



SI-LS42

Plastic Locking Style Safety Interlock Switches

- Two locking mechanisms available including spring lock with energized solenoid release and energized solenoid lock with spring release
- Actuator head can be rotated in 90° increments to eight possible actuator positions: four vertical and four horizontal
- Design meets positive opening requirements for safety interlocks (IEC 60947-5-1)
- AC and DC voltage available

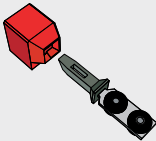
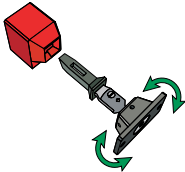
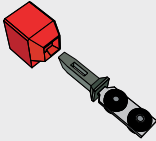
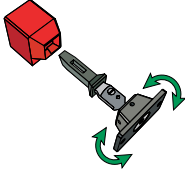
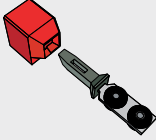
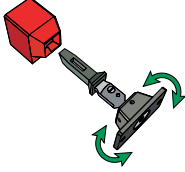
SI-LS42 Safety Switches, 42 mm - Spring Lock and Solenoid Unlock

Actuator Type		Interlock	Contact(s)	Solenoid Voltage	Kit Model *
SI-QM-SSA Straight Rigid In-Line		SI-LS42DSG	Actuator Contacts: 1 NC & 1 NO	24 V ac/dc	SI-LS42DMSG
		SI-LS42WSG	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMSG
 SI-QM-SMFA Flexible In-Line		SI-LS42DSG	Actuator Contacts: 1 NC & 1 NO	24 V ac/dc	SI-LS42DMSGF
		SI-LS42WSG	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMSGF

 Multi-Directional NC = Normally Closed Contact, NO = Normally Open Contact

* A kit contains an interlock and actuator. Individual interlocks (without actuator) are for replacement purposes only. Contact factory for integral quick-disconnect (QD) and pigtail QD options.

SI-LS42 Safety Switches, 42 mm - Spring Lock and Solenoid Unlock (cont'd)

Actuator Type		Interlock	Contact(s)	Solenoid Voltage	Kit Model *
SI-QM-SSA Straight Rigid In-Line		SI-LS42DSH	Actuator Contacts: 2 NC	24 V ac/dc	SI-LS42DMSH
		SI-LS42WSH	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMSH
 SI-QM-SMFA Flexible In-Line		SI-LS42DSH	Actuator Contacts: 2 NC	24 V ac/dc	SI-LS42DMSHF
		SI-LS42WSH	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMSHF
SI-QM-SSA Straight Rigid In-Line		SI-LS42DSI	Actuator Contacts: 2 NC & 1 NO	24 V ac/dc	SI-LS42DMSI
		SI-LS42WSI	Solenoid Monitor Contact: 1 NC	110 V ac/ 230 V ac	SI-LS42WMSI
 SI-QM-SMFA Flexible In-Line		SI-LS42DSI	Actuator Contacts: 2 NC & 1 NO	24 V ac/dc	SI-LS42DMSIF
		SI-LS42WSI	Solenoid Monitor Contacts: 1 NC	110 V ac/ 230 V ac	SI-LS42WMSIF
SI-QM-SSA Straight Rigid In-Line		SI-LS42DSJ	Actuator Contacts: 3 NC	24 V ac/dc	SI-LS42DMSJ
			Solenoid Monitor Contact: 1 NC		
 SI-QM-SMFA Flexible In-Line		SI-LS42DSJ	Actuator Contacts: 3 NC	24 V ac/dc	SI-LS42DMSJF
			Solenoid Monitor Contact: 1 NC		

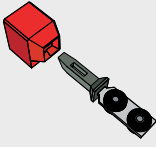
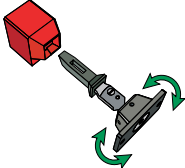
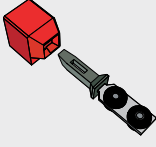
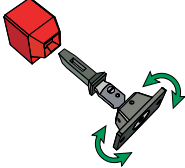
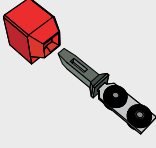
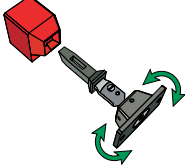
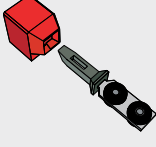
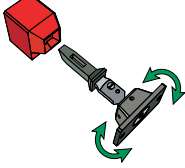


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NC = Normally Closed Contact, NO = Normally Open Contact

* A kit contains an interlock and actuator. Individual interlocks (without actuator) are for replacement purposes only.
Contact factory for integral quick-disconnect (QD) and pigtail QD options.

SI-LS42 Safety Switches, 42 mm - Solenoid Lock and Spring Unlock (cont'd)

Actuator Type		Interlock	Contact(s)	Solenoid Voltage	Kit Model *
SI-QM-SSA Straight Rigid In-Line		SI-LS42DMG	Actuator Contacts: 1 NC & 1 NO	24 V ac/dc	SI-LS42DMMG
		SI-LS42WMG	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMMG
 SI-QM-SMFA Flexible In-Line		SI-LS42DMG	Actuator Contacts: 1 NC & 1 NO	24 V ac/dc	SI-LS42DMMGF
		SI-LS42WMG	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMMGF
SI-QM-SSA Straight Rigid In-Line		SI-LS42DMH	Actuator Contacts: 2 NC	24 V ac/dc	SI-LS42DMMH
		SI-LS42WMH	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMMH
 SI-QM-SMFA Flexible In-Line		SI-LS42DMH	Actuator Contacts: 2 NC	24 V ac/dc	SI-LS42DMMHF
		SI-LS42WMH	Solenoid Monitor Contacts: 1 NC & 1 NO	110 V ac/ 230 V ac	SI-LS42WMMHF
SI-QM-SSA Straight Rigid In-Line		SI-LS42DMI	Actuator Contacts: 2 NC & 1 NO	24 V ac/dc	SI-LS42DMMI
		SI-LS42WMI	Solenoid Monitor Contact: 1 NC	110 V ac/ 230 V ac	SI-LS42WMMI
 SI-QM-SMFA Flexible In-Line		SI-LS42DMI	Actuator Contacts: 2 NC & 1 NO	24 V ac/dc	SI-LS42DMMIF
		SI-LS42WMI	Solenoid Monitor Contact: 1 NC	110 V ac/ 230 V ac	SI-LS42WMMIF
SI-QM-SSA Straight Rigid In-Line		SI-LS42DMJ	Actuator Contacts: 3 NC	24 V ac/dc	SI-LS42DMMJ
			Solenoid Monitor Contact: 1 NC		
 SI-QM-SMFA Flexible In-Line		SI-LS42DMJ	Actuator Contacts: 3 NC	24 V ac/dc	SI-LS42DMMJF
			Solenoid Monitor Contact: 1 NC		



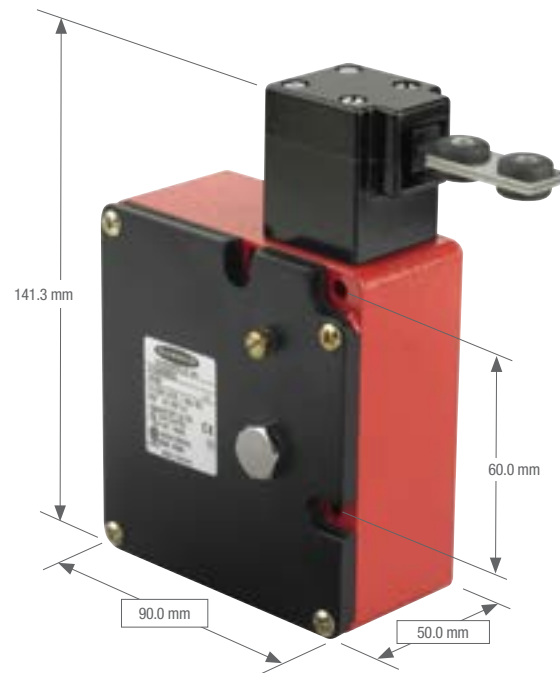
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SI-LS42 Models
(shown with rigid in-line actuator)



SI-QM100 Models
(shown with rigid in-line actuator)

Locking Style Switches Specifications

Contact Rating	4A @ 250 V ac max. 2.5 kV max. transient tolerance NEMA A300 P300																
European Rating	Utilization categories: AC15 and DC13 (IEC 60947-5-1) Switches with 1 & 2 contact pairs: $U_n = 250V$ ac SI-LS42 models: $I_n = 2.5 A$ SI-QM100 models: $I_n = 10 A$	<table border="1"> <thead> <tr> <th colspan="3">40-60 Hz</th></tr> <tr> <th>U_n V</th><th>$I_n/AC-15$ A</th><th>$I_n/DC-13$ A</th></tr> </thead> <tbody> <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>.4</td></tr> </tbody> </table>	40-60 Hz			U_n V	$I_n/AC-15$ A	$I_n/DC-13$ A	24	10	6	110	10	1	230	6	.4
40-60 Hz																	
U_n V	$I_n/AC-15$ A	$I_n/DC-13$ A															
24	10	6															
110	10	1															
230	6	.4															
Contact Material	Silver-nickel alloy																
Solenoid Power Consumption	SI-LS42 models: 1.1 VA / Inrush 12 VA (0.2 sec) SI-QM100 models: 5.2 W																
Maximum Actuator Speed	1.5 m/second																
Mechanical Life	1 million operations																
Minimum Actuator Engagement Radius	Rigid actuator: 400 mm Flexible actuator: 150 mm																
Actuation Extraction Force	SI-LS42 models: 1500 N when locked SI-QM100 models: 1000 N when locked																
Short Circuit Protection	6 amp Slow Blow, 10 amp Fast Blow. Recommended external fusing or overload protection.																
Wire Connections	SI-LS42 models: 10 cage clamp elements 1.5 mm stranded max. / 16 AWG SI-QM100 models: Screw terminals with pressure plates accept the following wire sizes – 16 AWG (1.5 mm ²) max. solid; 14 AWG (2.5 mm ²) max. stranded, 18 AWG (1 mm ²) when using all 11 terminals																
Cable Entry	M20 x 1.5 threaded entrance Adapter supplied to convert M20 x 1.5 to ½" - 14 NPT threaded entrance																
Construction	SI-LS42 models: Glass fiber-reinforced polyamide thermoplastic housing; UL 94-V0 rating SI-QM100 models: Aluminum die cast																
Environmental Rating	IP67																
Operating Conditions	Temperature: SI-LS42 models: -30 to +70 °C SI-QM100 models: -30 to +60 °C																
Weight	SI-LS42 models: 0.3 kg SI-QM100 models: 0.81 kg																
Application Notes	When rotating the actuator head, the actuator MUST BE FULLY ENGAGED. When using a model with solenoid locking, the lock mechanism will disengage upon solenoid power failure.																
Certifications	 																
Contact Configuration and Switching Diagrams	SI-LS42 models: SD023, SD024, SD025 & SD026 (p. 675) SI-QM100 models: SD027 and SD028 (p. 676)																