

NO: CT-010  
DATE: February 2008

PRODUCT: H7BR Digital Counters  
TYPE: Discontinuation Notice

### H7BR Digital Counter Series will be Discontinued March 31, 2008; Use H7BX Models Instead

Omron's H7BR Series of counters with green backlit LCD displays will be discontinued after March 2008. The suggested replacement is the H7BX Series Multi-function Counter in a black case, with two-color LCD digits.

The H7BX series fits in the same 72 x 72mm panel cutout as the H7BR, while providing enhanced functionality and improvements for end users.



#### ■ Improved Display

- The H7BX display can be programmed to **change color** at setpoint.
- **Greater visibility** with the easy-to-view negative transmissive LCD display and taller digits

#### ■ Increased Functionality

- H7BX offers greater versatility of input devices, accepting either **voltage or no-voltage** inputs on the same model.

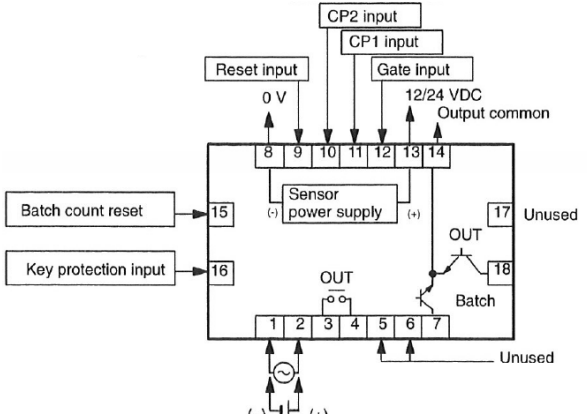
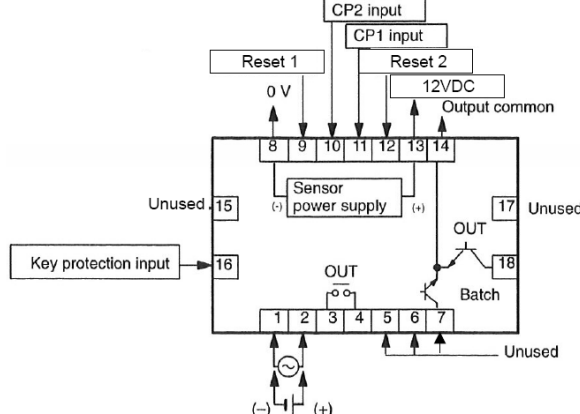
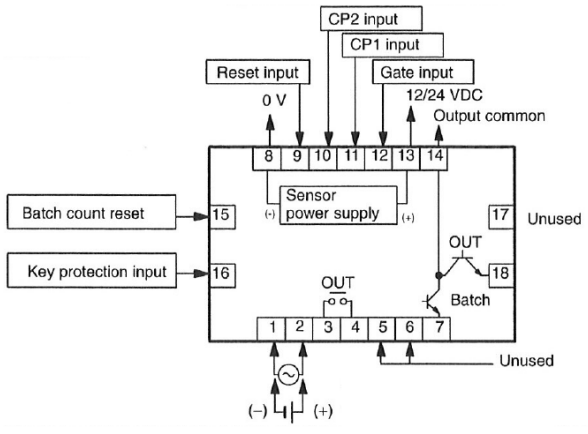
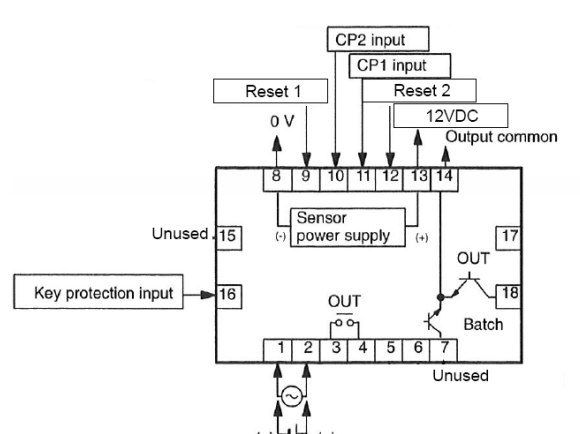
### Discontinued Parts/Suggested Replacements

Discontinued Part	Suggested Replacement	List Price	Stocking Status
H7BR Series ➔	H7BX Series		
H7BR-B AC100-240	<b>H7BX-AW AC100-240</b>	\$299.00	Stocked
H7BR-BV AC100-240			
H7BR-BW AC100-240			
H7BR-BWV AC100-240			
H7BR-CW AC100-240			
H7BR-CWV AC100-240			
H7BR-B AC/DC24	<b>H7BX-AWD1 AC24/DC12-24</b>	\$299.00	Non-standard Stock
H7BR-BV AC/DC24			
H7BR-BW AC/DC24			
H7BR-BWV AC/DC24			
H7BR-CW AC/DC24			
H7BR-CWV AC/DC24			
H7BR-C AC100-240	<b>H7BX-A AC100-240</b>	\$289.00	Stocked
H7BR-CV AC100-240			
H7BR-C AC/DC24	<b>H7BX-AD1 AC24/DC12-24</b>	\$289.00	Non-standard Stock
H7BR-CV AC/DC24			
H7BR-□□P	No PNP alarms available	--	--

## ■ Comparison of Ratings / Characteristics

Item	Model	Model to be discontinued H7BR series	Recommended replacement H7BX series
Operating voltage range		85 to 110% of rated voltage	85 to 110% of rated voltage (DC12V: 90 to 110%)
Max. counting speeds		30Hz/1kHz/5kHz/10kHz (separate setting for CP1 and CP2)	30Hz/5kHz (common setting for CP1 and CP2)
Output modes		H7BR-B□: N, F, C, R, K, P, Q, A H7BR-C□: K, D, L, H	N, F, C, R, K-1, P, Q, A, K-2, D, L, H (H mode: H7BX-AW□, only)
One-shot time		10, 50, 100, 200, 500 and 1000ms (separate setting for stage 1 and 2)	0.01 to 99.99s (separate setting for stage 1 and 2)
Reset system		H7BR-B□: External, manual and automatic resets (internal according to C, R, P, AND Q mode operation) H7BR-C□: External and manual resets	External, manual and automatic resets (internal according to C, R, P, AND Q mode operation)
Batch counting function		Yes (H7BR-B□, only)	Yes (H7BX-AW□, only) Note: When using Batch counter, it is impossible to set 2-stage.
External power supply		160mA, DC12V $\pm 10\%$ (5% ripple max.) 80mA, DC24V $\pm 10\%$ (5% ripple max.)	100mA, DC12V $\pm 10\%$ (5% ripple max.)
Input signals		CP1, CP2, reset, key protection, gate, batch count reset (H7BR-B□, only) and compensation input (H7BR-C□, only)	CP1, CP2, reset 1, reset 2 and key-protection input
Input method		H7BR-B/BP/BW/BWP/C/CP/CW/CWP: No-voltage input H7BR-BV/BVP/BWP/BWVP/CV/CVP/CWV/CWVP: Voltage input	No-voltage input/voltage input (switchable)
Control outputs		1-stage model: SPST-NO contact and transistor (NPN or PNP open collector) output 2-stage model: 2-stage of SPST-NO contact and transistor (NPN or PNP open collector) output	1-stage model: SPST-NO contact and transistor (NPN open collector) output 2-stage model: 2-stage of SPST-NO contact and transistor (NPN open collector) output
Batch outputs		Transistor output (NPN or PNP open collector) Note: H7BR-B□, only	Using control output (OUT1) SPST-NO contact and transistor (NPN open collector) output Note: H7BX-AW□, only
Display		LCD backlight Present value : 12-mm-high characters Set value : 8-mm-high characters	Negative transmissive LCD Present value : 13.5-mm-high characters red or green (switchable) Set value : 9-mm-high characters, green
Memory backup		Lithium battery Backup time for power interruption: Approx. 10 years at 20°C	EEPROM (overwrites: 100,000 times min.) that can store data for 10 years min.
Noise immunity		$\pm 2$ kV (between power terminals) and $\pm 600$ V (between input terminals), square-wave noise by noise simulator (pulse width: 100ns/1 $\mu$ s, 1-ns rise)	$\pm 1.5$ kV (between power terminals) and $\pm 600$ V (between input terminals), square-wave noise simulator (pulse width: 100ns/1 $\mu$ s, 1-ns rise)
Vibration malfunction		10 to 55Hz with 0.5mm single amplitude each in three directions, four cycles each (8 min per cycle)	10 to 55Hz with 0.35mm single amplitude each in three directions, four cycles each (8 min per cycle)

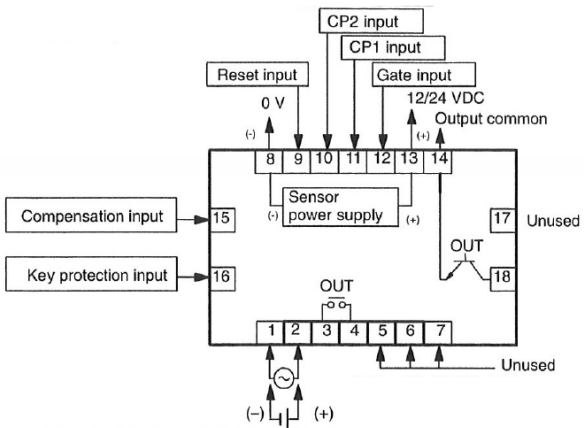
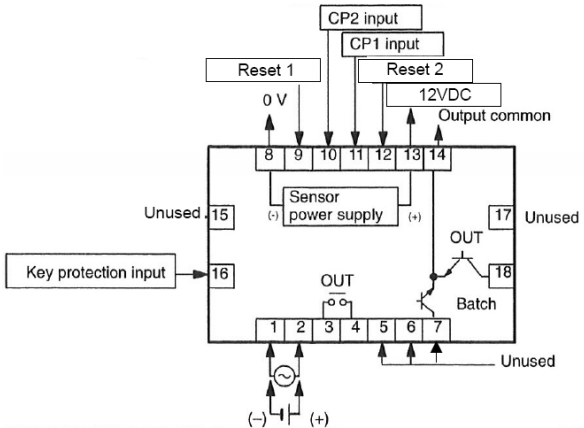
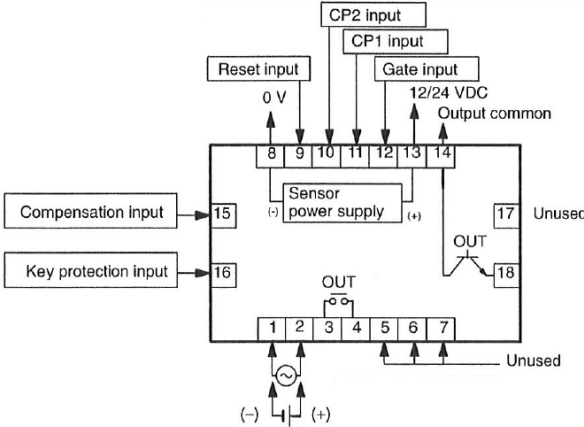
## ■ Terminal Arrangement / Wiring

Model to be discontinued H7BR series	Recommended replacement H7BX series
<p>H7BR-B/BV (1-stage contact and NPN transistor output)</p> 	<p>H7BX-A/AD1 (1-stage contact and NPN transistor output)</p> 
<p>H7BR-BP/BVP (1-stage contact and PNP transistor output)</p> 	<p>H7BX-AW/AWD1 (2-stage contact and NPN transistor output)</p> 

Terminal Arrangement / Wiring continued

Model to be discontinued H7BR series	Recommended replacement H7BX series
<p>H7BR-BW/BWV (2-stage contact and NPN transistor output)</p> <p>Diagram showing the terminal arrangement for H7BR-BW/BWV. The diagram includes inputs for CP2, CP1, Reset, Gate, and 0 V. It also shows outputs for OUT 1, OUT 2, and Batch. A sensor power supply is connected to pins 15 and 16. The diagram is labeled "H7BR-BW/BWV (2-stage contact and NPN transistor output)".</p>	<p>H7BX-AW/AWD1 (2-stage contact and NPN transistor output)</p> <p>Diagram showing the terminal arrangement for H7BX-AW/AWD1. The diagram includes inputs for CP2, CP1, Reset 1, Reset 2, Gate, and 0 V. It also shows outputs for OUT 1, OUT 2, and Batch. A sensor power supply is connected to pins 15 and 16. The diagram is labeled "H7BX-AW/AWD1 (2-stage contact and NPN transistor output)".</p>
<p>H7BR-BWP/BWVP (2-stage contact and PNP transistor output)</p> <p>Diagram showing the terminal arrangement for H7BR-BWP/BWVP. The diagram includes inputs for CP2, CP1, Reset, Gate, and 0 V. It also shows outputs for OUT 1, OUT 2, and Batch. A sensor power supply is connected to pins 15 and 16. The diagram is labeled "H7BR-BWP/BWVP (2-stage contact and PNP transistor output)".</p>	

## Terminal Arrangement / Wiring continued

Model to be discontinued H7BR series	Recommended replacement H7BX series
<p>H7BR-C/CV (1-stage contact and NPN transistor output)</p> 	<p>H7BX-A/AD1 (1-stage contact and NPN transistor output)</p> 
<p>H7BR-CP/CVP (1-stage contact and PNP transistor output)</p> 	

## Terminal Arrangement / Wiring continued

Model to be discontinued H7BR series	Recommended replacement H7BX series
<p>H7BR-CW/CWV (2-stage contact and NPN transistor output)</p>	<p>H7BX-AW/AWD1 (2-stage contact and NPN transistor output)</p>
<p>H7BR-CWP/CWVP (2-stage contact and PNP transistor output)</p>	

## ■ Literature Support

Description	Availability	Cat. No.
<b>H7BX Datasheet</b>	PDF	M077-E1-01

# Mouser Electronics

Authorized Distributor

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Omron:

[H7BR-BWV-AC100-240](#) [H7BR-BW-AC100-240](#) [H7BR-C-AC100-240](#) [H7BR-BVP-AC100-240](#)