

# EAT•N HT800 30mm Pushbuttons Specifications

Cutler-Hammer

The HT800 family of 30.5 mm push-button devices includes momentary, illuminated and mushroom-head push-buttons, 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

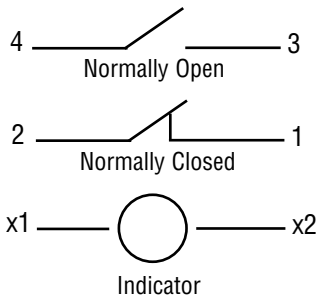
## Standards and Certifications

- 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





# HT800 30mm Pushbuttons Specifications

HT800 — Specifications	
<b>Mechanical Ratings</b>	
<b>Frequency of Operation</b>	
<b>Pushbuttons</b>	6,000 Operations per hour
<b>Selector Switches</b>	3,000 Operations per hour
<b>Push-Pull Operators</b>	3,000 Operations per hour
<b>Mechanical Endurance/Life</b>	
<b>Pushbuttons</b>	10 x 10 <sup>6</sup> Operations 6K Ops/Hr with 6 NO on left and 6 NC on right
<b>Selector Switches</b>	250 x 10 <sup>3</sup> Operations 3K Ops/Hr with 2 NO on left and 2 NC on right
<b>Push-Pull Operators</b>	250 x 10 <sup>3</sup> Operations 3K Ops/Hr with 6 NO on left and 6 NC on right
<b>Environmental Specifications</b>	
<b>Operating Temperature</b>	10° to 140°F (-12° to 60°C)
<b>Storage Temperature</b>	-40° to 176°F (-40° to 80°C)
<b>Altitude</b>	6,562 ft. (2,000m)
<b>Humidity</b>	95% RH @ 60°C
<b>Terminals</b>	
<b>Contact Blocks</b>	#6-32 posi-drive saddle clamp type, 1 x 16 AWG to 2 x 14 AWG, 12 in-lbs max.
<b>Light Units</b>	#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 <b>N</b> ormally <b>O</b> pen contact	NO	<b>HT8A</b>	A600	P600
Standard <b>N</b> ormally <b>C</b> losed contact	NC	<b>HT8B</b>	A600	P600
<b>N</b> ormally <b>O</b> pen <b>E</b> arly <b>M</b> ake Contact will make circuit before standard <b>N</b> O contact. DC ratings do not apply.	NOEM	<b>HT8C</b>	A600	—
<b>N</b> ormally <b>C</b> losed <b>L</b> ate <b>B</b> reak contact will open after standard <b>N</b> C contact. DC ratings do not apply.	NCLB	<b>HT8D</b>	A600	—
Logic level, low voltage <b>N</b> O contact. Gold plated contacts.	NO	<b>HT8E</b>	5V 1mA (minimum) 28V 500mA (maximum)	

UL (NEMA) A600 and P600 Ratings							
Description	Volts AC 50/60 Hz				Volts DC <sup>1</sup>		
	120	240	480	600	125	250	600
<b>Make and Emerg. Interrupting Capacity (Amp)</b>	60	30	15	12	1.1	0.55	0.2
<b>Normal Load Break (Amp)</b>	6	3	1.5	1.2	1.1	0.55	0.2
<b>Thermal Current (Amp)</b>	10	10	10	10	5	5	5
<b>Voltamperes</b>							
<b>Make and Emerg. Interrupting Capacity</b>	7200	7200	7200	7200	138 <sup>2</sup>	138 <sup>2</sup>	138 <sup>2</sup>
<b>Normal Load Break</b>	720	720	720	720	138	138	138

Note: 1: DC ratings do not apply to NOEM (Normally Open Early Make) and NCLB (Normally Closed Late Break) contact blocks HT8C and HT8D.

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

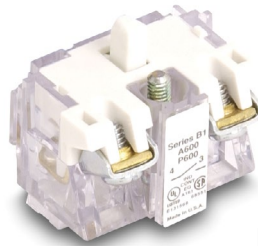




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# HT800 30mm Contact Blocks & Accessories

## Contact blocks



HT8A



HT8B

HT8 Series Contact Blocks		
Part Number	Description	Price
<b>HT8A</b>	Normally open contact block for HT8 series switches. NEMA Rated A600, P600 <sup>1</sup>	\$9.50
<b>HT8B</b>	Normally closed contact block for HT8 series switches. NEMA Rated A600, P600 <sup>1</sup>	\$9.50
<b>HT8C</b>	Early closing normally open contact block for HT8 series switches. NEMA Rated A600 <sup>1</sup>	\$23.00
<b>HT8D</b>	Late opening normally closed contact block for HT8 series switches. NEMA Rated A600 <sup>1</sup>	\$9.50
<b>HT8E</b>	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.	\$18.50

**Notes:**

1. See HT800 specifications in this section for typical contact wiring diagram.
2. 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
<b>HT8WRENCH</b>	Installation wrench for Cutler-Hammer HT8 series and E22 series pushbuttons, switches, and indicators	\$10.50
<b>HT8LAMPTOOL</b>	Bulb extraction tool for removing bulbs from switches, indicators and stacklights	\$5.50
<b>109305</b>	Knockout punch hole cutting tool for 30.5 mm mounting hole. Includes punch, die and draw stud	\$31.00
<b>HT8X1</b>	Spare anti-rotation ring for HT8 series. Included with each HT8 device. (not shown)	\$2.00
<b>HT8X2</b>	Spare trim ring for HT8 series. Included with each HT8 device. (not shown)	\$2.00
<b>HT8X3</b>	Spare sealing/spacing ring for HT8 series. Included with each HT8 device. (not shown)	\$2.00
<b>HT8GR1</b>	Spare grounding kit for HT8 series devices except non-PTT indicators. Included with each HT8 device. (not shown)	\$2.00
<b>HT8GR2</b>	Spare grounding kit for HT8 series non-PTT indicators. Included with each HT8 device. (not shown)	\$2.00
<b>HT8BULBV3</b>	24 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 50mA at 24 volts.	\$7.50
<b>HT8BULBV7</b>	120 volt incandescent bulb for HT8 illuminated devices. This is an extended bulb for enhanced illumination with HT8 devices. 19mA at 120 volts.	\$7.50
<b>HT8LEDRF3</b>	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red	\$21.50
<b>HT8LEDYF3</b>	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow	\$21.50
<b>HT8LEDGF3</b>	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green	\$23.00
<b>HT8LEDBF3</b>	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue	\$24.50
<b>HT8LEDWF3</b>	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White	\$27.00
<b>HT8LEDAF3</b>	24 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber	\$22.00
<b>HT8LEDRF7</b>	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Red	\$21.50
<b>HT8LEDYF7</b>	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Yellow	\$21.50
<b>HT8LEDGF7</b>	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Green	\$23.00
<b>HT8LEDBF7</b>	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Blue	\$24.50
<b>HT8LEDWF7</b>	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: White	\$27.00
<b>HT8LEDAF7</b>	120 volt replacement LED bulb for HT800 30mm pushbuttons. Color: Amber	\$22.00

**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

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For Pushbutton Operators and Indicating Lights			
Legend	Color of Field	Catalog Number	Price
Clamp	Black	HT8SP90	\$4.50
Close	Black	HT8SP73	\$4.50
Down	Black	HT8SP74	\$4.50
Emergency Stop	Red	HT8SP13	\$4.50
Fast	Black	HT8SP75	\$4.50
Faster	Black	HT8SP87	\$4.50
Feeder On	Black	HT8SP94	\$4.50
Feeder Off	Black	HT8SP95	\$4.50
Forward	Black	HT8SP15	\$4.50
High	Black	HT8SP16	\$4.50
In	Black	HT8SP17	\$4.50
Inch	Black	HT8SP18	\$4.50
Jog	Black	HT8SP19	\$4.50
Jog Forward	Black	HT8SP20	\$4.50
Jog Reverse	Black	HT8SP21	\$4.50
Low	Black	HT8SP22	\$4.50
Lower	Black	HT8SP23	\$4.50
Lube-fail	Black	HT8SP92	\$4.50
Motor Run	Black	HT8SP81	\$4.50
Motor Stop	Black	HT8SP82	\$4.50
Off	Red	HT8SP24	\$4.50
On	Black	HT8SP25	\$4.50
Open	Black	HT8SP26	\$4.50
Out	Black	HT8SP27	\$4.50
Power On	Black	HT8SP80	\$4.50
Raise	Black	HT8SP28	\$4.50
Ready	Black	HT8SP86	\$4.50
Reset	Black	HT8SP29	\$4.50
Reverse	Black	HT8SP30	\$4.50
Run	Black	HT8SP31	\$4.50
Safe	Black	HT8SP85	\$4.50
Slow	Black	HT8SP32	\$4.50
Slower	Black	HT8SP88	\$4.50
Start	Black	HT8SP33	\$4.50
Stop	Red	HT8SP34	\$4.50
Test	Black	HT8SP83	\$4.50
Transfer	Black	HT8SP93	\$4.50
Trip	Black	HT8SP84	\$4.50
Unclamp	Black	HT8SP91	\$4.50
Up	Black	HT8SP35	\$4.50

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

For Selector Switch Operators/ Two-Position			
Legend	Color of Field	Catalog Number	Price
Forward Reverse	Black	HT8SP38	\$4.50
Hand Auto	Black	HT8SP39	\$4.50
High Low	Black	HT8SP40	\$4.50
Jog Run	Black	HT8SP41	\$4.50
Manual Auto	Black	HT8SP67	\$4.50
Off On	Black	HT8SP42	\$4.50
Open Close	Black	HT8SP43	\$4.50
Run Jog	Black	HT8SP44	\$4.50
Safe Run	Black	HT8SP45	\$4.50
Start Jog	Black	HT8SP46	\$4.50
Start Stop	Black	HT8SP47	\$4.50
Up Down	Black	HT8SP48	\$4.50

For Selector Switch Operators/ Three-Position			
Legend	Color of Field	Catalog Number	Price
Auto Off Hand	Black	HT8SP49	\$4.50
For. Off Rev	Black	HT8SP50	\$4.50
For. Safe Rev.	Black	HT8SP69	\$4.50
Hand Off Auto	Black	HT8SP51	\$4.50
Man. Off Auto	Black	HT8SP68	\$4.50
Open Off Close	Black	HT8SP53	\$4.50
Run Safe Jog	Black	HT8SP70	\$4.50
Up Off Down	Black	HT8SP54	\$4.50
On Stop Safe	Black	HT8SP71	\$4.50

For PUSH/PULL Units			
Legend 3/32" lettering	Color of Field	Catalog Number	Price
ON/OFF	Black	HT8PP5	\$4.50
OPEN/CLOSE	Black	HT8PP8	\$4.50
UP/DOWN	Black	HT8PP11	\$4.50

Square Blank Plastic Legend Plates			
Lettering	Color of Field	Catalog Number	Price
Black	White/Silver	HT8SP76	\$4.50
White	Red/Black	HT8SP77	\$4.50

Round Plastic Legend Plates			
Legend	Color of Field	Catalog Number	Price
ESTOP	Yellow	HT8RP79	\$4.50

NOTE: All 30 mm legend plates are plastic.

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