

Single-Phase NEMA Manual Starting Switches

Overview/Product Selection



Type 1 General Purpose Enclosure with Neon Pilot Light

Bulletin 600

Starting and overload protection of small 1-phase AC/DC motors used on the following:

- Unit heaters
- Stokers
- Refrigeration compressors
- Fans
- Pumps

Bulletin 600 manual switches consist of a snap switch combined with a thermal overload device operating on the solder-ratchet principle. The switch is designed to prevent being held closed under a sustained motor overload. To reset the overload mechanism, the switch lever is moved to the OFF position. The motor can be restarted by pushing the switch lever to the ON position. Applications include compressors, fans and pumps.

Table of Contents

Accessories..... 1-196
 Modifications..... 1-196
 Approximate Dimensions..... 1-196

Standards Compliance

- UL 508
- EN60947-4-1
- CSA C22.2, No. 14

Certifications

- UL Listed — Enclosed Products (File No. E14841; Guide No. NLRV)
- UL Recognized — Open Style Products (File No. E14841; Guide No. NLRV2)
- CSA Certified (File No. LR 1234)
- American Bureau of Shipping (ABS)
- CE Marked
- Hazardous Location: UL Listed (File No. E10314) CSA Certified (File No. LR 11924)

Product Selection

Your order must include: 1) Cat. no. of the switch, 2) Cat. no. of the heater element(s), and 3) if required, cat. no. of any accessories.

Ratings

Single Pole — 1 Hp 115...230V AC, 1 Hp 277V AC, Open Type without Enclosure or Type 1 General Purpose Enclosure

Two Pole — 1 Hp 115...230V AC, 1 Hp 277V AC, Open Type without Enclosure or Type 1 General Purpose Enclosure, 3/4 Hp 115...230V DC

Selector Switch — 1 Hp 115...230V AC, 1 Hp 277V AC, Open Type without Enclosure or Type 1 General Purpose Enclosure

Heater Element — See page 1-167 for heater element selection table.






Description		Open Type Without Enclosure Includes Legend Plate	Type 1 General Purpose Enclosure Surface Mounting	Type 1 General Purpose Enclosure Flush Mounting Includes Flush Plate but not Switch Box	Type 4 Watertight Enclosure	Type 7 & 9 Enclosure Class I, Groups C & D Class II, Groups E, F & G – Divisions 1 & 2 – Hazardous Locations
		Cat. No.	Cat. No.	Stainless Steel Flush Plate		Cat. No.
Switch Only						
Toggle Type	1-Pole	600-TOX4	600-TAX4	600-TQX4	—	—
	2-Pole	600-TOX5	600-TAX5	600-TQX5	600-TCX5	600-TEX5
Key Type	2-Pole	600-TOX49	600-TAX49	600-TQX49	—	—
Lever Type	1-Pole	600-TOX149	600-TAX149	—	—	—
Switch with Neon Pilot Light (115 or 230V)						
Toggle Type	1-Pole	600-TOX216	600-TAX216	600-TQX216	—	—
	2-Pole	600-TOX109	600-TAX109	600-TQX109		
Key Type	2-Pole	600-TOX110	600-TAX110	600-TQX110	—	—
Switch with Incandescent Pilot Light						
Toggle Type	2-Pole 115V	—	—	—	600-TCD7	600-TED7
	2-Pole 230V	—	—	—	600-TCA7	600-TEA7
Switch and “Hand-Off-Auto” Selector Switch (for use on AC only)						
Toggle Type	2-Pole	—	600-TAX9	600-TQX9	600-TCX9	600-TEX9
Switch with Neon Pilot Light and “Hand-Off-Auto” Selector Switch (115 or 230V, AC only)						
Toggle Type	2-Pole	—	600-TAX142	600-TQX142	—	—
Key Type	2-Pole	—	600-TAX145	—	—	—
Two Switch Units in One Enclosure						
Toggle Type	2-Pole	—	600-TAX10	—	600-TCX10	600-TEX10
Two Switch Units in One Enclosure Neon Pilot Light on Both Units (115 or 230V)						
Toggle Type	2-Pole	—	600-TAX144	600-TQX144	—	—
Two Speed Switch						
Toggle Type	2-Pole	—	600-TAX298	—	—	—
Two Speed Switch with Neon Pilot Lights (115 or 230V)						
Toggle Type	2-Pole	—	600-TAX293	600-TQX293	—	—
Separate Cover and Switch Assembly*						
Toggle Type	2-Pole	—	—	—	—	600-N12
Hand-Off-Auto		—	—	—	—	600-N14

* For use with Bulletin 800H, Type 7 and 9, Series C or later bases.

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Accessories — Field-Installed/Modifications — Factory Installed/Approximate Dimensions

Accessories

Description	NEMA Enclosure Type	Cat. No.
Pilot Light Replacement Bulb Incandescent* (Mfg. Designation #120 PSB-120V) Note: Pilot lights as used on Bulletin 600 switches indicate whether the motor is running only if the switch is used to control the motor directly. If a thermostat, pressure switch, or some other pilot device controls the operation of the motor, the pilot light on the Bulletin 600 switch merely indicates whether the power is ON or OFF.	4, 7, and 9	800S-N60
		
Locking Attachment (For Toggle Operated Only)	1 (Switches in the Type 4 and Type 7 and 9 enclosures are supplied as standard with provisions for locking in the OFF or ON position.)	600-N1
		
Drain (For 3/4 in. (19 mm) Conduit Opening)	7 and 9	800H-NP21
		
Flange Seal (Provides NEMA Type 3 rating for outdoor locations in addition to maintaining NEMA Type 7 and 9 integrity) Note: An approved drain Cat. No. 800H-NP21 is required for condensation when this option is used (refer to local Electrical Code).	3, 7, and 9	800H-NP20
		
Sealing Well (See applicable codes and laws) (Not available for use with Cat. No. 600-TEX5) Note: When using a sealing well with integral flange seal for NEMA Type 3 outdoor applications, an approved drain fitting must be provided (refer to local Electrical Code).	3, 7, and 9 (With integral flange seal)	2 wire: 800H-NPRD90 4 wire: 800H-NPRD91
	7 and 9 (Without integral flange seal)	2 wire: 800H-NPD90 4 wire: 800H-NPD91

* All other devices with the pilot light option utilize a neon lamp. For replacement information consult your local Rockwell Automation sales office or Allen-Bradley distributor. (For Type 1 enclosure use replacement bulb 40268-313-51)

Modifications — Factory-Installed

Flange Seal (see applicable codes and laws) — This option provides a Type 3 rating in addition to maintaining a Type 7 & 9 integrity. Add the letter **S** to the end of the cat. no.
 Example: **Cat. No. 600-TEX9S.**

Conduit Openings (Type 4 and Type 7 & 9 only) — If two 3/4 in. (19 mm) pipe taps (one on top and one on bottom) are required, add the number **12** to the end of the cat. no.
 Example: **Cat. No. 600-TEX512.** Note: Suffix **12** is only an option for the Type 4 and 7 & 9 enclosures.

Note: All single unit devices are provided with one 3/4 in. (19 mm) pipe tap on the bottom. By reversing the switch base, the pipe tap can be located on the top.

All dual units are provided as standard with one 3/4 in. (19 mm) pipe tap on top and two on the bottom with two threaded plugs included. If 1/2 in. (12.7 mm) openings are required, reducers should be used.

Drain — In order to install a drain on single unit devices (e.g. **Cat. No. 600-TEX5**) an additional conduit opening is required. See "Conduit Openings" above.

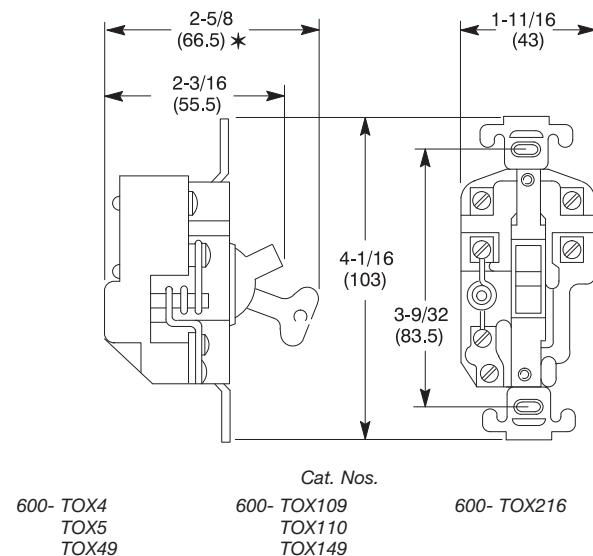
Sealing Well with Integral Flange Seal for Type 3, 7, and 9 — To order this option insert the letter **R** at the end of the listed cat. no.
 Example: **Cat. No. 600-TEX5R.**

Sealing Well without Integral Flange Seal for Type 7 and 9 — To order this option insert the letter **K** at the end of the listed cat. no.
 Example: **Cat. No. 600-TEX5K.**

Approximate Dimensions

Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Open Type without Enclosure

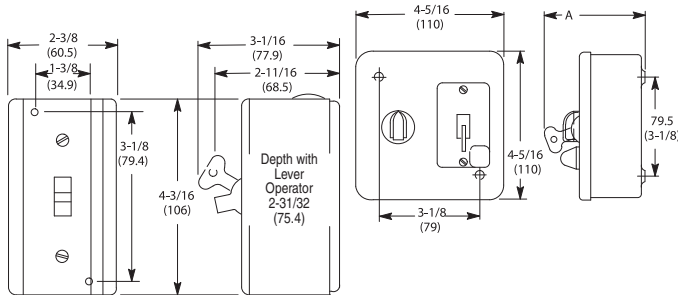


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Approximate Dimensions

Dimensions are shown in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

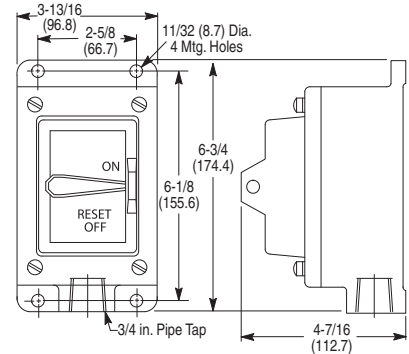
Type 1 General Purpose Enclosure Surface Mounting



- Cat. Nos.
- | | | |
|-----------|-------------|-------------|
| 600- TAX4 | 600- TAX109 | 600- TAX216 |
| TAX5 | TAX110 | |
| TAX49 | TAX149 | |
- Cat. Nos.
- | | | |
|-----------|-------------|-------------|
| 600- TAX9 | 600- TAX142 | 600- TAX145 |
| TAX10 | TAX144 | |

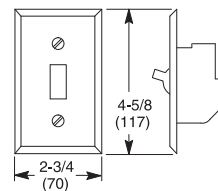
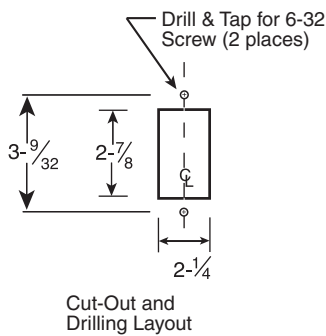
Dimension A in inches (millimeters)	
Key Inserted	1-1/8 (79.5)
Selector Switch	2-3/4 (70)
Toggle Operator	2-9/16 (65)

Type 4 Watertight Enclosure; Type 7 and 9 Hazardous Locations Enclosure

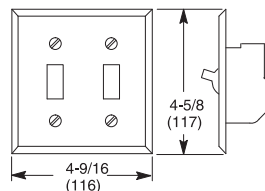


- Cat. Nos.
- | | |
|-----------|-----------|
| 600- TCX5 | 600- TEX5 |
|-----------|-----------|

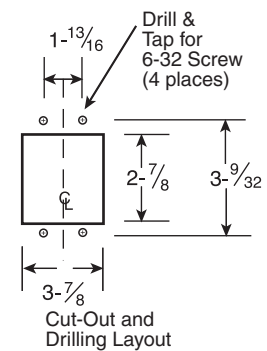
Type 1 General Purpose Enclosure Flush Mounting



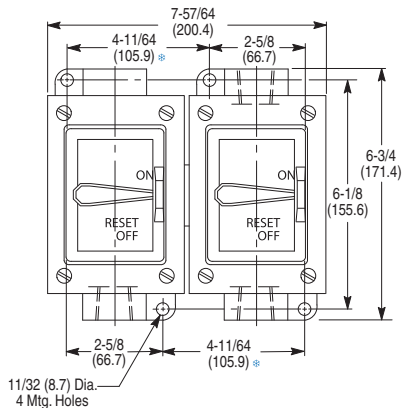
- Cat. Nos.
- | | |
|-----------|-------------|
| 600- TQX4 | 600- TQX109 |
| TQX5 | TQX110 |
| TQX49 | TQX216 |



- Cat. Nos.
- | | |
|-----------|-------------|
| 600- TQX9 | 600- TQX142 |
|-----------|-------------|

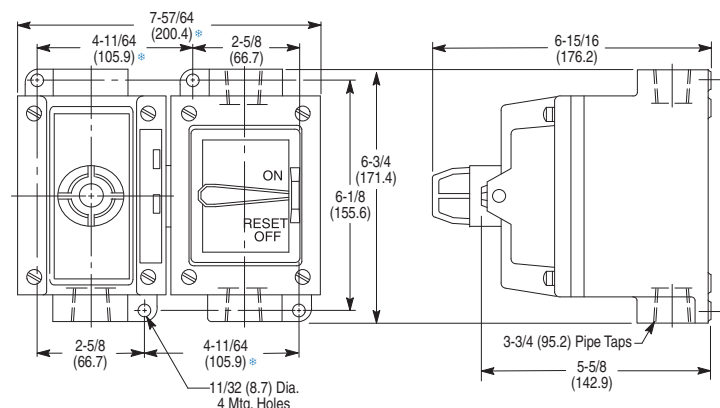


Type 4 Watertight Enclosure, Type 7 & 9



- Cat. Nos.
- | | |
|-----------|-----------|
| 600- TCX9 | 600- TEX9 |
| TCX142 | TEX10 |

Type 7 & 9 Hazardous Locations Enclosure



- Cat. Nos.
- | | |
|-----------|-----------|
| 600- TCA7 | 600- TEA7 |
| TCD75 | TED7 |

* Lever Type Dimension is 2-17/32 in. (64.5 mm).

* This dimension may vary up to ±1/8 in. (3.2 mm). Mounting holes should be located at time of installation using device as a template.