Hubbell Industrial Controls, Inc. Push Button Elements

Specification Sheet • March 1992 • New

Hubbell's 22.5mm oil-tight push buttons and selector switches offer clean styling with simple installation. Hubbell's push buttons are designed to save space in modular designed panel installations. All of the devices mount from the rear of panel in a 22.5mm (7/8") diameter hole, and are secured from the front by an octagonal mounting nut.

Hubbell's push button components are designed to be used in the machine tool, food services and many heavy industries. These components offer NEMA 4X rating for use where corrosion resistance, water/oil/dust tight switching mechanisms are required. Their simple standardized mounting configuration makes them an excellent selection for all kinds of equipment where panel mounting is possible—indoor or outdoor.

Hubbell's push button switches allow for quick and easy conversion of button/pilot colors and number of contacts; allowing you to reduce the amount of component inventory necessary for normal maintenance. In addition to the push buttons and selector switches, Hubbell carries a complete line of pendant stations, enclosures and other wiring devices to complete your installation.

Specifications

International Standards/Approvals

- UL Listed File #EQ 545X
- CSA Certified Class #3211 03, File #47446
- UL508, CSA 22.2, NEMA

Environmental and Operating Conditions

- NEMA Type 1, 2, 3/3R, 4/4X, 12, 13 when mounted in enclosure rated for those same applications.
- Ambient Temperature Range Operating: -4° F (-20° C) to +140° F (+60° C) Storage: -40° F (-40° C) to +176° F (+80° C)

Contact Block Specifications

- NEMA A600, A300, B300 for AC & P300 for DC ratings
- UL486A & B Terminal secureness test
- Protected (shrouded) terminals
- Positive drive operation on NC contacts
- Terminal marking US Standard (NEMA)

Contact Ratings								
Description	Voltage AC					Voltage DC		
Description	120V	240V	480V	600V		24/28V	125V	250V
Make & Emergency Interrupting Capacity	60.0	30.0	15.0	12.0		5.7	1.1	0.55
Normal Load Break	5.0	3.0	1.5	1.2		5.7	1.1	0.55
Continuous Amperes	10.0	10.0	10.0	10.0		5.0	5.0	5.0
Volt-amperes - Make & Emerg. Inter. Cap.	7200	7200	7200	7200		138	138	138
Volt-amperes - Normal Load Break	720	720	720	720		138	138	138





Standard Pushbuttons

Hubbell's standard 22.5mm pushbuttons feature polyester construction for superior corrosion resistance, and the #6 terminal screws have self-lifting captive wire clamps to accommodate #22 through 2 - #12 wires per terminal. The pushbuttons mount in a round 22mm or 7/8" hold and directly interchange with competitive units. These pushbuttons are rated for NEMA 1, 2, 3/3r, 4/4X, 12 and 13 installations and are UL/CSA approved.

No. of	No. of C	ontacts	Button	Part
Speeds	N.O.	N.C.	Color	Number
One	1	1	Black	2040-80320-100
One	1	1	Red	2040-80320-101
One	1	1	Green	2040-80320-102
One	1	0	Black	2040-80320-103
One	0	1	Red	2040-80320-104
One	1	0	Green	2040-80320-105
Two	1	1	Black	2040-80320-110
One	2	2	Black	2040-80320-400
One	2	2	Red	2040-80320-401
One	2	2	Green	2040-80320-402

Mushroom Head Pushbuttons

Hubbell's mushroom head pushbuttons are constructed to the same standards and quality as the standard pushbuttons. Mushroom heads are available in black, red, green, or a special "Stop" red. Mushroom caps are easily replaced or interchanged in the field without special tools.

No. of	No. of C	ontacts	Button	Part	
Speeds	N.O.	N.C.	Color	Number	
One	1	1	Black	2040-80322-100	
One	1	1	Red	2040-80322-101	
One	1	1	Green	2040-80322-102	
One	1	1	"Stop" Red	2040-80322-103	
One	2	2	Black	2040-80322-400	
One	2	2	Red	2040-80322-401	
One	2	2	Green	2040-80322-402	
One	2	2	"Stop" Red	2040-80322-403	







Maintained Pushbuttons

Hubbell's maintained pushbuttons are available in two variations. Single button mushroom head "push-pull" units are stand alone buttons that are commonly used for a maintained "emergency stop" function which has "push-to-stop/push-to-start" operation. Single maintained buttons are used with another operator and an MRI "maintained reset interlock" to provide two button operations for either "maintained/maintained" or "maintained/momentary" action.

No. of	No. of C	ontacts	Button	Part
Speeds	N.O.	N.C.	Color	Number
"Push-Pull"	1	1	Black	2040-80323-100
"Push-Pull"	1	1	Red	2040-80323-101
"Push-Pull"	1	1	Green	2040-80323-102
Button	1	1	Black	2040-80323-103
Button	1	1	Red	2040-80323-104
Button	1	1	Green	2040-80323-105



Selector & Toggle Switches

Hubbell's selector switches are available in 2 or 3 position maintained or spring return operators. Hubbell also has a 2-position toggle switch that is rated at 10 amps.

С	ircui	ts	Operator	Туре	Type of Return		Part
Γ	\uparrow	Z	Operator	Л	\uparrow	7	Number
Х		0	Selector	М		М	2040-80321-100
0		Х	Toggle	М		М	2040-80321-101
Х О	X X	0 X	Selector	М	М	М	2040-80321-301
X 0 0	0 X 0	0 0 X	Selector	М	М	М	2040-80321-302
			Selector	М	М	М	2040-80321-303
Х	0	0	Selector	S	М	S	2040-80321-304
0	0	Х	Selector	S	М	М	2040-80321-305
			Selector	М	М	S	2040-80321-306





Specification Sheet 2040-1

M – Maintained Postion S – Spring Return Position X – Contact Closed 0 – Contact Open

Illuminated Pilot Lights

Hubbell's pilot lights are available in either 120V AC/DC or 250V AC/DC and are constructed to the same standards and quality as the pushbuttons. The pilot light bulb and lenses are easily removed for maintenance. Additional color lenses are available.

Type of Bulb	Voltage AC/DC	Lens Colors	Part Number
Neon	120V	Red	2040-80324-100
Neon	120V	Amber	2040-80324-101
Neon	120V	Green	2040-80324-102
Incandescent	120V	Red	2040-80324-210
Incandescent	120V	Amber	2040-80324-211
Incandescent	120V	Green	2040-80324-212
Incandescent	250V	Red	2040-80324-213
Incandescent	250V	Amber	2040-80324-214
Incandescent	250V	Green	2040-80324-215

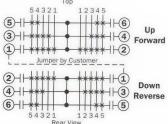
Two Button - Five Speed Element

Hubbell's two button - five speed element is specifically designed to meet the most severe conditions. The two buttons are mechanically interlocked which prevents both buttons from being depressed simultaneously. These switches are ideal for pendant or other control applications that require multi-speed operation.

No. of	No. of	Button	Part
Speeds	Contacts	Color	Number
Five	6-NO/Button Sequentially Closed	Black	2040-80825-000*

*CSA Approved







Push Button Elements

Accessories



Rubber Boots & Mushroom Caps

Hubbell has a large assortment of replacement boots, buttons, push-pull caps, and mushroom caps in red, green, yellow and They also have black. specially marked "Stop" caps.



Specification Sheet 2040-1

Pilot Light Lenses/Bulbs

Hubbell has red, amber, green, white, blue, and clear pilot light lenses that are interchangeable with the original lenses. They also have replacement incandescent and neon bulbs.



Cord Connector Kits

Hubbell has the patented Gotcha[®] Ring that grips the cord like a vise when the fitting is tightened. With the addition of the neoprene brushing, Hubbell's connectors are unsurpassed in liquid-tight performance and pull-out protection.



Nut Wrenches

specifically designed to simplify the installation of pushbuttons and selector switches, even those with mushroom heads.

Hubbell has nut wrenches

Name Plates

Hubbell has nameplates made from chemically resistant fiber. They are available as blanks or with special engravings.



Add-A-Block Contacts

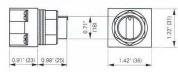
Hubbell has Add-A-Block contacts, which can add additional circuits to a 22mm pushbutton. With the addition of an Add-A-Block it is possible to construct pushbuttons with a total of six circuits. Available in 2-NO, 2-NC and NO/NC combinations schemes.

Dimensional Illustrations

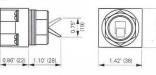
Standard Pushbuttons

8	B		e la	
- Clark	B		0.6	
0.86* (22)	0.86' (22)	0.91" (23)		1.42* (36)

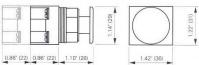
Selector Switches



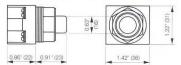
Toggle Switches



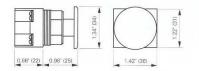
Mushroom Head Pushbuttons



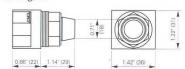
Maintained Pushbuttons



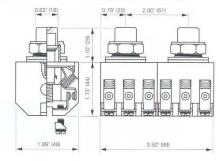
Maintained "Push-Pull" Buttons



Pilot Lights



Two Button – Five Speed Elements



Hubbell Industrial Controls, Inc. A subsidiary of Hubbell Incorporated 4301 Cheyenne Dr., Archdale, NC. 27262 Telephone (336) 434-2800 • FAX (336) 434-2803 http://www.hubbell-icd.com Sales@hubbell-icd.com



