

2-Position Red Push-Pull and Push-Pull/Twist Release Devices, Illuminated

Note: A jumbo or large legend plate is recommended, if space allows.



Illuminated 2-Position Push-Pull
Cat. No. 800T-FXP16RA1





2-Position Push-Pull
Cat. No. 800T-FXJEP16RA1



Illuminated 2-Position Push-Pull/Twist
Cat. No. 800T-FXTP16RA1



Illuminated 2-Position Push-Pull/Twist
Cat. No. 800H-FRXT16RA1

Type	Lamp Type	Volts	Color	Contacts	Operator Position		Type 4/13			Type 4/4X/13
							Push-Pull — 40 mm❖	Push-Pull — 60 mm with "E-Stop"❖	Push-Pull/Twist Release❖	Push-Pull/Twist Release❖
					Maintained					
					Out	In	Cat. No.	Cat. No.	Cat. No.	Cat. No.
Operator Only❖				No Contacts			800T-FXS00X	—	800T-FXTS00X	800H-FRXTS00X
Full Voltage	Incan.	24V AC/DC	Red	N.O. - N.C.L.B. ❖	O X	X O	800T-FXQ24RA1	800T-FXJEQ24RA1	800T-FXTQ24RA1	800H-FRXTQ24RA1
	No Lamp	0...250V AC/DC	No Lens				800T-FXQN25XA1	—	800T-FXTQN25XA1	800H-FRXTQN25XA1
Universal	LED	12...130V AC/DC	Red				800T-FXQH2RA1	800T-FXJEQH2RA1	800T-FXTQH2RA1	800H-FRXTQH2RA1
Transformer	Incan.	120V AC	Red	N.O. - N.C.L.B. ❖	O X	X O	800T-FXP16RA1	800T-FXJEP16RA1	800T-FXTP16RA1	800H-FRXTP16RA1
		240V AC					800T-FXP26RA1	800T-FXJEP26RA1	800T-FXTP26RA1	800H-FRXTP26RA1
	LED	120V AC					800T-FXPH16RA1	800T-FXJEPH16RA1	800T-FXTPH16RA1	800H-FRXTPH16RA1
		240V AC					800T-FXPH26RA1	800T-FXJEPH26RA1	800T-FXTPH26RA1	800H-FRXTPH26RA1
Transformer	No Lamp	120V AC	No Lens				800T-FXPN16XA1	—	800T-FXTPN16XA1	800H-FRXTPN16XA1

Note: X = Closed/O = Open

Note: Emergency stop push buttons are compliant with EN ISO 13850 and EN/IEC 60947-5-5 Standards when using N.C.L.B. contact blocks.

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

❖ Normally closed late break contact. When button is pushed from the OUT to 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.

❖ Consult your local Rockwell Automation sales office or Allen-Bradley distributor for availability of illuminated E-stops with Self Monitoring Contact Blocks (SMCBs).

800 T - FX T PH 16 R A1
a b c d e f g h

Protection Rating	
Code	Description
T	Metal, Type 4/13
H	Plastic, Type 4/4X/13

Finger-Safe Guards	
Code	Description
Blank	No guards
C	Guards on terminals



Head Type§		
800T Type 4/13	Description	800H Type 4/4X/13
Code		Code
FX	Mushroom head	FRX
FXJ	Jumbo mushroom	FRXJ
FXJE	Jumbo mushroom (push-pull) with "E-Stop"	—

Operator Function	
Code	Description
Blank	Push-pull▲
T	Push-pull/twist

Illumination Options	
Transformer	
Code	Description
P	Incandescent
PH	LED
Full Voltage	
Q	Incandescent
QH	Universal LED
Dual Input	
D	Diode type
DT	Transformer — relay type
DTH	Transformer — relay type LED

Voltage‡	
Transformer	
Code	Description
16	120V AC 50/60 Hz
26	240V AC 50/60 Hz
Full Voltage	
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 (dual input diode only)

Color Cap	
Code	Color
X	No cap (not valid with head Type J)
A	Amber
B	Blue
C	Clear
G	Green
R	Red
W	White

Target		
Contact		
N.O.	O	X
N.C./ N.C.L.B.	X	O
Contact Blocks		
Code	Description	
Blank	No contacts	
Standard		
D1	1 N.O.	
D2	1 N.C.	
D4	1 N.C.L.B.	
A	1 N.O. - 1 N.C.	
A1	1 N.O. - 1 N.C.L.B.	
A5	2 N.C.L.B.	
PenTUFF (Low Voltage)		
D1V	1 N.O.	
D2V	1 N.C.	
D4V	1 N.C.L.B.	
AV	1 N.O. - 1 N.C.	

h (cont'd)

Contact Blocks	
Code	Description
Class 1, Div. 2/Zone 2	
Logic Reed	
D1R	1 N.O.
D2R	1 N.C.
AR	1 N.O. - 1 N.C.
Sealed Switch	
D1P	1 N.O.
D2P	1 N.C.
AP	1 N.O. - 1 N.C.
Stackable Sealed Switch	
D1Y	1 N.O.
D2Y	1 N.C.
AY	1 N.O. - 1 N.C.

‡ See page 10-20 for additional voltage code options.

§ Devices with N.C.L.B. contacts meet EN ISO 13850 and IEC 60947-5-5 standards for emergency stop applications.

▲ Push-Pull is available only with Bul. 800T.

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

Specifications*

Electrical Ratings		
Contact ratings	Refer to the contact ratings tables on page 10-4.	
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 1/4/12/13 (800T); Type 1/4/4X/12/13 (800H); EN/IEC 60529 IP66/65	
Mechanical design life cycles		
Push buttons	(Momentary, non-illuminated)	10 000 000 min.
	(Momentary, illuminated)	250 000 min.
	(Push-pull/twist-to-release)	250 000 min.
Selector switches	(Non-illuminated)	1 000 000 min.
	(Illuminated, key-operated)	200 000 min.
Potentiometers	25 000 min.	
All other devices	200 000 min.	
Contact operation	Shallow, mini, and low-voltage contact blocks: Slow, double make and break Logic Reed and sealed switch contact blocks: Single break magnetic	
Wire gauge/Terminal screw torque	#18...14 AWG (#18...10 Max Duty) / 6...8 lb•in	
Typical operating forces		
Operators without contact blocks	Flush, extended button, standard mushroom, jumbo plastic mushroom: 2 lbs max. Jumbo and extended aluminum mushroom head: 3.95 lbs max. Maintained selector switch: 3.6 in•lb max.	
Spring return selector switches	3.6 in•lb to stop, 0.2 in•lb to return	
Illuminated push buttons and push-to-test pilot lights	5 lb max.	
2-position push-pull	8.0 lb max. push or pull	
3-position push-pull	8 lb max. push to in position or pull to center position (15 lb max. pull to out position)	
Twist-to-release or push-pull	9 lbs max. push or pull 30 in•oz max. twist, 6 in•oz minimum return	
Potentiometer	Rotational torque 3...12 in•oz; stopping torque 12 in•lb (minimum)	
Contact blocks	Standard	1 lb
	Logic Reed	1 lb max.
	Sealed switch	3 lb max. at 0.205 in. plunger travel
	Stackable sealed switch	1 lb max.
	MaxDuty	1.4 lb max.
	PenTUFF	1.4 lb max.
	Self Monitoring	1.6 lb
Environment		
Temperature range	Operating	-40...+131 °F (-40...+55 °C)
	Storage	-40...+185 °F (-40...+85 °C)
Note: Operating temperatures below freezing are based on the absence of moisture and liquids. Consult your local Rockwell Automation sales office or Allen-Bradley distributor for use in lower temperature applications.		
Humidity	50...95% RH from 77...140 °F (25...60 °C) per Procedure IV of MIL-STD-810C, Method 507.1 cycling test	

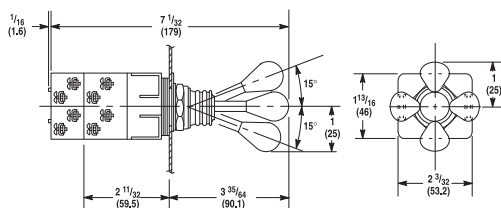
* Performance Data — See Important- 3.

30.5 mm Push Buttons

Approximate Dimensions

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

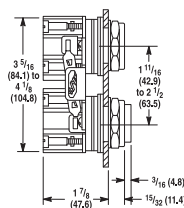
Push Buttons and Switches (Bul. 800T Only)



2-3-4 Way Switch

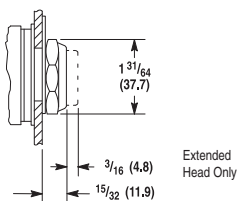
Shipping Wt. with 2 Contact Blocks 6 oz (0.17 kg)

Shipping Wt. with 4 Contact Blocks 8-1/2 oz (0.24 kg)



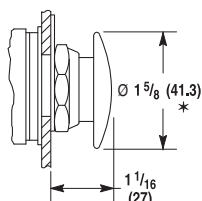
Mechanically Interlocked
Maintained Contact Push Button
Shipping Wt. 1 lb (0.45 kg)

Push Buttons and Pilot Lights



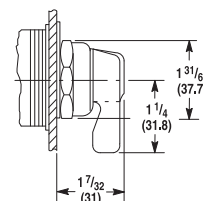
Flush and Extended
Head Push Button

Shipping Wt. 5-1/2 oz (0.15 kg)

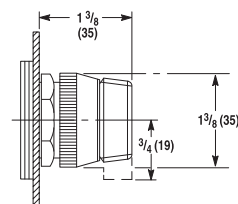


Mushroom Head Push Button

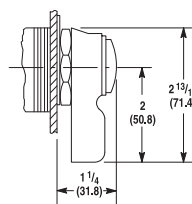
Shipping Wt. 7-1/2 oz (0.21 kg)



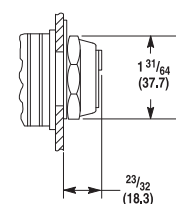
Non-Illuminated Knob Lever and
Standard Knob Selector Switch
Shipping Wt. 6 oz (0.17 kg)



Illuminated Knob Lever and
Standard Knob Selector Switch
Shipping Wt. 6 oz (0.17 kg)



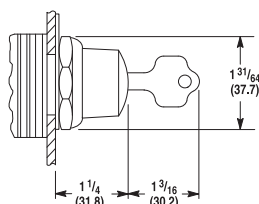
Wing Lever Selector Switch
Shipping Wt. 8 oz (0.22 kg)



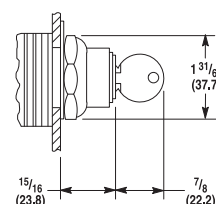
Coin Slot Selector Switch
Shipping Wt. 6 oz (0.17 kg)

* Except jumbo which is 2-1/4 (57.2).

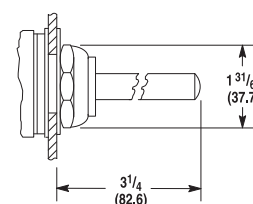
Operator Extension in Front of Panel (Bul. 800T Only)



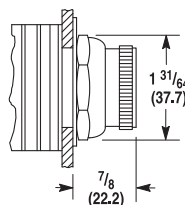
Key Operated Selector Switch
Shipping Wt. 12 oz (0.34 kg)



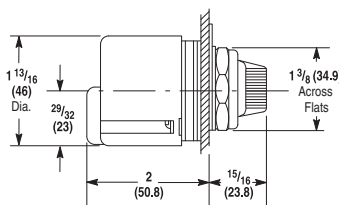
Push Button with Cylinder Lock
Shipping Wt. 12 oz (0.34 kg)



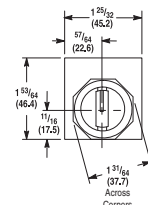
Wobble Stick
Shipping Wt. 9 oz (0.25 kg)



Selector Push Button
Shipping Wt. 6 oz (0.17 kg)



Type J Potentiometer Unit
Shipping Wt. 4 oz (0.11 kg)

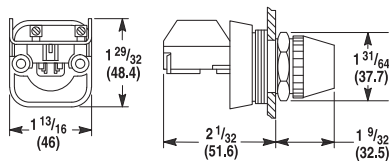


30.5 mm Push Buttons

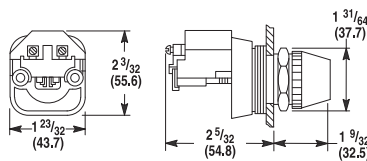
Approximate Dimensions

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

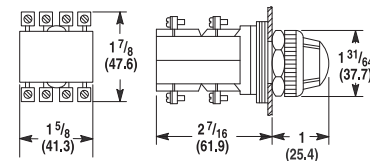
Pilot Light and Illuminated Devices (Bul. 800T Only)



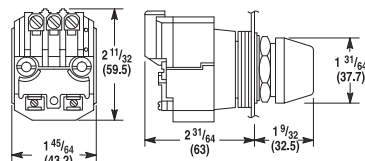
Full Voltage, Neon and
Dual Input Pilot Light
Shipping Wt. 5 oz (0.14 kg)



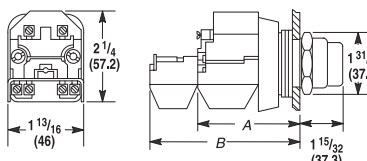
Transformer Type Pilot Light
Shipping Wt. 8 oz (0.22 kg)



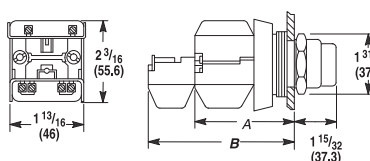
Cluster Pilot Light
Shipping Wt. 12 oz (0.34 kg)



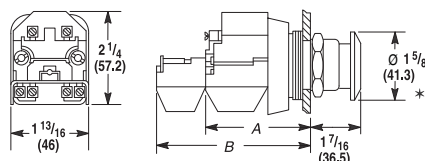
Dual Input Transformer
Type Pilot Light



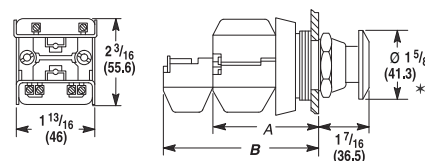
Transformer Type
(Push-to-Test Pilot Light and
Illuminated Push Button)



Full Voltage, Neon and Dual Input Type
(Push-to-Test Pilot Light and
Illuminated Push Button)



Push-Pull and Twist or Pull Release Units
(Transformer Type Illuminated)



Push-Pull and Twist or Pull Release Units
(Full Voltage, Neon and Dual Input
Illuminated and All Non-Illuminated)

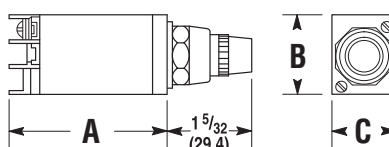
* Jumbo mushroom versions are 2-1/4 in. (57.2 mm) diameter.

Push-to-Test Pilot Lights Illuminated Push Buttons and Illuminated Push-Pull Buttons								Non-Illuminated Push-Pull Buttons				
Cat. No. Suffix✳	Description	Transformer Type		Full Voltage or Neon Type		Cat. No. Suffix	Description	Transformer Type				
		Dim.	Ship. Wt.	Dim.	Ship. Wt.			Dim.	Ship. Wt.			
D4	Transformer or Terminal Module and One Shallow Contact Block	A	2-5/32 (54.8)✚	9 oz. (0.25 kg)	A	2-1/32 (51.6)	7 oz. (0.25 kg)	D4	One Shallow Contact Block	A	2-1/32 (51.6)	5 oz. (0.14 kg)
A1 and A7	Transformer or Terminal Module and One Shallow Block and One Mini Contact Block	B	2-7/8 (73)	10 oz. (0.28 kg)	B	2-7/8 (73)	8 oz. (0.22 kg)	A4 A5 A7	Two Shallow Contact Blocks	A	2-1/32 (51.6)	6 oz. (0.17 kg)
AP D1P D2P	Transformer or Terminal Module and One Sealed Switch Contact Block	A	3-1/32 (77)	10 oz. (0.28 kg)	A	2-29/32 (73.8)	8 oz. (0.22 kg)	B6	Two Shallow Blocks and Two Mini Contact Blocks	B	2-7/8 (73)	8 oz. (0.22 kg)

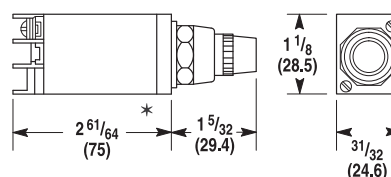
* Applies to illuminated push-pull push buttons only.

† Dual input type pilot light dimension is 2-13/32 in. (61.1 mm).

18 mm Small Pilot Lights



Small Pilot Light Including Push-To-Test
Shipping Weight 3 oz (0.08 kg)



Small Pilot Light Dual Input (Diode)
Shipping Weight 3 oz (0.08 kg)

Device	A	B	C
800T-PS, -PSD, -PST, -QS, -QST, and -RST	2-1/4 (57.2)	1-1/16 (27)	27/32 (21.4)
800T-PSDT	2-61/64 (75)	1-15/64 (31.4)	31/32 (24.6)

* Transfer dual input pilot light dimension is 2-31/32 in. (75.4 mm).