

Switch Terminology

Glossary of Terms

Term	Definition
One Pole (1P)—Single Pole (SP)	A switch device that opens, closes or changes connections in a single conductor of an electrical circuit.
Two Pole (2P)—Double Pole (DP)	A switch device that opens, closes or changes connections in both conductors of the same circuit.
Two Circuit (2 CIR.)	A switch device that opens, closes or changes connections in a single conductor of two independent circuits.
Single Throw (ST)	A switch that opens, closes or completes a circuit at only one of the extreme positions of its actuator.
Double Throw (DT)	A switch that opens, closes or completes a circuit at both extreme positions of its actuator.
Normally Open (NO)	A momentary type switch in which one or more circuits are open when the switch actuator is at its normal or rest position.
Normally Closed (NC)	A momentary type switch in which one or more circuits are closed when the switch actuator is at its normal or rest position.
Actuator	A lever, pushbutton, slide, trigger or other means to which an external force is applied to operate a switch mechanism.
Alternate Action (Double Action Push)	Push to make, then push to break a circuit.
Break-Before-Make	A non-shorting switch mechanism that opens or breaks a connection in a conductor before closing or making a connection in another conductor.
Make-Before-Break	A shorting switch mechanism that closes or makes a connection in a conductor before opening or breaking a previous connection in another conductor.
Life Expectancy	The useful life cycle performance of a switch mechanism to open or close, make or break, an electrical circuit, based on statistical probability.
Operating Force	The force that must be applied to the actuator to move it from the free position to the operating position.
Operate Position	The position of the actuator at which the circuit transfers.
Release Force	In a momentary type switch, the value to which the force on the actuator must be reduced to allow the contacts to return to the normal or rest position.
Momentary Action Switches	Momentary action switches turn a process ON and OFF when force is applied and then removed. The applied force can make the circuit change state and the removed force returns circuit to its original state.
Maintained Action Switches	A type of device in which the switch or button physically keeps the circuit in the actuated position.
Half-Throw Circuit	A circuit where the actuator has only two positions (center and one extreme position) with a positive stop that prevents actuator movement to the opposite extreme position.

Approval Marks ^①

Mark	Country/Region	Definition
	U.S.A.	UL® Recognized Listing Number: Switches—E24354 or File E1148, WOYR2 1609; Indicator—E70176, E2702
	Canada	UL Recognized Underwriters Laboratories Incorporated; Listing Numbers: E2702, E180275, E43960 and E147754p
	U.S.A. and Canada	UL Recognized Underwriters Laboratories Incorporated; Listing Number: E2702 (but not all sections)
	Canada	CSA®—Canadian Standards Associations (Certified) Listing Number: LR10538 or 45995, 9002 Class 6241
	U.S.A.	UL Listed Underwriters Laboratories Incorporated; Listing Number: pE180275
	Europe	ENEC: European Norms Electrical Certification; Listing Number: E2702 (but not all sections)
	—	Restriction of Hazardous Substances (RoHS) Directive 2001/65/EU

Note

^① See specific product for specifications for applicable approvals.

11_	11-T4-33	28-3154_	11-T6-14
13-5496	11-T3-7	28-3155_	11-T6-14
13-8171	11-T3-7	28-3156	11-T6-15
13-8173	11-T3-6, 11-T3-7	28-3157_	11-T6-15
1500_-1507_	11-T2-44	28-3158_	11-T6-14
1500H_	11-T2-45	28-3425_	11-T2-65
15-1043_-15-1047_	11-T4-31	28-3426	11-T2-76
15-1048_	11-T4-31, 11-T4-33	28-5148_	11-T2-65
15-1049_	11-T4-33	28-5415_	11-T2-62
15-124F_	11-T4-31	28-5555_	11-T2-72
15-1525_	11-T4-31	28-5558	11-T2-76
15-189-5	11-T4-31	28-5637-2	11-T2-76
15-192_	11-T4-31	28-5863_	11-T2-13
15-2523_-15-2528_	11-T4-31	28-5901_	11-T2-9
15-2534-14_	11-T4-31	28-5909_	11-T2-9
15-90	11-T4-31	28-5940	11-T2-76
15-966-2	11-T4-31	29-761-5_	11-T4-32
15-994-2	11-T4-31	2CAP_	11-T2-15
1600_-1607_	11-T2-48	2N_	11-T2-14
1600H_-1620H_	11-T2-51	30-2899_	11-T4-34
1609_	11-T2-49, 11-T2-53	30-5632_	11-T4-34
1620HX_	11-T2-51	32-2245	11-T2-38
17-19263	11-T2-77	32-341	11-T4-33
17-19264	11-T2-77	3CAP_	11-T2-15
17-19544-2_	11-T2-77	3N_	11-T2-14
17-21159	11-T2-77	53-3318_	11-T2-77
17-21160	11-T2-77	53-3338_	11-T6-16
17-21543	11-T2-77	53-73	11-T1-11
17-22145	11-T2-40	580K_-581K_	11-T6-10
17-22145_	11-T2-40	580P_	11-T6-13
17-22146	11-T2-40	586L	11-T6-10
17-22152	11-T2-40	61-40_	11-T1-11
17-24	11-T1-11	6CAP_	11-T2-15
200B_	11-T6-16	6N_	11-T2-14
206K_	11-T6-9	7071K_-7073K_	11-T4-9
206P_	11-T6-13	7300K_-7317K_	11-T4-6
208L_	11-T6-9	7500K_-7510K_	11-T4-12, 11-T4-15
220K_-221K_	11-T6-9	7530K_	11-T4-13
220P_	11-T6-13	7546K_	11-T4-12
224L_	11-T6-9	7555K_	11-T4-12
231K_	11-T6-9	7560K_-7569K_	11-T4-13, 11-T4-15
231P_	11-T6-13	7570K_-7571K_	11-T4-13, 11-T4-15
234L_	11-T6-9	7576K_	11-T4-12
2500_-2507_	11-T2-44	7580K_-7587K_	11-T4-12
2500H_	11-T2-45	7590K_-7597K_	11-T4-13
25-13936_	11-T2-40	7630K_-7632K_	11-T4-13
2600_-2607_	11-T2-48		
2600H_	11-T2-51		

7660K_–7668K_	11-T4-4	8423K_–8424K_	11-T6-3
7670K_–7674K_	11-T4-4	8434K_–8435K_	11-T6-4
7690K_–7695K_	11-T4-14	8440K_	11-T6-3
7700K_–7705K_	11-T4-14	8444K_	11-T6-4
770K_	11-T6-11	8448K_	11-T6-4
770P_	11-T6-13	845L_	11-T6-12
775L_	11-T6-11	849P_	11-T6-13
7803K_	11-T4-13	860K_–861K_	11-T6-12
7804K_–7805K_	11-T4-14	8800K_–8860K_	11-T4-4
7810K_–7813K_	11-T4-28	8857K_–8859K_	11-T4-5
7818K_	11-T3-2	8928K_	11-T3-6, 11-T4-20
7835K_–7836K_	11-T6-3	8980K_	11-T3-4
7842K_–7846K_	11-T3-6	B1600_–B1607_	11-T2-50
7933K_–7935K_	11-T4-14	B2600_–B2607_	11-T2-50
7990K_–7992K_	11-T4-28	DP_	11-T5-2
8004K_–8005K_	11-T2-66	DS_	11-T5-2
8006K_–8007K_	11-T2-63	E30	11-T1-7
8055K_–8057K_	11-T2-56	E32	11-T1-10
8064K_–8065K_	11-T2-73	E321	11-T1-11
810K_	11-T6-12	E324	11-T1-11
810P_	11-T6-13	E33	11-T1-14
8130K_–8138K_	11-T2-55	eSM_	11-T1-7, 11-T1-10, 11-T1-11, 11-T1-13
8140K_–8148K_	11-T2-55	eVu_	11-T1-17
8150K_–8155K_	11-T2-55	MS25068_	11-T4-4
815L_	11-T6-12	MS25098_–MS25100_	11-T4-3
8166K_	11-T3-9	MS25125_–MS25127_	11-T4-5
8179K_	11-T2-42	MS25201_	11-T4-4
820K_	11-T6-12	MS35058_–MS35059_	11-T4-4
820P_	11-T6-13	NGR	11-T2-8–11-T2-31
825L_	11-T6-12	NGR Indicators	11-T2-14, 11-T2-15
8261K_–8262K_	11-T4-3	NGR Rocker Buttons	11-T2-11
8280K_	11-T4-20	NGR Switch Base	11-T2-10
8283K_	11-T3-6	P1600_–P1607_	11-T2-48
8290K_–8295K_	11-T4-20	P2600_–P2607_	11-T2-48
8370K_–8373K_	11-T3-6	RW_	11-T5-4
8370K_–8375K_	11-T4-20	SVR	11-T2-32–11-T2-40
8381K_	11-T4-20	SW1RY_	11-T4-33
8391K_–8396K_	11-T4-20	WP_	11-T5-2
8406K_–8411K_	11-T6-3	WS_	11-T5-2
8418K_	11-T6-3	XTD_	11-T4-25