

A new global standard  
for timers and counters

# H5CX • H7CX

designed to your specifications



Advanced Industrial Automation

OMRON



Omron, a leading global manufacturer in timers and counters, offers you the most complete series of products on the market today.

Based on extensive customer research, these new timers and counters have been designed with added-value features that users both need and appreciate.

# The most complete digital standard timers and counters on the market

Every model features a crystal-clear display for excellent visibility in all lighting conditions, dust- and water-proof front casing (IP66) that guarantees top performance under adverse conditions, and extensive functionality in its class. In addition, each unit in this series has the same 'look and feel' with its uniform display design, the same front-panel rocker-keys for easy set-up and operation, and the same intuitive way of programming.



# H5CX The H5CX Timer



- Timer  
- Twin Timer

Actual size

The H5CX series offers multiple timing ranges for precise timing control, as well as real twin-timing and memory function. These and other added-value features ensure that the H5CX covers almost every possible user requirement in timers.

## With real twin-timer function

The H5CX is also a real twin-timer with independent On/Off time setting. With the twin-timer function you can vary the Off-time and On-time periods to suit a variety of applications. You can also set the On-time and Off-time as a percentage of your set time-base. This extra functionality makes the H5CX the most complete timer on the market.

## Memory function

A few functions are equipped with a built-in memory circuit that 'freezes' the timing condition in the event of a process or power failure and completes the process when normal production resumes or when power is restored.

## Features at a glance!

### Display:

Benefits to you:

- **Back-lit LCD; two colours**
  - Very high visibility
- **Height present value 11.5 mm**
  - Programmable present value colour
- **Height set-value 6 mm green**
  - Set-value can be changed very easily by rocker key per digit
- **Status indicators**
  - All information on the screen
- **Time running indicator**
  - Feedback of operation

### Multiple timing ranges:

- **Four 'seconds' time ranges**
  - Precise time control up to 0.001 s
- **Two 'minutes' time ranges**
  - Direct read-out in minutes with an accuracy of 0.1 min
- **Two 'hours' time ranges**
  - Long precise time control
- **'Min' and 'Seconds'**
  - Easy real read-out measuring time
- **'Hours' and 'Minutes'**
  - Up to 99 h and 99 m read out

### Functions:

- **All standard timer functions**
  - Always right model available
- **Includes real twin timer operation**
  - To cover 99% of all your applications
- **Functions with memory feature**
  - Completes timing process when process resumes

### Connection / mounting:

- **Screw-terminal wiring**
  - Conforms to VDE0106/P100 norm (finger safe)
- **Plug-in 8- or 11-pins**
  - Easy maintenance
- **Front-panel**
  - Standard hole size 45 x 45 mm

### Output control:

- **Relay 5 A/250 VAC change-over**
  - Always the right output
- **Transistor 100 mA at 30 VDC**
  - Suitable for all industrial needs

### Best choice:

- All timing functions
- Screw terminals
- Relay output

H5CX-A 100 to 240 VAC  
H5CX-AD 12 to 24 VDC / 24 VDAC



# H7CX The H7CX Preset Counter



Actual size

- Preset Counter
- Total Counter
- Batch Counter
- Dual Counter
- Tachometer

The H7CX series offers the ultimate in versatility and intuitive programming. With a display choice of up to six digits the H7CX offers many added-value features, making it ideal for multiple uses.

## Pre-scaling

In counter mode you can set pre-scaled values from 0.001 to 9.999 (in the 4-digit model) or 0.001 to 99.999 (in the 6-digit model), which enables you to operate directly in values of litres, kg, metres etc.

## Choice of outputs

The H7CX (AU version) offers one or two stage outputs (relay SPDT and NPN open-collector transistor). In one-stage mode both outputs will react. In two-stage mode you can program whichever output allocation you wish, relay first and then transistor, or vice versa. With this feature the H7CX fulfils almost every switching application requirement.

## Features at a glance!

### Choice of model/display:

Benefits to you:

- **4 digits display height = 11.5 mm**
  - Large Present value + Up/Down keys
- **6 digits display height = 9 mm**
  - For higher values up to 999.999 counts
- **Sensor power supply 12 VDC**
  - Direct sensor supply available
- **Screw-terminal types**
  - Finger protected
- **Plug-in types**
  - Easy maintenance

### Functions:

- **1 stage counter**
  - Easy "ONE" set-point control
- **1 stage + total counter**
  - Save separate total counter
- **2 stage counter**
  - For more advance applications
- **1 stage + batch counter**
  - Save separate batch counter
- **Dual counter**
  - To "add" or "subtract" input pulses
- **Tachometer**
  - To control speed applications

### Count ranges:

- **4 digits PV -999 to 9.999 SV 0 to 9.999**
  - Choose the best model for your application
- **6 digits PV -99.999 to 999.999 SV -99.999 to 999.999**
  - Negative values can also be controlled
- **Count speed 30 hz or 5 Khz**
  - Slow and fast applications solutions
- **Tachometer 0 to 999.999 with different control setting like HI-LO, AREA, HI-HI, LO-LO**
  - Up to 10 Khz input signal, and you can select your own control functionality
- **Pre-scale 4-digits: 0.001 to 9.999 6-digits: 0.001 to 99.999**
  - Pre-scale for direct read-out of litre, kg, metres etc...

### Output control:

- **Relay 3 A / 250 VAC change-over**
  - Always the right output
- **Transistor 100 mA at 30 VDC**
  - Applicable to all industrial needs

### Most Universal model H7CX-UA:

- **All functions in one model**
  - Universal for all applications
- **Output relay and transistor**
  - Reduces the number of types
- **Both outputs at ones or separate for two- stage function**
  - One stage or two stages functionality in one unit
- **First relay followed by transistor or vice versa**
  - Choice of output settings

### Best choice:

- All counts functions
- One or two stages setting
- Screw terminals
- Relay & transistor output

H7CX-AU 100 to 240 VAC  
H7CX-AUD1 12 to 24 VDC / VAC

# H5CX • H7CX

## Key benefits of Omron's new timers & counters series

### Designed to your specifications!

#### Standard features

Crystal clear display with leading zero-suppression  
Dust & waterproof front case  
Universal input (contact, NPN & PNP)  
Dip-switches for basic applications  
Front-key programming  
Global standards  
Ergonomic keys (Rocker design)  
One key rocker per digits  
Oranges status indicators  
Present value colour change by reaching set value  
Size h 48 x w 48 mm and depth from 64 to 100 mm  
Key protection  
Power supply 24VDC/AC or 100 to 240 VAC

#### Benefits to you

- Visible from large distance and viewing angles
- Guaranteed protection of unit
- Always the right type available
- Ensure easy set-up
- For advanced applications
- Covers all necessary norms
- A real key-press feedback
- Direct change of set value
- Highly visible feedback
- Provides a highly visible indication, even from a distance
- Compact size which fits almost anywhere
- Prevents unnecessary changes
- Covers all standard requirements

#### Crystal-clear display with leading zero-suppression



Each model is equipped with a high-tech back-lit LCD display that ensures excellent visibility, even in bright sunlight, at longer distances

and from much wider viewing angles. In addition, the leading zero-suppression feature provides a clear read-out of the values and guarantees that you will have no misleading zeros.

#### Programmable colour indication



The display colours can be pre-programmed to change from red to green (or vice versa) when a pre-set value is reached, enabling you to give a visible change of the status.

#### Front-key programming

Programming is made easy via the front-panel rocker keys and the easy-to-read display. For basic functions each model can be programmed via the mechanical DIP switches, located on the top of each unit (except for H5CX-L8).

#### Ergonomic keys for easy operation



Rocker keys on the front panel provide real key-press feedback and enable you to change setting values with ease.

#### Key protection

By switching on the key-protect switch you can protect your application settings by effectively blocking the possibility of certain operation keys on the front-panel being changed.

#### Universal inputs



Each model is designed to accept various input devices. These devices can be connected as standard NPN/PNP or contact inputs.

#### Finger-safe terminals



Each model features a finger-safe terminal, making it suitable for use in all industrial environments.

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