

NT Series Toggle Switches

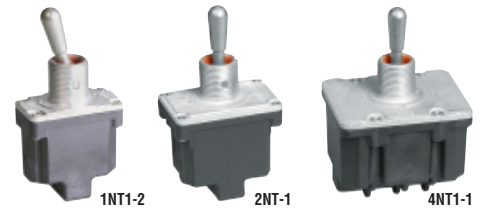
NT Series toggle switches meet severe environment application needs for a rugged, cost-effective toggle switch. Quality construction features include a one-piece seal between the toggle lever and bushing, and the cover and case. In addition, the terminal inserts are molded into the high impact thermoplastic case. Complete sealing of the chamber enables NT toggles to meet IP67 and IP68, as well as NEMA 3, 3R, 4 and 13 seal ratings. Optional panel stand-off with O-ring is available on most listings for additional panel sealing.

Features

- ▶ Completely Sealed Switching Chamber
- ▶ 1, 2, or 4-Pole Circuitry
- ▶ 2 or 3 Positions, Maintained and Momentary Action

Specifications

- ▶ Operating Temperature: -40° to +160°F
- ▶ 15/32" Bushing
- ▶ UL Recognized, File #E12252, Vol. 1, Section 44
- ▶ CSA Certified, File #LR4442



Electrical Rating Code	28 Volts DC			115 VDC	250 VDC	115 Volts AC, 60 and 400 Hz			230 VAC
	Ind.	Res.	Lamp	Res.	Res.	Ind.	Res.	Lamp	Res.
1	12	20	5	0.75	0.5	10	15	3	6
2	10	15	4	0.75	0.5	7	15	2	6
3	15	20	7	0.75	0.5	15	15	4	6
4	10	18	5	0.75	0.5	18	11	2	6
5	12	20	5	0.75	0.5	15	15	4	6
6	10	18	4	0.75	0.5	8	11	2	6

Stock No.	Mfr.'s Type	Description	Terminals	Electrical Rating Code	Keyway Position	Center Position	Opposite Position	EACH			
								1-9	10-24	25-49	50-Up
642-1148	1NT1-2	SPDT, 2-Position	Screw	1	Off	—	On	13.41	12.07	11.13	10.44
642-2178	1NT1-3	SPDT, 2-Position	Screw	1	On	—	On	13.41	12.07	11.13	10.44
642-1149	1NT1-6	SPST, 2-Position	Screw	2	On (Mom.)	—	Off	13.41	12.07	11.13	10.44
642-1150	1NT1-7	SPDT, 3-Position	Screw	2	On (Mom.)	Off	On (Mom.)	13.41	12.07	11.13	10.44
642-1151	1NT1-8	SPDT, 2-Position	Screw	2	On (Mom.)	—	On	13.41	12.07	11.13	10.44
642-1152	2NT1-1	DPDT, 3-Position	Screw	3	On	Off	On	18.77	16.89	15.58	14.61
642-1153	2NT1-2	DPST, 2-Position	Screw	3	Off	—	On	18.77	16.89	15.58	14.61
642-2184	2NT1-3	DPDT, 2-Position	Screw	3	On	—	On	18.77	16.89	15.58	14.61
642-1154	2NT1-5	DPDT, 3-Position	Screw	4	On (Mom.)	Off	On	18.77	16.89	15.58	14.61
642-1155	2NT1-50	DPDT, 3-Position	Screw	4	On (Mom.)	On	On	21.37	19.23	17.74	16.64
642-1156	2NT1-7	642-1158	Screw	4	On (Mom.)	Off	On (Mom.)	18.77	16.89	15.58	14.61
642-2192	31NT91-1	SPDT, 3-Position	QC	1	On	Off	On	12.08	10.87	10.02	9.40
642-2193	31NT91-2	SPST, 2-Position	QC	1	Off	—	On	12.08	10.87	10.02	9.40
642-2194	31NT91-3	SPDT, 2-Position	QC	1	On	—	On	12.08	10.87	10.03	9.41
642-2195	31NT91-7	SPDT, 3-Position	QC	2	On (Mom.)	Off	On (Mom.)	13.41	12.07	11.13	10.44
642-2196	32NT91-1	DPDT, 3-Position	QC	3	On	Off	On	18.77	16.89	15.58	14.61
642-2197	32NT91-7	DPDT, 3-Position	QC	4	On (Mom.)	Off	On (Mom.)	18.77	16.89	15.58	14.61
642-2198	32NT91-70	DPDT, 3-Position	QC	4	On (Mom.)	On	On (Mom.)	21.37	19.23	17.74	16.64
642-1157	4NT1-1	4PDT, 3-Position	Screw	5	On	Off	On	30.47	27.42	25.29	23.72
642-1158	4NT1-7	4PDT, 3-Position	Screw	6	On (Mom.)	Off	On (Mom.)	31.93	28.74	26.50	24.86

TL Series Toggle Switches

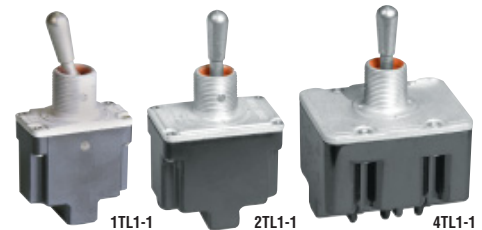
TL Series toggle switches have high strength, temperature resistant, non-tracking case material and silver cadmium oxide contacts. Pull-to-Unlock toggle levers prevent accidental operation. Quality construction features include a molded-in elastomer seal between the toggle lever and bushing, and between the cover and case. In addition, the terminal inserts are molded into the high impact thermoplastic case.

Features

- ▶ Qualified to MIL-S-3950
- ▶ 1, 2, or 4-Pole Circuitry
- ▶ 2 or 3 Positions, Maintained and Momentary Action
- ▶ Standard and Pull-to-Unlock Levers
- ▶ Completely Sealed Switching Chamber

Specifications

- ▶ Operating Temperature: -85° to +160°F
- ▶ 15/32" Bushing
- ▶ Screw Termination
- ▶ UL Recognized
- ▶ CSA Certified



Electrical Rating	28 Volts DC			115 VDC	250 VDC	115 Volts AC, 60 and 400 Hz			230 Volts AC
	Ind.	Res.	Lamp	Res.	Res.	Ind.	Res.	Lamp	Res.
1	15	20	5	0.75	0.5	10	15	3	6
2	10	15	4	0.75	0.5	7	15	2	6
3	15	20	7	0.75	0.5	15	15	4	6
4	10	18	5	0.75	0.5	8	11	2	6
5	12	20	5	0.75	0.5	15	15	4	6
6	10	18	4	0.75	0.5	8	11	2	6

Stock No.	Mfr.'s Type	Description	MIL-Spec Number	Electrical Rating Code	Keyway Position	Center Position	Opposite Position	EACH			
								1-9	10-24	25-49	50-Up
642-2179	1TL1-1	SPDT, 3-Position	MS24523-21	1	On	Off	On	19.14	17.23	15.89	14.90
642-2180	1TL1-2	SPST, 2-Position	MS24523-22	1	Off	—	On	19.15	17.23	15.90	14.91
642-1159	1TL1-2D	SPST, 2-Position, Locked out of Center Pos.	MS24658-22D	1	Off	—	On	32.36	29.12	26.85	25.19
642-1160	1TL1-3	SPDT, 2-Position	MS24523-23	1	On	—	On	19.52	17.57	16.21	15.20
642-1161	1TL1-3D	SPDT, 2-Position, Locked out of Center Pos.	MS24658-23D	1	On	—	On	33.92	30.53	28.15	26.41
642-1162	1TL1-3G	SPDT, 2-Position, Locked in Keyway Pos.	MS24658-23G	1	On	—	On	33.25	29.93	27.60	25.89
642-2181	1TL1-5	SPDT, 3-Position	MS24523-31	1	On (Mom.)	Off	On	19.14	17.23	15.89	14.90
642-2182	1TL1-6	SPST, 2-Position	MS24523-30	2	On (Mom.)	—	Off	19.14	17.23	15.89	14.90
642-1163	1TL1-7	SPDT, 3-Position	MS24523-27	2	On (Mom.)	Off	On (Mom.)	19.14	17.23	15.89	14.90
642-2183	1TL1-8	SPDT, 2-Position	MS24523-26	2	On (Mom.)	—	On	18.77	16.89	15.58	14.61
642-1164	2TL1-1	DPDT, 3-Position	MS24524-21	3	On	Off	On	25.60	23.04	21.24	19.93
642-2185	2TL1-10	DPDT, 3-Position	MS27407-4	3	On	On	On	29.45	26.50	24.43	22.92
642-2186	2TL1-10A	DPDT, 3-Position, Locked in 3 Pos.	MS27408-4A	3	On	On	On	45.45	40.90	37.72	35.38
642-2187	2TL1-2	DPST, 2-Position	MS24524-22	3	Off	—	On	25.60	23.04	21.24	19.93
642-1165	2TL1-3	DPDT, 2-Position	MS24524-23	3	On	—	On	25.60	23.04	21.24	19.93
642-1166	2TL1-3D	DPDT, 2-Position, Locked out of Center Pos.	MS24659-23D	3	On	Off	On	41.30	37.17	34.28	32.16
642-2188	2TL1-5	DPDT, 3-Position	MS24524-31	4	On (Mom.)	Off	On	25.09	22.58	20.82	19.53
642-2189	2TL1-50	DPDT, 3-Position	MS27407-5	4	On (Mom.)	On	On	28.11	25.30	23.33	21.89
642-1167	2TL1-6	DPST, 2-Position	MS24524-30	4	On (Mom.)	—	Off	25.60	23.04	21.24	19.93
642-2190	2TL1-7	DPDT, 3-Position	MS24524-27	4	On (Mom.)	Off	On (Mom.)	25.60	23.04	21.24	19.93
642-1168	2TL1-70	DPDT, 3-Position	MS27407-6	4	On (Mom.)	On	On (Mom.)	29.45	26.50	24.43	22.93
642-2191	2TL1-8	DPDT, 2-Position	MS24524-26	4	On (Mom.)	—	On	25.10	23.59	21.83	19.54
642-2199	4TL1-1	4PDT, 3-Position	MS24525-21	5	On	Off	On	45.28	40.75	37.56	35.26
642-1169	4TL1-10E	4PDT, 3-Position, Locked in Center Pos.	—	5	On	On	On	77.31	69.58	64.17	60.19
642-1170	4TL1-12	4PDT, 3-Position	MS27406-1	5	On	On	On	73.25	65.93	60.80	57.03
642-2200	4TL1-2	4PST, 2-Position	MS24525-22	5	Off	—	On	45.28	40.75	37.58	35.25
642-2201	4TL1-3	4PDT, 2-Position	MS24525-23	5	On	—	On	46.19	41.57	38.33	35.97
642-2202	4TL1-3D	4PDT, 2-Position, Locked out of Center Pos.	MS24660-23D	5	On	—	On	59.66	53.69	49.52	46.45
642-1171	4TL1-7	4PDT, 3-Position	MS24525-27	6	On (Mom.)	Off	On (Mom.)	45.28	40.75	37.58	35.25