

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



[SP2K10W02](#)



[SDM2K10W02](#)

Safety Tongue Switch Selection Guide								
Part Number	Price	Safety Output Type	Monitoring Output Type	Head Type	IP Rating	Cable Entry	Body Material	Drawing
SDM2K10W02		(2) N.C.	-	90-degree adjustable	IP66	(3) 1/2in NPT	Zinc alloy	PDF
SDM2K10X11		(1) N.C.	(1) N.O.	90-degree adjustable	IP66	(3) 1/2in NPT	Zinc alloy	PDF
SDM2K80W02		(2) N.C.	-	360-degree adjustable	IP66	(3) 1/2in NPT	Zinc alloy	PDF
SDM2K80X11		(1) N.C.	(1) N.O.	360-degree adjustable	IP66	(3) 1/2in NPT	Zinc alloy	PDF
SP2K10W02		(2) N.C.	-	90-degree adjustable	IP65	(1) PG11 with 1/2in NPT adapter	Thermoplastic	PDF
SP2K10X11		(1) N.C.	(1) N.O.	90-degree adjustable	IP65	(1) PG11 with 1/2in NPT adapter	Thermoplastic	PDF
SP2K80W02		(2) N.C.	-	360-degree adjustable	IP65	(1) PG11 with 1/2in NPT adapter	Thermoplastic	PDF
SP2K80X11		(1) N.C.	(1) N.O.	360-degree adjustable	IP65	(1) PG11 with 1/2in NPT adapter	Thermoplastic	PDF

Note: Purchase actuating tongue (key) separately

Safety Tongue Switch Key Selection Guide					
Part Number	Price	Angle	Hole Spacing	Material	Fits
KEY3		90 degree	22mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches
KEY4		straight	22mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches
KEY5		90 degree	13mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches
KEY6		straight	13mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches
KEY7		90 degree	15mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches
KEY8		straight	15mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches
KEY9		flexible	40mm	316 stainless steel	Comepi SP2K and SDM2K series safety switches



[KEY3](#)



[KEY4](#)



[KEY5](#)



[KEY6](#)



[KEY7](#)



[KEY8](#)



[KEY9](#)

Comepi Safety Tongue Switches



Contacts Configuration Charts

Chart 1

X11 Slow action break before make 1NO+1NC

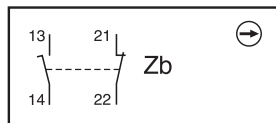
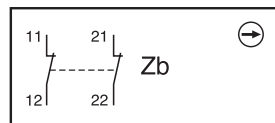


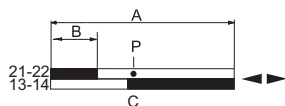
Chart 2

W02 Simultaneous slow action 2NC

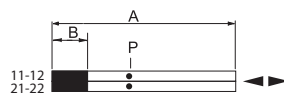


Bar Charts For Tongue (Key) Interlock Switches

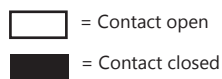
X11



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



Part Series	Contact Configuration	Displacement Values mm[in]			
		A	B	C	P
SDM2K10 SDM2K80 SP2K10 SP2K80	X11	21.5 [0.85]	2.7 [0.11]	3.8 [0.15]	4.1 [0.16]
	W02	21.5 [0.85]	3.5 [0.14]	-	4.6 [0.18]

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 ² (14AWG) to 0.82 mm ² (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.

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