## 1-800-633-0405 FAT-N Cutler-Hammer 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

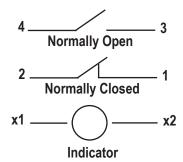
#### **Standards and Certifications**

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

#### Ingress Protection

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

## **Typical Wiring**



### 1-800-633-0405

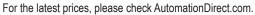
### HT800 30mm Pushbuttons F-T•N **Specifications Cutler-Hammer**

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	$10 \ x \ 10^6$ Operations 6K Ops/Hr with 6 N.O. on left and 6 N.C. on right					
Selector Switches	250 x 10 <sup>3</sup> Operations 3K Ops/Hr with 2 N.O. on left and 2 N.C. on right					
Push-Pull Operators	250 x 10 <sup>3</sup> 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.	<u>HT8A</u>	A600	P600	
Standard Normally Closed contact	N.C.	<u>HT8B</u>	A600	P600	
Normally Open Early Make Contact will make circuit before standard N.O. contact. DC ratings do not apply.	N.O.E.M.	<u>HT8C</u>	A600	_	
Normally Closed Late Break contact will open after standard N.C. contact. DC ratings do not apply.	N.C.L.B.	<u>HT8D</u>	A600	_	
Logic level, low voltage N.O .contact. Gold plated contacts.	N.O.	<u>HT8E</u>		minimum) A (maximum)	

UL (NEMA) A600 and P600 Ratings							
Description	Volts AC 50/60 Hz				V	Volts DC 1	
Description	120	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	138 <sup>2</sup>	138 <sup>2</sup>	138 <sup>2</sup>
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



HT8FBRV3

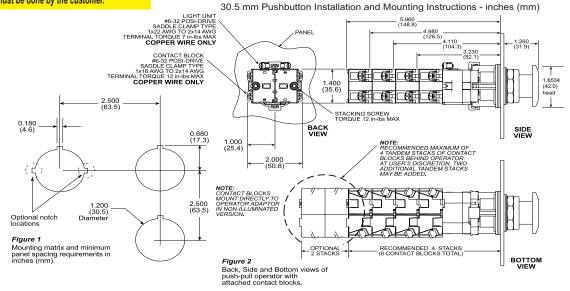
HT8FBGF3

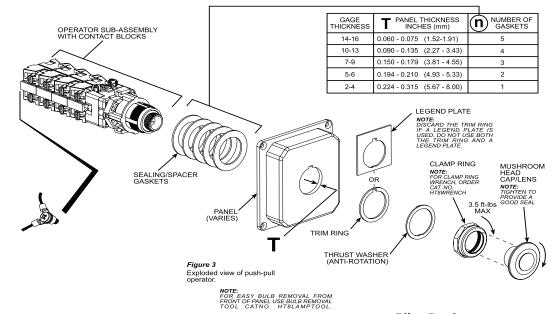
### 1-800-633-0405 F-T•N

## HT800 30mm Push-Pull Illuminated **Cutler-Hammer 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	Red Lens							
Operator only	HT8FBRV3	\$166.00	HT8FBRV7	\$166.00	HT8FBRF3	\$182.00	HT8FBRF7	\$182.00
1 N.O.	* <u>HT8FBRAV3</u>	\$159.00	* <u>HT8FBRAV7</u>	\$159.00	* <u>HT8FBRAF3</u>	\$175.00	* <u>HT8FBRAF7</u>	\$175.00
1 N.C.	* <u>HT8FBRBV3</u>	\$159.00	*HT8FBRBV7	\$159.00	* <u>HT8FBRBF3</u>	\$175.00	* <u>HT8FBRBF7</u>	\$175.00
Green Lens		<u> </u>						
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	* <u>HT8FBGBF7</u>	\$175.00

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.





### 1-800-633-0405 HT800 30mm Contact Blocks & F1.I.N **Cutler-Hammer Accessories**

## **Contact blocks**



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		
<u>HT8C</u>	Early closing normally open contact block for HT8 series switches. NEMA Rated A6001	\$40.00		
<u>HT8D</u>	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		

#### Notes

 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











**HT8WRENCH** 

**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			
<u>HT8X2</u>	Spare trim ring for HT8 series. Included with each HT8 device. (not shown)	\$3.25			
<u>HT8X3</u>	Spare sealing/spacing ring for HT8 series. Included with each HT8 device. (not shown)	\$3.25			
<u>HT8GR1</u>	Spare grounding kit for HT8 series devices except non-PTT indicators. Included with each HT8 device. (not shown)	\$3.25			
<u>HT8GR2</u>	Spare grounding kit for HT8 series non-PTT indicators. Included with each HT8 device. (not shown)	\$3.25			
<u>HT8BULBV3</u>	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.

# 1-800-633-0405 **5.T.N** 30mm Legend Plates

**Cutler-Hammer** 

For Pushbutton Operators and					
In	dicating	Lights			
Legend	Color of Field	Catalog Number	Price		
Clamp	Black	<u>HT8SP90</u>	\$7.75		
Close	Black	<u>HT8SP73</u>	\$7.75		
Down	Black	<u>HT8SP74</u>	\$7.75		
Emergency Stop	Red	<u>HT8SP13</u>	\$7.75		
Fast	Black	<u>HT8SP75</u>	\$7.75		
Faster	Black	<u>HT8SP87</u>	\$7.75		
Feeder On	Black	<u>HT8SP94</u>	\$7.75		
Feeder Off	Black	<u>HT8SP95</u>	\$7.75		
Forward	Black	<u>HT8SP15</u>	\$7.75		
High	Black	<u>HT8SP16</u>	\$7.75		
In	Black	<u>HT8SP17</u>	\$7.75		
Inch	Black	<u>HT8SP18</u>	\$7.75		
Jog	Black	<u>HT8SP19</u>	\$7.75		
Jog Forward	Black	<u>HT8SP20</u>	\$7.75		
Jog Reverse	Black	<u>HT8SP21</u>	\$7.75		
Low	Black	<u>HT8SP22</u>	\$7.75		
Lower	Black	<u>HT8SP23</u>	\$7.75		
Lube-fail	Black	<u>HT8SP92</u>	\$7.75		
Motor Run	Black	<u>HT8SP81</u>	\$7.75		
Motor Stop	Black	<u>HT8SP82</u>	\$7.75		
Off	Red	<u>HT8SP24</u>	\$7.75		
On	Black	<u>HT8SP25</u>	\$7.75		
Open	Black	<u>HT8SP26</u>	\$7.75		
Out	Black	<u>HT8SP27</u>	\$7.75		
Power On	Black	<u>HT8SP80</u>	\$7.75		
Raise	Black	<u>HT8SP28</u>	\$7.75		
Ready	Black	<u>HT8SP86</u>	\$7.75		
Reset	Black	<u>HT8SP29</u>	\$7.75		
Reverse	Black	<u>HT8SP30</u>	\$7.75		
Run	Black	<u>HT8SP31</u>	\$7.75		
Safe	Black	<u>HT8SP85</u>	\$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	<u>HT8SP34</u>	\$7.75		
Test	Black	<u>HT8SP83</u>	\$7.75		
Transfer	Black	<u>HT8SP93</u>	\$7.75		
Trip	Black	<u>HT8SP84</u>	\$7.75		
Unclamp	Black	<u>HT8SP91</u>	\$7.75		
Up	Black	<u>HT8SP35</u>	\$7.75		

\*Note: Dimensions: 1.77" (45mm) x1.77" (45mm)

For Selec			ators/
	Two-Pos	sition	
Legend	Color of Field	Catalog Number	Price
Forward Reverse	Black	<u>HT8SP38</u>	\$7.75
Hand Auto	Black	<u>HT8SP39</u>	\$7.75
High Low	Black	<u>HT8SP40</u>	\$7.75
Jog Run	Black	<u>HT8SP41</u>	\$7.75
Manual Auto	Black	<u>HT8SP67</u>	\$7.75
Off On	Black	HT8SP42	\$7.75
Open Close	Black	<u>HT8SP43</u>	\$7.75
Run Jog	Black	<u>HT8SP44</u>	\$7.75
Safe Run	Black	HT8SP45	\$7.75
Start Jog	Black	<u>HT8SP46</u>	\$7.75
Start Stop	Black	HT8SP47	\$7.75
Up Down	Black	<u>HT8SP48</u>	\$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	<u>HT8PP8</u>	\$7.75	
UP/DOWN	Black	<u>HT8PP11</u>	\$7.75	

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



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