# Process Control, Timers & Counters Farnell

100 to 240V ac 50/60Hz Supply voltage

Up, down and up/down (command, individual or phase difference) 0 to 999, 999 pulses Operating modes Count range

Count speed (max.) Pre-scaler 30Hz, 1kHz, 5kHz 10kHz 0.001 to 99.999

Control outputs Contacts: 3A @ 250V ac (resistive) Transistor: Open collector 100mA @ 30V dc

Count, reset, key protection, gate, batch, batch count reset 12V dc  $\pm$ 10% 160mA, 24V dc  $\pm$ 10% 80mA Input signals Sensor power supply

Reset system External, manual and automatic Batch output Transistor (NPN or PNP open collector)

Operating temperature range -10°C to +55°C

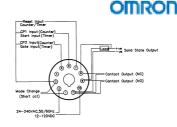
Mftrs, List No. H7BRB500 100-240V ac

**Price Each** Order Code 1+ 5+ 10+ 280-070

### **Electronic Timer/Counter**

### 6 Digit LCD - H8CA





H = 48, W = 48, D = 77 (behind bezel). Panel cut-out = 45so

- Multifunction control of time or counting
- Programmed via touch sensitive keys on front facia
- Mode pre-selected from three counter inputs and four counter/timer outputs
- Status/timing mode displayed on LCD with data protection via internal battery powered memory
- Transparent hinged cover protects LED, unit is plug-in to 11 pin screw base
- DIN48 case UL, CSA and SEV approved

Operating mode Selectable input and output modes Count range 0 to 999,999 impulses ac model 30Hz, dc model 1kHz Count speed

Time ranges for selection 0 to 9 999 99s 0 to 99,999.9m

0 to 99 999 9hr Repeat accuracy ±0.05% ±0.005s Reset time 20ms

Output of AC Model Relay SPCO 3A @ 250V ac Output of DC Model Open collector SPNO 100mA @ 30V do

Operating voltage dc Model 12 to 120V dc

Operation

Input Mode

Output Mode N = Count to preset, display held at present, external reset F = Count to preset, display continues, external reset

C = Count to preset, display resets, output ON for one shot time only Count to preset, display remains and output ON for one shot time. A = CP1 input accepts pulses. CP2 input determines if count is up or

B = CP1 accepts impulses upward. CP2 accepts impulses and changes

direction to count downward C = CP1 leads CP2 and count is upward. CP2 leads CP1 and count is

Warning: Input and mode change pins are not electrically isolated from the timer supply. H8CA-SAL = 176-335, H8CA-SDHS = 176-336, P3GA11 = 424-754,

Y92F30 = 104-636. P2CF11 = 425-382 Voltage **Price Each** Timer/Counter **Order Code** 10+ 5+ 24-240V ac .176-335 12-120V dc .176-336

Accessories DIN rail screw socket 425-382 Panel mount screw socket 424-754 Panel mount adaptor 104-636.

# **Fixed Prices**

We aim to maintain all prices in this book for the lifetime of this issue.

#### Zero, Single or Dual Preset LED or LCD

# **HENGSTLER**



H = 48, W = 48, D = 93 (behind bezel). Panel Cut-out = 45sg

- Multifunction units with front facia sealed to IP65
- Units have Counter, Tachometer and Timer meter modes
- Counter Mode-Versions with outputs can be programmed as a shift counter, preset counter, preset counter + totaliser or preset counter + batch counter
- Inputs are programmable for quadrature, differential, count/direction, or single input adding/subtracting
- Presets, manual reset and prescaler can all be disabled
- Tachometer Mode Wide frequency range from 0.125Hz or 5kHz
- Version with two variable limit values. Preset and prescaler can be disabled
- **Timer Meter Mode** Versions with outputs can be programmed as preset timer or preset timer + total time
- Programmable to measure seconds, minutes or hours, single or cummulative time periods, remaining time, or lapsed
- Resolution programmable up to three decimal places
- Transistor and relay (with changeover contact) outputs for each preset

Diait heigh LCD 9mm, LED 7.6mm

6 digits, leading zero suppression, programmable decimal point >8V and <2V, max. 40V dc 12-24V dc <150mA, 100/115/230V ac <50mA Display Amplitude thresholds

Current consumption

Solid state NPN/PNP or contact closure. Counting frequency max 5kHz

(2.5kHz bi-directional) or 30Hz

um input pulse width 100us Outputs

Transistor and relay (with changeover contact) with each preset

Relay: 250V ac/dc max., 5V ac/dc min. 1A max. 10mA min.

Transistor : PNP, 12-24V dc, 50mA max Non volatile RAM

Memory retension 12-24V dc, 50mA max (AC versions only Sensor power supply

Multiplier programmable from 0.0001 to 999,999 Prescaler

(counter and tachometer modes) 0 to 50°C Operating temperature

20 to 70°C Input A - To start and stop the count Storage temperature Three control inputs

Input B - To reset
Input C - May be used to freeze the display in conjunction with

input A (count continues although display frozen)

0.732.000 = 766-896, 0.732.002 = 766-926, 0.732.001 = 766-902, 0.732.003 = 766-938, 0.732.037 = 766-914, 0.732.039 = 766-940, Mftrs. List No 0.732.013 = 766-963, 0.732.019 = 766-999, 0.732.012 = 766-951, 0.732.049 = 766-975, 0.732.018 = 766-987 0.732.055 = 767-0010.732.020 = 767-013, 0.732.030 = 767-049, 0.732.021 = 767-025, 0.732.031 = 767-050, 0.732.057 = 767-037, 0.732.067 = 767-062

Supply Voltage	D	0101-	Price Each			
LCD Display	Presets	Order Code	1+	5+	10+	25+
12-24V dc	0	.766-896				
230V ac	0	.766-902				
115V ac	0	.766-914				
12-24V dc	1	.766-926				
230V ac	1	.766-938				
115V ac	1	.766-940				
12-24V dc	2	.766-951				
230V ac	2	.766-963				
115V ac	2	.766-975				
LED Display						
12-24V dc	0	.766-987				
230V ac	0	.766-999				
115V ac	0	.767-001				
12-24V dc	1	.767-013				
230V ac	1	.767-025				
115V ac	1	.767-037				
12-24V dc	2	.767-049				
230V ac	2	.767-050				
115V ac	2	.767-062				

Continued

## **New Products**

For more information on new products check out the New Product Guide.