



## SLM1, SLM2, SLI1 and SLI2 Limit Switches

### Description

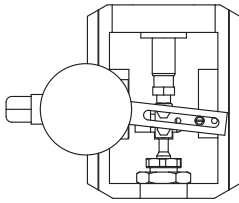
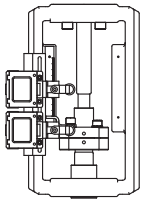
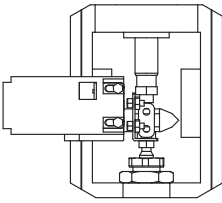
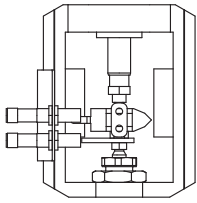
The switch kits are for use with linear pneumatic actuators conforming to the NAMUR standard. The series provides switched electric or variable resistance outputs, relative to the valve actuator position.

### How to choose the right limit switch for your actuator and application:

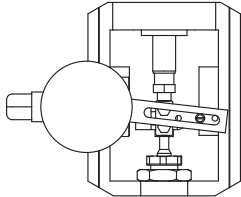
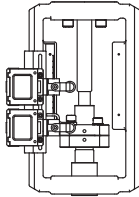
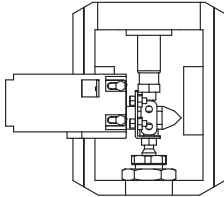
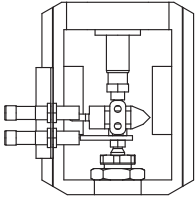
Identify the actuator and valve travel	<b>Example:</b> If the travel <= 30 mm then choose between an <b>SLM1</b> , <b>SLI1</b> or <b>SLI2</b>
Identify your electronic signal requirements	<b>Example:</b> 250 Vac and 3 A => Choose between an <b>SLM1</b> or <b>SLM2</b>
Make your choice between the inductive or mechanical and if you require one or two sensors.	<b>Example:</b> 2 sensors open/close in inductive => Choose an <b>SLI1</b>
Do you need ATEX certification ?	<b>Example:</b> Yes => Choose between an <b>SLI1</b> or <b>SLI2</b>

### Applications and technical data

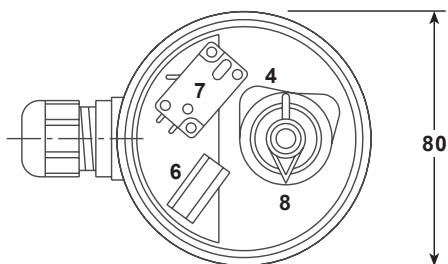
The switch kits series can be used with the following Spirax Sarco actuators using the fixing kit specified:

Limit switches		SLM1	SLM2	SLI1	SLI2
					
		This switch consist of two mechanical micro-switches within a single unit to provide valve actuator position (open/close) after setting	This switch consist of two mechanical micro-switch units to provide valve actuator position (open/close) after setting	This switch consist of two proximity sensors within a single unit to provide valve actuator position (open/close) after setting	This switch consist of two proximity sensors to provide valve actuator position (open/close) after setting
Travel <= 30 mm		●		●	●
Travel >= 30 mm			●	●	●
Maximum voltage and current	ac	250 Vac 16 A	24 Vac 6 A to 250 Vac 3 A	0.1 A	0.1 A
	dc	48 Vdc 16 A	12 Vdc 10 A to 230 Vdc 5 A	30 Vdc	30 Vdc

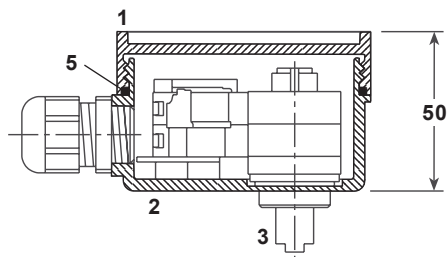
## Ratings and standards:

	SLM1	SLM2	SLI1	SLI2
<b>Limit switches</b>				
<b>Mechanical life</b>	100 000 - 16 A 500 000 - 5 A 20 000 000 - 0.2 A	150 000 - 10 A 10 000 000 - 3 A 15 000 000 - 0.1 A		
<b>Life MTTFd</b> (mean time to dangerous failure) <b>SIL</b>			111 years (worst case)	218 years (worst case)
<b>Temperature</b>	-20 °C to +85 °C	-25 °C to +70 °C	-25 °C to +70 °C	-20 °C to +60 °C
<b>ATEX</b>			ATEX II 3G Ex nA II T6 ATEX II 3D Ex tD 22A IP67 T80 °C	ATEX II 3G ATEX II 3D
<b>Ingress Protection (IP)</b>	IP65	IP66	IP68	IP67

## Dimensions (approximate) in mm

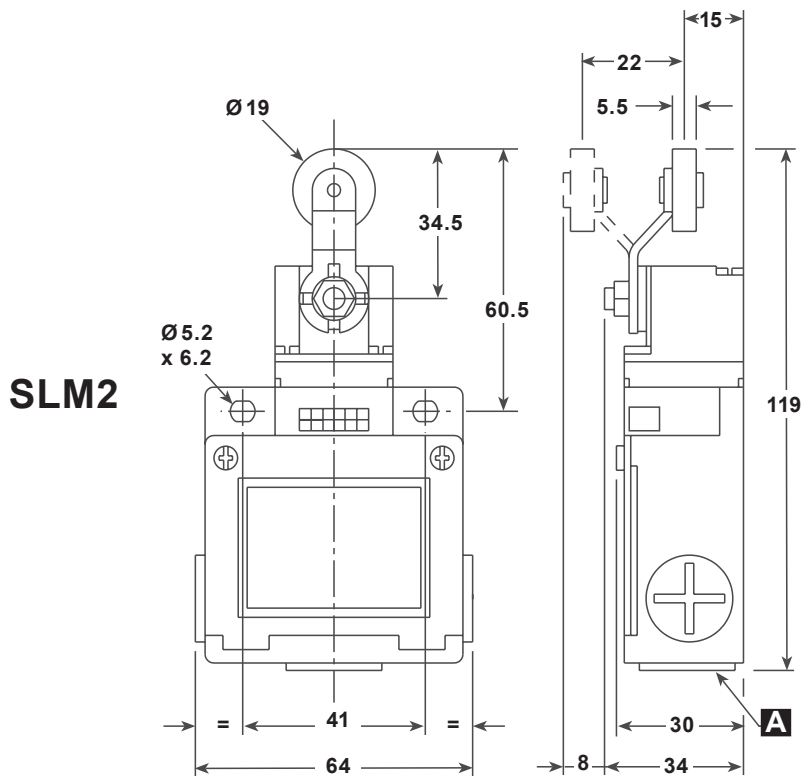


## SLM1

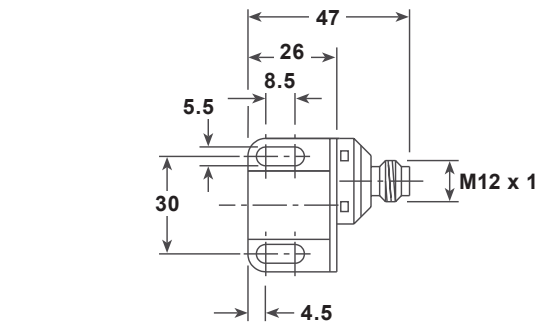


1. Housing base
2. Cover
3. Special shaft for linkage to Spirax Sarco actuators
4. Adjustable cam system
5. 'O' ring seal
6. 5-pin terminal block
7. Microswitches
8. Position indicator

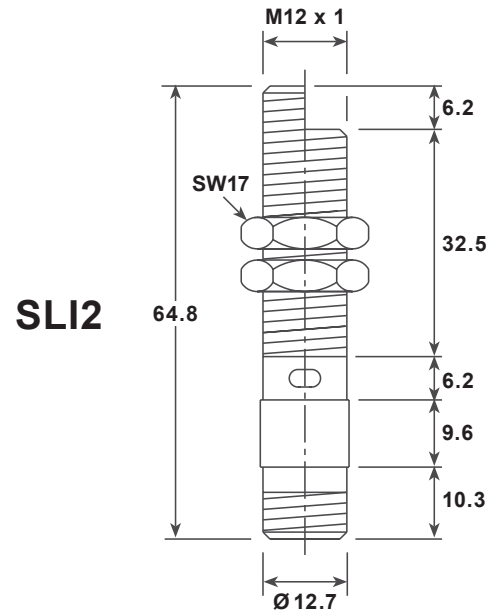
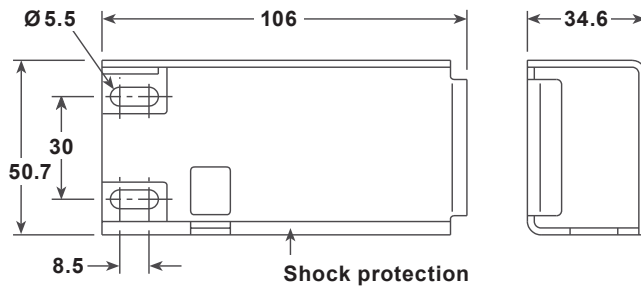
Dimensions (approximate) in mm







**A** = 3 x threaded holes for cable gland 11



**SLI1**



**SLI2**

Limit switch		Actuator type					
		PN912X PN922X PN932X  M8 stem	PN923X PN933X TN2000 TN2100  M12 stem	PN1XXX PN2XXX	TN22XX	PN9483 PN9486	PN9482
<b>SLM1</b> 	Kit	<b>3690050</b>	<b>3690050</b>	<b>3690050</b>			
	Switch box	3690066	3690066	3690066			
	Box bracket	3690067	3690067	3690067			
	Connecting valve	3690068	3690068	3690068			
<b>SLM2</b> 	Kit				<b>3690058</b>	<b>3690097</b>	<b>3690062</b>
	Sensor				3690092	3690092	3690092
	Sensor bracket				3690093	3690093	3690094
	Detection bracket				3690095	3690098	3690096
<b>SLI1</b> 	Kit	<b>3690051</b>	<b>3690051</b>	<b>3690055</b>	<b>3690059</b>	<b>3690001</b>	<b>3690063</b>
	Box integrated 2 sensors	3690069	3690069	3690069	3690069	3690069	3690069
	Cable (25m)	3690070	3690070	3690070	3690070	3690070	3690070
	Sensor bracket	3690071	3690071	3690077	3690078	3690078	3690079
<b>SLI2</b> 	Kit (PNP)	<b>3690052</b>	<b>3690052</b>	<b>3690056</b>	<b>3690060</b>	<b>3690003</b>	<b>3690064</b>
	Kit (NPN)	<b>3690053</b>	<b>3690053</b>	<b>3690057</b>	<b>3690061</b>	<b>3690005</b>	<b>3690065</b>
	Sensor (PNP)	3690080	3690080	3690080	3690080	3690080	3690080
	Sensor (NPN)	3690081	3690081	3690081	3690081	3690081	3690081
Cable (10m)	3690082	3690082	3690082	3690082	3690082	3690082	
Sensor bracket	3690083	3690083	3690084	3690085	3690085	3690086	
Detection bracket	3690087	3690088	3690089	3690090	3690004	3690091	

### How to order examples:

A: 1 off SLI2 switch kit 3690052 for a PN923X actuator, European (PNP).

B: 1 off SLM2 switch kit 3690058 for a TN2XXX actuator.