

# Comepi Safety Tongue 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: 0.5 to 0.01 m/s [19.7 to 0.4 in/s]
- Conduit opening - 1/2" NPT threaded or adapter



[SCM2K4000W03](#)



[SBM2K4000W03](#)

## Safety Tongue Switch Selection Guide

Part Number	Price	Safety Output Type	Monitoring Output Type	Head Type	IP Rating	Cable Entry	Body Material	Drawing
<a href="#">SBM2K4000W02</a>	\$31.00	(2) N.C.	-	90-degree adjustable	IP66	(1) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SBM2K4000W03</a>	\$33.50	(3) N.C.	-	90-degree adjustable	IP66	(1) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SBM2K4000X11</a>	\$31.00	(1) N.C.	(1) N.O.	90-degree adjustable	IP66	(1) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SBM2K4000X12</a>	\$33.00	(2) N.C.	(1) N.O.	90-degree adjustable	IP66	(1) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SCM2K4000W02</a>	\$32.00	(2) N.C.	-	90-degree adjustable	IP66	(3) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SCM2K4000W03</a>	\$34.50	(3) N.C.	-	90-degree adjustable	IP66	(3) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SCM2K4000X11</a>	\$32.00	(1) N.C.	(1) N.O.	90-degree adjustable	IP66	(3) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>
<a href="#">SCM2K4000X12</a>	\$34.00	(2) N.C.	(1) N.O.	90-degree adjustable	IP66	(3) 1/2in NPT	Die-cast aluminum	<a href="#">PDF</a>

Note: Purchase actuating tongue (key) separately

## Safety Tongue Switch Key Selection Guide

Part Number	Price	Angle	Hole Spacing	Material	Fits
<a href="#">KEY45</a>	\$2.00	90 degree	13mm	316 stainless steel	Comepi SBM2K and SCM2K series safety switches
<a href="#">KEY46</a>	\$1.75	straight	13mm	316 stainless steel	Comepi SBM2K and SCM2K series safety switches
<a href="#">KEY49</a>	\$4.50	flexible	40mm	316 stainless steel	Comepi SBM2K and SCM2K series safety switches



[KEY45](#)



[KEY46](#)



[KEY49](#)

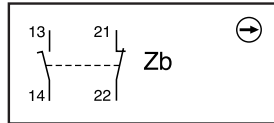
# Comepi Safety Tongue Switches



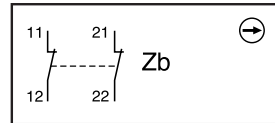
## Contacts Configuration Charts

**Chart 1**

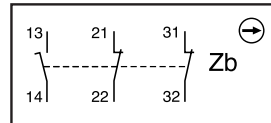
X11 Slow action break before  
make 1NO+1NC

**Chart 2**

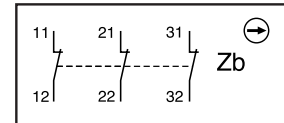
W02 Simultaneous slow action  
2NC

**Chart 3**

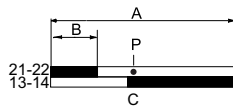
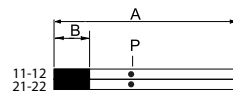
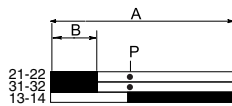
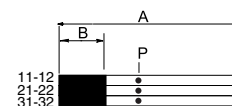
X12 Slow action break before  
make 1NO+2NC

**Chart 4**

W03 Simultaneous slow action  
3NC



## Bar Charts For Tongue (Key) Interlock Switches

**X11****W02****X12****W03**

**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

= Contact open  
 = Contact closed

Part Series	Contact Configuration	Displacement Values mm[in]			
		A	B	C	P
SBM2K4000 SCM2K4000	X11	26.6 [1.05]	4.4 [0.17]	5.5 [0.22]	5.8 [0.23]
	W02	26.6 [1.05]	3.3 [0.13]	–	4.4 [0.17]
	X12	26.6 [1.05]	3.9 [0.15]	5.0 [0.20]	5.2 [0.20]
	W03	26.6 [1.05]	3.8 [0.15]	–	4.9 [0.19]

# Comepi Safety Switches



General Specifications				
	SBM	SCM	SDM	SP2
Environmental				
Degree of Protection	IP66	IP66	IP66	IP65
Temperature Range	-30° to 80°C [-22° to 176°F] Minimum temperatures assume that the atmosphere is free of moisture, which could cause moving parts to freeze up.			
Rated Insulation Voltage	500V			
Pollution Degree	Degree 3			
Mechanical Ratings				
Mechanical Life	Cable Pull: 500,000 operations Interlock: 1,000,000 operations			
B10d	Cable Pull: 1,000,000 operations Interlock: 2,000,000 operations			
Enclosure Material	Die-cast aluminum	Die-cast aluminum	Zinc alloy	Fiberglass reinforced plastic V0 class (UL94)
Contact Blocks Rating				
Positive Opening	Yes			
Electrical Ratings	AC15	24VAC = 10A 120VAC = 6A 400VAC = 4A		
	DC13	24VDC = 6A 125VDC = 0.55 A 250VDC = 0.4 A		
Maximum Switching Frequency	one cycle per second			
Short Circuit Protection	Cartridge fuses, general purpose, gl 10A-500V 10.3x38 1 100KA			
Contact Resistance	25 mΩ			
Recommended Minimum Operating Speed	500 mm per minute (applies only to slow-action contacts)			
Terminals Marking	According to IEC 60947-5-1			
Wiring Connections	2.08 mm <sup>2</sup> (14AWG) to 0.82 mm <sup>2</sup> (18AWG)			
Terminal Max Tightening Torque	0.8 N·m			
Wiring Terminal Type	Captive screw with self-lifting pressure plate			
Tools Needed				
Phillips screwdriver, #1 #2 / Hex wrench, 10mm				

# 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.*