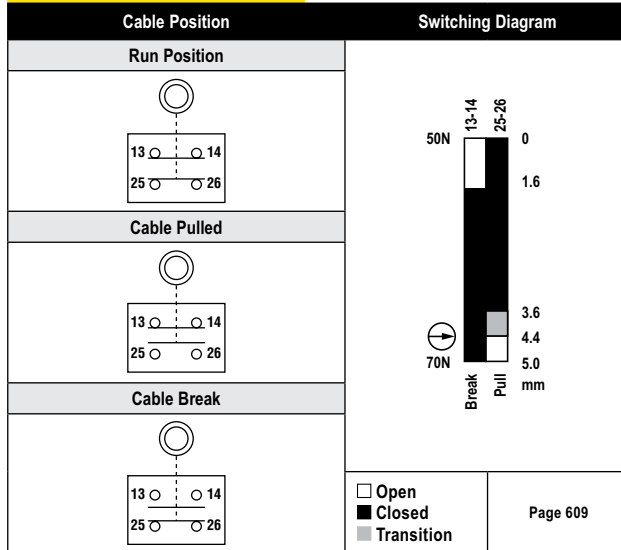
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 Safety Controllers &
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 Safety Two-Hand
 Control Modules
 Safety Interlock
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**Emergency Stop &
 Stop Control**

E-STOP BUTTONS
ROPE PULLS
 ENABLING
 DEVICES

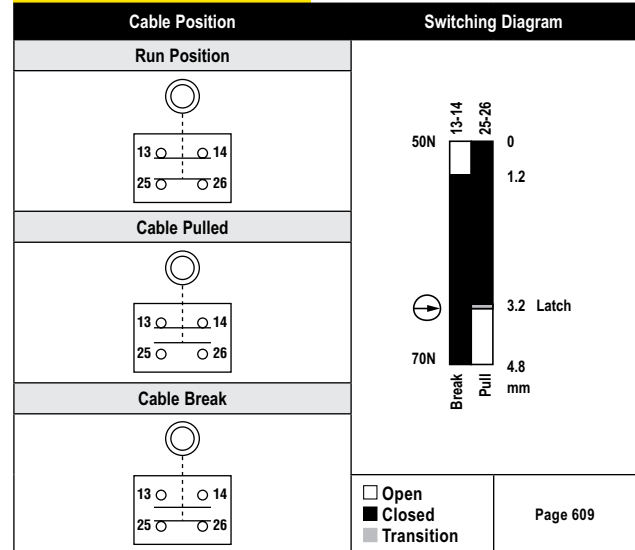
More
 on next
 page

Contact/Switching Diagrams

SD13 - RP-LM40D-6 Series



SD14 - RP-LM40D-6L Series



SD15 - RP-QM90F-100L Series

