

HT800 30mm Pushbuttons Specifications

Overview

The HT800 family of 30.5 mm pushbutton devices includes momentary, illuminated and mushroom-head pushbuttons, selector switches, indicating lights and push-pull switches.

Features

- · Anodized aluminum mounting rings
- Watertight double V-gasket seals
- Extended height bulbs
- Transparent housing contact blocks
- · Color-coded contact blocks
- Gold-plated contacts (on low voltage contact block)
- · Reliability ridge on movable contact
- Stackable screw-mounted contact blocks
- Contact blocks can be mounted in left/right or top/bottom positions
- Standard N.C. contact opens before N.O. contact closes (break before make operation)
- Bright and long lasting LED indicating lights in six colors
- Field convertible maintained selector switches from two-position to three-position and vice versa
- Field selectable knob/lever mounting positions at any 22.5° increment

Benefits

- Corrosion resistant NEMA 4X finish
- Watertight and oil-tight NEMA 4, 13 ingress protection
- Increased side illumination of indicating lights and illuminated pushbuttons
- Easy visual inspection of contact conditions
- Easily identifiable N.O. (white) or N.C. black) contact blocks
- Gold-plated contacts suitable for logic level circuits
- Reliability ridge penetrates contamination buildup on stationary contacts
- Left/right or top/bottom mounted contact blocks allow correct positioning in retrofit applications
- All-purpose selector switches are convertible and can rotate in 22.5° increments to suit panel layouts

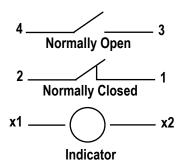
Standards and Certifications

- UL508, File No. E131568
- CSA C22.2 No. 14, File No. LR68551

Inaress Protection

 UL (NEMA) 1, 2, 3, 3R, 4, 4X, 12 and 13 when mounted in similarly rated enclosures

Typical Wiring



Cutler-Hammer

HT800 30mm Pushbuttons Specifications

HT800 — Specifications						
Mechanical Ratings						
Frequency of Operation						
Pushbuttons	6,000 Operations per hour					
Selector Switches	3,000 Operations per hour					
Push-Pull Operators	3,000 Operations per hour					
Mechanical Endurance/Life						
Pushbuttons	10×10^6 Operations 6K Ops/Hr with 6 N.O. on left and 6 N.C. on right					
Selector Switches	250 x 10 ³ Operations 3K Ops/Hr with 2 N.O. on left and 2 N.C. on right					
Push-Pull Operators	250 x 10 ³ Operations 3K Ops/Hr with 6 N.O. on left and 6 N.C. on right					
Environmental Specifications						
Operating Temperature	10 to 140°F (-12° to 60°C)					
Storage Temperature	-40 to 176°F (-40° to 80°C)					
Altitude	6,562 ft. (2,000m)					
Humidity	95% RH @ 60°C					
Terminals						
Contact Blocks	#6-32 posi-drive saddle clamp type, 1 x 16 AWG to 2 x 14 AWG, 12 in-lbs max.					
Light Units	#6-32 posi-drive saddle clamp type, 1 x 22 AWG to 2 x 14 AWG, 7 in-lbs max.					

HT800 Standard Contact Blocks UL (NEMA) Rating						
Electrical Ratings Description/Function	Contact Type	Catalog Number	AC	DC		
Standard Normally Open contact	N.O.	HT8A	A600	P600		
Standard Normally Closed contact	N.C.	HT8B	A600	P600		
Normally Open Early Make Contact will make circuit before standard N.O. contact. DC ratings do not apply.	N.O.E.M.	HT8C	A600	_		
Normally Closed Late Break contact will open after standard N.C. contact. DC ratings do not apply.	N.C.L.B.	HT8D	A600	_		
Logic level, low voltage N.O .contact. Gold plated contacts.	N.O.	HT8E		minimum) A (maximum)		

UL (NEMA) A600 and P600 Ratings								
Description		Volts AC 50/60 Hz				Volts DC 1		
		240	480	600	125	250	600	
Make and Emerg. Interrupting Capacity (Amp)	60	30	15	12	1.1	0.55	0.2	
Normal Load Break (Amp)	6	3	1.5	1.2	1.1	0.55	0.2	
Thermal Current (Amp)	10	10	10	10	5	5	5	
Volt amperes								
Make and Emerg. Interrupting Capacity	7200	7200	7200	7200	138²	138²	138²	
Normal Load Break	720	720	720	720	138	138	138	

Note: 1: DC ratings do not apply to N.O.E.M. (Normally Open Early Make) and N.C.L.B. (Normally Closed Late Break) contact blocks HT8C and HT8D.

2: Maximum make or break volt-amperes at 300V or less



HT800 30mm Push-Pull Illuminated Pushbutton

Contact Configuration	24 Volt Incandescent full Voltage Lamp 50mA @ 24 Volts	Price	120 Volt Incandescent Full Voltage Lamp 19mA @ 120 Volts	Price	24 Volt LED full Voltage Lamp	Price	120 Volt LED full Voltage Lamp	Price
Red Lens								
Operator only	HT8FBRV3	\$166.00	HT8FBRV7	\$166.00	HT8FBRF3	\$182.00	HT8FBRF7	\$182.00
1 N.O.	*HT8FBRAV3	\$159.00	*HT8FBRAV7	\$159.00	*HT8FBRAF3	\$175.00	*HT8FBRAF7	\$175.00
1 N.C.	*HT8FBRBV3	\$159.00	*HT8FBRBV7	\$159.00	*HT8FBRBF3	\$175.00	*HT8FBRBF7	\$175.00
Green Lens								
Operator only	HT8FBGV3	\$166.00	HT8FBGV7	\$166.00	HT8FBGF3	\$182.00	HT8FBGF7	\$182.00
1 N.O.	*HT8FBGAV3	\$159.00	*HT8FBGAV7	\$159.00	*HT8FBGAF3	\$175.00	*HT8FBGAF7	\$175.00
1 N.C.	* <u>HT8FBGBV3</u>	\$159.00	* <u>HT8FBGBV7</u>	\$159.00	* <u>HT8FBGBF3</u>	\$175.00	*HT8FBGBF7	\$175.00



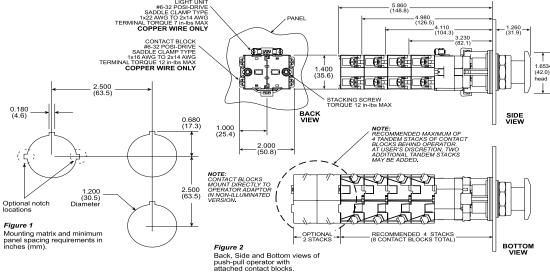
HT8FBRV3

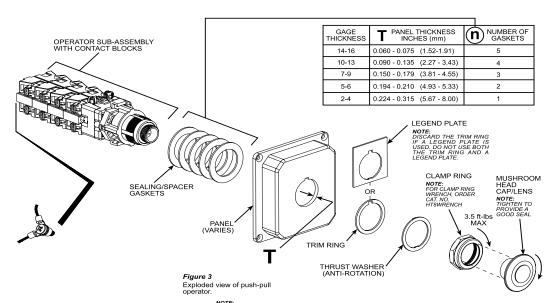


HT8FBGF3

Notes: A grounding kit is included with each operator or switch assembly.
*Part numbers with an * are kitted from individual components at AutomationDirect.
The individual components are picked and shipped in the same shipping box. Final assembly of the individual components must be done by the customer.

30.5 mm Pushbutton Installation and Mounting Instructions - inches (mm)





FOR EASY BULB REMOVAL FRO FRONT OF PANEL USE BULB REMOVATION CATNO. HT8LAMPTOON

Cutler-Hammer

HT800 30mm Contact Blocks & **Accessories**

Contact blocks



HT8A



HT8 Series Contact Blocks					
Part Number	Description	Price			
<u>HT8A</u>	Normally open contact block for HT8 series switches. NEMA Rated A600, P6001	\$16.50			
<u>HT8B</u>	Normally closed contact block for HT8 series switches. NEMA Rated A600, P6001	\$16.50			
HT8C	Early closing normally open contact block for HT8 series switches. NEMA Rated A6001	\$40.00			
HT8D	Late opening normally closed contact block for HT8 series switches. NEMA Rated A6001	\$16.50			
<u>HT8E</u>	Logic level normally open contact block for HT8 series switches. Gold plated contacts for reliable low energy switching. Power Rating: Min 1mA @ 5V; Max 500mA 28V.	\$33.00			

- See HT800 specifications in this section for typical contact wiring diagram.
 NEMA ICS 5-2000. For more information, refer to HT800 technical specifications and control circuit. contact electrical ratings at the beginning of this section.

Spare parts and tools







HT8LAMPTOOL



109305



HT8BULBV3



HT8LEDYF3

	HT8 Series Spare Parts and Tools	
Part Number	Description	Price
HT8WRENCH	Installation wrench for Cutler-Hammer HT8 series and E22 series pushbuttons, switches, and indicators	\$19.00
HT8LAMPTOOL	Bulb extraction tool for removing bulbs from switches, indicators and stacklights	\$10.00
<u>109305</u>	Knockout punch hole cutting tool for 30.5 mm mounting hole. Includes punch, die and draw stud	\$34.50
<u>HT8X1</u>	Spare anti-rotation ring for HT8 series. Included with each HT8 device. (not shown)	\$3.25
HT8X2	Spare trim ring for HT8 series. Included with each HT8 device. (not shown)	\$3.25
HT8X3	Spare sealing/spacing ring for HT8 series. Included with each HT8 device. (not shown)	\$3.25
HT8GR1	Spare grounding kit for HT8 series devices except non-PTT indicators. Included with each HT8 device. (not shown)	\$3.25
HT8GR2	Spare grounding kit for HT8 series non-PTT indicators. Included with each HT8 device. (not shown)	\$3.25
HT8BULBV3	24 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 50mA at 24 volts.	\$14.00
HT8BULBV7	120 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 19mA at 120 volts.	\$14.00
HT8LEDRF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red	\$38.50
HT8LEDYF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow	\$38.50
HT8LEDGF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green	\$40.00
HT8LEDBF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue	\$44.00
HT8LEDWF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White	\$48.50
HT8LEDAF3	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber	\$39.00
HT8LEDRF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red	\$38.50
HT8LEDYF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow	\$38.50
HT8LEDGF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green	\$40.00
HT8LEDBF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue	\$44.00
HT8LEDWF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White	\$48.50
HT8LEDAF7	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber	\$39.00

NOTE: LED modules have very low current draw and should not be used with triac output devices like PLC triac output modules.

30mm Legend Plates

Cutler-Hammer

For Push	button (Operator	rs and
	dicating		o allia
Legend	Color of Field	Catalog Number	Price
Clamp	Black	HT8SP90	\$7.75
Close	Black	HT8SP73	\$7.75
Down	Black	HT8SP74	\$7.75
Emergency Stop	Red	<u>HT8SP13</u>	\$7.75
Fast	Black	HT8SP75	\$7.75
Faster	Black	HT8SP87	\$7.75
Feeder On	Black	HT8SP94	\$7.75
Feeder Off	Black	HT8SP95	\$7.75
Forward	Black	HT8SP15	\$7.75
High	Black	HT8SP16	\$7.75
In	Black	HT8SP17	\$7.75
Inch	Black	HT8SP18	\$7.75
Jog	Black	HT8SP19	\$7.75
Jog Forward	Black	HT8SP20	\$7.75
Jog Reverse	Black	HT8SP21	\$7.75
Low	Black	HT8SP22	\$7.75
Lower	Black	HT8SP23	\$7.75
Lube-fail	Black	HT8SP92	\$7.75
Motor Run	Black	HT8SP81	\$7.75
Motor Stop	Black	HT8SP82	\$7.75
Off	Red	HT8SP24	\$7.75
On	Black	HT8SP25	\$7.75
Open	Black	HT8SP26	\$7.75
Out	Black	<u>HT8SP27</u>	\$7.75
Power On	Black	HT8SP80	\$7.75
Raise	Black	<u>HT8SP28</u>	\$7.75
Ready	Black	HT8SP86	\$7.75
Reset	Black	<u>HT8SP29</u>	\$7.75
Reverse	Black	HT8SP30	\$7.75
Run	Black	<u>HT8SP31</u>	\$7.75
Safe	Black	HT8SP85	\$7.75
Slow	Black	<u>HT8SP32</u>	\$7.75
Slower	Black	<u>HT8SP88</u>	\$7.75
Start	Black	<u>HT8SP33</u>	\$7.75
Stop	Red	HT8SP34	\$7.75
Test	Black	HT8SP83	\$7.75
Transfer	Black	HT8SP93	\$7.75
Trip	Black	HT8SP84	\$7.75
Unclamp	Black	HT8SP91	\$7.75
Up	Black	HT8SP35	\$7.75
*Note: Dimens	sions: 1.77" (45mm) x1.77"	(45mm)



For Selector Switch Operators/							
	Two-Position						
Legend	Color of Field	Catalog Number	Price				
Forward Reverse	Black	<u>HT8SP38</u>	\$7.75				
Hand Auto	Black	HT8SP39	\$7.75				
High Low	Black	HT8SP40	\$7.75				
Jog Run	Black	HT8SP41	\$7.75				
Manual Auto	Black	HT8SP67	\$7.75				
Off On	Black	HT8SP42	\$7.75				
Open Close	Black	HT8SP43	\$7.75				
Run Jog	Black	HT8SP44	\$7.75				
Safe Run	Black	HT8SP45	\$7.75				
Start Jog	Black	HT8SP46	\$7.75				
Start Stop	Black	HT8SP47	\$7.75				
Up Down	Black	HT8SP48	\$7.75				

For Selector Switch Operators/ Three-Position					
Legend	Color of Field	Catalog Number	Price		
Auto Off Hand	Black	HT8SP49	\$7.75		
For. Off Rev	Black	HT8SP50	\$7.75		
For. Safe Rev.	Black	HT8SP69	\$7.75		
Hand Off Auto	Black	HT8SP51	\$7.75		
Man. Off Auto	Black	HT8SP68	\$7.75		
Open Off Close	Black	HT8SP53	\$7.75		
Run Safe Jog	Black	<u>HT8SP70</u>	\$7.75		
Up Off Down	Black	<u>HT8SP54</u>	\$7.75		
On Stop Safe	Black	HT8SP71	\$7.75		

For PUSH/PULL Units					
Legend 3/32" lettering	Color of Field	Catalog Number	Price		
ON/OFF	Black	HT8PP5	\$7.75		
OPEN/CLOSE	Black	HT8PP8	\$7.75		
UP/DOWN	Black	HT8PP11	\$7.75		

Square Blank Plastic Legend Plates					
Lettering	Color of Field	Catalog Number	Price		
Black	White/Silver	HT8SP76	\$7.75		
White	Red/Black	<u>HT8SP77</u>	\$7.75		

Round Plastic Legend Plates					
Legend	Color of Field	Catalog Number	Price		
ESTOP	Yellow	<u>HT8RP79</u>	\$7.75		

NOTE: 70 mm / 2-3/4" diameter

NOTE: All 30 mm legend plates are plastic.

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