

Bulletin 800T/H
30.5 mm Push Buttons
 Selector Switches

2-Position Knob/Lever Type Selector Switch Devices, Illuminated



Standard Knob Operator
 Cat. No. 800T-16HR2KB6AX



Knob Lever Operator
 Cat. No. 800H-16HRR17KB6AX

Type	Lamp Type	Volts	Knob Color	Operator Position		M = Maintained S = Spring Return	Type 4/13	Type 4/4X/13
							Standard Knob	Standard Knob
							Cat. No.	Cat. No.
Operator Only*				No Contacts		M M	800T-00HX2KB6	800H-00HRX2KB6
Full Voltage	Incandescent	24V AC/DC	Red	X O	O X	M M	800T-24HR2KB6AX	800H-24HRR2KB6AX
						S→M*	800T-24HR4KL8AX	800H-24HRR4KL8AX
						M←S	800T-24HR5KL8AX	800H-24HRR5KL8AX
	No Lamp	0...250V AC/DC	No Knob			M M	800T-25HXN2KB6AX	800H-25HRXN2KB6AX
Universal	LED	12...130V AC/DC	Red			M M	800T-2HRH2KB6AX	800H-2HRRH2KB6AX
						S→M*	800T-2HRH4KL8AX	800H-2HRRH4KL8AX
						M←S	800T-2HRH5KL8AX	800H-2HRRH5KL8AX
Transformer	Incandescent	120V AC 50/60 Hz	Red			X O	O X	M M
				S→M*	800T-16HR4KL8AX			800H-16HRR4KL8AX
				M←S	800T-16HR5KL8AX			800H-16HRR5KL8AX
	M M			800T-16HRH2KB6AX	800H-16HRRH2KB6AX			
	S→M*			800T-16HRH4KL8AX	800H-16HRRH4KL8AX			
	M←S			800T-16HRH5KL8AX	800H-16HRRH5KL8AX			
	LED	120V AC 50/60 Hz	No Knob	M M	800T-16HXN2KB6AX			800H-16HRXN2KB6AX
				M M	800H-16HRXN2KB6AX			800H-16HRXN2KB6AX

Note: X = Closed/O = Open

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

* Target tables are reversed from those shown.

800 T - 16 H R 2 KB6 A X

a b c d e f g h i j

1st Level 2nd Level

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

Power Module Type and Voltage	
Full Voltage — Incandescent	
Code	Description
12	12V AC/DC
24	24V AC/DC
48	48V AC/DC
Universal — LED	
2	12...130V AC/DC
Transformer	
16	120V AC 50/60 Hz
26	240V AC 50/60 Hz

For other voltages, please contact your local Rockwell Automation sales office or Allen-Bradley distributor.

No. of Positions		
Bul. 800T Type 4/13	Description	Bul. 800H Type 4/4X/13
Code		Code
H	2-position	HR

Knob Color	
Code	Color
A	Amber
B	Blue
C	Clear
G	Green
R	Red
W	White
X	No knob

Illumination Options	
Code	Description
Blank	Incandescent
H	LED

Table 1. Selector Switch Cam Targets

Cam Description (2-Position)		
Target		Contact Block Code*
O	X	D, H, V, R, 5
X	O	E, U, W, S, 6

Operator Function and Knob Type	
Standard Knob or No Knob	
Code	Operator Function
2	Maintained
4	Spring return from left
5	Spring return from right
Knob Lever	
17	Maintained
18	Spring return from left
19	Spring return from right

Cam Options	
2-Position	
Code	Operator Function
KB6	Maintained Cam
KL8	Spring Return Cam

Table 2. Contact Block Code Reduction Rules

Contact Block Substitution	
Combination	Code
Standard	
D + E	A
D + D	M
E + E	N

Contact Blocks*	
Code	Description
Blank (both pos.)	No contacts
Standard	
D	1 N.O.
E	1 N.C.
A	1 N.O. - 1 N.C.
X	No contacts in this position
PenTUFF (Low Voltage)	
H	1 N.O.
U	1 N.C.
F	1 N.O. - 1 N.C.
Class 1, Div. 2/Zone 2	
Logic Reed	
V	1 N.O.
W	1 N.C.
T	1 N.O. - 1 N.C.
Sealed Switch	
R	1 N.O.
S	1 N.C.
P	1 N.O. - 1 N.C.
Stackable Sealed Switch	
5	1 N.O.
6	1 N.C.
7	1 N.O. - 1 N.C.

* Contact blocks used on white side only.

* Target tables are reversed for spring return from left operators.

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	

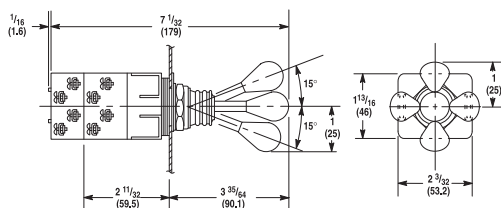
* Performance Data — See Important- 3.

30.5 mm Push Buttons

Approximate Dimensions

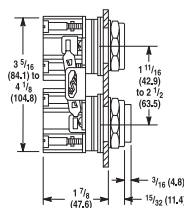
Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

Push Buttons and Switches (Bul. 800T Only)



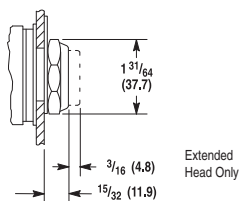
2-3-4 Way Switch

Shipping Wt. with 2 Contact Blocks 6 oz (0.17 kg)
Shipping Wt. with 4 Contact Blocks 8-1/2 oz (0.24 kg)



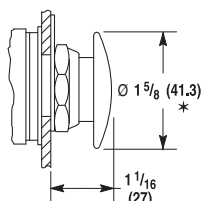
Mechanically Interlocked
Maintained Contact Push Button
Shipping Wt. 1 lb (0.45 kg)

Push Buttons and Pilot Lights

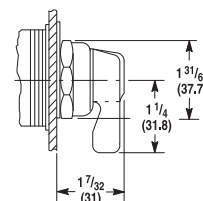


Flush and Extended
Head Push Button

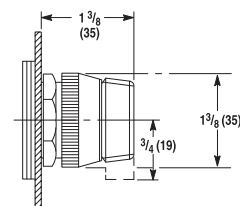
Shipping Wt. 5-1/2 oz (0.15 kg)



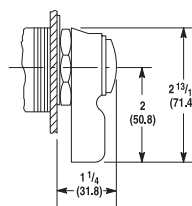
Mushroom Head Push Button
Shipping Wt. 7-1/2 oz (0.21 kg)



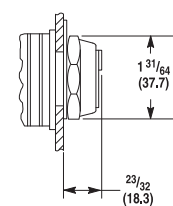
Non-Illuminated Knob Lever and
Standard Knob Selector Switch
Shipping Wt. 6 oz (0.17 kg)



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



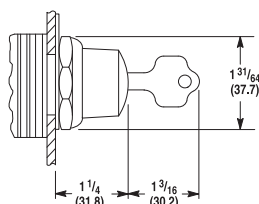
Wing Lever Selector Switch
Shipping Wt. 8 oz (0.22 kg)



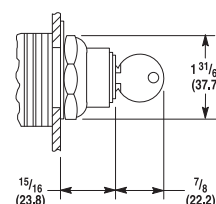
Coin Slot Selector Switch
Shipping Wt. 6 oz (0.17 kg)

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

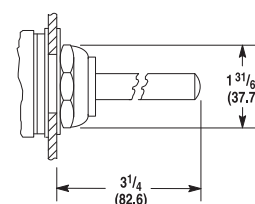
Operator Extension in Front of Panel (Bul. 800T Only)



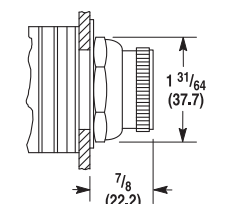
Key Operated Selector Switch
Shipping Wt. 12 oz (0.34 kg)



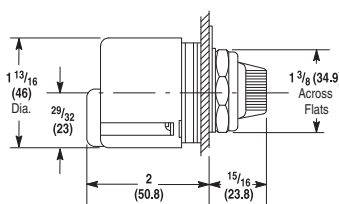
Push Button with Cylinder Lock
Shipping Wt. 12 oz (0.34 kg)



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)

