



**MICRO SWITCH™**  
**Commercial-Grade Toggle Switches**  
**NT Series**



# MICRO SWITCH™ NT Series

## Commercial-Grade Toggle Switches

Honeywell MICRO SWITCH™ NT Series toggle switches meet the need for a rugged, cost-effective toggle switch. Quality construction features include a seal between the toggle lever and bushing, and between the cover and case. These switches are suitable for applications in many demanding outdoor environments, where the panels are subjected to vibration from equipment, temperature extremes, dust, splashing water, and/or hose directed water.

They are capable of withstanding exposure to heavy accumulations of early morning dew that may condense on the control panel in cabs of vehicles left outdoors overnight. The NT toggle switches with larger standard metal or plastic levers are well suited for gloved-hand operation.

Available in both step-base and flat-base styles, the NT Series offers three popular styles of termination: 6-32 screws, solder lugs with 3,0 mm [0.12 in] diameter hole, or 6,35 mm [0.25 in] quick connect terminals.

The optional "Easy Start" threaded bushing enables quick alignment of the mounting nut to minimize any cross threading. The panel stand-off with O-ring feature available on some listings eliminates the need for behind-the-panel hardware, provides a uniform panel height, and a panel-to-cover seal.

### ***What makes our switches better?***

- NEMA 3, 3R, 4, 13 and IP67/68 environmental sealing for demanding applications
- UL recognized, CSA certified, and CE certified for global use
- 1-, 2-, and 4-pole options to meet a variety of circuitry requirements
- 2- or 3-position maintained and momentary action to meet circuit and actuator requirements
- Optional step-case design provides added space between terminals to prevent shorting



***Tough environmental sealing  
makes harsh environments seem  
like just another sunny day.***

ENVIRONMENTAL SEALING • GLOBAL APPROVALS  
MULTI-CIRCUITS • HIGH PERFORMANCE

## Features and Benefits

### SEALED TO NEMA 3, 3R, 4, 13 AND IP67/IP68 FOR GLOBAL USE

MICRO SWITCH™ NT toggle switches feature a moveable seal between the toggle lever and bushing and a completely sealed case to meet **NEMA and IP seal ratings**. They are suitable for applications in many **demanding outdoor environments**, where the panels are subjected to vibration from equipment, temperature extremes, dust, splashing water, and/or hose directed water. UL recognized, File E12252, Vol. 1, Section 44, CSA certified, and CE certified for global use

### *Excellent tactile feedback*

### WELL-SUITED FOR GLOVED-HAND OPERATION

**Spring-loaded actuating mechanism** provides excellent tactile feedback for the toggle switch lever. The NT toggle switches with larger standard metal or plastic levers are well suited for gloved-hand operation

### *Locking levers reduce unintended actuation*

### LOCKING LEVERS

Optional **lever locks** (pull-to-unlock) require two separate actions to actuate the switch in order to prevent unintended actuation

### MINIMIZES INSTALLATION TIME

Optional flat base case design with a quick connect terminal pattern mates to a commercial-type connector for **plug-and-play connectivity**, reducing installation time

### VARIETY OF CIRCUITRIES AND OPERATING ACTIONS

NT Series' **2- and 3-position, maintained and momentary** toggle action, for a breadth of circuitry and actuator requirements. Delivers high performance in a wide range of temperatures: -40 °C to 71 °C [-40 °F to 160 °F]

### EASILY CONTROLS LOW-VOLTAGE DC APPLICATIONS

Toggle switches available with a choice of **silver alloy or gold-plated contacts** to handle a variety of electrical load requirements

### INNOVATIVE PRODUCT DESIGN

Optional engineered step-design case provides added space between terminals to **prevent shorting**. Optional panel stand-off with O-ring panel seal **eliminates behind-the-panel hardware**



## Potential Applications



### **AERIAL PLATFORM LIFTS**

Momentary toggles are used to operate the movement of aerial platform lifts. Toggle can be used to raise & lower, extend & retract and rotate platform or outriggers.

### **PLATFORM LIFTS FOR TRUCKS**

Used to fold/unfold and raise/lower from a lift gate's control panel.

### **INDUSTRIAL EQUIPMENT**

Used in the control panel of overhead cranes and factory floor equipment.



### **RAILROAD LOCOMOTIVES AND MAINTENANCE EQUIPMENT**

Designed into control panels often found in locomotives, rail grinders, tie removal, ballast spreaders, and tampers.

### **CONSTRUCTION EQUIPMENT**

Used to operate movement of machinery and/or turn on lights, pumps, etc. in road milling, road pavers, trenchers, stump cutting and other construction and mining equipment. Also widely used for remote control of concrete pumping and drilling machines.



### **AGRICULTURAL MACHINERY**

Used in control panels for harvesting equipment, grain handlers, and grain dryers.

# MICRO SWITCH™ Commercial-Grade Toggle Switches

**Table 1. Specifications**

Characteristic	Parameter
Description	Commercial-grade toggle switch (step base and flat base options)
Sealing	IP67/IP68; NEMA 3, 3R, 4, and 13
Operating temperature	-40 °C to 71 °C [-40 °F to 160 °F]
Actuators	Standard, locking, special design, tab
Action	2- or 3- position; momentary and maintained
Mounting	Bushing 15/32 in (0.47 in) Ø
Circuitry	SPST, SPDT, DPST, DPDT, 4PST, 4PDT
Terminations	Screw, solder, quick connect
Contacts	Silver alloy, gold plated
Amp rating	Up to 20 A (resistive)
Approvals	UL, CSA, CE
Measurement	26,7 mm H x 33,5 mm W x 22,6 mm D [1.05 in H x 1.32 in W x 0.89 in D]

**Table 2. UL and CSA Electrical Ratings**

Rating code	Electrical rating
L192	10 amps, 125, 250, 277 Vac; ¼ Hp, 125 Vac; ½ Hp, 250, 277 Vac; 3 amps, 125 Vac “L”
L191	15 amps, 125, 250, 277 Vac; ½ Hp, 125 Vac; 1 Hp, 250, 277 Vac; 5 amps, 125 Vac “L”

**Table 3. Electrical Ratings (in amperes)**

Electrical rating code	28 Vdc			115 Vdc	250 Vdc	115 Vac, 60 Hz & 400 Hz Max.			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	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

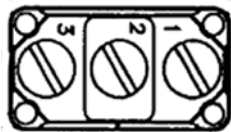
# NT Series

## TERMINAL CIRCUIT IDENTIFICATION

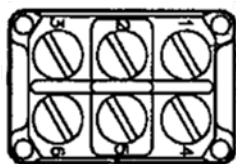
Terminal identifications are referred to in the order guides to indicate which circuits are made in each toggle position (i.e., 1-2 refers to circuit closure through terminals 1 and 2).

**NOTE: Keyside is on #3 terminal side.**

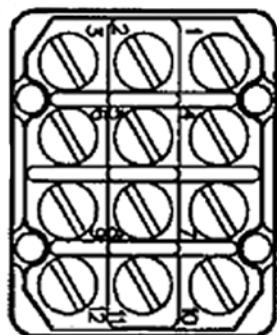
### Step Base - One Pole



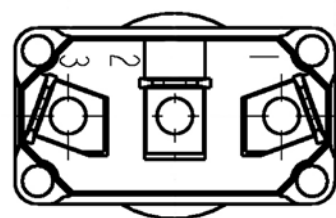
### Step Base - Two Pole



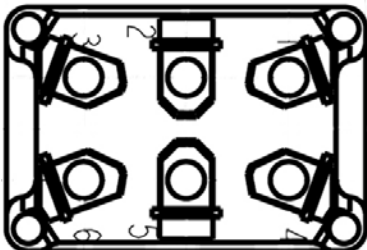
### Step Base - Four Pole



### Flat Base - One Pole



### Flat Base - Two Pole



## SPECIAL CIRCUITRIES

Catalog listings with -10, -50, and -70 suffix numbers, as shown in the order guides, have special “on-on-on” circuits, as illustrated below. NTs with -12 suffix are the same as -50 except the keyway position is maintained, and the center position circuits 2-3 and 4-5 are made.

### -10 CIRCUITRY

No of poles	Keyway Side Maint. Position	Center Maint. Position	Opposite Keyway Maint. Position
2			
4			

### -50 CIRCUITRY

No of poles	Keyway Side Maint. Position	Center Maint. Position	Opposite Keyway Maint. Position
2			
4			

### -70 CIRCUITRY

No of poles	Keyway Side Maint. Position	Center Maint. Position	Opposite Keyway Maint. Position
2			
4			

# MICRO SWITCH™ Commercial-Grade Toggle Switches

## NT (STEP BASE) 2-POSITION ORDER GUIDE

No. of poles	Circuits Made with Toggle At:				Catalog Listing (Standard Lever)			Pull-To-Unlock Lever (Add suffix to Standard Lever Listing)**
	Keyway Position	Opposite Keyway	UL Rating Code	Elect. Rating Code	Screw	Solder	Quick Connect	
1	OFF	2-3	L191	1	1NT1-2	11NT1-2	1NT91-2	D, F, G
	1-2	2-3	L191	1	1NT1-3	11NT1-3	1NT91-3	D, F, G
	OFF*	2-3	L192	2	1NT1-4	11NT1-4	1NT91-4	F
	1-2*	OFF	L192	2	1NT1-6	11NT1-6	1NT91-6	F
	1-2*	2-3	L192	2	1NT1-8	11NT1-8	1NT91-8	F
2	OFF	2-3, 5-6	L191	3	2NT1-2	12NT1-2	2NT91-2	D, F, G
	1-2, 4-5	2-3, 5-6	L191	3	2NT1-3	12NT1-3	2NT91-3	F
	OFF*	2-3, 5-6	L192	4	2NT1-4	12NT1-4	2NT91-4	F
	1-2, 4-5*	OFF	L192	4	2NT1-6	12NT1-6	2NT91-6	D, F, G
	1-2, 4-5*	2-3, 5-6	L192	4	2NT1-8	12NT1-8	2NT91-8	F
4	OFF	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-2	14NT1-2	4NT91-2	D, F, G
	1-2, 4-5, 7-8, 10-11	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-3	14NT1-3	4NT91-3	F
	OFF*	2-3, 5-6, 8-9, 11-12	L192	6	4NT1-4	14NT1-4	4NT91-4	F
	1-2, 4-5, 7-8, 10-11*	OFF	L192	6	4NT1-6	14NT1-6	4NT91-6	D, F, G
	1-2, 4-5, 7-8, 10-11*	2-3, 5-6, 8-9, 11-12	L192	6	4NT1-8	14NT1-8	4NT91-8	F

\* These positions are momentary. All others are maintained.

\*\* See page 17 for locking configurations.

## NT (STEP BASE) 2-POSITION ORDER GUIDE • PANEL STAND-OFF FEATURE

No. of poles	Circuits Made with Toggle At:				Catalog Listing (Standard Lever)	
	Keyway Position	Opposite Keyway	UL Rating Code	Elect. Rating Code	Screw Terminals	
1	OFF	2-3	L191	1	61NT1-2	
	1-2	2-3	L191	1	61NT1-3	
	1-2*	OFF	L192	2	61NT1-6	
	1-2*	2-3	L192	2	61NT1-8	
2	OFF	2-3, 5-6	L191	3	62NT1-2	
	1-2, 4-5	2-3, 5-6	L191	3	62NT1-3	
	1-2, 4-5*	OFF	L192	4	62NT1-6	
	1-2, 4-5*	2-3, 5-6	L192	4	62NT1-8	

\*These positions are momentary. All others are maintained.

## NT (STEP BASE) 3-POSITION ORDER GUIDE • PANEL STAND-OFF FEATURE

No. of poles	Circuits Made with Toggle At:				Catalog Listing (Standard Lever)	
	Keyway Position	Center Position	Opposite Keyway	UL Rating Code	Elect. Rating Code	Screw Terminals
1	1-2	OFF	2-3	L191	1	61NT1-1
	1-2*	OFF	2-3*	L192	2	61NT1-7
2	1-2, 4-5	OFF	2-3, 5-6	L191	3	62NT1-1
	1-2, 4-5*	OFF	2-3, 5-6*	L192	4	62NT1-7

\*These positions are momentary. All others are maintained.

# NT Series

## NT (STEP BASE) 3-POSITION ORDER GUIDE

No. of poles	Circuits Made with Toggle At:			UL Rating Code	Elect. Rating Code	Catalog Listing (Standard Lever)			Pull-To-Unlock Lever (Add suffix to Standard Lever Listing)***
	Keyway Position	Center Position	Opposite Keyway			Screw	Solder	Quick Connect	
1	1-2	OFF	2-3	L191	1	1NT1-1	11NT1-1	1NT91-1	ALL TYPES
	1-2*	OFF	2-3	L192	2	1NT1-5	11NT1-5	1NT91-5	E, F, K, L, M, N
	1-2*	OFF	2-3*	L192	2	1NT1-7	11NT1-7	1NT91-7	E, L, N
	NONE**	OFF	2-3	L191	1	1NT1-21	11NT1-21	1NT91-21	E, F, K, M
	NONE**	1-2	2-3	L191	1	1NT1-31	11NT1-31	1NT91-31	E, F, K, M
	NONE**	1-2	2-3*	L192	2	1NT1-51	11NT1-51	1NT91-51	E
	1-2*	OFF	NONE**	L192	2	1NT1-61	11NT1-61	1NT91-61	E
2	1-2, 4-5	OFF	2-3, 5-6	L191	3	2NT1-1	12NT1-1	2NT91-1	ALL TYPES
	1-2, 4-5*	OFF	2-3, 5-6	L192	4	2NT1-5	12NT1-5	2NT91-5	E, F, K, L, M, N
	1-2, 4-5*	OFF	2-3, 5-6*	L192	4	2NT1-7	12NT1-7	2NT91-7	E, L, N
	NONE*	OFF	2-3, 5-6	L191	3	2NT1-21	12NT1-21	2NT91-21	E, F, K, M
	NONE**	1-2, 4-5	2-3, 5-6	L191	3	2NT1-31	12NT1-31	2NT91-31	E, F, K, M
	NONE**	1-2, 4-5	2-3, 5-6*	L192	4	2NT1-51	12NT1-51	2NT91-51	E
	1-2, 4-5*	OFF	NONE**	L192	4	2NT1-61	12NT1-61	2NT91-61	E
	1-2, 4-5	2-3, 4-5	2-3, 5-6	L191	3	2NT1-12	12NT1-12	2NT91-12	ALL TYPES
	1-2, 4-5	1-2, 5-6	2-3, 5-6	L191	3	2NT1-10	12NT1-10	2NT91-10	ALL TYPES
	1-2, 4-5*	1-2, 5-6	2-3, 5-6	L192	4	2NT1-50	12NT1-50	2NT91-50	E, F, K, L, M, N
	1-2, 4-5*	1-2, 5-6	2-3, 5-6*	L192	4	2NT1-70	12NT1-70	2NT91-70	E, L, N
4	1-2, 4-5, 7-8, 10-11	OFF	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-1	14NT1-1	4NT91-1	ALL TYPES
	1-2, 4-5, 7-8, 10-11*	OFF	2-3, 5-6, 8-9, 11-12	L192	6	4NT1-5	14NT1-5	4NT91-5	E, F, K, L, M, N
	1-2, 4-5, 7-8, 10-11*	OFF	2-3, 5-6, 8-9, 11-12*	L192	6	4NT1-7	14NT1-7	4NT91-7	E, L, N
	NONE*	OFF	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-21	14NT1-21	4NT91-21	E, F, K, M
	NONE**	1-2, 4-5, 7-8, 10-11	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-31	14NT1-31	4NT91-31	E, F, K, M
	NONE**	1-2, 4-5, 7-8, 10-11	2-3, 5-6, 8-9, 11-12*	L192	6	4NT1-51	14NT1-51	4NT91-51	E
	1-2, 4-5, 7-8, 10-11*	OFF	NONE**	L192	6	4NT1-61	14NT1-61	4NT91-61	E
	1-2, 4-5, 7-8, 10-11	2-3, 4-5, 7-8, 11-12	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-12	14NT1-12	4NT91-12	ALL TYPES
	1-2, 4-5, 7-8, 10-11	2-3, 4-5	2-3, 5-6, 8-9, 11-12	L191	5	4NT1-10	14NT1-10	4NT91-10	ALL TYPES
	1-2, 4-5, 7-8, 10-11*	2-3, 4-5, 7-8, 11-12	2-3, 5-6, 8-9, 11-12	L192	6	4NT1-50	14NT1-50	4NT91-50	E, F, K, L, M, N
	1-2, 4-5, 7-8, 10-11*	2-3, 4-5	2-3, 5-6, 8-9, 11-12*	L192	6	4NT1-70	14NT1-70	4NT91-70	E, L, N
	1-2, 4-5, 7-8, 10-11*	2-3, 4-5, 7-8, 11-12	2-3, 5-6, 8-9, 11-12*	L192	6	4NT1-72	–	–	E, L, N

\* These positions are momentary. All others are maintained.

\*\* Toggle lever is blocked from these products. Toggle becomes 2-position, with center being one extreme position.

\*\*\* See page 17 for locking configurations.



# MICRO SWITCH™ Commercial-Grade Toggle Switches

## NT (FLAT BASE) 2-POSITION ORDER GUIDE

No. of poles	Circuits Made with Toggle At:				Catalog Listing
	Keyway Position	Opposite Keyway	UL Rating Code	Elect. Rating Code	Quick Connect
1	OFF	2-3	L191	1	31NT91-2
	1-2	2-3	L191	1	31NT91-3
	OFF**	2-3	L192	2	31NT91-4
	1-2**	OFF	L192	2	31NT91-6
	1-2**	2-3	L192	2	31NT91-8
2	OFF	2-3, 5-6	L191	3	32NT91-2
	1-2, 4-5	2-3, 5-6	L191	3	32NT91-3
	OFF**	2-3, 5-6	L192	4	32NT91-4
	1-2, 4-5**	OFF	L192	4	32NT91-6
	1-2, 4-5**	2-3, 5-6	L192	4	32NT91-8

\*\* These positions are momentary. All others are maintained.

## NT (FLAT BASE) 2-POSITION ORDER GUIDE • PANEL STAND-OFF FEATURE

No. of poles	Circuits Made with Toggle At:				Catalog Listing (Standard Lever)
	Keyway Position	Opposite Keyway	UL Rating Code	Elect. Rating Code	Quick Connect
1	OFF	2-3	L191	1	631NT91-2
	1-2**	2-3	L191	1	631NT91-3
	OFF	2-3	L192	2	631NT91-4
	1-2**	OFF	L192	2	631NT91-6
	1-2**	2-3	L192	2	631NT91-8
2	OFF	2-3, 5-6	L191	3	632NT91-2
	1-2, 4-5	2-3, 5-6	L191	3	632NT91-3
	OFF**	2-3, 5-6	L192	4	632NT91-4
	1-2, 4-5**	OFF	L192	4	632NT91-6
	1-2, 4-5**	2-3, 5-6	L192	4	632NT91-8

\*\*These positions are momentary. All others are maintained

## MATING CONNECTORS ORDER GUIDE

Catalog listing	Description
19PA168-NT	2-pole connector
19PA169-NT	1-pole connector, same package size as 2-pole connector

# NT Series

## NT (FLAT BASE) 3-POSITION ORDER GUIDE

No. of poles	Circuits Made with Toggle At:			UL Rating Code	Elect. Rating Code	Catalog Listing (Standard Lever)
	Keyway Position	Center Position	Opposite Keyway			Quick Connect
1	1-2	OFF	2-3	L191	1	31NT91-1
	1-2**	OFF	2-3	L192	2	31NT91-5
	1-2**	OFF	2-3**	L192	2	31NT91-7
	NONE***	OFF	2-3	L191	1	31NT91-21
	NONE***	1-2	2-3	L191	1	31NT91-31
	NONE***	1-2	2-3**	L192	2	31NT91-51
	1-2**	OFF	NONE***	L192	2	31NT91-61
2	1-2, 4-5	OFF	2-3, 5-6	L191	3	32NT91-1
	1-2, 4-5**	OFF	2-3, 5-6	L192	4	32NT91-5
	1-2, 4-5**	OFF	2-3, 5-6**	L192	4	32NT91-7
	NONE***	OFF	2-3, 5-6	L191	3	32NT91-21
	NONE***	1-2, 4-5	2-3, 5-6	L191	3	32NT91-31
	NONE***	1-2, 4-5	2-3, 5-6**	L192	4	32NT91-51
	1-2, 4-5**	OFF	NONE***	L192	4	32NT91-61
	1-2, 4-5	2-3, 5-6	2-3, 5-6	L191	3	32NT91-12
	1-2, 4-5	1-2, 5-6	2-3, 5-6	L191	3	32NT91-10
	1-2, 4-5**	1-2, 5-6	2-3, 5-6	L192	4	32NT91-50
	1-2, 4-5**	1-2, 5-6	2-3, 5-6**	L192	4	32NT91-70

\*\* These positions are momentary. All others are maintained.

\*\*\* Toggle lever is blocked from these positions. Toggle becomes 2-position, with center being one extreme position.

## NT (FLAT BASE) 3-POSITION ORDER GUIDE • PANEL STAND-OFF FEATURE

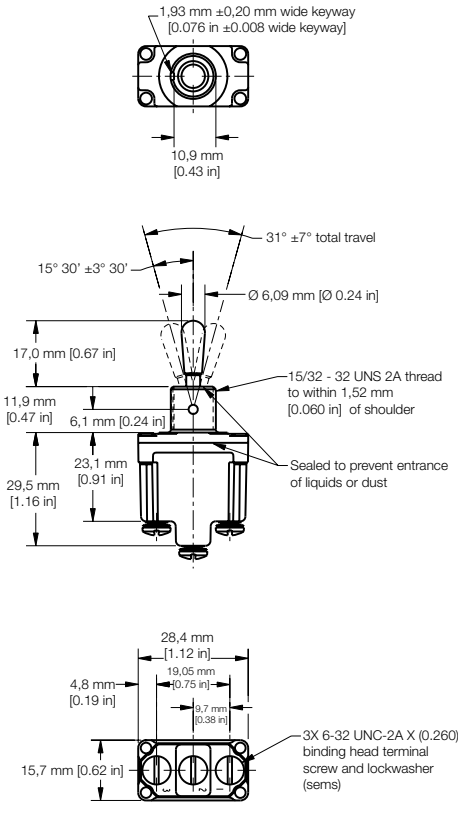
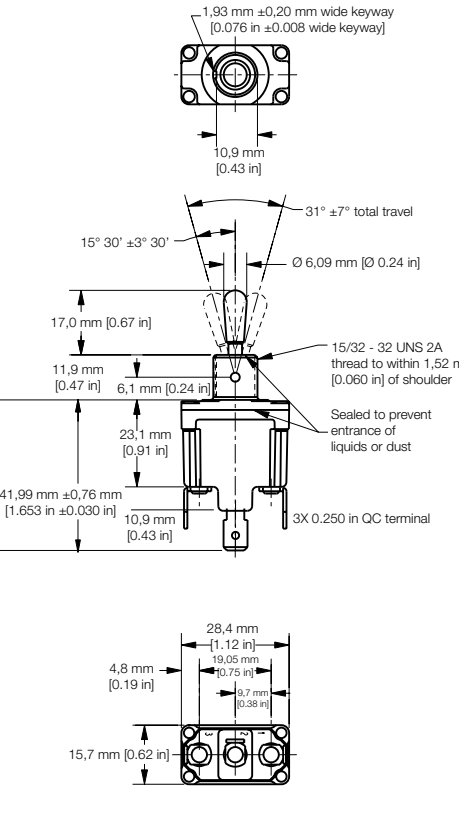
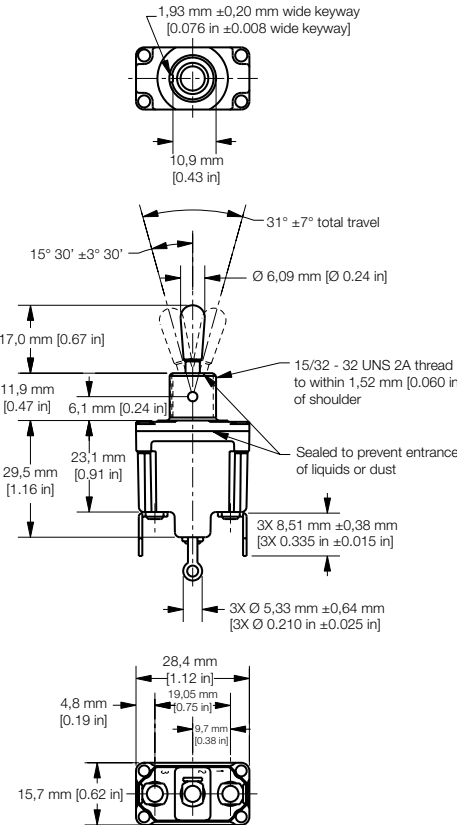
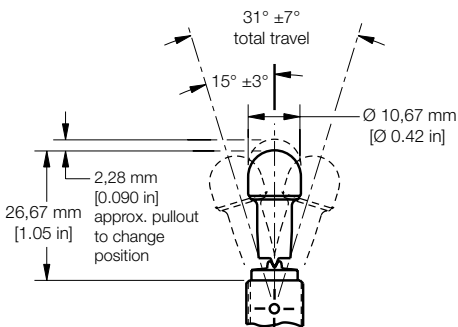
No. of poles	Circuits Made with Toggle At:			UL Rating Code	Elect. Rating Code	Catalog Listing (Standard Lever)
	Keyway Position	Center Position	Opposite Keyway			Quick Connect
1	1-2**	OFF	2-3**	L192	2	631NT91-7
	1-2	OFF	2-3	L191	1	631NT91-1
	1-2**	OFF	2-3	L191	2	631NT91-5
2	1-2, 4-5	OFF	2-3, 5-6	L191	3	632NT91-1
	1-2, 4-5**	OFF	2-3, 5-6	L192	4	632NT91-5
	1-2, 4-5**	OFF	2-3, 5-6**	L192	4	632NT91-7
	1-2, 4-5**	1-2, 5-6	2-3, 5-6**	L192	4	632NT91-70

\*\* These positions are momentary. All others are maintained

# MICRO SWITCH™ Commercial-Grade Toggle Switches

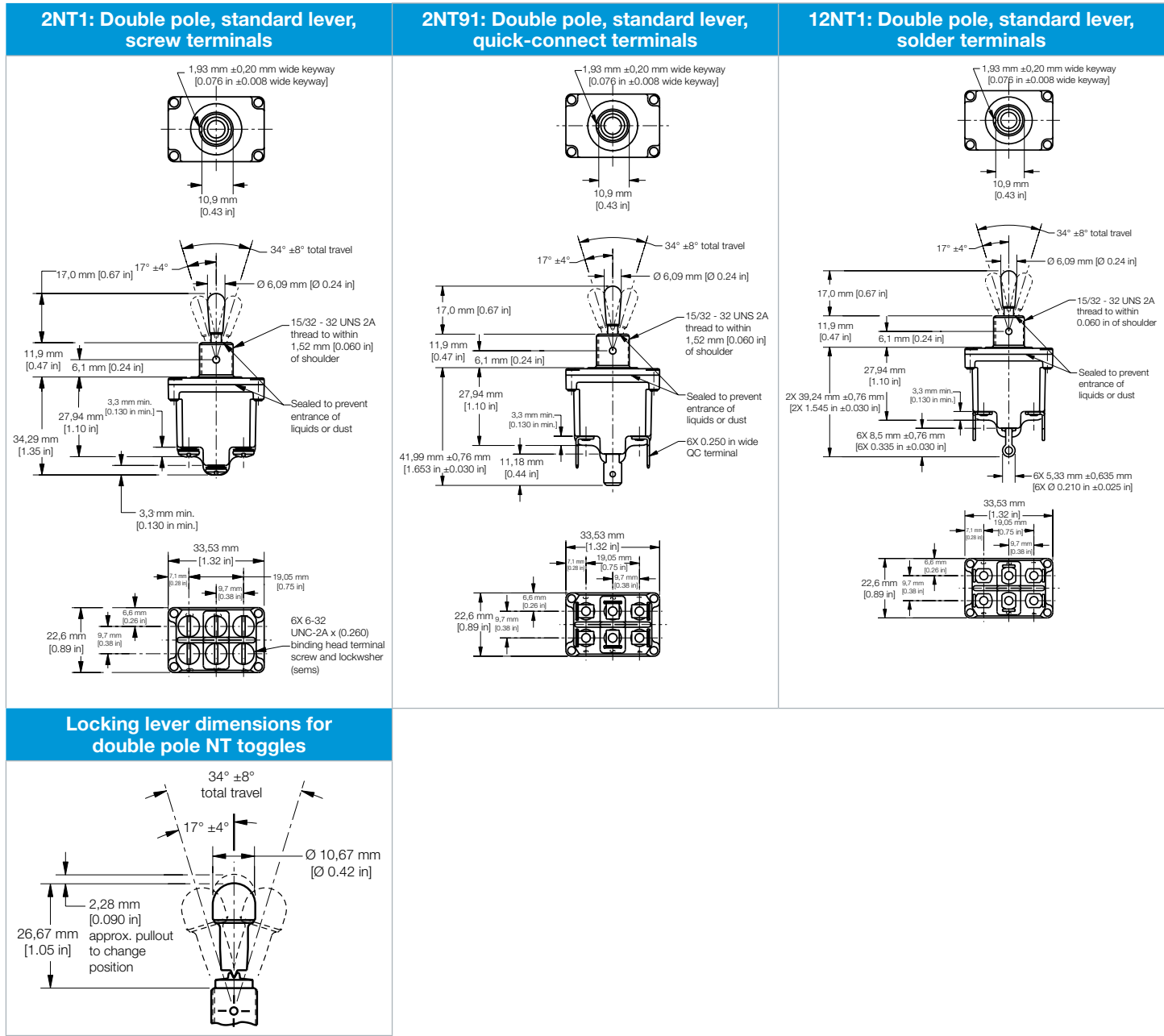
## STEP BASE • STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**

1NT1: Single pole, standard lever, screw terminals	1NT91: Single pole, standard lever, quick-connect terminals	11NT1: Single pole, standard lever, solder terminals
 <p>1,93 mm <math>\pm</math> 0,20 mm wide keyway [0.076 in <math>\pm</math> 0.008 wide keyway]</p> <p>10,9 mm [0.43 in]</p> <p>15° 30' <math>\pm</math> 3° 30'</p> <p>31° <math>\pm</math> 7° total travel</p> <p>Ø 6,09 mm [Ø 0.24 in]</p> <p>17,0 mm [0.67 in]</p> <p>11,9 mm [0.47 in]</p> <p>6,1 mm [0.24 in]</p> <p>23,1 mm [0.91 in]</p> <p>29,5 mm [1.16 in]</p> <p>15/32 - 32 UNS 2A thread to within 1,52 mm [0.060 in] of shoulder</p> <p>Sealed to prevent entrance of liquids or dust</p> <p>28,4 mm [1.12 in]</p> <p>19,05 mm [0.75 in]</p> <p>4,8 mm [0.19 in]</p> <p>9,7 mm [0.38 in]</p> <p>15,7 mm [0.62 in]</p> <p>3X 6-32 UNC-2A X (0.260) binding head terminal screw and lockwasher (sems)</p>	 <p>1,93 mm <math>\pm</math> 0,20 mm wide keyway [0.076 in <math>\pm</math> 0.008 wide keyway]</p> <p>10,9 mm [0.43 in]</p> <p>15° 30' <math>\pm</math> 3° 30'</p> <p>31° <math>\pm</math> 7° total travel</p> <p>Ø 6,09 mm [Ø 0.24 in]</p> <p>17,0 mm [0.67 in]</p> <p>11,9 mm [0.47 in]</p> <p>6,1 mm [0.24 in]</p> <p>23,1 mm [0.91 in]</p> <p>41,99 mm <math>\pm</math> 0,76 mm [1.653 in <math>\pm</math> 0.030 in]</p> <p>10,9 mm [0.43 in]</p> <p>15/32 - 32 UNS 2A thread to within 1,52 mm [0.060 in] of shoulder</p> <p>Sealed to prevent entrance of liquids or dust</p> <p>3X 0.250 in QC terminal</p> <p>28,4 mm [1.12 in]</p> <p>19,05 mm [0.75 in]</p> <p>4,8 mm [0.19 in]</p> <p>9,7 mm [0.38 in]</p> <p>15,7 mm [0.62 in]</p>	 <p>1,93 mm <math>\pm</math> 0,20 mm wide keyway [0.076 in <math>\pm</math> 0.008 wide keyway]</p> <p>10,9 mm [0.43 in]</p> <p>15° 30' <math>\pm</math> 3° 30'</p> <p>31° <math>\pm</math> 7° total travel</p> <p>Ø 6,09 mm [Ø 0.24 in]</p> <p>17,0 mm [0.67 in]</p> <p>11,9 mm [0.47 in]</p> <p>6,1 mm [0.24 in]</p> <p>23,1 mm [0.91 in]</p> <p>29,5 mm [1.16 in]</p> <p>15/32 - 32 UNS 2A thread to within 1,52 mm [0.060 in] of shoulder</p> <p>Sealed to prevent entrance of liquids or dust</p> <p>3X 8,51 mm <math>\pm</math> 0,38 mm [3X 0.335 in <math>\pm</math> 0.015 in]</p> <p>3X Ø 5,33 mm <math>\pm</math> 0,64 mm [3X Ø 0.210 in <math>\pm</math> 0.025 in]</p> <p>28,4 mm [1.12 in]</p> <p>19,05 mm [0.75 in]</p> <p>4,8 mm [0.19 in]</p> <p>9,7 mm [0.38 in]</p> <p>15,7 mm [0.62 in]</p>
Locking lever dimensions for single pole NT toggles		
 <p>31° <math>\pm</math> 7° total travel</p> <p>15° <math>\pm</math> 3°</p> <p>Ø 10,67 mm [Ø 0.42 in]</p> <p>2,28 mm [0.090 in] approx. pullout to change position</p> <p>26,67 mm [1.05 in]</p>		

STEP BASE • STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

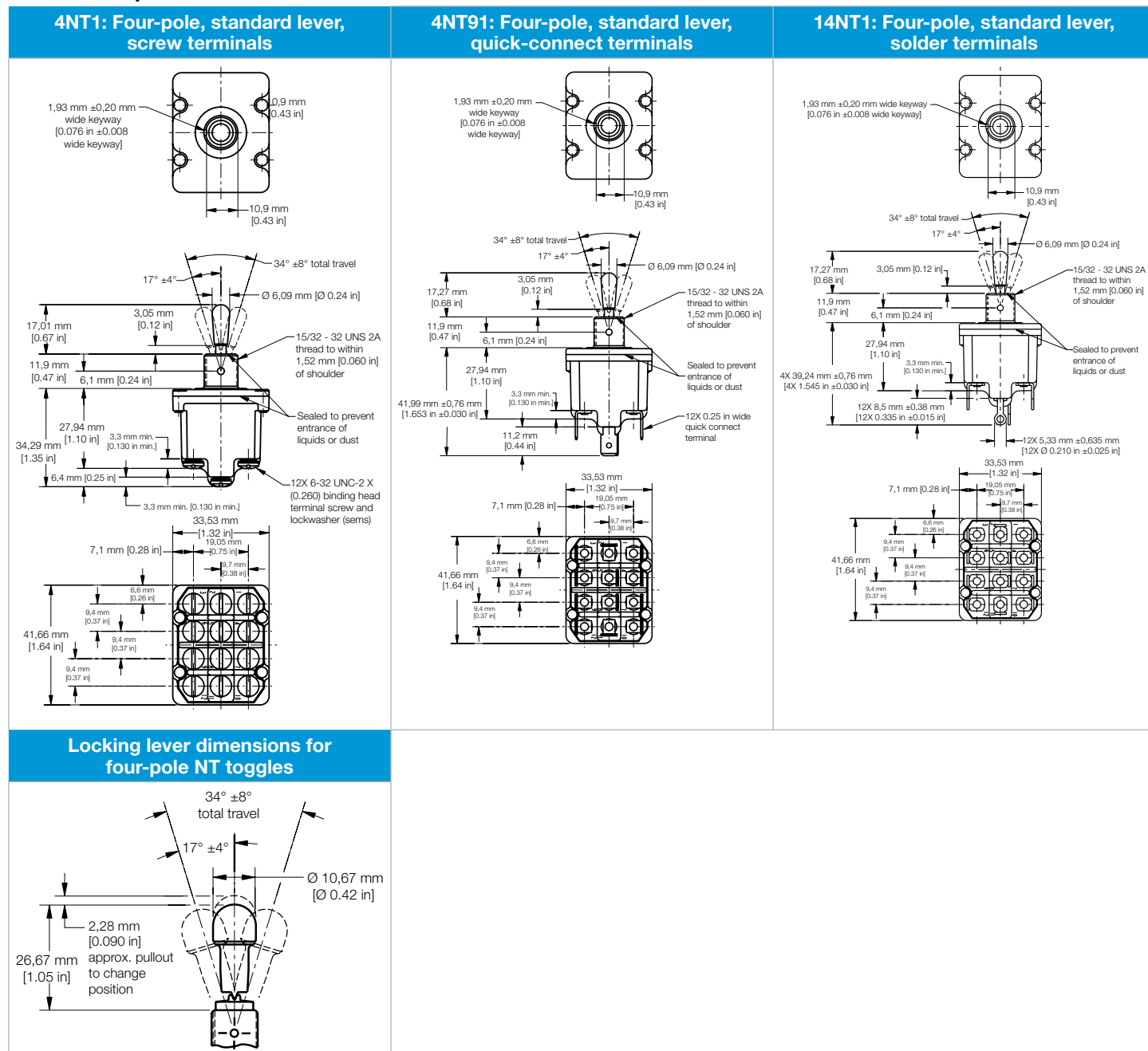
Note: Three-position switches shown



# MICRO SWITCH™ Commercial-Grade Toggle Switches

## STEP BASE • STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**



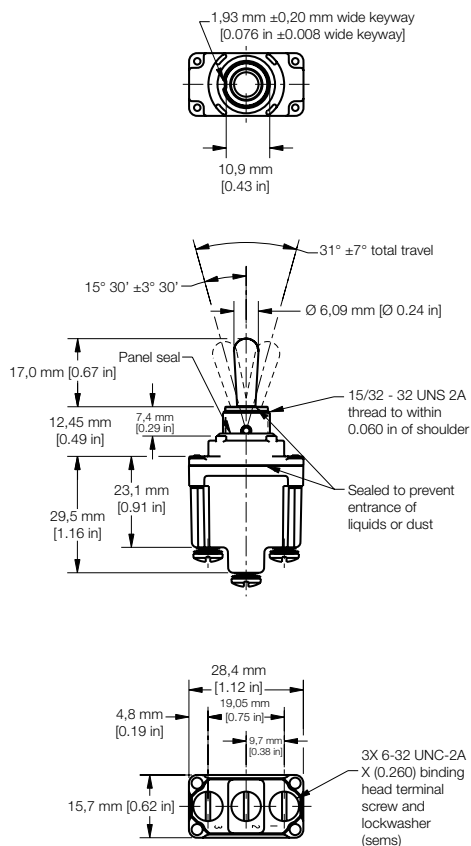


# NT Series

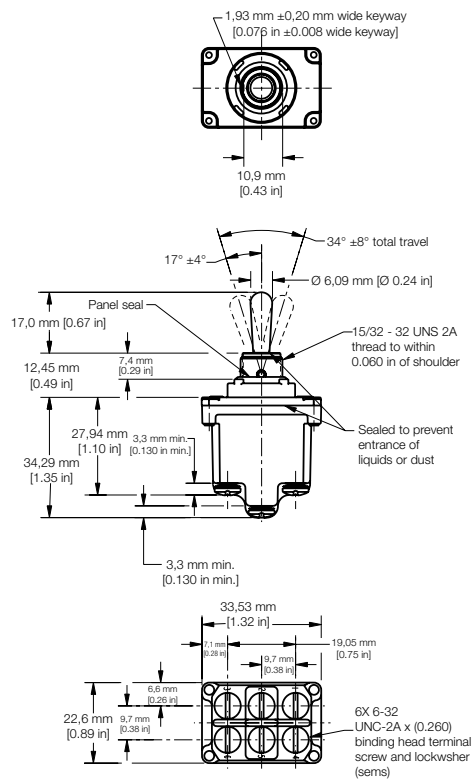
## STEP BASE • STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**

**61NT1: Single pole, standard lever, panel standoff, screw terminals**



**62NT1: Double pole, standard lever, panel standoff, screw terminals**

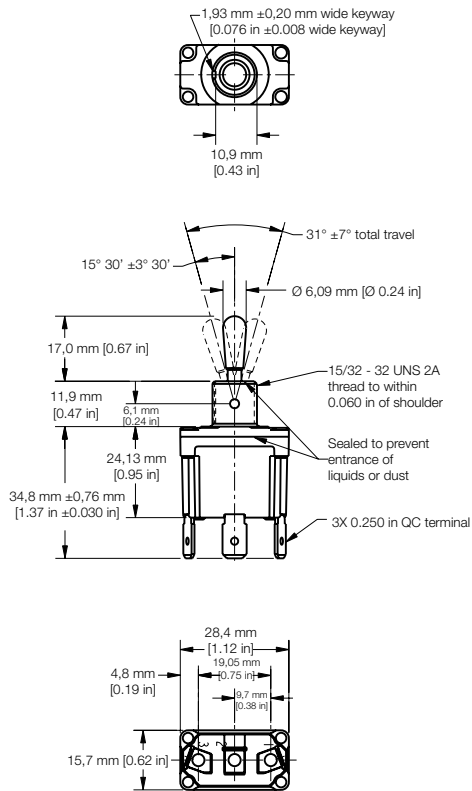


# MICRO SWITCH™ Commercial-Grade Toggle Switches

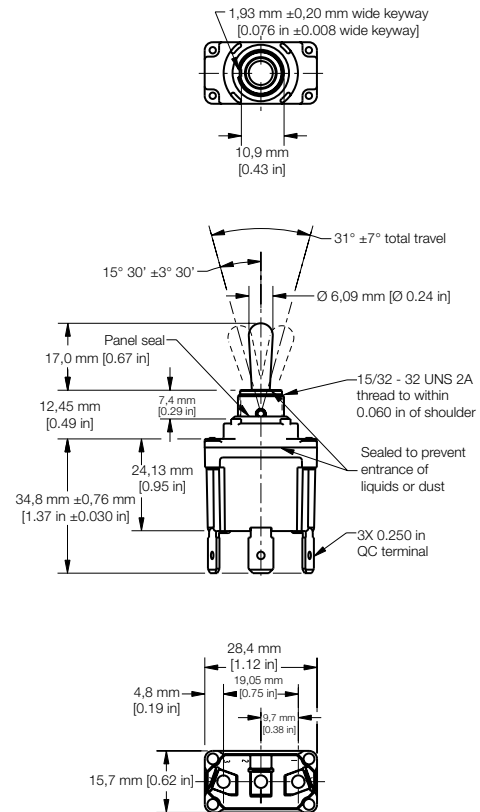
## FLAT BASE • STANDARD ACTUATOR OPTIONS, TERMINALS, & DIMENSIONS

**Note: Three-position switches shown**

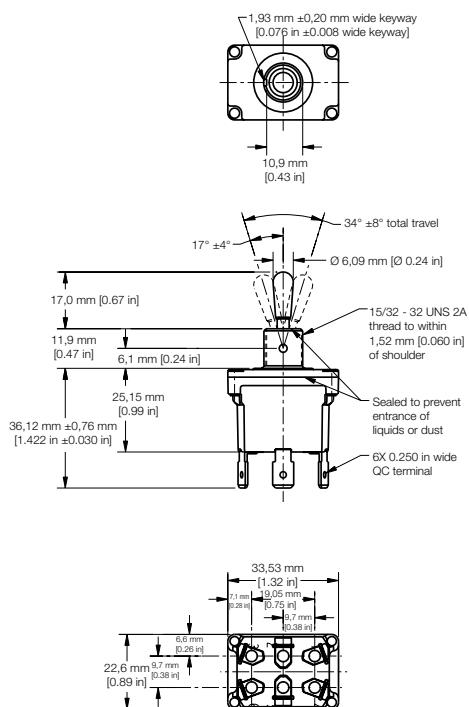
**31NT91: Single pole, standard lever, quick-connect terminals**



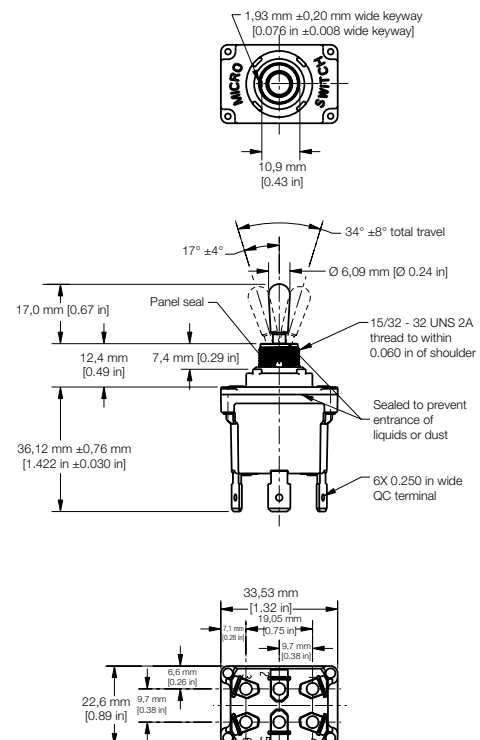
**631NT91: Single pole, standard lever, panel standoff, quick-connect terminals**
















**32NT91: Double pole, standard lever, quick-connect terminals**



**632NT91: standard lever, panel standoff, quick-connect terminals**



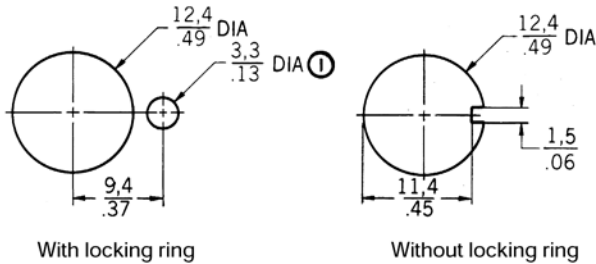
MICRO SWITCH™ NT SERIES LOCKING CONFIGURATIONS

<b>A</b>  Locked In Three Positions	<b>B</b>  Locked In Center and Extreme Position (Keyway Side)	<b>D</b>  Locked Out Of Center Position	<b>E</b>  Locked In Center Position	<b>F</b>  Locked In Extreme Position (Opposite Keyway)	<b>G</b>  Locked In Extreme Position (Keyway Side)	<b>H</b>  Locked Out Of Center And Extreme Position (Keyway Side)
<b>J</b>  Locked Out Of Center And Extreme Position (Opposite Keyway)	<b>K</b>  Locked In Center And Extreme Position (Opposite Keyway)	<b>L</b>  Locked Out Of Extreme Position (Keyway Side)	<b>M</b>  Locked Out Of And Into Extreme Position (Opposite Keyway)	<b>N</b>  Locked Out Of Extreme Position (Opposite Keyway)	<b>P</b>  Locked Out Of And Into Extreme Position (Keyway Side)	

PULL-TO-UNLOCK LEVERS

Pull-to-unlock toggle levers prevent accidental toggle movement. The knobbed toggle lever must be pulled out approximately 2,3 mm [0.09 in] to change positions. Thirteen different locking configurations are available. This lever style also has a non-glare matte nickel finish. See table below for specific locking configurations.

MICRO SWITCH™ NT SERIES PANEL CUTOUT



Note:  
Ⓢ 1,4/.06 MIN DEEP TO ACCOMMODATE LOCKING RING. 15PA87 PANEL SEAL REQUIRES BLIND HOLE TO INSURE SEAL INTEGRITY

# MICRO SWITCH™ Commercial-Grade Toggle Switches

This Honeywell datasheet supports the following MICRO SWITCH™ NT Series Toggle Switch Listings

11NT1-2	1NT231-7	2NT1-7-NH	31NT91-2	32NT91-52E	61NT887-8
11NT1-3	1NT887-1	2NT1-8	31NT91-206-PL01	32NT91-6	61NT91-2
11NT1-3D	1NT887-2	2NT1-8-C	31NT91-21	32NT91-61	62NT1-1
11NT1-3G	1NT887-21K	2NT1-8-COMB	31NT91-2F	32NT91-7	62NT1-1-NH
11NT1-5	1NT887-3	2NT1-8-NH	31NT91-3	32NT91-70	62NT1-2
11NT1-6	1NT887-5	2NT231-7	31NT91-31	32NT91-72	62NT1-3
11NT1-7	1NT887-6	2NT887-10	31NT91-5	32NT91-7E	62NT1-3-A04
11NT1-7-NH	1NT887-7	2NT889-70	31NT91-51	32NT91-7-NH	62NT1-3-NH
12NT1-1	1NT887-7E	2NT91-1	31NT91-6	32NT91-8	62NT1-6
12NT1-10	1NT887-8	2NT91-10	31NT91-61	32NT92-1	62NT1-7
12NT1-2	1NT91-1	2NT91-1A	31NT91-6F	32NT92-10	62NT1-7-NH
12NT1-3	1NT91-1E	2NT91-2	31NT91-7	32NT92-3	62NT1-8
12NT1-7	1NT91-2	2NT91-3	31NT91-7-NH	32NT94-70L	62NT1-8-NH
14NT1-3	1NT91-2G	2NT91-3D	31NT91-8	4NT1-1	62NT91-1
14NT1-5	1NT91-3	2NT91-5	31NT92-2	4NT1-10	62NT91-1-NH
14NT1-6	1NT91-3D	2NT91-50	31NT92-3	4NT1-10E	631NT391-3-B08
14NT1-7	1NT91-5	2NT91-50K	31NT92-6	4NT1-119	631NT91-2
14NT1-8	1NT91-5E	2NT91-6	32NT1-3	4NT1-12	631NT91-3
1NT1-1	1NT91-6	2NT91-7	32NT1-70	4NT1-12A	631NT91-6
1NT1-1A	1NT91-61	2NT91-70	32NT291-3G	4NT1-1A	631NT91-7
1NT1-1-C	1NT91-7	2NT91-7-NH	32NT291-5E	4NT1-1E	631NT91-7-NH
1NT1-1L	2NT101-7	2NT91-8	32NT291-5K	4NT1-2	632NT91-1
1NT1-1N	2NT1-1	31NT1-1	32NT391-12-C08	4NT1-3	632NT91-2
1NT1-1-NH	2NT1-10	31NT1-2	32NT391-1-C02	4NT1-3D	632NT91-3
1NT1-1P	2NT1-10A	31NT1-7	32NT391-1-C08	4NT1-5	632NT91-5
1NT1-2	2NT1-10J	31NT391-1-B02	32NT391-2-B02	4NT1-50	632NT91-6
1NT1-21	2NT1-12	31NT391-1-B08	32NT391-2-C07	4NT1-6	632NT91-7
1NT1-2-C	2NT1-1A	31NT391-1-C02	32NT391-2-C08	4NT1-61	632NT91-70
1NT1-2D	2NT1-1-C	31NT391-21-C08	32NT391-3-C07	4NT1-7	
1NT1-2F	2NT1-1E	31NT391-2-B02	32NT391-3-C08	4NT1-70	
1NT1-2G	2NT1-1L	31NT391-2-B08	32NT391-51-A01	4NT1-72	
1NT1-3	2NT1-1N	31NT391-2-C02	32NT391-56-C08	4NT1-8	
1NT1-31	2NT1-1-NH	31NT391-2-C08	32NT391-70-C08	4NT207-1E	
1NT1-3-C	2NT1-2	31NT391-3-C08	32NT391-72-C08	4NT319-7-C08	
1NT1-3D	2NT1-21	31NT391-3-C09	32NT391-7-A02	4NT91-1	
1NT1-3F	2NT1-2-C	31NT391-5-C08	32NT391-7-C07	4NT91-3	
1NT1-3-NH	2NT1-2G	31NT391-6-B08	32NT391-7-C08	4NT91-5	
1NT1-4	2NT1-3	31NT391-6-C07	32NT392-12-C08	4NT91-7	
1NT1-5	2NT1-31	31NT391-6-C08	32NT392-6-C08	4NT91-70	
1NT1-51	2NT1-3-C	31NT391-7-A07	32NT392-7-C08	611NT1-7	
1NT1-5-C	2NT1-3D	31NT391-7-B08	32NT891-1	61NT1-1	
1NT1-5N	2NT1-3-NH	31NT391-7-C02	32NT891-2	61NT1-1-NH	
1NT1-6	2NT1-4	31NT391-7-C07	32NT891-3	61NT1-2	
1NT1-61	2NT1-5	31NT391-7-C08	32NT891-7	61NT1-3	
1NT1-6F	2NT1-50	31NT391-8-C02	32NT91-1	61NT1-3-A04	
1NT1-7	2NT1-50F	31NT391-8-C08	32NT91-10	61NT1-3-NH	
1NT1-7-C	2NT1-51	31NT392-2-C08	32NT91-12	61NT1-5	
1NT1-7-COMB	2NT1-5M	31NT393-3-B08	32NT911-3D	61NT1-6	
1NT1-7E	2NT1-5N	31NT393-7-C08	32NT911-7	61NT1-6-A01	
1NT1-7-NH	2NT1-6	31NT394-7	32NT91-2	61NT1-7	
1NT1-7-SKY	2NT1-61	31NT491-7-PL02	32NT91-21	61NT1-7-NH	
1NT1-8	2NT1-7	31NT891-1	32NT91-227	61NT1-8	
1NT1-8-C	2NT1-70	31NT891-2	32NT91-3	61NT1-8-NH	
1NT1-8F	2NT1-70-C	31NT891-3	32NT91-31	61NT887-1	
1NT1-8-NH	2NT1-72	31NT891-7	32NT91-4	61NT887-3	
1NT20-7E	2NT1-7-COMB	31NT91-1	32NT91-5	61NT887-5	
1NT20-7N	2NT1-7E	31NT91-1-OMC	32NT91-50	61NT887-7	

## ADDITIONAL INFORMATION

The following associated literature is available at [sensing.honeywell.com](http://sensing.honeywell.com):

- Product range guide
- Product application-specific information
  - Sensors and switches in front loaders
  - Sensors and switches in mobile cranes
  - Sensors and switches in oil rig applications

### **WARNING**

#### **PERSONAL INJURY**

**DO NOT USE** these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING**

#### **MISUSE OF DOCUMENTATION**

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell website, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.



#### **Find out more**

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office.

To learn more about Honeywell's sensing and control products, call **+1-815-235-6847** or **1-800-537-6945**, visit **sensing.honeywell.com**, or e-mail inquiries to **info.sc@honeywell.com**

Sensing and Control  
Honeywell  
1985 Douglas Drive North  
Golden Valley, MN 55422  
**honeywell.com**

The Honeywell logo, consisting of the word "Honeywell" in a bold, red, sans-serif font.

005429-4-EN IL50 GLO  
June 2014  
Copyright © 2014 Honeywell International Inc. All rights reserved.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Honeywell:

[11NT1-7-NH](#) [12NT1-10](#) [1NT1-1-NH](#) [1NT1-3-NH](#) [1NT1-7-COMB](#) [1NT1-7-NH](#) [1NT1-7-SKY](#) [1NT1-8-NH](#) [1NT887-6](#)  
[2NT1-3-NH](#) [2NT1-7-NH](#) [2NT889-70](#) [31NT391-1-B08](#) [31NT391-1-C02](#) [31NT391-2-C02](#) [31NT391-7-A07](#) [31NT391-](#)  
[7-B08](#) [31NT391-8-C08](#) [31NT393-3-B08](#) [31NT891-1](#) [31NT891-2](#) [31NT891-3](#) [31NT891-7](#) [31NT91-206-PL01](#)  
[31NT91-2F](#) [31NT91-6F](#) [31NT91-7-NH](#) [31NT92-2](#) [31NT92-3](#) [31NT92-6](#) [32NT391-2-C08](#) [32NT391-3-C08](#) [32NT391-](#)  
[51-A01](#) [32NT391-56-C08](#) [32NT391-70-C08](#) [32NT391-72-C08](#) [32NT391-7-A02](#) [32NT891-1](#) [32NT891-2](#) [32NT891-7](#)  
[32NT91-72](#) [32NT91-7-NH](#) [32NT92-1](#) [32NT92-3](#) [61NT1-7](#) [61NT1-3-A04](#) [61NT1-6-A01](#) [62NT1-1-NH](#) [631NT391-3-](#)  
[B08](#) [1NT20-7E](#) [1NT20-7N](#) [1NT887-2](#) [1NT887-21K](#) [1NT887-7E](#) [2NT1-3D](#) [2NT1-72](#) [2NT231-7](#) [2NT887-10](#) [2NT91-](#)  
[3D](#) [31NT1-1](#) [31NT1-2](#) [31NT1-7](#) [32NT1-3](#) [32NT1-70](#) [32NT291-3G](#) [32NT291-5E](#) [32NT392-6-C08](#) [32NT392-7-C08](#)  
[32NT91-227](#) [32NT94-70L](#) [4NT1-3D](#) [4NT91-5](#) [61NT91-2](#) [2NT101-7](#) [2NT1-1-NH](#) [2NT1-8-NH](#) [14NT1-7](#) [1NT887-7](#)  
[1NT887-3](#) [62NT1-3-A04](#) [32NT391-1-C02](#) [32NT911-7](#) [31NT391-7-C02](#) [31NT394-7](#) [2NT1-7-COMB](#) [2NT1-8-COMB](#)  
[32NT891-3](#) [31NT391-5-C08](#) [1NT1-7-C](#) [1NT1-2-C](#) [61NT887-8](#) [61NT887-7](#) [32NT92-10](#) [2NT1-1-C](#) [32NT391-2-C07](#)  
[32NT391-7-C07](#) [2NT1-2-C](#) [1NT1-5-C](#) [31NT391-7-C07](#) [2NT1-8-C](#)