

22.5 mm Push Buttons

Product Selection

Back-of-Panel Components, Continued

Power Modules with Contact Blocks and Latch — Composite

800F – P N 5 R X 1 0 E
a b c d e f g h

a

Style	
Code	Description
P	Plastic latch
M	Metal latch

b

Power Module Type*⚡	
Code	Description
D	Incandescent module, screw termination
N	Integrated LED module, screw termination
Q	Integrated LED module, spring-clamp termination

c

Voltage	
Code	Description
0	No bulb‡
1	6V AC/DC‡
2	12V AC/DC‡
3	24V AC/DC
4	48V AC/DC‡
5	120V AC
7	240V AC§

d

Lamp Color⚡	
Code	Description
C	Incandescent
R	Red LED
G	Green LED
Y	Amber LED
W	White LED
B	Blue LED

e

Contact Block(s) Termination Style	
Code	Description
X	Screw termination
Q	Spring-clamp termination

f

N.O. (Normally Open) Circuits	
Code	Description
0	No contact
1	1 N.O.
2	2 N.O.
3	3 N.O.
4	4 N.O.

g

N.C. (Normally Closed) Circuits	
Code	Description
0	No contact
1	1 N.C.
2	2 N.C.
3	3 N.C.
4	4 N.C.

h

Specialty Contact Block(s)	
Code	Description
Blank	Standard blocks
V	Low voltage — QuadCONNECT™
E	N.O. early make
L	N.C. late break
B	N.C. early break
S	N.C. self-monitoring

* Four circuits maximum allowable when power module is used. Contact blocks cannot be stacked on power module.

⚡ LED modules for use with all illuminated operators. Incandescent module for use with pilot lights, push buttons, and momentary mushroom operators only.

‡ Only available for incandescent module.

§ Only available for integrated LED module.

⚡ For best illuminated results, LED should match lens color. For yellow operator, select a white LED.

Bulletin 800F

22.5 mm Push Buttons

Specifications

Back-of-Panel Components*

Electrical Ratings				
Standard contact block ratings		A600, Q600 600V AC AC 15, DC 13 to IEC/EN 60947-5-1 and UL 508, 17V, 5 mA min.		
Low voltage contact block ratings✳		5V, 1 mA DC min. C300, R150, AC 15, DC 13 to EN 60947-5-1 and UL 508		
Nominal Voltage		Range	Current Draw	Frequency
LED Module Ratings	24...120V AC/DC	20...132V AC/DC	15 mA (AC), 12 mA (DC)	50/60 Hz, DC
	24V AC	10...29V AC	31 mA	50/60 Hz
	24V DC	10...30V DC	24 mA	DC
	120V AC	102...132V AC	6 mA	50/60 Hz
	240V AC	204...264V AC	6 mA	50/60 Hz
Thermal current		10 A max. enclosed (40 °C ambient) to UL508, EN 60947-5-1		
Insulation voltage (U _i)		Screw terminal = 690V, spring-clamp = 300V		
Wire capacity (screw terminal)‡		#18...12 AWG (0.75...2.5 mm²) Max. (2) #14 AWG or (1) #12 AWG		
Wire capacity (spring-clamp terminal)		#18...14 AWG (0.75...1.5 mm²) One per spring clamp, two spring clamps per terminal		
Recommended tightening torque on screw terminals		0.7...0.9 N•m (6...8 lb•in)		
Dielectric strength (minimum)		2500V for one minute		
External short circuit protection	Standard blocks	10 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4)		
	Low voltage contact blocks	6 A type gL/gG cartridge fuse to EN 60269-2-1 or gN (Class J to UL 248-8 or Class C to UL 248-4)		
Electrical shock protection		Finger-safe conforming to IP2X		
Mechanical Ratings				
Vibration (assembled to panel)		Tested at 10...2000 Hz, 1.52 mm displacement (peak-to-peak) max./10 G max. 6 hr		
Shock		Tested at 1/2 cycle sine wave for 11 ms and no damage at 100 G max.		
Contact durability per EN 60947-5-1 (Annex C)		10 000 000 cycles		
Contact operation	N.O.	Slow double make and break		
	N.C. & S.M.C.B.	Slow double make and break — positive opening ⤵		
	N.O.E.M.	Double break / double make, early make		
	N.C.L.B.	Double break / double make, late break — positive opening ⤵		
	N.C.E.B.	Double break / double make, early break — positive opening ⤵		
Push button travel to change electrical state		N.C. and N.O.E.M.	1.5 mm (0.060 in.)	
		N.O. and N.C.L.B.	2.5 mm (0.1 in.)	
Operating forces (typical)	Single circuit contact block	3.4 N		
	Dual circuit contact block	5...6.5 N		
Illumination				
LED Dominant Wavelength	Green	525 nm		
	Red	629 nm		
	Yellow	590 nm		
	Blue	470 nm		
	White	—		
LED Luminous Intensity	Green	780 mcd		
	Red	780 mcd		
	Yellow	600 mcd		
	Blue	168 mcd		
	White	360 mcd		
Incandescent maximum wattage		2.6 W		
Materials				
Springs		Stainless steel and zinc coated music wire		
Electrical contacts	Standard	Silver-nickel		
	Low voltage	Gold-plated over silver		
Terminals	Screw	Brass		
	Spring-clamp	Silver-plated brass		

* Performance Data — see page Important-3 of the Industrial Controls catalog.

* Low voltage contacts are recommended for applications below 17V, 5 mA.

‡ Wires less than #18 AWG (0.75 mm²) may not hold in terminal securely.

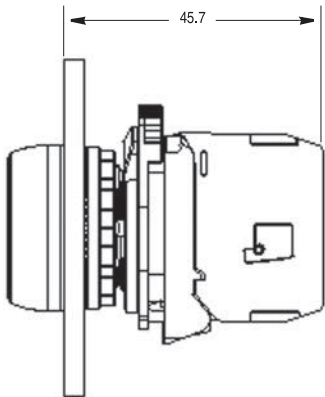
Bulletin 800F

22.5 mm Push Buttons

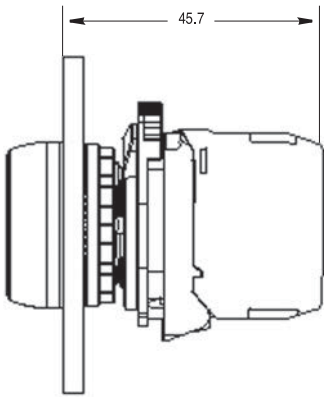
Approximate Dimensions

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

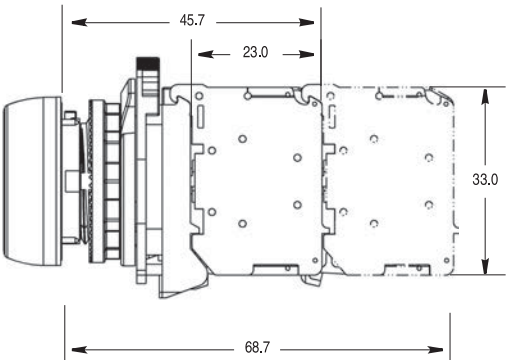
Back-of-Panel Components —
Incandescent Module with Latch



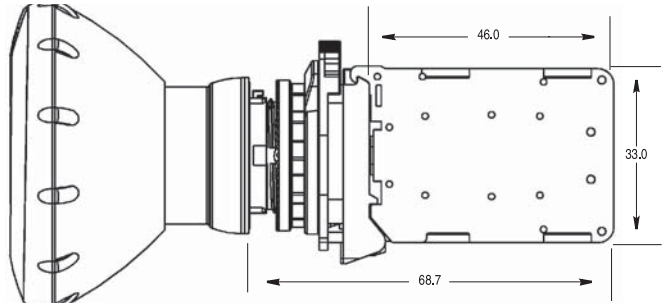
Back-of-Panel Components —
LED Module with Latch



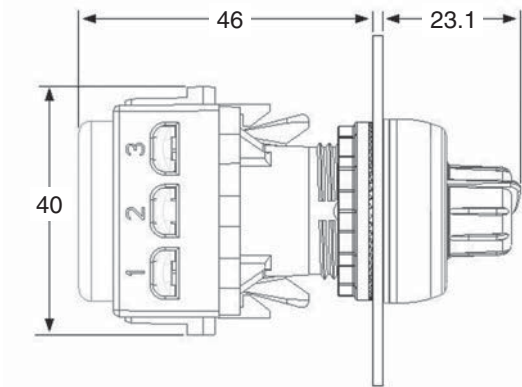
Back-of-Panel Components —
Contact Cartridges with Latch



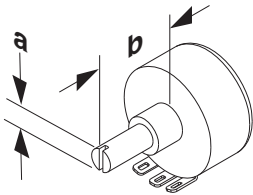
Back-of-Panel Components —
Dual Circuit Contact Block or
Self Monitoring Contact Block
(Max. of 1 Deep)



Potentiometer with Resistive Element



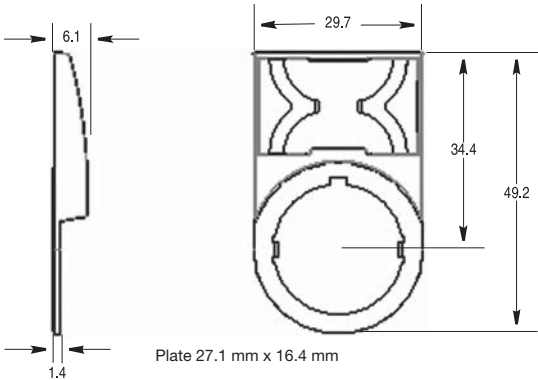
Customer Supplied Resistive Element



	Max.		Min.
a (Ø Dia.)	6.4 (0.252)	5.9 (0.232)	5.7 (0.224)
b (Length)	24 (0.945)	32 (1.26)	14 (0.551)

Dimensions in millimeters (inches).

30 x 50 mm Snap-In Legend Plate



10

30 x 40 mm Snap-In Legend Plate

