

Hazardous Location Push Buttons

Product Overview/Specifications



Bulletin 800H/Hazardous Location Push Buttons

- Hazardous locations push buttons and stations
- Classes I, II & III Divisions 1 & 2
- 3/4 in. - 14 NPSM barrel
- Type 7 & 9
- Explosion-proof operators

Table of Contents

See below.

Standards Compliance

UL698, UL1604
CSA 22.2, No. 14

Certifications

Enclosures:

UL Listed (File No. E71673
Guide No. NNNY)

Devices:

UL Listed (File No. E10314
Guide No. NOIV)

Stations:

CSA (File No. LR11924)

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Description

Application

When properly mounted in a Type 7 & 9 enclosure, Bulletin 800H Type 7 & 9 operators are designed to meet the requirements of the National Electrical Code for Class I, Divisions 1 & 2, Groups B, C & D Hazardous Gas; Class II, Divisions 1 & 2, Groups E, F and G Hazardous Dust; and, Class III Hazardous Fiber Locations. In addition, the single gang shallow base, Cat. No. 800H-IHZX7, meets Class I, Group B requirements. This Type 7 & 9 equipment is listed by Underwriters Laboratories, Inc.

Per National Electrical Code:

Zone 1. In Class I, Zone 1 locations, all wiring methods permitted for Class I, Division 1 locations and Class I, Zone 0 or Zone 1 locations, including requirements for sealing, shall be permitted.

Zone 2. In Class I, Zone 2 locations, all wiring methods permitted for Class I, Division 2, Class I, Division 1 or Division 2, and Class I, Zone 0 or Zone 1 locations, including requirements for sealing, shall be permitted.

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Operator Construction

The Allen-Bradley line of hazardous location devices features copper-free (less than 0.4 of 1% copper content) die cast aluminum bushings and mounting rings, Type #316 stainless steel operating shafts and an O-ring seal for added corrosion resistance. These components mount into a threaded hole (3/4 in.-14 NPSM) in a suitable enclosure.

Bulletin 800H Type 7 & 9 components are available in two basic formats: standard barrel (Bulletin 800H) and long barrel (Bulletin 800HL). Standard barrel devices are suitable for mounting in panel thickness up to 1 in.; Long barrel devices are suitable for mounting in panel thickness greater than 1 in. and no thicker than 2-1/2 in. Both style operators offer a unique locking bracket which provides an anti-turn feature to guard against loosening. The mounting rings in front of the panel are knurled to provide a second means of tightening each unit into the panel.

Outdoor Use

Bulletin 800H Type 7 & 9 stations and enclosures are not configured for outdoor use as standard. A Type 3 rating is available, while maintaining Type 7 & 9 integrity of the enclosure, by the addition of a Type 3 sealing flange and an approved drain. The sealing flange shown below may be purchased as an option or as an accessory. A Type 4 rating can be achieved by using sealing nuts to seal the push button operators in addition to using the sealing flange. Sealing nuts are available as accessories (see page 10-179.)

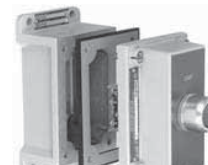
Elimination of Conduit Seal Off Requirement

Bulletin 800H Type 7 & 9 units may be installed with a variety of sealing options. By utilizing either a sealing well or flanged sealing well, these stations may be installed without a conduit seal off in most applications (subject to applicable codes and laws). The sealing wells shown below may be purchased as an option or as an accessory. Sealing wells are also available with an integral Type 3 flange seal for outdoor applications.

Sealed switch contact blocks are another way to eliminate the need for conduit seal fittings in most applications (subject to applicable codes and laws). Sealed switch contact blocks may be purchased as an option on assembled stations by changing the Bulletin No. from 800H to 800R. Sealed switch contact blocks can be ordered as an accessory (see page 10-175). A push button station with a sealed switch contact block is shown below.



Type 3 Flange Seal



Sealing Wells



Sealed Switch Contact Blocks



Specifications*

Electrical Ratings	
Contact Ratings	Refer to the contact ratings tables below.
Dielectric Strength	2200V for one minute, 1300V for one minute (Logic Reed)
Electrical Design Life Cycles	1 000 000 at max. rated load, 200 000 at max. rated load (Logic Reed)
Mechanical Ratings	
Vibration	10...2000 Hz 1.52 mm displacement (peak-to-peak) Max./10 G Max. (except Logic Reed)
Shock	1/2 cycle sine wave for 11 ms ≥ 25 G (contact fragility) and no damage at 100 G
Degree of Protection	Type 7 & 9 Explosion Proof (Type 3 and Type 4 ratings available with accessories)
Mechanical Design Life Cycles	
Push Buttons	250 000 minimum
Potentiometers	100 000 minimum
All other devices	200 000 minimum
Contact Operation	Shallow and mini contact blocks: slow double make and break Logic Reed & sealed switch contact blocks: snap-action
Wire Gauge/Terminal Screw Torque	# 18...12 AWG/6...8 lb•in
Typical Operating Forces	
Operators without contact blocks:	Flush, extended, standard mushroom, jumbo mushroom: 2.9 lb max. Jumbo and extended aluminum mushroom head: 3.95 lb maximum Maintained selector switch: 4.0 in•lb maximum
Spring Return Selector Switches:	5 in•lb to stop, 0.2 in•lb to return
Illuminated Push Buttons and Push-to-Test Pilot Lights	5.6 lb maximum
2-Position Push-Pull	9 lb maximum push or pull
3-Position Push-Pull	12 lb maximum push to in position or pull to center position (15 lb maximum pull to out position)
Contact Blocks:	
800T-XA	1 lb
Logic Reed	1 lb maximum
Sealed Switch	3 lb maximum at 0.205 in. plunger travel
Stackable Sealed Switch	1 lb maximum
Environment	
Temperature Range	Operating -4...+13 °F (-20...+55 °C) Storage -40...+185 °F (-40...+85 °C)
Note: Operating temperatures below freezing are based on the absence of freezing moisture and liquids.	
Humidity	50% at +104 °F (+40 °C)

* Performance Data — See page Important-3.

* External thread major diameter: 1.034 in. max., 1.024 in. min. Internal thread minor diameter: 0.958 in. min., 0.970 in. max.

Standard Contact Ratings

Maximum thermal continuous current I_{th} 10 A AC/2.5 A DC. Bulletin 800H Type 7 & 9 units with 800T-XA contacts have ratings as follows:

Max. Oprtnl. Volts U_e	Utilization Category		Rated Operational Currents		
	IEC	NEMA	Volts U_e	Make	Break
AC 600	AC-15	A600	120...600	7200VA	720VA
			72...120	60 A	720VA
			24...28*	60 A	10 A
DC 600	DC-13	Q600	28...600	69VA	
			24...28*	2.5 A	

* For applications below 24V and 24 mA, PenTUFF™, Logic Reed or stackable sealed switch contacts are recommended.

Sealed Switch Contact Ratings

Maximum continuous current I_{th} 5 A.

Max. Oprtnl. Volts U_e	Utilization Category		Rated Operational Currents		
	IEC	NEMA	Volts U_e	Make	Break
AC 600	AC-15	B600	120...600	3600VA	360VA
			0...120	30 A	3 A
DC 300	DC-13	P300	24...300	138VA	
			0...24	5.0 A	

Stackable Sealed Switch Contact Ratings

Maximum continuous current I_{th} 3 A. Bulletin 800T units have control circuit ratings with sealed switch contact blocks as follows:

Max. Oprtnl. Volts U_e	Utilization Category		Rated Operational Currents		
	IEC	NEMA	Volts U_e	Make	Break
AC 300	AC-15	C300	120...300	1800VA	180VA
			0...120	15 A	1.5 A
DC 150	DC-13	Q150	24...150	69VA	
			0...24	2.5 A	

Logic Reed Contact Ratings

Maximum: 150V AC, 0.15 A, 8 VA and 30V DC, 0.06 A, 1.8 VA.

Should only be used with resistive loads.

PenTUFF™ (Low Voltage) Contact Ratings

Minimum DC: 5V, 1 mA

Maximum thermal continuous current I_{th} 2.5 A AC/1.0 A DC.











Bulletin 800H units with 800T-XAV contacts have ratings as follows:

Max. Oprtnl. Volts U_e	Utilization Category		Rated Operational Currents		
	IEC	NEMA	Volts U_e	Make	Break
AC 300	AC-15	C300	120...300	1800VA	180VA
			0...120	15 A	1.5 A
DC 150	DC-13	R150	24...150	28VA	
			0...24	1.0 A	

Hazardous Location Push Buttons

Product Selection

Complete Assembled Stations (Supplied with 3/4 in. Dead End Conduit Entry — Cat. No. 800H-1HZX7)

	Operator	Contact Symbol	Contact Action	Legend Marking	Lever Type Actuator*‡	Component Type Buttons*‡
					Cat. No.	Cat. No.
 Cat. No. 800H-1HA7	One Push Button	 1 N.O. 1 N.C.	Momentary	STOP	800H-1HA7	800H-1HA7P
				START	800H-1HB7	800H-1HB7P
				JOG	800H-1HJ7	800H-1HJ7P
				No Legends	800H-1HX7	800H-1HX7P
 Cat. No. 800H-2HA7P	Two Push Buttons	 1 N.O. 1 N.C. Each Button	Momentary	START STOP	800H-2HA7	800H-2HA7P
				FOR REV	800H-2HB7	800H-2HB7P
				RAISE LOWER	800H-2HD7	800H-2HD7P
				OPEN CLOSE	800H-2HF7	800H-2HF7P
				No Legends	800H-2HX7	800H-2HX7P
 Cat. No. 800H-2HAM7	2-Position Selector Switch	 1 N.O. 1 N.C.	Maintained	START STOP	800H-2HAM7	—
				ON OFF	800H-2HCM7	800H-R2HC7
				OPEN CLOSE	800H-2HGM7	800H-R2HG7
				RUN STOP	800H-2HJM7	—
				HAND AUTO	800H-2HLM7	800H-R2HA7
				No Legends	800H-2HXM7	800H-R2HX7
 Cat. No. 800H-R3HA7	3-Position Selector Switch	 1 N.O. 1 N.C.	—	HAND OFF AUTO	—	800H-R3HA7
				No Legends	—	800H-R3HX7
 Cat. No. 800H-2HAD10R7	One Pilot Light, Dual Push Buttons	 120V AC/DC Full Volt./Red	—	No Legend START STOP	—	800H-2HAD10R7
				Marking other than listed - consult your local Allen-Bradley distributor	—	800H-2HXD10R7

* Operators have integral padlocking attachment.

‡ STOP is extended red, START is flush green, all others are flush black.

‡ Supplied with standard shallow contact blocks. For stations with sealed switch contacts, change Bulletin number from 800H to 800R. A deep enclosure is required.

Momentary Contact Push Button Units, Non-Illuminated



Flush Head Unit
 Cat. No. **800H-AP1A**



Extended Head Unit
 Cat. No. **800H-BP6B**

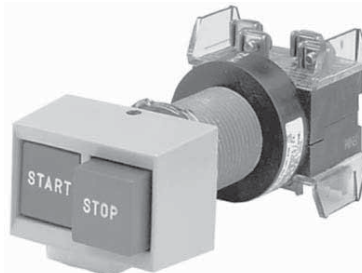


Mushroom Head Unit
 Cat. No. **800H-DP6A**

Contact Type	Button Color	Flush Head	Extended Head	Mushroom Head
		Cat. No.*	Cat. No.*	Cat. No.*
No Contact	Green	800H-AP1	800H-BP1	800H-DP1
	Black	800H-AP2	800H-BP2	800H-DP2
	Red	800H-AP6	800H-BP6	800H-DP6
1 N.O.	Green	800H-AP1D1	800H-BP1D1	800H-DP1D1
	Black	800H-AP2D1	800H-BP2D1	800H-DP2D1
	Red	800H-AP6D1	800H-BP6D1	800H-DP6D1
1 N.C.	Green	800H-AP1D2	800H-BP1D2	800H-DP1D2
	Black	800H-AP2D2	800H-BP2D2	800H-DP2D2
	Red	800H-AP6D2	800H-BP6D2	800H-DP6D2
1 N.O. - 1 N.C.	Green	800H-AP1A	800H-BP1A	800H-DP1A
	Black	800H-AP2A	800H-BP2A	800H-DP2A
	Red	800H-AP6A	800H-BP6A	800H-DP6A
2 N.O. - 2 N.C.	Green	800H-AP1B	800H-BP1B	800H-DP1B
	Black	800H-AP2B	800H-BP2B	800H-DP2B
	Red	800H-AP6B	800H-BP6B	800H-DP6B

* For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-AP1.

Dual Momentary Contact Push Button Units



Dual Push Button Unit
 Cat. No. **800H-DPH16AAX64**

Contact Arrangement		Legend Marking		Cat. No.*
Type	Contacts	Left	Right	
2 N.O. - 2 N.C.		START (Flush/Green)	STOP (Extended/Red)	800H-DPH16AAX64
		ON (Flush/Black)	OFF (Flush/Black)	800H-DPH22AAX50
	OPEN (Flush/Black)	CLOSE (Flush/Black)	800H-DPH22AAX57	
	UP (Flush/Black)	DOWN (Flush/Black)	800H-DPH22AAX66	
	Blank (Flush/Black)	Blank (Flush/Black)	800H-DPH22AAXX	

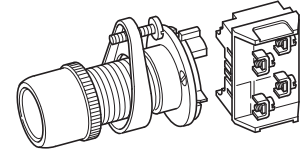
* For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-DPH16AAX64.

Hazardous Location Push Buttons

Product Selection

Momentary Contact Push Button Units, Non-Illuminated

800 H - AP 1 A
 a b c d e



a

Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Operator Type	
Code	Description
AP	Flush head
BP	Extended head
DP	Mushroom head
DPX	Mushroom head less color cap

c

Color Cap	
Code	Description
Blank	Used only when ordering operator type DPX (Table b)
1	Green
2	Black
3	Orange
4	Grey
6	Red
7	Blue
9	Yellow

d

Special Mushroom Head	
Code	Description
Blank	No special head
J	Jumbo mushroom head — plastic
L	Jumbo mushroom head — metal

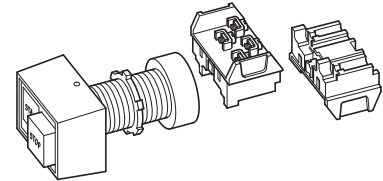
Note: Special mushroom head options only apply to mushroom head operator type DP (Table b).

e

Contact Block(s)*	
Standard	
Code	Description
Blank	No contacts
D1	1 N.O.
D2	1 N.C.
D5	1 N.O. (Mini)
D6	1 N.C. (Mini)
A2	2 N.O.
A4	2 N.C.
A	1 N.O. - 1 N.C.
B	2 N.O. - 2 N.C.
H	3 N.O. - 3 N.C.
C	4 N.O. - 4 N.C.
PenTUFF (Low Voltage)	
Code	Description
D1V	1 N.O.
D2V	1 N.C.
AV	1 N.O. - 1 N.C.
BV	2 N.O. - 2 N.C.
HV	3 N.O. - 3 N.C.
CV	4 N.O. - 4 N.C.

Dual Push Button Units

800 H - DP H 16 AAXX 64
 a b c d e f



a

Barrel Type	
Code	Description
H	Standard barrel
HL	Long barrel

b

Operator Type	
Code	Description
DP	Dual push button

c

Mounting	
Code	Description
H	Horizontal
B	Vertical

d

Color of Button	
Code	Description
16	Left green flush/right red extended
22	Left black flush/right black flush

e

Contact Block(s)*		
Code	Contact Arrangement	
	Left button for horizontal Top button for vertical	Right button for horizontal Bottom button for vertical
AAXX	1 N.O. - 1 N.C.	1 N.O. - 1 N.C.
AAAA	2 N.O. - 2 N.C.	2 N.O. - 2 N.C.

f

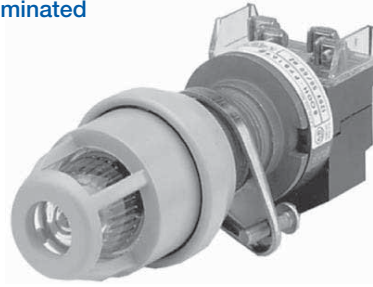
Marking		
Code	Description	
	Left button for horizontal Top button for vertical	Right button for horizontal Bottom button for vertical
Blank	No mark specified	No mark specified
64	START	STOP
50	ON	OFF
51	FORWARD	REVERSE
57	OPEN	CLOSE
66	UP	DOWN
99*	Marking specified	Marking specified

* For sealed switch and Logic Reed contact blocks, see page 10-175.

* To order with special marking, specify marking; seven characters maximum per button, single line only.



Momentary Contact Push Button Units, Illuminated



Extended Head with Guard
Cat. No. 800H-PPB16M

Type	Lamp	Supply Voltage	Lens Color*	Extended Head with Guard
				Cat. No.‡❖
Operator only >				800H-QPB00XX
Full Voltage	Incandescent	24V AC/DC	Multi-color kit	800H-QPB24M
		120V AC/DC		800H-QPB10M
	No lamp	0...250V AC/DC	No lens	800H-QPBN25
Universal	LED	12...130V AC/DC	Multi-color kit	800H-QPBH2M
Transformer	Incandescent	120V AC 50/60 Hz	Multi-color kit	800H-PPB16M
	LED			800H-PPBH16M
	No lamp		No lens	800H-PPBN16

* Units ship with multi-color insert packet including amber, blue, green, red, and white.

‡ For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-QPB2M.

❖ Includes as standard one Cat. No. 800T-XA (1 N.O./1 N.C.) contact block.

> Operator only supplied without power module, lamp, lens cap, or contact blocks.

Potentiometer Units‡



Potentiometer Unit
Cat. No. 800H-UP24

Resistance	Potentiometer*	Resistance	Potentiometer*
	Cat. No.‡		Cat. No.‡
Operator Only (without Resistive Element)	800H-NP37❖	2.5 kΩ	800H-UP19
1 kΩ		800H-UP13	5 kΩ
	10 kΩ		800H-UP29

* Rated for 300V AC/DC, 2W maximum.

❖ For use with Type J potentiometers having a shaft length of 7/8 in. (22.2 mm) and a shaft diameter of 1/4 in. (6.3 mm).

‡ Single-turn operation with 312° rotation.

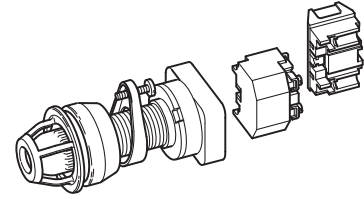
‡ For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-UP13.

Hazardous Location Push Buttons

Product Selection

Momentary Contact Push Button Units, Illuminated

800 H - PPB H 16 M
 a *b* *c* *d* *e* *f*



a

Operator Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Power Module Type	
Code	Description
PPB	Transformer (or dual input)
QPB	Full voltage/Universal

c

Illumination Options	
Code	Description
Blank	Incandescent
H	LED
Dual Input	
D	Diode type, incandescent§
T	Transformer — relay type, incandescent
TH	Transformer — relay type, LED

d

Voltage	
Transformer	
Code	Description
16	120V AC 50/60 Hz
26	240V AC 50/60 Hz
46	480V AC 50/60 Hz
56	600V AC 50/60 Hz
Full Voltage — Incandescent	
24	24V AC/DC
10	120V AC/DC
20	240V AC/DC
Universal — LED	
2	12...130V AC/DC
Dual Input	
16	120V AC
24	24V AC/DC‡

e

Lens Color	
Code	Color
Blank	No lens, with standard contacts 1 N.O. - 1 N.C.
X	No lens if ordering any contacts other than standard 1 N.O. - 1 N.C.
M	Multi-color*

f

Contact Block(s)†	
Standard	
Code	Description
Blank	1 N.O. - 1 N.C.
X	No contacts
D1	1 N.O.
D2	1 N.C.
A2	2 N.O.
A4	2 N.C.
PenTUFF (Low Voltage)	
Code	Description
D1V	1 N.O.
D2V	1 N.C.
AV	1 N.O. - 1 N.C.

§ Diode type dual input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs and neon indicators.

‡ Dual input diode only.

* Multi-color insert packet includes amber, blue, green, red, and white.






† For sealed switch and Logic Reed contact blocks, see page 10-175.



2-Position Push-Pull Units, Non-Illuminated



2-Position Push-Pull
Cat. No. 800H-FPX6A5

Contact Type	Operator Position			Button Color	Push-Pull Cat. No.*
					
	Out	In			
 N.C.L.B.	X	O		Red	800H-FPX6D4
 N.O. - N.C.L.B.	O X	X O		Red	800H-FPX6A1
 N.C.L.B. - N.C.L.B.	X X	O O		Red	800H-FPX6A5





Note: X = Closed/O = Open





* For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-FPX6D4.

3-Position Push-Pull Units, Non-Illuminated



3-Position Push-Pull
Cat. No. 800H-FPXM6A7

Contact Type	Operator Position			Button Color	Push-Pull Cat. No.*
					
	Out	Center	In		
 N.C. - N.C.L.B.	X X	O X	O O	Red	800H-FPXM6A7

Contact Type	Operator Position			Button Color	Push-Pull Cat. No.*
					
	Out	Center	In		
 N.C. - N.C.L.B.	X X	O X	O O	Red	800H-FPXM6A7

Note: X = Closed/O = Open

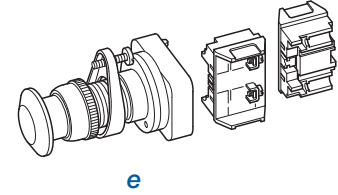
* For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-FPXM6A7.

Hazardous Location Push Buttons

Product Selection

2-Position Push-Pull Units, Non-Illuminated

800 H - FPX 1 A1
 a b c d e



a

Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Operator Type	
Code	Description
FPX	Push-pull unit

c

Head Type	
Code	Description
Blank	Mushroom head
J	Jumbo mushroom head*

d

Color Cap	
Code	Color
Blank	No cap
1	Green
2	Black
4	Grey (silver)
6	Red
7	Blue
9	Yellow (gold)

e

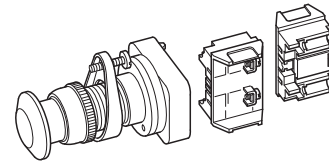
Contact Block(s)			
Standard			
Code	Operator Position		Description
Blank	—	—	No contacts
A1	O X	X O	1 N.O. - 1 N.C.L.B.*
A5	X X	O O	2 N.C.L.B.*
D1	O	X	1 N.O.
D4	X	O	1 N.C.L.B.*
PenTUFF (Low Voltage)			
D1V	O	X	1 N.O.
AV	O X	X O	1 N.O. - 1 N.C.

Note: X = Closed/O = Open.

* Normally closed late break contact. When button is pushed from the OUT to the IN position, the mechanical detent action of the operator occurs before electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.

3-Position Push-Pull Units, Non-Illuminated

800 H - FPX M 1 A7
 a b c d e f



a

Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Operator Type	
Code	Description
FPX	Push-pull unit

c

Head Type	
Code	Description
Blank	Mushroom head
J	Jumbo mushroom head*

d

Operator Function			
Code	Operator Position		
M	Momentary	Maintained	Maintained
N	Momentary	Maintained	Momentary

e

Color Cap	
Code	Color
Blank	No cap
1	Green
2	Black
4	Grey (silver)
6	Red
7	Blue
9	Yellow (gold)

f

Contact Block(s)				
Standard				
Code	Operator Position			Description
Blank	—	—	—	No contacts
A	O X	O O	X O	1 N.O. - 1 N.C.
A1	O X	O X	X O	1 N.O. - 1 N.C.L.B.
A7	X X	O X	O O	1 N.C. - 1 N.C.L.B.
B6	X X	O X	O O	2 N.C. - 2 N.C.L.B.
PenTUFF (Low Voltage)				
AV	O X	O O	X O	1 N.O. - 1 N.C.

Note: X = Closed/O = Open.

* Not valid with color cap option **Blank** (no cap).



2-Position Push-Pull Units, Illuminated



Illuminated 2-Position Push-Pull
Cat. No. 800H-FPXP16RA1

Type	Lamp Type	Supply Voltage	Lens Color*	Contacts	Operator Position		Cat. No.*
					Maintained Out	Maintained In	
Operator only†				No contacts		800H-FPXQ00	
Full voltage	Incandescent	24V AC/DC	Multi-color kit	N.O. - N.C.L.B.	O	X	800H-FPXQ24MA1
		120V AC/DC			X	O	800H-FPXQ10MA1
	No lamp	0...250V AC/DC	No lens	No contacts		800H-FPXQN25	
Universal	LED	12...130V AC/DC	Multi-color kit	N.O. - N.C.L.B.	O X	X O	800H-FPXQH2MA1
Transformer	Incandescent	120V AC, 50/60 Hz	Multi-color kit	N.O. - N.C.L.B.	O	X	800H-FPXP16MA1
	LED				X	O	800H-FPXPH16MA1
	No lamp		No lens		No contacts		800H-FPXP16

Note: X = Closed/O = Open.

3-Position Push-Pull Units, Illuminated



Illuminated 3-Position Push-Pull
Cat. No. 800H-FPXM16RA7

Operator Position (800H-FPXM)				Operator Position (800H-FPXN)			
Momentary		Maintained	Maintained	Momentary		Maintained	Momentary
Contacts	Out	Center	In	Contacts	Out	Center	In
N.C. - N.C.L.B.	X	O	O	N.C. - N.C.L.B.	X	O	O
	X	X	O		X	X	O

Type	Lamp Type	Supply Voltage	Lens Color*	Cat. No.*	Cat. No.*
Operator only†				800H-FPXM000	800H-FPXN000
Full voltage	Incandescent	24V AC/DC	Multi-color kit	800H-FPXM024MA7	800H-FPXNQ24MA7
		120V AC/DC		800H-FPXM010MA7	800H-FPXNQ10MA7
	No lamp	0...250V AC/DC	No lens	800H-FPXM0N25	800H-FPXNQN25
Universal	LED	12...130V AC/DC	Multi-color kit	800H-FPXM0QH2MA7	800H-FPXNQH2MA7
Transformer	Incandescent	120V AC, 50/60 Hz	Multi-color kit	800H-FPXM16MA7	800H-FPXNP16MA7
	LED			800H-FPXM1PH16MA7	800H-FPXNPH16MA7
	No lamp		No lens		800H-FPXM1PN16

Note: X = Closed/O = Open

* Units ship with multi-color insert packet including amber, blue, green, red, and white.

* For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-FPXQH2MA1.

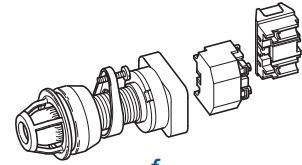
† Operator only supplied without power module, lamp, lens cap, or contact blocks.

Hazardous Location Push Buttons

Product Selection

2- and 3-Position Push-Pull Units, Illuminated

800 H - FPX PH 16 M A1
 a b c d e f g



Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

Operator Type	
Code	Description
FPX	Push-pull unit

Operator Function			
2-Position			
Code	Description		
Blank	Push-pull		
3-Position			
Operator Position			
Code			
	Out	Ctr.	In
M	Mom.	Main.	Main.
N	Mom.	Main.	Mom.

Note: Mom. - Momentary
Main. - Maintained

Illumination Options	
Transformer	
Code	Description
P	Incandescent
PH	LED
Full Voltage	
Code	Description
Q	Incandescent
QH	Universal LED
Dual Input	
Code	Description
D	Dual input — diode§
DT	Dual input — transformer relay
DTH	Dual input transformer — relay LED

Voltage	
Transformer	
Code	Description
16	120V AC 50/60 Hz
26	240V AC 50/60 Hz
46	480V AC 50/60 Hz
56	600V AC 50/60 Hz
Full Voltage — Incandescent	
Code	Description
24	24V AC/DC
10	120V AC/DC
20	240V AC/DC
Universal — LED	
Code	Description
2	12...130V AC/DC
Dual Input	
Code	Description
16	120V AC
24	24V AC/DC†

Color Cap	
Code	Color
Blank	No lens with no contacts
X	No lens with contacts
M	Multi-color*

Contact Blocks	
Standard	
Code	Color
Blank	No contacts
D1	1 N.O.
D4	1 N.C.L.B.‡
A	1 N.O. - 1 N.C.
A1	1 N.O. - 1 N.C.L.B.‡
A2	2 N.O.
A5	2 N.C.L.B.
A7	1 N.C. - 1 N.C.L.B.‡
PentUFF (Low Voltage)	
Code	Description
D1V	1 N.O.
D2V	1 N.C.
AV	1 N.O. - 1 N.C.
Logic Reed	
Code	Color
D1R	1 N.O.
D2R	1 N.C.
AR	1 N.O. - 1 N.C.
A2R	2 N.O.
A4R	2 N.C.

Table 1. Target Selection

g Code	2-Position		Contact Description	3-Position			g Code
A, AV, R	O X	X O	N.O. N.C.	O X	O O	X O	A, AV, AR
A1	O X	X O	N.O. N.C.L.B.	O X	O X	X O	A1
A2	O X	O X	N.O. N.O.	— —	— —	— —	—
A5	X O	X O	N.C.L.B. N.C.L.B.	— —	— —	— —	—
—	— —	— —	N.C. N.C.L.B.	X X	O X	O O	A7
D1, D1V, D1R	O	X	N.O.	—	—	—	—
D4	X	O	N.C.L.B.	—	—	—	—

* Multi-color insert packet includes amber, blue, green, red, and white.

§ Diode type dual input provides circuit isolation via opposing diodes. Not recommended for use with solid-state outputs and neon indicators.

‡ Normally closed late break contact. When button is pushed from the OUT to the IN position, the mechanical detent action of the operator occurs before electrical contacts change state. When the button is pulled from the IN to the OUT position, the electrical contacts change state before the mechanical detent occurs.

† Dual input diode only.



2-Position Selector Switch Units, Non-Illuminated



Standard Knob Operator
 Cat. No. 800H-HP2KB6AXXX



Knob Lever Operator
 Cat. No. 800H-HP17KB6AXXX



Metal Wing Lever Operator
 Cat. No. 800H-HP11KB6AXXX

Contact Type	Operator Position		Contact Action M = Maintained S = Spring Return	Standard Knob	Knob Lever	Wing Lever
				Cat. No.‡	Cat. No.‡	Cat. No.‡
No Contacts	—	—	M M	800H-HP2KB6	800H-HP17KB6	800H-HP11KB6
			S→M*	800H-HP4KL8	800H-HP4KL8	800H-HP4KL8
1 N.O.	O	X	M M	800H-HP2KB6DXXX	800H-HP17KB6DXXX	800H-HP11KB6DXXX
			S→M*	800H-HP4KL8DXXX	800H-HP18KL8DXXX	800H-HP15KL8DXXX
			M←S	800H-HP5KL8DXXX	800H-HP19KL8DXXX	800H-HP16KL8DXXX
1 N.O. - 1 N.C.	O	X	M M	800H-HP2KB6AXXX	800H-HP17KB6AXXX	800H-HP11KB6AXXX
	X	O	S→M*	800H-HP4KL8AXXX	800H-HP18KL8AXXX	800H-HP15KL8AXXX
			M←S	800H-HP5KL8AXXX	800H-HP19KL8AXXX	800H-HP16KL8AXXX
2 N.O. - 2 N.C.	O	X	M M	800H-HP2KB6AAXX	800H-HP17KB6AAXX	800H-HP11KB6AAXX
	X	O	S→M*	800H-HP4KL8AAXX	800H-HP18KL8AAXX	800H-HP15KL8AAXX
	O	X	M←S	800H-HP5KL8AAXX	800H-HP19KL8AAXX	800H-HP16KL8AAXX

Note: X = Closed/O = Open



2-Position Cylinder Lock Operator
 Cat. No. 800H-HP31KB6AXXX

Contact Type	Operator Position		Contact Action M = Maintained S = Spring Return	Cylinder Lock		
				Key Removal Left*	Key Removal Right*	Key Removal Both*
				Cat. No.‡	Cat. No.‡	Cat. No.‡
No Contacts	—	—	M M	800H-HP31KB6	800H-HP32KB6	800H-HP33KB6
			M←S	800H-HP48KL8	—	—
1 N.O.	O	X	M M	800H-HP31KB6DXXX	800H-HP32KB6DXXX	800H-HP33KB6DXXX
			S→M*	—	800H-HP42KL8DXXX	—
			M←S	800H-HP48KL8DXXX	—	—
1 N.O. - 1 N.C.	O	X	M M	800H-HP31KB6AXXX	800H-HP32KB6AXXX	800H-HP33KB6AXXX
	X	O	S→M*	—	800H-HP42KL8AXXX	—
			M←S	800H-HP48KL8AXXX	—	—
2 N.O. - 2 N.C.	O	X	M M	800H-HP31KB6AAXX	800H-HP32KB6AAXX	800H-HP33KB6AAXX
	X	O	S→M*	—	800H-HP42KL8AAXX	—
	O	X	M←S	800H-HP48KL8AAXX	—	—

Note: X = Closed/O = Open

* Target tables are reversed from those shown.

* Key removable from maintained positions only. Devices supplied with 2 keys. Replacement part number for standard D018 key is X-181170.

‡ For long barrel versions, add an L to the cat. no. Example: Cat. No. 800HL-HP48KL8.

10

Hazardous Location Push Buttons

Product Selection

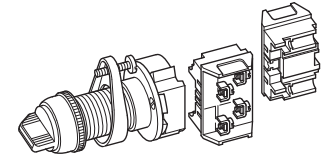
2-Position Selector Switch Units, Non-Illuminated

800 H - HP A 2 KB6 AXXX (Knob/Wing Lever)

a *b* *c* *d* *e* *f*

800 H - HP 31 KB6 AXXX (Cylinder Lock)

a *b* *c*₁ *d*₁ *e* *f*



a

Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Number of Positions	
Code	Description
HP	2-position

c

Knob Insert Colors*	
Code	Color
Blank	White
X	Packet of colored inserts*

Metal Wing Lever Colors	
Code	Color
A	Red
Blank	Grey

*c*₁

Key Removal Position	
Maintained	
Code	Operator Function
31	Key removal — left
32	Key removal — right
33	Key removal — both

Spring Return From Left	
Code	Operator Function
42	Key removal — right ‡

Spring Return From Right	
Code	Operator Function
48	Key removal — left

d

Operator Type and Function	
Standard Knob	
Code	Operator Function
2	Maintained
4	Spring return from left ‡
5	Spring return from right

Knob Lever	
Code	Operator Function
17	Maintained
18	Spring return from left ‡
19	Spring return from right

Metal Wing Lever	
Code	Operator Function
11	Maintained
15	Spring return from left ‡
16	Spring return from right

*d*₁

Optional Keys			
Code	D Series Key No.	Code	T Series Key No.
Blank	D018 (std. key)	15	T112
03	D020	16	T115
04	D025	17	T324
05	D335	18	T382
06	D429	19	T404
07	D461	20	T171
08	D111	21	T484
09	D587	22	T547
10	D682	23	T569
11	D713	24	T692
12	D900	25	T752
13	D992	26	T178
14	D118	—	—

e

Cam Option	
Code	Description
KB6	Cam for maintained operators
KL8	Cam for spring return operators

f

Contact Block(s)			
Standard			
Code	Contact Configuration	Description	
		2-Position	
Blank	No contacts	—	—
DXXX	1 N.O.	O	X
EXXX	1 N.C.	X	O
MXXX	2 N.O.	O	X
		X	O
NXXX	2 N.C.	X	O
		O	X
AXXX	1 N.O. - 1 N.C.	X	O
		O	X
AAXX	2 N.O. - 2 N.C.	X	O
		O	X
		X	O
		O	X

PenTUFF (Low Voltage)			
Code	Contact Configuration	Description	
		2-Position	
HXXX	1 N.O.	O	X
UXXX	1 N.C.	X	O
FXXX	1 N.O. - 1 N.C.	O	X
		X	O
FFXX	2 N.O. - 2 N.C.	O	X
		X	O
		O	X
		X	O

Note: X = Closed/O = Open.

* Each standard and knob lever operator is factory assembled with a white insert. Other colors are available, factory assembled, if ordered in quantities of 10 or more.
 * One insert of each color (blue, green, orange, red, and yellow).
 ‡ Target tables are reversed from those shown.

3-Position Selector Switch Units, Non-Illuminated



Standard Knob Operator
 Cat. No. **800H-JP2KB7AXXX**



Knob Lever Operator
 Cat. No. **800H-JP17KB7AXXX**



Metal Wing Lever Operator
 Cat. No. **800H-JP11KB7AXXX**

Contact Type	Operator Position			M = Maintained S = Spring Return	Standard Knob	Knob Lever	Metal Wing Lever
					Cat. No.‡	Cat. No.‡	Cat. No.‡
No Contacts	—	—	—	M M M	800H-JP2KB7	800H-JP17KB7	800H-JP11KB7
				S→M M	800H-JP4KB7	800H-JP18KB7	800H-JP15KB7
				M M←S	800H-JP5KB7	800H-JP19KB7	800H-JP16KB7
				S→M←S	800H-JP91KB7	800H-JP20KB7	800H-JP141KB7
	O X	O O	X O	M M M	800H-JP2KB7AXXX	800H-JP17KB7AXXX	800H-JP11KB7AXXX
				S→M M	800H-JP4KB7AXXX	800H-JP18KB7AXXX	800H-JP15KB7AXXX
				M M←S	800H-JP5KB7AXXX	800H-JP19KB7AXXX	800H-JP16KB7AXXX
				S→M←S	800H-JP91KB7AXXX	800H-JP20KB7AXXX	800H-JP141KB7AXXX
	O X O X	O O O O	X O X O	M M M	800H-JP2KB7AAXX	800H-JP17KB7AAXX	800H-JP11KB7AAXX
				S→M M	800H-JP4KB7AAXX	800H-JP18KB7AAXX	800H-JP15KB7AAXX
				M M←S	800H-JP5KB7AAXX	800H-JP19KB7AAXX	800H-JP16KB7AAXX
				S→M←S	800H-JP91KB7AAXX	800H-JP20KB7AAXX	800H-JP141KB7AAXX

Note: X = Closed/O = Open



3-Position Cylinder Lock Operator
 Cat. No. **800H-JP42KB7AXXX**

Contact Type	Operator Position			M = Maintained S = Spring Return	Cylinder Lock		
					Key Removal Left	Key Removal Center	Key Removal All*
					Cat. No.‡	Cat. No.‡	Cat. No.‡
No Contacts	O	X	X	M M M	800H-JP41KB7	800H-JP42KB7	800H-JP44KB7
				S→M*	—	800H-JP50KB7	800H-JP51KB7
				M←S	800H-HP5KL8DXXX	800H-JP38KB7	800H-JP73KB7
				M M	—	800H-JP631KB7	—
	O X	O O	X O	M M M*	800H-JP41KB7AXXX	800H-JP42KB7AXXX	800H-JP44KB7AXXX
				M←S	—	800H-JP50KB7AXXX	800H-JP51KB7AXXX
				M M←S	800H-JP69KB7AXXX	800H-JP38KB7AXXX	800H-JP73KB7AXXX
				S→M←S	—	800H-JP631KB7AXXX	—

Note: X = Closed/O = Open

* Key removable in maintained positions only.

‡ For long barrel versions, add an L to the cat. no. **Example:** Cat. No. 800HL-JP41KB7.

4-Position Selector Switch Units, Non-Illuminated



Standard Knob Operator
 Cat. No. 800H-NP2KF4AAXX



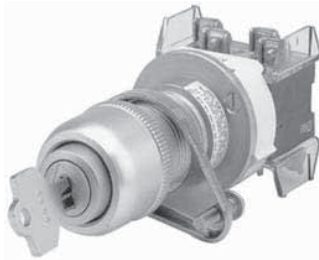
Knob Lever Operator
 Cat. No. 800H-NP17KF4AAXX



Metal Wing Lever Operator
 Cat. No. 800H-NP11KF4AAXX

Contact Type	Operator Position				M = Maintained S = Spring Return	Standard Knob	Knob Lever	Metal Wing Lever
						Cat. No.‡	Cat. No.‡	Cat. No.‡
No Contacts	—	—	—	—	M M M M	800H-NP2KF4	800H-NP17KF4	800H-NP11KF4
					S→M M M	800H-NP3KF4	800H-NP29KF4	800H-NP13KF4
					M M M←S	800H-NP9KF4	800H-NP30KF4	800H-NP14KF4
	X	O	O	O	M M M M	800H-NP2KF4AAXX	800H-NP17KF4AAXX	800H-NP11KF4AAXX
	O	X	O	O	S→M M M	800H-NP3KF4AAXX	800H-NP29KF4AAXX	800H-NP13KF4AAXX
	O	O	X	O	M M M←S	800H-NP9KF4AAXX	800H-NP30KF4AAXX	800H-NP14KF4AAXX
	O	O	O	X				

Note: X = Closed/O = Open



Cylinder Lock Operator
 Cat. No. 800H-NP32KF4AAXX

Contact Type	Operator Position				M = Maintained S = Spring Return	Cylinder Lock		
						Key Removal Position 2 Cat. No.‡	Key Removal Position 3 Cat. No.‡	Key Removal All* Cat. No.‡
No Contacts	—	—	—	—	M M M M	800H-NP32KF4	800H-NP33KF4	800H-NP61KF4
					S→M M M	800H-NP132KF4	800H-NP133KF4	800H-NP154KF4
					M M M←S	800H-NP232KF4	800H-NP233KF4	800H-NP251KF4
	X	O	O	O	M M M M	800H-NP32KF4AAXX	800H-NP33KF4AAXX	800H-NP61KF4AAXX
	O	X	O	O	S→M M M	800H-NP132KF4AAXX	800H-NP133KF4AAXX	800H-NP154KF4AAXX
	O	O	X	O	M M M←S	800H-NP232KF4AAXX	800H-NP233KF4AAXX	800H-NP251KF4AAXX
	O	O	O	X				

Note: X = Closed/O = Open

* Key removable in maintained positions only.

‡ For long barrel versions, add an L to the cat. no. **Example:** Cat. No. 800HL-NP32KF4.

Bulletin 800H
Hazardous Location Push Buttons
 Product Selection

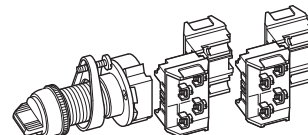
4-Position Selector Switch Units, Non-Illuminated

800 H - NP 2 KF4 AAXX (Knob/Wing Lever)

a *b* *c* *d* *e* *f*

800 H - NP 31 KF4 AAXX (Cylinder Lock)

a *b* *c*₁ *d*₁ *e* *f*



a

Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Number of Positions	
Code	Description
NP	4-position

c

Knob Insert Colors*	
Code	Color
Blank	White
X	Packet of colored inserts*

Metal Wing Lever Colors	
Code	Color
A	Red
Blank	Grey

c₁

Key Removal Position and Operator Function	
Maintained	
Code	Operator Function
31	Key removal position 1
32	Key removal position 2
33	Key removal position 3
34	Key removal position 4
61	Key removal all positions

c₁ (cont'd)

Key Removal Position and Operator Function	
Spring Return From Position 1 to Position 2	
Code	Operator Function
132	Key removal position 2
133	Key removal position 3
134	Key removal position 4
154	Key removal positions 2, 3, and 4
Spring Return From Position 1 to Position 2	
Code	Operator Function
231	Key removal position 1
232	Key removal position 2
233	Key removal position 3
251	Key removal positions 1, 2, and 3

d

Operator Function and Knob Type	
Standard Knob	
Code	Operator Function
2	Maintained
3	Spring return from position 1 to position 2
9	Spring return from position 4 to position 3
Knob Lever	
Code	Operator Function
17	Maintained
29	Spring return from position 1 to position 2
30	Spring return from position 4 to position 3

d (cont'd)

Operator Function and Knob Type	
Metal Wing Lever	
Code	Operator Function
11	Maintained
13	Spring return from position 1 to position 2
14	Spring return from position 4 to position 3

d₁

Optional Keys§	
D Series	
Code	Description
Blank	D018 (standard key)

e

Cam Option	
Code	Description
KF4	F cam (standard)
KG4	G cam
KK4	K cam
KM4	M cam
KP4	P cam
KH4	Overlapping cam

f

Contact Block Option	
Code	Description
Blank	No contacts
AAXX	Two contact targets for a given cam as shown in the W (white side) column of Table 1 and 2 contact targets for the same cam as shown in the B (black side) column of Table 1. (One Cat. No. 800T-XA contact block per side. Two contact blocks total)

Contact Block Option	
Code	Description
AAAA	Four contact targets for a given cam as shown in the W (white side) column of Table 1 and 4 contact targets for the same cam as shown in the B (black side) column of Table 1. (Two Cat. No. 800T-XA contact blocks per side. Four contact blocks total.)
PenTUFF (Low Voltage)	
Code	Description
FFXX	Two contact targets for a given cam as shown in the W (white side) column of Table 1 and 2 contact targets for the same cam as shown in the B (black side) column of Table 1. (One Cat. No. 800T-XAV contact block per side. Two contact blocks total)
FFFF	Four contact targets for a given cam as shown in the W (white side) column of Table 1 and 4 contact targets for the same cam as shown in the B (black side) column of Table 1. (Two Cat. No. 800T-XAV contact blocks per side. Four contact blocks total.)

Table 1. Selector Switch Cam Targets

Contact Block Suffix Code	Contact Block Side	Circuits	Cam Description																							
			KF4		KG4		KK4*		KM4*		KP4		KN4‡													
			W	B	W	B	W	B	W	B	W	B	W	B												
AAAA FFXX FFFF	White	A	X	O	O	O	X	X	O	O	O	O	X	X	X	O	O	O	O	X	O	X	O	O		
		B	O	X	O	O	O	O	X	O	X	X	O	O	O	X	X	O	O	X	O	O	O	O	X	
	Black	A	O	O	O	X	X	O	O	O	X	O	O	X	O	O	O	X	O	O	X	X	O	O	X	O
		B	O	O	X	O	O	O	O	X	O	X	X	O	O	X	O	O	X	O	O	X	O	O	O	O
	White	A	X	O	O	O	X	X	O	O	O	O	O	X	X	X	O	O	O	O	X	O	X	O	O	O
		B	O	X	O	O	O	O	X	O	X	X	O	O	X	X	O	O	X	O	O	X	O	O	O	X
	Black	A	O	O	O	X	X	O	O	O	X	O	O	X	O	O	O	X	O	O	X	X	O	O	X	O
		B	O	O	X	O	O	O	O	X	O	X	X	O	O	X	O	O	X	O	O	X	O	O	O	O

Note: W = White B = Black. X = Closed/O = Open. For additional targets and overlapping cams, see Publication 800T-2.8.
 * Each standard and knob lever operator is factory assembled with a white insert. Other colors available, factory assembled, if ordered in quantities of 10 or more.
 † One insert of each color (blue, green, orange, red, and yellow).
 ‡ Overlapping cam.
 § Devices supplied with 2 keys. Replacement part number for standard D018 key is X-181170
 * Not available with wing lever operator.

Pilot Light Units



Transformer Type Pilot Light
Cat. No. **800H-PP16M**



Push-to-Test Pilot Light
Cat. No. **800H-PPT16M**



Pigtail Pilot Light
Cat. No. **800H-LP24M**

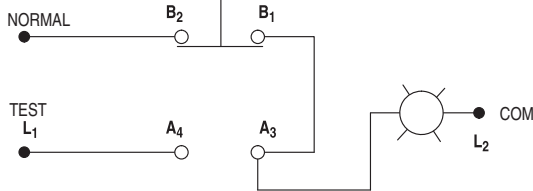
Type	Lamp Type	Supply Voltage	Lens Color*	Pilot Light	Push-to-Test	Pigtail
				Cat. No.*	Cat. No.*‡	Cat. No.*§
Operator only*				800H-QPN00	800H-QPB00XX	—
Full voltage	Incandescent	24V AC/DC	Multi-color kit	800H-QP24M	800H-QPT24M	800H-LP24M
		120V AC/DC		800H-QP10M	800H-QPT10M	800H-LP10M
	No lamp	0...250V AC/DC	No lens	800H-QPN25	800H-QPTN25	800H-LPN25
	LED	24V AC/DC	Multi-color kit	—	—	800H-LPH24M
120V AC		—		—	800H-LPH10M	
Universal	LED	12...130V AC/DC	Multi-color kit	800H-QPH2M	800H-QPTH2M	—
Transformer	Incandescent	120V AC, 50/60 Hz	Multi-color kit	800H-PP16M	800H-PPT16M	—
	LED			800H-PPH16M	800H-PPTH16M	—

- * Units ship with multi-color insert packet including amber, blue, green, red, and white.
- * For long barrel versions, add an **L** to the cat. no. **Example:** Cat. No. 800HL-QPH2M
- ‡ Includes one standard Cat. No. 800T-XA (1 N.O./1 N.C.) contact block.
- § Pigtail length is 7 in.
- * Operator only supplied without power module, lamp, lens cap, or contact blocks.

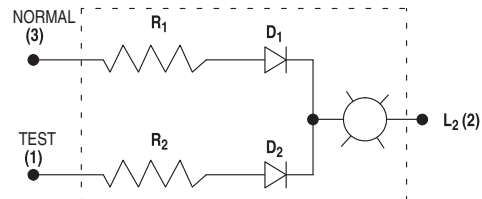
Typical Pilot Light Wiring Diagrams

See applicable Codes and Laws.

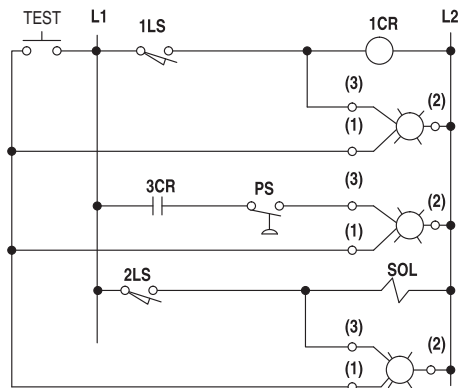
Push-to-Test Pilot Light Device Schematic



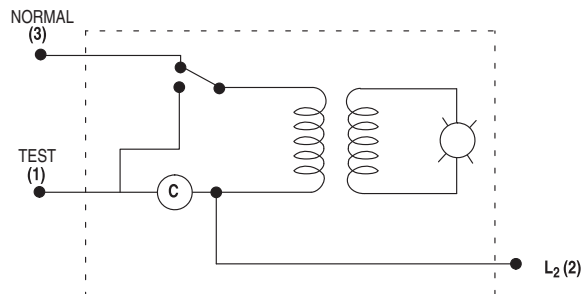
Dual Input Diode Pilot Device Schematic



Dual Input Pilot Light Typical Application Wiring Diagram



Dual Input Pilot Light Transformer Type Device Schematic

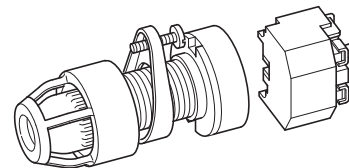


Hazardous Location Push Buttons

Product Selection

Pilot Light Units

800 H - PP T d 16 M
 a b c d e f



a

Barrel Type	
Code	Description
H	Standard barrel length
HL	Long barrel

b

Power Module Type	
Code	Description
PP	Transformer (or dual input)
QP	Full voltage/Universal
LP	Pigtail — full voltage*
LPK	Pigtail — full voltage* (for dual push buttons)

c

Lamp Test Options	
Code	Description
Blank	No test option
T	Push-to-test
D	Dual input — diode†
DT	Dual input — transformer relay‡

d

Illumination Option	
Code	Description
Blank	Incandescent
H	LED*

e

Voltage	
Transformer	
Code	Description
16	120V AC, 50/60 Hz
26	240V AC, 50/60 Hz
46	480V AC, 50/60 Hz
56	600V AC, 50/60 Hz
Full Voltage — Incandescent	
Code	Description
24	24V AC/DC
10	120V AC/DC
20	240V AC/DC
Universal — LED	
Code	Description
2	12...130V AC/DC
Dual Input	
Code	Description
16	120V AC
24	24V AC/DC‡
Pigtail	
Code	Description
24	24V AC/DC
10	120V AC/DC
20	240V AC/DC

f

Lens Color	
Code	Color
Blank	No lens with no contacts
M	Multi-color*

Note: Push-to-test pilot light is supplied with a factory jumpered 800T-XA, 1 N.O - 1 N.C contact block.

* Multi-color insert packet includes amber, blue, green, red, and white

* Lamp test options is not available with pigtail.

† Only available with power module type code **PP**.

‡ LED illumination option is not available with diode type dual input lamp test options.

‡ Dual input diode only.



Ordering Information for Stations

Stations

Bulletin 800H Type 7 & 9 stations are available as factory assembled or as components for field assembly.

Factory-Assembled Stations

Bulletin 800H Type 7 & 9 control stations are designed to meet the requirements of the National Electrical Code. These stations are listed by Underwriters Laboratories, Inc. for Class I, Divisions 1 & 2, Groups C & D Hazardous Gases or Vapors, Class II, Divisions 1 & 2, Groups E, F & G Hazardous Dust and Class III Hazardous Fiber Locations. In addition the single gang shallow base, **Cat. No. 800H-IHZX7**, meets Class I, Group B requirements as defined in the National Electrical Code.

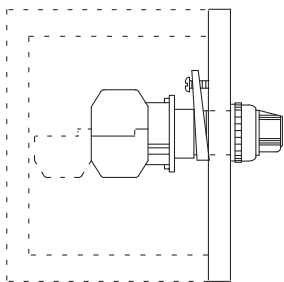
Factory-assembled stations may be ordered in three ways:

- **Standard**, factory-assembled stations listed on page 10-154.
- **Custom**, factory-assembled stations can be ordered by following the instructions listed on this page.

Station Design Guidelines

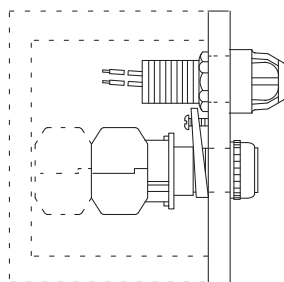
(Also see Applicable Codes and Standards)

1. Push-to-test pilot lights, illuminated push buttons, push-to-pull units, 4-position selector switches, and all operators with two contact blocks fastened along side one another or with a power module and contact block along side one another must be installed in a single hole cover.
2. Dual push button units may only be installed in a single-hole cover or the specially designed two-hole cover (Cat. No. 800H-NP33), which can accommodate the dual push button and the special pigtail pilot light (Cat. No. 800H-LPK10R).
3. When two components are installed in one cover, contact blocks are restricted to one side of the operator. Contact blocks of each operator must face each other.
4. One level of contact blocks is maximum in a shallow base or deep base when used with a sealing well. Contact blocks, except sealed switch type, may be mounted two deep in other bases.
5. If sealed switch contact blocks or a sealing well are used, a deep enclosure is required.
6. a. START push buttons should be green or black flush, installed to the left or above STOP push buttons.
b. EMERGENCY STOP push buttons should be a red mushroom.
c. STOP push buttons should be red extended, installed to the right or below START push button.
d. STOP push buttons should be installed in the last position (bottom or right) of each unit when required.
e. Pilot lights should be installed in the first position (top or left side) of each unit when required.



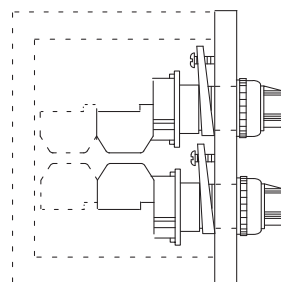
Design Guideline #1

Push-to-test pilot lights, illuminated push buttons, push-pull units, 4-position selector switches, all operators with two contact blocks fastened along side one another or with a power module and contact block along side one another must be installed in a single hole cover.



Design Guideline #2

Dual push button units may only be installed in a single hole cover or the specially designed two hole cover (Cat. No. 800H-NP33), which can accommodate the dual push button and the special pigtail pilot light (Cat. No. 800H-LPK10R).



Design Guideline #3

When two components are installed in one cover, contact blocks are restricted to one side of the operator. Contact blocks of each operator must face each other.

Design Guideline #4

One level of contact blocks is maximum in a shallow base or deep base when used with a sealing well. Contact blocks, except sealed switch type, may be mounted two deep in other bases.

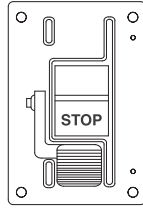
* Flange width is designed to comply with Underwriters Laboratories standards to enclosures with an internal free volume of up to 300 cubic inches (a maximum 8-gang assembly).

Hazardous Location Push Buttons

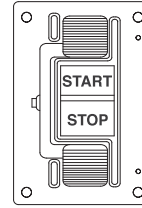
Product Selection

Covers, Lever Type Actuator

Note: Lever type covers are furnished without contact blocks. Legend plate for half lever is **STOP**; full lever momentary and maintained is a **START-STOP**. To order without legend plate, add suffix **X** to the cat. no.



Half Lever

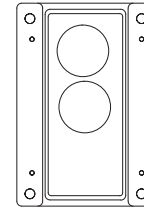
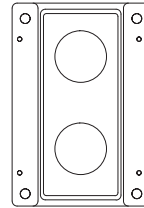
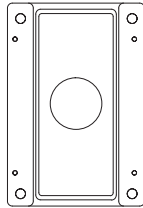
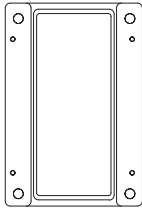


Double Lever Momentary

Half Lever	Double Lever Momentary	Double Lever Maintained	Double Lever Momentary/Maintained*
Cat. No.	Cat. No.	Cat. No.	Cat. No.
800H-NP14	800H-NP15	800H-NP16	800H-NP34

* A normally open circuit configuration is recommended for use behind this momentary lever and a late break normally closed circuit configuration is required for use behind the maintained lever to achieve proper functioning of the device.

Covers, Component Type Button



Blank	One Hole*	Two Hole‡	Two Hole Special§
Cat. No.	Cat. No.	Cat. No.	Cat. No.
800H-NP32	800H-NP30	800H-NP31	800H-NP33

* One-hole covers use a jumbo legend plate only.

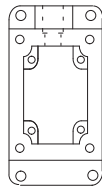
‡ Two-hole covers use a standard legend plate only.

§ This special two-hole cover can accommodate the pigtail pilot light (Bulletin 800H-LPK10 series), the dual push button or any non-illuminated unit. Legend plates (Cat. No. 800H-Y140J green and red split-field) and (Cat. No. 800H-Y141J grey full field), are the only legend plates suitable for use with this cover.

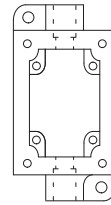
Assembled Bases (for Field Assembly and Custom Stations)

Enclosure Covers — See enclosure cover tables for a complete listing of covers for these bases.

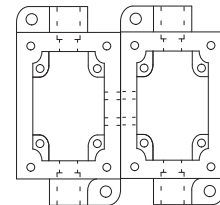
Special Conduit Entries — For conduit entries not listed, consult your local Rockwell Automation sales office or Allen-Bradley distributor.



1-Gang Shallow*

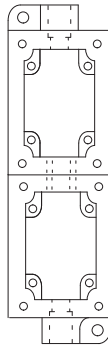


1-Gang Deep*

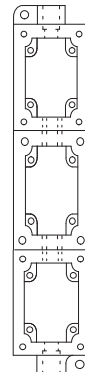


2-Gang Horizontal*

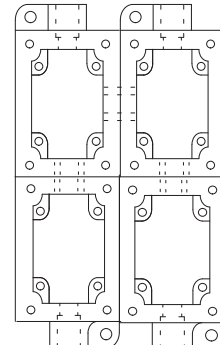
Conduit Entry	Cat. No.	Cat. No.	Cat. No.
3/4 in. Dead End	800H-1HZX7	800H-1HVX7	—
3/4 in. Feed Through	—	800H-1HVX7M1	—
1 in. Dead End	—	800H-1HVX7M2	800H-2HHX7
1 in. Feed Through	—	800H-1HVX7M3	—



2-Gang Vertical*

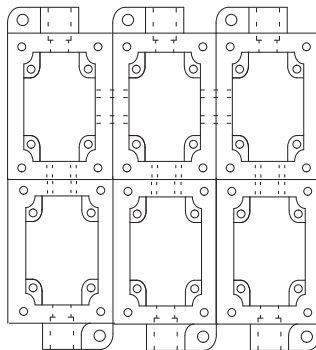


3-Gang Vertical*

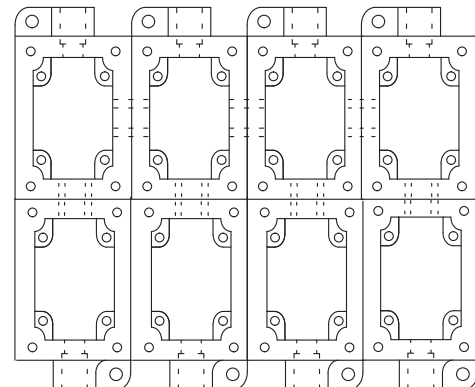


4-Gang*

Conduit Entry	Cat. No.	Cat. No.	Cat. No.
1 in. Feed Through	800H-2HYX7	800H-3HYX7	800H-4HVX7



6-Gang*



8-Gang*

Conduit Entry	Cat. No.	Cat. No.
1 in. Feed Through	800H-6HVX7	800H-8HVX7

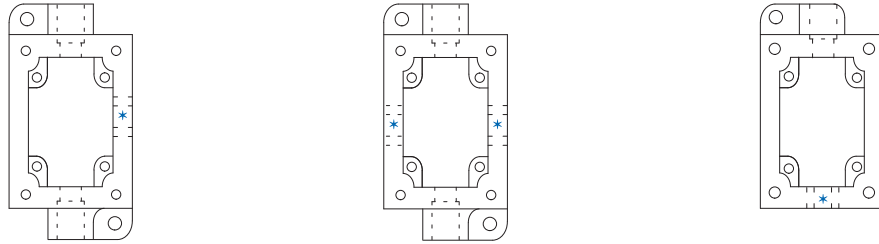
* Shallow base cannot accommodate sealing well, sealed switched contact blocks, or stacked contact blocks. Shallow base rated for Group B.

* Deep base can accommodate sealing well, sealed switch contact blocks, or up to 2 deep standard contact blocks.

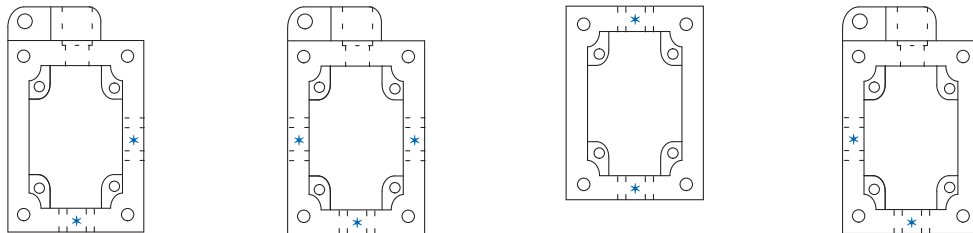
Hazardous Location Push Buttons

Product Selection

Bases for Multi-Gang Stations



Conduit Sizes	Cat. No.	Cat. No.	Cat. No.
3/4 in. Feed Through	800H-NP40C	800H-NP41C	—
1 in. Feed Through	800H-NP40D	800H-NP41D	—
3/4 in. Dead End	—	—	800H-NP42A
1 in. Dead End	—	—	800H-NP42B



Conduit Sizes	Cat. No.	Cat. No.	Cat. No.	Cat. No.
3/4 in. Dead End	800H-NP43A	800H-NP44A	—	800H-NP46A
1 in. Dead End	800H-NP43B	800H-NP44B	—	800H-NP46B
None	—	—	800H-NP45	—

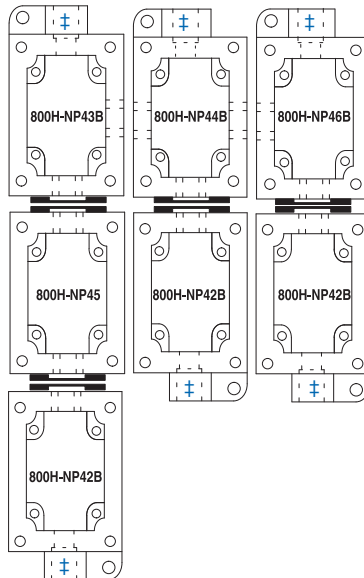
Example:

7-gang base with 1 in. through-feed conduit consists of:

- 3-Cat. No. **800H-NP42B**
- 1-Cat. No. **800H-NP43B**
- 1-Cat. No. **800H-NP44B**
- 1-Cat. No. **800H-NP45**
- 1-Cat. No. **800H-NP46B**
- 6-Cat. No. **800H-NP7**

Plus up to four 1 in. plugs (Cat. No. **800H-NP11**) to close unused conduit openings.

Caution: Do not assemble more than eight enclosure gangs together, to avoid exceeding the internal volume for which the flame path of these enclosures is designed.



* When coupling modular enclosures together, a coupler kit (Cat. No. **800H-NP7**) is required between enclosures.

† 1 in. conduit through-feed (all gangs).

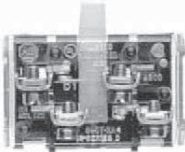


Modifications and Accessories

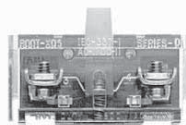
Contact Blocks✦

Packaged in kit form for field installation. All necessary mounting hardware is provided with each contact block kit. Contact ratings are listed on page 10-153.

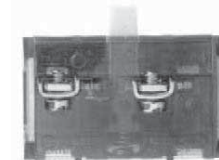
Note: It is not recommended to mount more than four contact blocks on any one unit (maximum two blocks deep). Sealed switch contact blocks are limited to two blocks per unit maximum.



Shallow Block



Mini Block



PenTUFF (Low Voltage) Contact Block

Contact Type	Shallow Block**‡	Mini Block*‡	PenTUFF (Low Voltage) Block**‡
	Cat. No.	Cat. No.	Cat. No.
1 N.O.	800T-XD1	800T-XD5	800T-XD1V
1 N.C.	800T-XD2	800T-XD6	800T-XD2V
1 N.O.E.M.	800T-XD3	—	800T-XD3V
1 N.C.L.B.	800T-XD4	—	800T-XD4V
1 N.O. - N.C.	800T-XA	—	800T-XAV
2 N.O.	800T-XA2	—	—
2 N.C.	800T-XA4	—	—
1 N.C.L.B. - 1 N.O.	800T-XA1	—	—
1 N.C.L.B. - 1 N.C.	800T-XA7	—	—

* To determine if a conduit seal-off is necessary, see page 10-179 for sealing well information.

‡ Specify Bulletin 800TC for finger-safe contact blocks. Example: **Cat. No. 800TC-XA**.

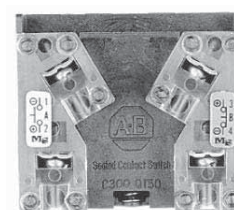
‡ Contact blocks with normally closed contacts meet direct drive positive opening standard requirements.



Logic Reed Block



Sealed Switch Block



Stackable Sealed Switch Block

Contact Type	Logic Reed Block§	Sealed Switch Block§	Stackable Sealed Switch Block§
	Cat. No.	Cat. No.	Cat. No.
1 N.O.	800T-XD1R	800T-XD1P	800T-XD1Y
1 N.C.	800T-XD2R	800T-XD2P	800T-XD2Y
1 N.O. - 1 N.C.	800T-XAR	800T-XAP	800T-XAY
2 N.O.	800T-XA2R	—	800T-XA2Y
2 N.C.	800T-XA4R	—	800T-XA4Y

§ To determine if a conduit seal-off is necessary, see page 10-179 for sealing well information.

✦ Refer to 800T/H section, page 10-35, for additional contact blocks and accessories.

Hazardous Location Push Buttons

Accessories

Modifications and Accessories, Continued

Replacement Color Caps (Illuminated)



Pilot Light
Cat. No. **800H-N104M**



Push-to-Test Pilot Light
Cat. No. **800H-N105M**



Illuminated Push Button
Cat. No. **800H-N106M**



Illuminated Push-Pull
Cat. No. **800H-NP50M**

Color	Pilot Light	Push-to-Test Pilot Light	Illuminated Push Button	Illuminated Push-Pull
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Multi-color kit	800H-N104M	800H-N105M	800H-N106M	800H-NP50M

Replacement Color Caps (Non-Illuminated)



Momentary Mushroom — Standard (Plastic)
Cat. No. **800T-N246R**



Momentary Mushroom — Jumbo (Metal)
Cat. No. **800T-N248R**



Push-Pull — Standard (Metal)
Cat. No. **800H-NP51C**



Push-Pull — Jumbo (Metal)
Cat. No. **800H-NP52A**

Color	Momentary Mushroom — Standard (Plastic)	Momentary Mushroom — Jumbo (Metal) *	Push-Pull Standard (Metal)	Push-Pull Jumbo (Metal)
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Red	800T-N246R	800T-N248R	800H-NP51A	800H-NP52A
Green	800T-N246G	800T-N248G	800H-NP51B	800H-NP52B
Blue	800T-N246BL	800T-N248BL	800H-NP51C	800H-NP52C
Yellow	800T-N246Y	800T-N248Y	800H-NP51E	800H-NP52E
Black	800T-N246B	800T-N248B	800H-NP51H	800H-NP52H
Grey	800T-N246GR	800T-N248GR	800H-NP51G	—
Natural	—	800T-N248	—	—

* To order plastic jumbo mushroom caps, replace **248** with **247**. Plastic not available in natural color.
Example: Cat. No. **800T-N248R** becomes Cat. No. **800T-N247R**.

Replacement Knobs and Dual Push Button Assembly



Standard Knob
Cat. No. **800H-N130F**



Knob Lever
Cat. No. **800H-131F**



Wing Lever
Cat. No. **800H-N138**



Dual Push Button
Cat. No. **800H-NP39**

Color	Standard Knob	Knob Lever	Wing Lever*	Dual Push Button
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
White	800H-N130F	800H-N131F	—	—
Kit (Complete)‡	800H-N130	800H-N131	—	—
Grey	—	—	800H-N138	—
Red	—	—	800H-N138A	—
Green Red	—	—	—	800H-NP39

* Standard finish is grey.

‡ Kit includes knob and packet of inserts (Cat. No. **800T-N123**). Refer to color insert kits on page 10-179.

Modifications and Accessories, Continued

Boots—Non-Illuminated Momentary Contact Push Buttons Units

Note: For Bul. 800H/HL Type 7&9 operators, order one adapter and one boot per operator.

Adapters

Push Button Type	Cat. No.
Flush head	800H-NPAF
Extended head	800H-NPAE

Boots

Boots supplied with control stations and components are made of a chlorosulfonated polyethylene material with stainless steel insert ring. To order boots with silicone, urethane, or ethylene propylene material, see the table below. Material application information shown below.



Cat. No. 800H-N5A

Insert Material	Boot Color	Material			
		Chlorosulfonated Polyethylene ‡	Silicone • ‡	Urethane •• ‡	Ethylene • Propylene •• ‡
		Cat. No.	Cat. No.	Cat. No.	Cat. No.
Stainless steel §	Red	800H-N5A	800H-N101R	800H-N100R	800H-N103R
	Green	800H-N5B	800H-N101G	800H-N100G	800H-N103G
	Black	800H-N5H	800H-N101B	800H-N100B	800H-N103B
	Yellow	800H-N5E	800H-N101Y	800H-N100Y	—
	Blue	800H-N5C	800H-N101BL	800H-N100BL	—

* May be added to flush or extended head push button units to protect against foreign materials reaching the opening between the button and the locking ring.

§ Series B boots incorporate a stainless steel insert as standard.

‡ Dots printed on the inside of the boot identify the boot material.

Booted Knobs



Booted Standard Knob Selector Switch
Cat. No. 800H-NP5



Booted Knob Lever Selector Switch
Cat. No. 800H-NPE5

Switch Type	Boot Material*			
	Chlorosulfonated Polyethylene	Silicone •	Urethane ••	Ethylene • Propylene ••
	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Standard Knob Selector Switch*	800H-NP5	800H-NP101	800H-NP100	800H-NP103
Knob Lever Selector Switch*	800H-NPE5	800H-NPE101	800H-NPE100	800H-NPE103

* Dots printed on the inside of the boot identify the boot material.

* Includes color insert kit.

Push Button Guards and Mushroom Push Button Guards



Cat. No. 800H-NP19



Cat. No. 800H-NP13



Cat. No. 800H-NP9



Cat. No. 800H-NP12

Push Buttons, Pilot Lights and Push-to-Test	Extra Long Guard (1 in.) for Push Button	Mushroom	Jumbo Mushroom
Cat. No.	Cat. No.	Cat. No.	Cat. No.
800H-NP19	800H-NP13	800H-NP9	800H-NP12

Protective Rings



Protective Ring for 2-Position Push-Pull
Cat. No. 800H-NP40



Jumbo Protective Ring for 2-Position Push-Pull
Cat. No. 800H-NP40J




Protective Ring for Push-Pull Devices		
Description	Type	Cat. No.
Protective ring for Bul. 800H 2-position non-illuminated push-pull operators. Often used to avoid unintentional tripping of E-stop operators. Available for standard size button (40 mm) or for jumbo button (60 mm).	For standard size button	800H-NP40
	For jumbo size button	800H-NP40J

Hazardous Location Push Buttons



Accessories

General Accessories


Plugs

	Description	Cat. No.	
 <p>Cat. No. 800H-NP7</p>	<p>Coupler Used for both horizontal and vertical assembly.</p>	800H-NP7	
	Description	Type	Cat. No.
 <p>Cat. No. 800H-NP1 <i>(Operators not included)</i></p>	<p>Closing Plug Whenever an enclosure with more than the required number of openings is used, this plug can be used to close the unused openings. Includes synthetic O-ring washer.</p>	For Cover Hole	800H-NP1
		For Base Coupler Hole	800H-NP3
	Description	Size	Cat. No.
 <p>Cat. No. 800H-NP10 <i>(Operators not included)</i></p>	<p>Conduit Entry Plug This plug can be used to plug unused conduit openings in Type 7 and 9 bases.</p>	3/4 in.	800H-NP10
		1 in.	800H-NP11






Locking Attachments

	Description	Cat. No.
 <p>Cat. No. 800H-NP2 <i>(Padlock not included)</i></p>	<p>Push Button Padlocking Attachments This device permits locking in the depressed position on extended head push button units only.</p>	800H-NP2
 <p>Cat. No. 800H-NP17 <i>(Padlock not included)</i></p>	<p>Dual Push Button Extended Head Padlocking Attachments This device permits locking for dual push button — extended head units only.</p>	800H-NP17

General Accessories, Continued
Locking Attachments

	Description	Cat. No.
 <p>Cat. No. 800H-NP4 (Padlock not included)</p>	<p>Padlocking Cover Padlocking cover is used for Type 7 and 9 selector switches, non-illuminated push buttons (except mushrooms) and non-illuminated 2-position push-pull units, but not for potentiometer units. Note: Push-pull units will only lock in the depressed position. Padlocking cover includes blank legend plate for customer marking. A pre-marked legend plate entitled OPEN COVER TO OPERATE (front view) and PULL-TO-START-PUSH-TO-STOP (rear view) is available. To order legend plate only, specify Cat. No. 800H-W174L.</p>	800H-NP4

Miscellaneous




	Description	Style	No. of Wires	Cat. No.
 <p>Cat. No. 800H-NPRD91</p>  <p>Cat. No. 800H-NPD93</p>	<p>Sealing Well with or without Integral Type 3 Flange Seal These sealing wells can only be used with bases having 1 in. conduit entries. They reduce costs usually necessary with other conduit seal fittings for most installations (subject to applicable codes and laws) while maintaining Type 7 and 9 integrity. When using a sealing well with integral flange seal for Type 3 outdoor applications, an approved drain fitting must be provided. (Refer to National Electrical Code.)</p>	With Integral Flange Seal, Type 3, 7, and 9	2	800H-NPRD90
			4	800H-NPRD91
			6	800H-NPRD92
			8	800H-NPRD93
		Without Integral Flange Seal, Type 7 and 9	2	800H-NPD90
			4	800H-NPD91
			6	800H-NPD92
			8	800H-NPD93
 <p>Cat. No. 800H-NP20</p>  <p>Cat. No. 800H-NP21</p>	<p>Type 3 Flange Seal This seal provides a Type 3 rating while maintaining Type 7 and 9 integrity. An approved drain (see listing) is required for condensation when using this option (refer to National Electrical Code). For a Type 4 rating, use sealing nuts to seal the push button operators in addition to using the flange seal. Sealing kit is comprised of flange seal and sealing nut. They are used with the Allen-Bradley enclosures listed on page 10-154 for outdoor applications.</p>	Flange Seal		800H-NP20
		Drain for 3/4 in. Conduit Opening		800H-NP21
		Drain for 1 in. Conduit Opening		800H-NP22
		Type 4 Sealing Nut		800H-N479
		Type 4 Sealing Kit		800H-N479F
 <p>Cat. No. 800H-NP23R</p>	<p>Color Insert Kit These color insert kits are used with illuminated push buttons, pilot lights, push-pull, and push-to-test push buttons (order quantity of 1 to receive kit of 5 inserts).</p>	Color		Cat. No.
		Red		800H-NP23R
		Green		800H-NP23G
		Amber		800H-NP23A
		Blue		800H-NP23B
		White		800H-NP23W
One of each color		800H-NP23		

Hazardous Location Push Buttons

Accessories

Replacement Lamps

Pilot Lights, Illuminated Push Buttons, Illuminated Push-Pull, Illuminated Push-Pull/Twist to Release, and Illuminated Selector Switches

Lamp	Type	Current, Typical	Lamp Voltage	ANSI No.	Catalog Voltage Code	Cat. No.
	Full Voltage Transformer	150 mA/250 mA	6.3V AC	755/1866	6, 16, 26, 36, 46, 56, 76	* 800T-N65
	Full Voltage	80 mA	14V AC/DC	756	12	* 800T-N141
		70 mA	24V AC/DC	757	24	* 800T-N157
		50 mA	48V AC/DC	1835	48	* 800T-N365
	Full Voltage Resistor	22 mA	120V AC/DC	949	10, 11	* 800T-N169
	Flashing	150 mA	6V AC/DC	267	6	* 800T-N212
Dual Input Diode	57 mA	24V AC/DC	24 MB	24	* 800T-N180	
	21 mA	120V AC	90 MB	16	* 800T-N261	
Neon 	—	2 mA	120V AC/DC	B2A	10, 20	609-N9
Lamp	Type	Current, Typical*	Lamp Voltage	Leakage Current	Code	Cat. No.*
LED‡ 	Universal	13 mA @ 24V DC 8.5 mA @ 120V AC‡	3V§	3 mA	2	800T-N376x
	Transformer	60	6V	14 mA	16, 26, 46, 56	800T-N377x


* Item is sold in multiples of 5. Order quantity of 5 to receive package of 5 pieces.

* To complete the cat. no. replace the **x** with the first letter of the desired color: **Green**, **Red**, or **White**.

‡ Typical current consumption values indicated are relative to the input of the power module.

§ Lamp is intended for use with power module Cat. No. 800TC-N374 which has an input voltage rating of 12 ...130V AC/DC.

Legacy LED Lamps*

Lamp	Type	Current, Typical>	Lamp Voltage	Leakage Current	Catalog Voltage Code	Cat. No.*
	Full Voltage	13 mA/22 mA	12V AC/DC	3 mA	12	800T-N362x
		20 mA/21 mA	24V AC/DC	3 mA	24	800T-N319x
		12 mA/17 mA	32V AC/DC	3 mA	32	800T-N363x
		9 mA/14 mA	48V AC/DC	3 mA	48	800T-N364x
		3.3 mA/6 mA	120V AC	—	10	800T-N320x
		4.5 mA/6.2 mA	130V AC/DC	3 mA	13	800T-N321x
	Full voltage	50 mA	6V AC	14 mA	6, 16, 26, 36, 46, 56, 76	800T-N318x
Flashing	18 mA	24V AC/DC	—	N/A	+ 800T-N319Fx	

* In full voltage applications, these lamps are intended to be used with power module Cat. No. 800T-N330.

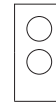
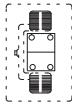
❖ All LEDs except 120V have an internal shunt resistor for use with solid-state outputs. LEDs will not illuminate below listed leakage current.

> Typical current draw varies with LED color. The first mA value is for a green or blue LED and the second mA value is for a red or amber LED.

* To complete the cat. no. replace the **x** with the first letter of the desired color: **Amber**, **Green**, **Red**, **Blue**, or **White**. White LEDs only available in 6V, 24V, 120V, and 130V.

+ Flashing rate is 2 Hz.

Legend Plates



Blank Legend Plates

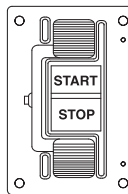
Legend Plate Color	Lever Style	Standard Size	Jumbo Size	Special Jumbo Size
	Use 1 lever style legend with each lever type cover (Cat. Nos. 800H-NP14, -NP15, -NP16 or -NP34)	Use 2 standard size legends with each standard 2 hole cover (Cat. No. 800H-NP31)	Use 1 jumbo size legend with each standard 1 hole cover (Cat. No. 800H-NP30)	Use 1 special jumbo legend with each special 2 hole cover (Cat. No. 800H-NP33) Ex: Dual Push Button/ Pigtail Pilot Light
Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Grey	—	800H-Y59	800H-Y59J	800H-Y141J
Red	—	800H-Y121	800H-Y121J	—
Green	—	800H-Y136	800H-Y136J	—
Yellow	—	800H-Y700	800H-Y700J	—
Top Grey — Bottom Grey	800H-Y222	—	—	—
Top Grey — Bottom Red	800H-Y223	—	—	—
Left Green — Right Red	—	—	—	800H-Y140J
Grey with Potentiometer Graduations	—	800H-Y109	800H-Y109J	—

Custom Legend Plates

Legend Plate Color	Lever Style	Standard Size	Jumbo Size	Special Jumbo Size
	Use 1 lever style legend with each lever type cover (Cat. Nos. 800H-NP14, -NP15, -NP16 or -NP34)	Use 2 standard size legends with each standard 2 hole cover (Cat. No. 800H-NP31)	Use 1 jumbo size legend with each standard 1 hole cover (Cat. No. 800H-NP30)	Use 1 special jumbo legend with each special 2 hole cover (Cat. No. 800H-NP33) Ex: Dual Push Button/ Pigtail Pilot Light
Cat. No.	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Grey	—	* 800H-Y59E	* 800H-Y59JE	* 800H-Y141JE
Red	—	* 800H-Y121E	* 800H-Y121JE	—
Green	—	* 800H-Y136E	* 800H-Y136JE	—
Yellow	—	800H-Y700E	800H-Y700JE	—
Top Grey — Bottom Grey	* 800H-Y222E	—	—	—
Top Grey — Bottom Red	* 800H-Y223E	—	—	—
Left Green — Right Red	—	—	—	* 800H-Y140JE
Grey with Potentiometer Graduations	—	* 800H-Y109E	* 800H-Y109JE	—

* Horizontally mounted engraved legend plates (with standard or custom marking) are available. Add the letter **H** after the **Y** in the cat. no.
Example: Cat. No. **800H-Y222E** becomes **800H-YH222E**.

Lever Style Legend Plates with Standard Markings



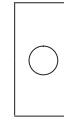
Legend Marking	Cat. No.	Legend Marking	Cat. No.
Upper/Lower		Upper/Lower	
HAND AUTO	800H-Y228	OPEN CLOSE	800H-Y205
JOG RUN	800H-Y227	RUN STOP (Red)	800H-Y226
JOG STOP (Red)	800H-Y206	START STOP (Red)	800H-Y200
ON OFF	800H-Y225	—	—

Hazardous Location Push Buttons

Accessories

Legend Plates, Continued

Legend Plates with Standard Markings

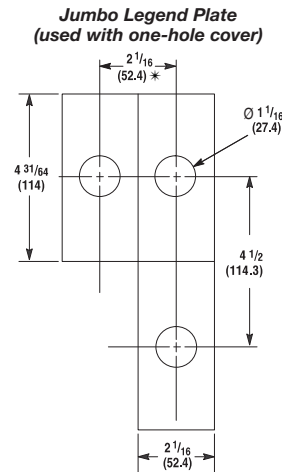
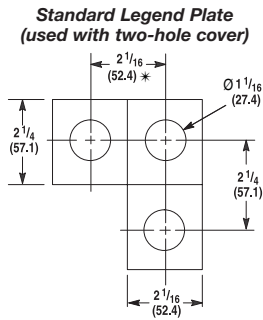


Legend Marking	Standard Size	Jumbo Size	Legend Marking	Standard Size	Jumbo Size
	Cat. No.	Cat. No.		Cat. No.	Cat. No.
AUTO-OFF-HAND	800H-Y1	800H-Y1J	ON	800H-Y30	800H-Y30J
AUTO-MAN-HAND	800H-Y125	800H-Y125J	OPEN	800H-Y31	800H-Y31J
CLOSE	800H-Y2	800H-Y2J	OPEN-CLOSE	800H-Y32	800H-Y32J
CYCLE START	800H-Y62	800H-Y62J	OPEN-OFF-CLOSE	800H-Y33	800H-Y33J
DOWN	800H-Y3	800H-Y3J	OUT	800H-Y34	—
EMERG. STOP (Red)	800H-Y4	800H-Y4J	PUSH TO STOP-PULL TO START	800H-Y118	800H-Y118J
FAST	800H-Y5	800H-Y5J	POWER ON	800H-Y139	800H-Y139J
FEED START	800H-Y66	800H-Y66J	RAISE	800H-Y35	800H-Y35J
FEED STOP	800H-Y67	800H-Y67J	RAISE-LOWER	800H-Y36	800H-Y36J
FOR.-REV.	800H-Y6	800H-Y6J	RAISE-OFF-LOWER	800H-Y37	800H-Y37J
FOR.-OFF-REV.	800H-Y7	800H-Y7J	RESET	800H-Y38	800H-Y38J
FORWARD	800H-Y8	800H-Y8J	REVERSE	800H-Y39	800H-Y39J
FOURTH SPEED	800H-Y124	800H-Y124J	RUN	800H-Y40	800H-Y40J
FULL SPEED	800H-Y9	800H-Y9J	RUN-INCH	800H-Y134	800H-Y134J
HAND-AUTO	800H-Y10	800H-Y10J	RUN-JOG	800H-Y41	800H-Y41J
HAND-OFF-AUTO	800H-Y11	800H-Y11J	SAFE-RUN	800H-Y42	800H-Y42J
HIGH	800H-Y12	800H-Y12J	SECOND SPEED	800H-Y43	800H-Y43J
HIGH-LOW	800H-Y13	800H-Y13J	SLOW	800H-Y44	800H-Y44J
HIGH-OFF-LOW	800H-Y14	800H-Y14J	SLOW-FAST	800H-Y45	800H-Y45J
IN	800H-Y15	800H-Y15J	SLOW-OFF-FAST	800H-Y46	800H-Y46J
INCH	800H-Y16	800H-Y16J	SPEED*	800H-Y108	800H-Y108J
JOG	800H-Y17	800H-Y17J	START (Green)	800H-Y47	800H-Y47J
JOG FORWARD	800H-Y18	800H-Y18J	START-JOG	800H-Y48	800H-Y48J
JOG REVERSE	800H-Y19	800H-Y19J	START-STOP	800H-Y49	800H-Y49J
JOG-RUN	800H-Y20	800H-Y20J	STOP (Red)	800H-Y50	800H-Y50J
JOG-SAFE-RUN	800H-Y22	800H-Y22J	STOP-START	800H-Y51	800H-Y51J
JOG-STOP-RUN	800H-Y21	800H-Y21J	SUMMER-OFF-WINTER	800H-Y53	800H-Y53J
LEFT-RIGHT	800H-Y23	800H-Y23J	SUMMER-WINTER	800H-Y52	800H-Y52J
LOW	800H-Y24	800H-Y24J	TEST	800H-Y54	800H-Y54J
LOW SPEED	800H-Y25	—	THIRD SPEED	800H-Y55	—
LOWER	800H-Y26	800H-Y26J	UP	800H-Y56	800H-Y56J
OFF	800H-Y27	800H-Y27J	UP-DOWN	800H-Y57	800H-Y57J
OFF-COOLANT-ON	800H-Y28	800H-Y28J	UP-OFF-DOWN	800H-Y58	800H-Y58J
OFF-ON	800H-Y29	800H-Y29J	—	—	—

* Graduated potentiometer type.

Approximate Dimensions and Shipping Weights

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



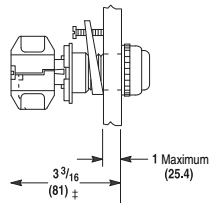
Note: Mounting hole requirements for components — 3/4 in. - 14 NPSM.*

* External thread major diameter: 1.034 in. max., 1.024 in. min.
Internal thread minor diameter: 0.958 in. min., 0.970 in. max.

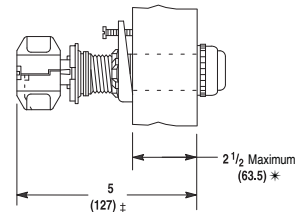
⊛ Sketch illustrates the minimum distance between center lines when mounting Bulletin 800H units with legend plates either side by side or one above the other in non Allen-Bradley enclosures. **Minimum spacing without legend plate:** When units are mounted so that the contact block terminals face each other, the 2-1/4 in. (57.2 mm) dimension must be used in order to get proper electrical clearance. When control units are mounted so that the contact block terminals do not face each other, the 1-27/32 in. (46.8 mm) dimension can be used.

Panel Thickness Requirements

Standard Barrel
[devices will fit panels up to 1 in. (25.4 mm)]



Long Barrel
[devices will fit panels up to 2-1/2 in. (63.5 mm)]

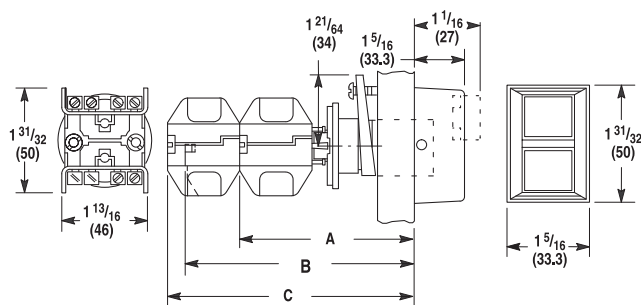


⊛ When mounting in a panel thicker than 2-1/8 in. (54 mm) locking bracket not required.

± This dimension for push buttons only.

Push Buttons

Dual Head



Dim.	A	B	C	Ship. Wt. [oz (kg)]
Standard Barrel	3-5/16 (84.1)	4-3/16 (106.4)	4-7/16 (112.7)	10-3/8 (0.30)
Long Barrel	4-19/32 (116.7)	5-15/32 (138.9)	5-23/32 (145.2)	13 (0.37)

10

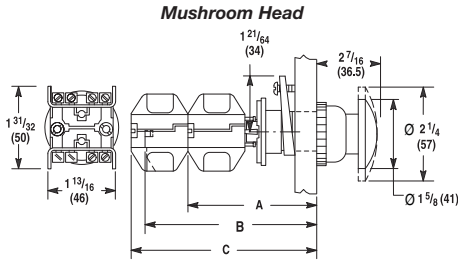
Hazardous Location Push Buttons

Approximate Dimensions

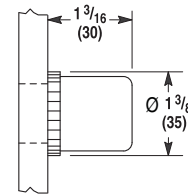
Approximate Dimensions and Shipping Weights, Continued

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

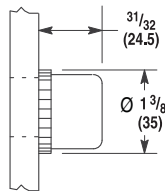
Push Buttons



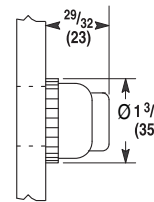
Push Button with Extra Long Guard



Flush Head



Extended Head

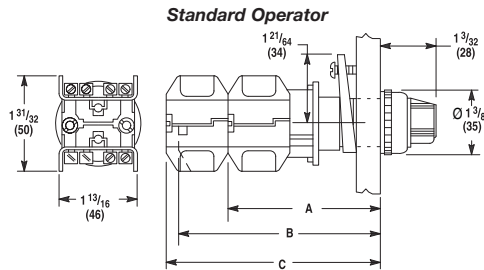


Type	Standard Barrel				Long Barrel			
	A *	B	C	Ship. Wt. [oz (kg)]	A *	B	C	Ship. Wt. [oz (kg)]
Mushroom, Flush and Extended Head	3-3/16 (81)	4-1/8 (105)	4-3/8 (111)	9-7/8 (0.28)	5 (127)	5-7/8 (149.2)	6-1/8 (155.6)	13-5/16 (0.38)
Extra Long Guard	3-3/16 (81)	4-1/8 (105)	4-3/8 (111)	10-7/8 (0.31)	5 (127)	5-7/8 (149.2)	6-1/8 (155.6)	14-5/16 (0.40)

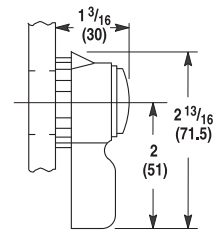
* When using sealed switch contact block, this dimension is 4-1/16 in. (103 mm).

* When using sealed switch contact block, this dimension is 5-7/8 in. (149.2 mm).

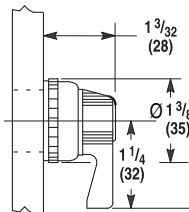
Selector Switches



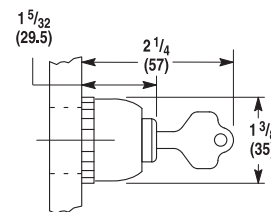
Knob Lever Operator



Wing Lever Operator



Cylinder Lock Operator



Type	Standard Barrel				Long Barrel			
	A *	B	C	Ship. Wt. [oz (kg)]	A *	B	C	Ship. Wt. [oz (kg)]
Standard and Knob Lever	3-3/16 (81)	4-1/8 (105)	4-3/8 (111)	9-1/2 (0.27)	5 (127)	5-7/8 (149.2)	6-1/8 (155.6)	14-3/8 (0.41)
Wing Lever	3-3/16 (81)	4-1/8 (105)	4-3/8 (111)	10-1/2 (0.30)	5 (127)	5-7/8 (149.2)	6-1/8 (155.6)	15 (0.42)
Cylinder Lock	3-3/16 (81)	4-1/8 (105)	4-3/8 (111)	11-1/4 (0.32)	5 (127)	5-7/8 (149.2)	6-1/8 (155.6)	16 (0.45)

* When using sealed switch contact block, this dimension is 4-1/16 in. (103 mm).

* When using sealed switch contact block, this dimension is 5-7/8 in. (149.2 mm).

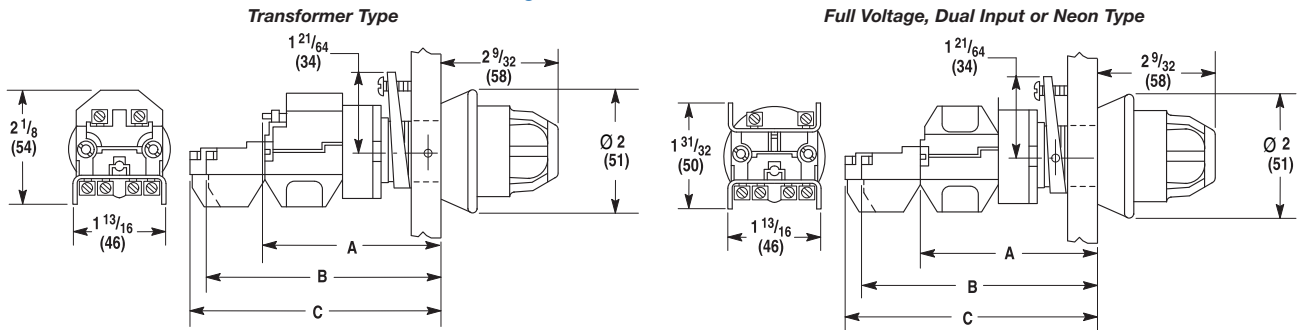
Hazardous Location Push Buttons

Approximate Dimensions

Approximate Dimensions and Shipping Weights, Continued

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

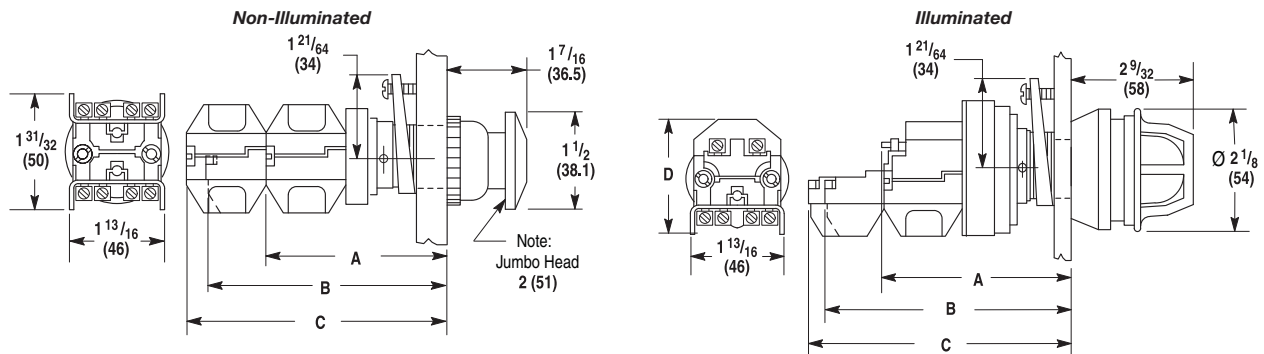
Illuminated Push Buttons or Push-to-Test Pilot Lights



Illuminated Push Buttons, Push-to-Test Pilot Lights

Description	Style	A *	B	C	Ship. Wt. [oz (kg)]
Transformer Type	Standard Barrel	3-5/32 (80.2)	3-29/32 (99)	4-1/8 (105)	14 (0.40)
	Long Barrel	5-1/16 (128.6)	5-13/16 (147.6)	6-1/16 (154)	16-3/16 (0.45)
Full Voltage Dual Input or Neon Type	Standard Barrel	3-1/32 (77)	3-29/32 (99)	4-1/8 (105)	11-5/8 (0.33)
	Long Barrel	4-15/16 (125.4)	5-13/16 (147.6)	6-1/16 (154)	13-7/16 (0.38)

Push-Pull Units



Push-Pull Units

Description	Style	A *	B	C	D	Ship. Wt. [oz (kg)]
Illuminated Transformer Type	Standard Barrel	3-9/16 (90.5)	4-9/16 (115.9)	4-5/8 (117.5)	2-1/8 (54)	15-1/2 (0.44)
	Long Barrel	4-21/32 (118.3)	5-13/32 (137)	5-21/32 (143.7)	2-1/8 (54)	17-7/16 (0.49)
Illuminated Full Voltage Type	Standard Barrel	3-7/16 (87.3)	4-9/16 (115.9)	4-5/8 (117.5)	1-31/32 (50)	12-13/16 (0.33)
	Long Barrel	4-17/32 (115.1)	5-13/32 (137)	5-21/32 (143.7)	1-31/32 (50)	14-3/4 (0.41)
Non-Illuminated Push-Pull Units	Standard Barrel	3-1/2 (88.9)	4-3/8 (111.1)	4-5/8 (117.5)	—	11-1/8 (0.32)
	Long Barrel	4-17/32 (115.1)	5-13/32 (137)	5-21/32 (143.7)	—	12-5/16 (0.34)

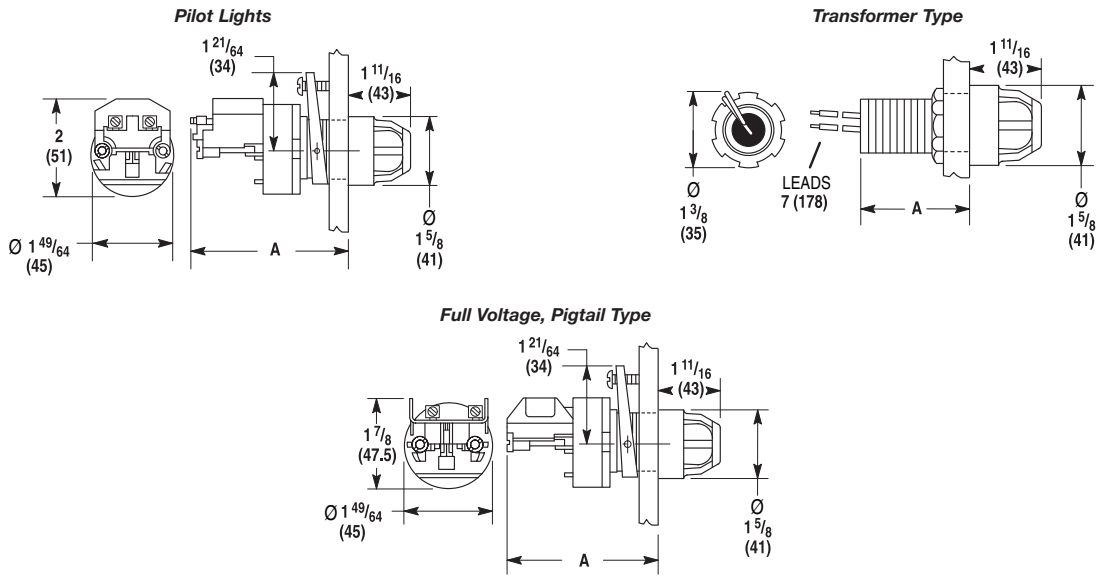
* When using sealed switch contact block add 7/8 in. (22.2 mm) to the listed dimension.

Hazardous Location Push Buttons

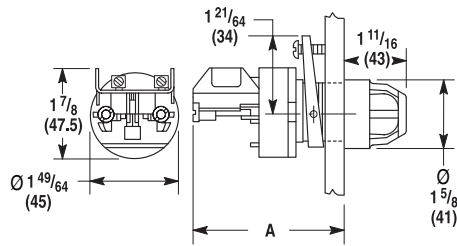
Approximate Dimensions

Approximate Dimensions and Shipping Weights, Continued

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

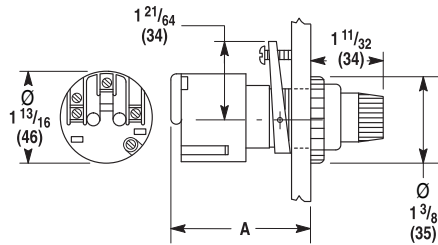


Full Voltage, Pigtail Type



Description	Style	A	Ship. Wt. [oz (kg)]
Transformer type and dual input transformer type pilot lights	Standard Barrel	3-5/32 (80)	8-9/16 (0.24)
	Long Barrel	4-9/16 (115.9)	30-1/4 (0.85)
Full voltage, neon or dual input diode and resistor type pilot lights	Standard Barrel	3-1/32 (77)	5-13/16 (0.17)
	Long Barrel	4-7/16 (112.7)	27-1/2 (0.77)
Full voltage pigtail type pilot lights	Standard Barrel	2-3/16 (55.5)	5-5/8 (0.16)
	Long Barrel	3-43/64 (94)	8-5/16 (0.24)

Potentiometer Units

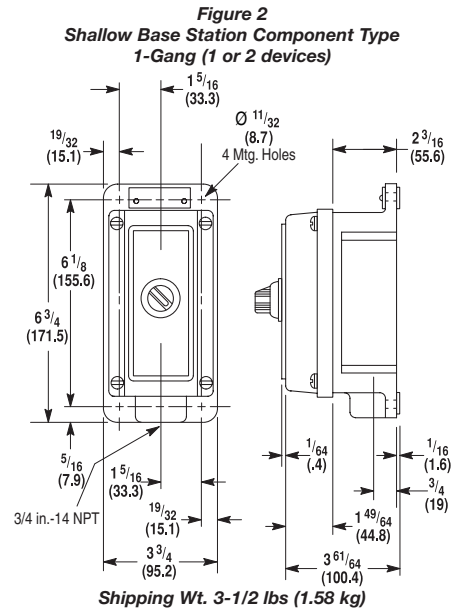
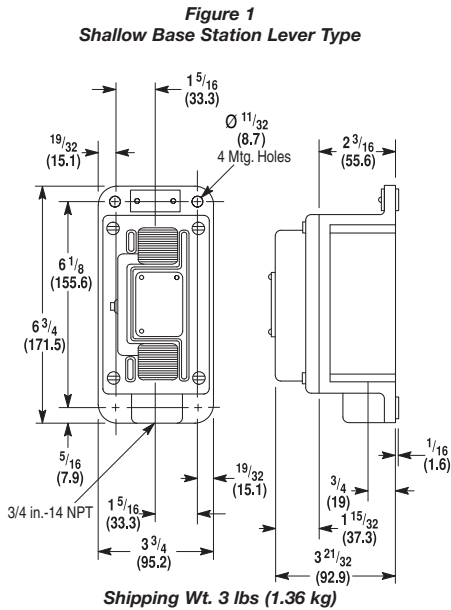


Style	A	Ship. Wt. [oz (kg)]
Standard barrel	3-1/8 (79.5)	5-3/8 (0.16)
Long barrel	4-1/2 (114.3)	8 (0.23)

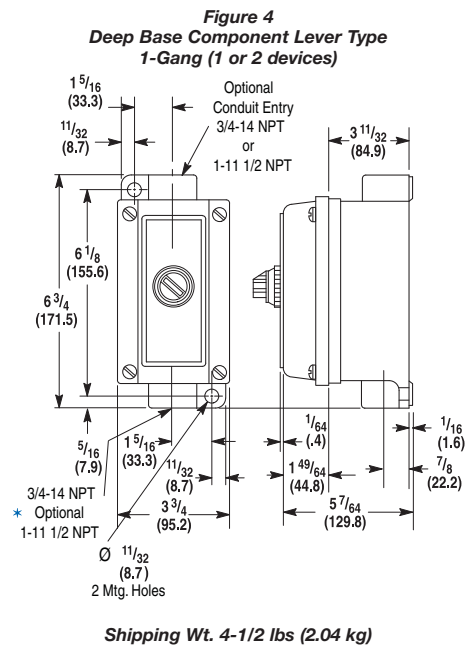
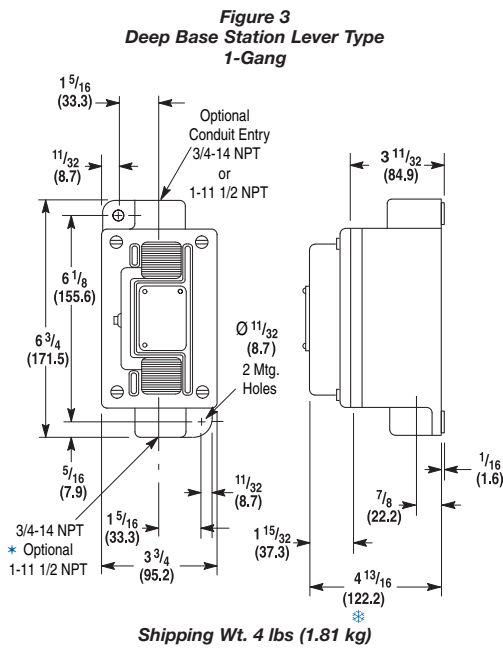
Approximate Dimensions and Shipping Weights, Continued

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

Shallow Base Stations



Deep Base Stations



* When using a flange seal, an approved drain fitting must be provided (refer to National Electrical Code).

* When used add the following to the max. depth: Flange seal add 3/16 in. (4.8 mm). Sealing well with or without integral flange seal add 1/2 in. (12.7 mm).



Hazardous Location Push Buttons

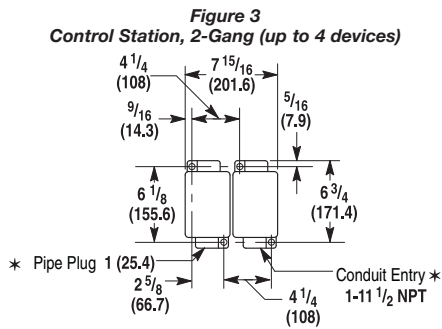
Approximate Dimensions

Approximate Dimensions and Shipping Weights, Continued

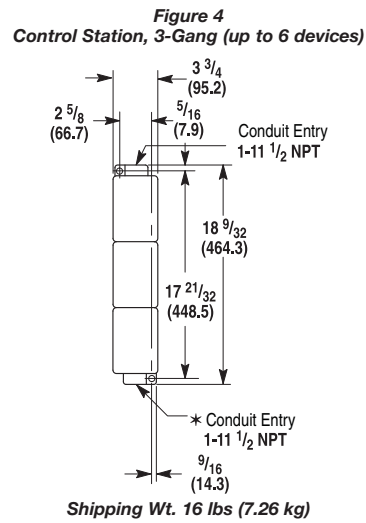
Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Factory-Assembled Stations

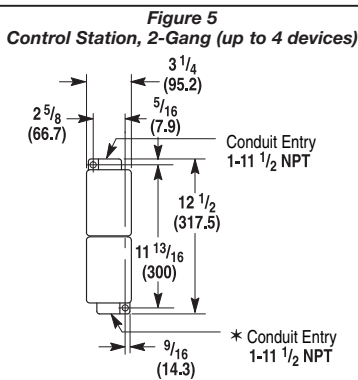
For depth dimension refer to Figure 3 or 4 on page 10-187.



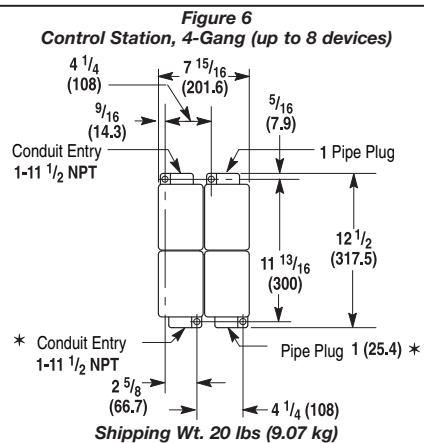
Shipping Wt. 10 lbs (4.54 kg)



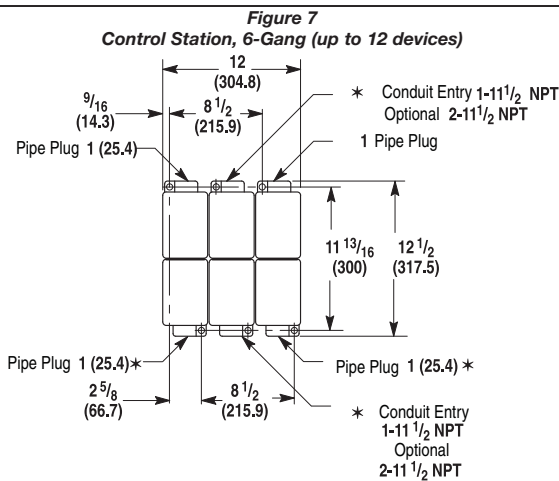
Shipping Wt. 16 lbs (7.26 kg)



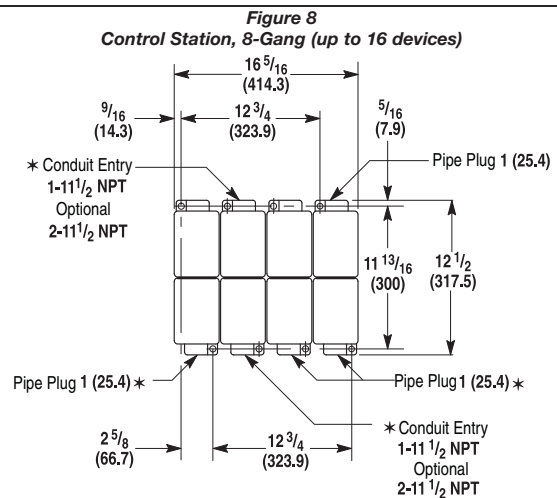
Shipping Wt. 10 lbs (4.54 kg)



Shipping Wt. 20 lbs (9.07 kg)



Shipping Wt. 32 lbs (14.5 kg)



Shipping Wt. 40 lbs (18.1 kg)

10

