

# Comepi Safety Switches

These safety switches are developed and manufactured according to IEC and EN European standards.

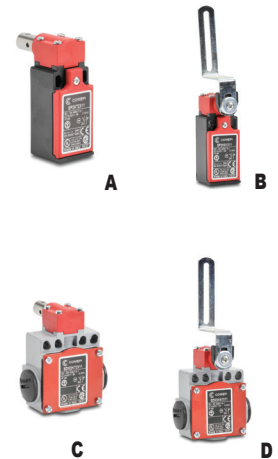
Easy to use, electromechanical safety switches provide:

- Visible operation
- Ability to switch large currents (10 A conventional thermal current)

- Precise operating points (consistency)
- Immunity to electromagnetic disturbances
- Electrically separated contacts (Zb)
- N.C. contacts with positive opening operation →
- Actuation Speed: Max. - 0.5 m/s; Min. - 0.01 m/s
- Conduit opening - 1/2" NPT threaded or adapter

*Note: Purchase actuating tongue (key) separately.*

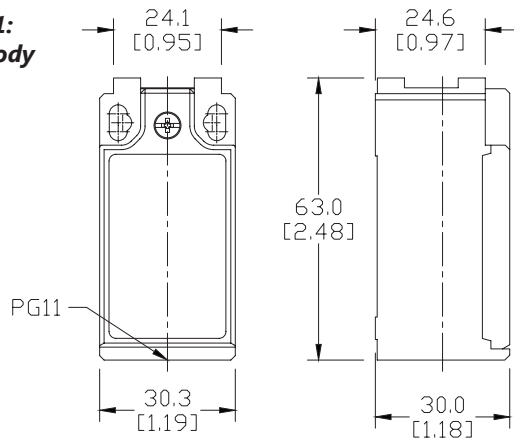
Safety Limit Switches										
Part Number	Price	Actuator Type	No. of Conduit Holes	Min Torque	Positive Opening Force	B10d	Dimensions Body / Head	Contact Config. Diagram	Weight (lb)	Photo
<a href="#">SP2K72X11</a>	\$25.00	90° adjustable head, shaft hinge interlock	One	0.12 Nm	0.60 Nm	2 million operations	Figures 1, 3	1	0.2	A
<a href="#">SP2K72W02</a>	\$25.00		One				Figures 1, 3	2	0.2	A
<a href="#">SP2K61X11</a>	\$17.00	90° adjustable head, lever hinge interlock	One	Figures 1, 4	1		0.2	B		
<a href="#">SP2K61W02</a>	\$17.00		One	Figures 1, 4	2		0.2	B		
<a href="#">SDM2K72X11</a>	\$29.00	90° adjustable head, shaft hinge interlock	Three	0.12 Nm	0.60 Nm		Figures 2, 3	1	0.6	C
<a href="#">SDM2K72W02</a>	\$29.00		Three				Figures 2, 3	2	0.6	C
<a href="#">SDM2K61X11</a>	\$21.50	90° adjustable head, lever hinge interlock	Three	0.12 Nm	0.60 Nm		Figures 2, 4	1	0.6	D
<a href="#">SDM2K61W02</a>	\$21.50		Three				Figures 2, 4	2	0.6	D



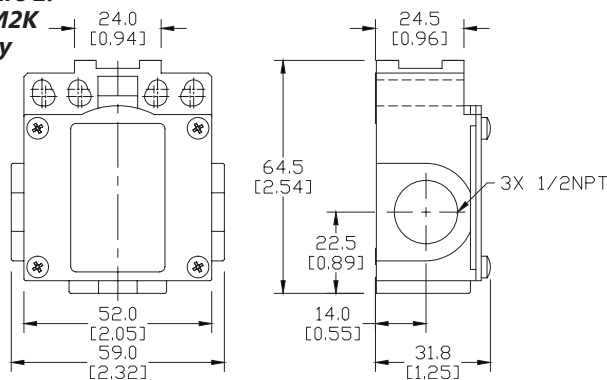
## Dimensions

mm [in]

**Figure 1:**  
**SP2K body**



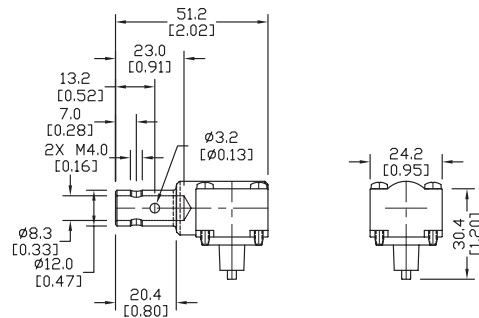
**Figure 2:**  
**SDM2K body**



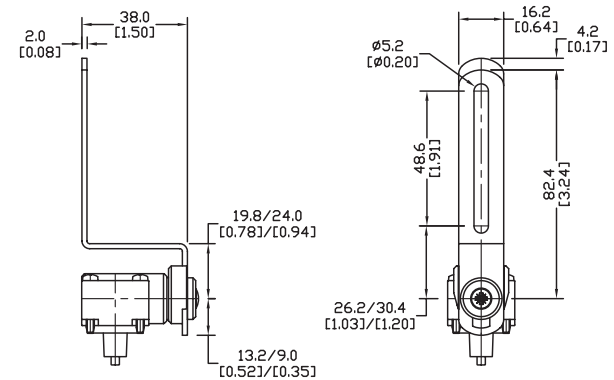
## Actuator Dimensions

mm [in]

**Figure 3:** 90° adjustable head with shaft hinge interlock - SP2K72, SDM2K72 models



**Figure 4:** 90° adjustable head with lever hinge interlock - SP2K61, SDM2K61 models

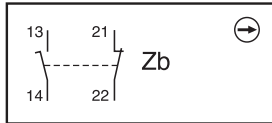


# Comepi Safety Switches

## Contacts Configuration Charts

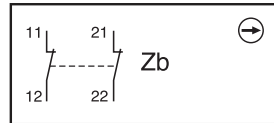
**Chart 1**

X11 Slow action break before make 1NO+1NC



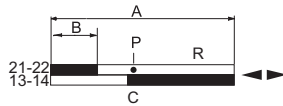
**Chart 2**

W02 Simultaneous slow action 2NC

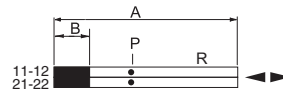


## Bar charts for shaft levers and limit switches

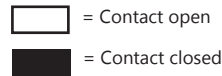
**X11**



**W02**



- A** = Max. travel of the operator in mm or degrees
- B** = Tripping travel of the N.C. contact
- C** = Tripping travel of the N.O. contact
- P** = Point from which positive opening is assured
- R** = Reset latch activates



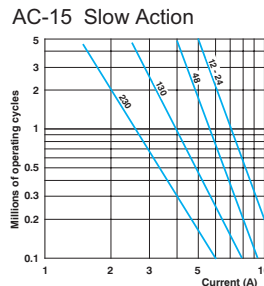
Part Series	Contact Configuration	Displacement Values mm[in] or degrees			
		A	B	C	P
SP2K72, SP2K61, SDM2K72, SDM2K61	X11	±90°	±6°	±15°	±31°
	W02	±90°	±5°	-	±30°

# Comepi Safety Switches

General Technical Specifications	
<b>Environmental</b>	
<b>Approvals</b>	All: IEC 947-5-1, EN 60947-5-1, UL 508, CSA C22.2 No 14, RoHS
<b>Degree of Protection</b>	Plastic models: IP65 according to IEC 529 Aluminum and ZAMAK (zinc alloy) models: IP66 according to IEC 529
<b>Temperature Range</b>	Plastic models: storage: -30° to 80°C (-22° to 176°F) operating: -25° to 70°C (-13° to 158°F) Aluminum and ZAMAK (zinc alloy) models: storage: -30° to 80°C (-22° to 176°F) operating: -25° to 70°C (-13° to 158°F); minimum temperatures assume that the atmosphere is free of moisture, which could cause moving parts to freeze up.
<b>Rated Insulation Voltage</b>	SDM:400V, All others 500V; (degree of pollution - 3)
<b>Mechanical Ratings</b>	
<b>Mechanical Life</b>	1 million operations. Pull wire models - 25,000 operations
<b>Enclosure Material</b>	Plastic models: fiberglass-reinforced plastic-V0 class (UL94); aluminum models: die-cast aluminum; ZAMAK models: zinc alloy
<b>Contact Blocks Rating</b>	
<b>Positive Opening</b>	Yes, all models
<b>Electrical Ratings</b>	AC15 Make: 60A@120VAC; 30A @ 240VAC; 18A @ 400VAC Break: 10A @ 24VAC; 6.5A @130VAC; 3.1A @ 230VAC; 1.8A @ 400VAC
	DC13 2.8A @ 24VDC; 0.5A @ 110VDC
<b>Maximum Switching Frequency</b>	Contact blocks: all one cycle per second
<b>Repeat Accuracy</b>	0.01mm on the operating points at 1 million operations
<b>Short-Circuit Protection</b>	Cartridge fuses, general purpose, gl 10A-500V 10.3x38 1 100KA
<b>Contact Resistance</b>	25 milli q
<b>Recommended Minimum Operating Speed</b>	With slow-action contacts: 500 mm per minute*
<b>Rated Insulation Voltage</b>	660V
<b>Terminals Marking</b>	According to CENELEC EN 50013
<b>Wiring Connections</b>	2 x 2.5mm <sup>2</sup> (AWG14) to 2 x 0.5mm <sup>2</sup> (AWG18)
<b>Wiring Terminal Type</b>	Captive screw with self-lifting pressure plate
<b>Wiring Terminal Markings</b>	According to CENELEC EN50013
<b>User Protection</b>	Double insulation (plastic models only)
<b>Contact Blocks Performance</b>	
<b>Operation Frequency</b>	3600 ops/h
<b>Electrical Durability (according to IEC 947-5-1)</b>	Utilization categories AC-15 and DC-13; load factor of 0.5. See table and curves below.
<b>Tools Needed</b>	
<b>Phillips screwdriver, #1 #2 / Hex wrench, 10mm</b>	

\*Note: Slow-action contacts must not be operated at very low speeds because of the tendency to maintain the arc if contacts are not rapidly separated.

**Electrical Durability**  
(according to IEC 947-5-1)



DC-13	Slow Action
	<b>Power breaking for a durability of 5 million cycles</b>
<b>24 Volts</b>	12W
<b>48 Volts</b>	9W
<b>110 Volts</b>	6W

# Safety Products



*Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.*

*AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.*