# **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





SBM2K4000W03

SCN	12K	<b>4</b> 00	UN	<i>I</i> 03

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

Note: Purchase actuating tongue (key) separately

Safety Tongue Switch Key Selection Guide							
Part Number Price Angle Hole Spacing Material		Fits					
KEY45	\$2.00	90 degree	13mm	316 stainless steel	Comepi SBM2K and SCM2K series safety switches		
KEY46	\$1.75	straight	13mm	316 stainless steel	Comepi SBM2K and SCM2K series safety switches		
KEY49	\$4.50	flexible	40mm	316 stainless steel	Comepi SBM2K and SCM2K series safety switches		



KEY45





KEY46

KEY49

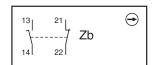
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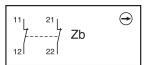
### **Contacts Configuration Charts**

#### Chart 1

X11 Slow action break before make 1NO+1NC



W02 Simultaneous slow action 2NC



#### Chart 3

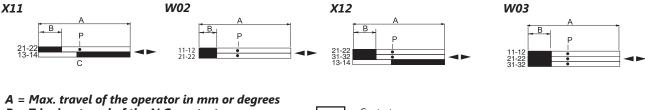
X12 Slow action break before make 1NO+2NC



### Chart 4

W03 Simultaneous slow action 3NC

### **Bar Charts For Tongue (Key) Interlock Switches**



**B** = Tripping travel of the N.C. contact

C = Tripping travel of the N.O. contact

P = Point from which positive opening is assured



Dout Coving	Contact	Displacement Values mm[in]				
Part Series	Configuration	А	В	С	P	
	X11	26.6 [1.05]	4.4 [0.17]	5.5 [0.22]	5.8 [0.23]	
SBM2K4000	W02	26.6 [1.05]	3.3 [0.13]	_	4.4 [0.17]	
SCM2K4000	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 En								
Degree of Protection		IP66 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 Volta	age	500V						
Pollution Degree			Degr	ree 3				
		Mechanic	eal Ratings					
Mechanical Life			Cable Pull: 500 Interlock: 1,000					
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 Bl	ocks Rating					
Positive Opening		Yes						
<b>.</b>	AC15	24VAC = 10A 120VAC = 6A 400VAC = 4A						
Electrical Ratings	DC13	24VDC = 6A 125VDC = 0.55 A 250VDC = 0.4 A						
Maximum Switching I	Frequency	one cycle per second						
Short Circuit Protection	on	Cartridge fuses, general purpose, gl 10A-500V 10.3x38 1 100KA						
Contact Resistance		25 mΩ						
Recommended Minim	num 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 Tighten		0.8 N·m						
Wiring Terminal Type			Captive screw with self-lifting pressure plate					
Tools Needed								
Phillips screwdriver,	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.