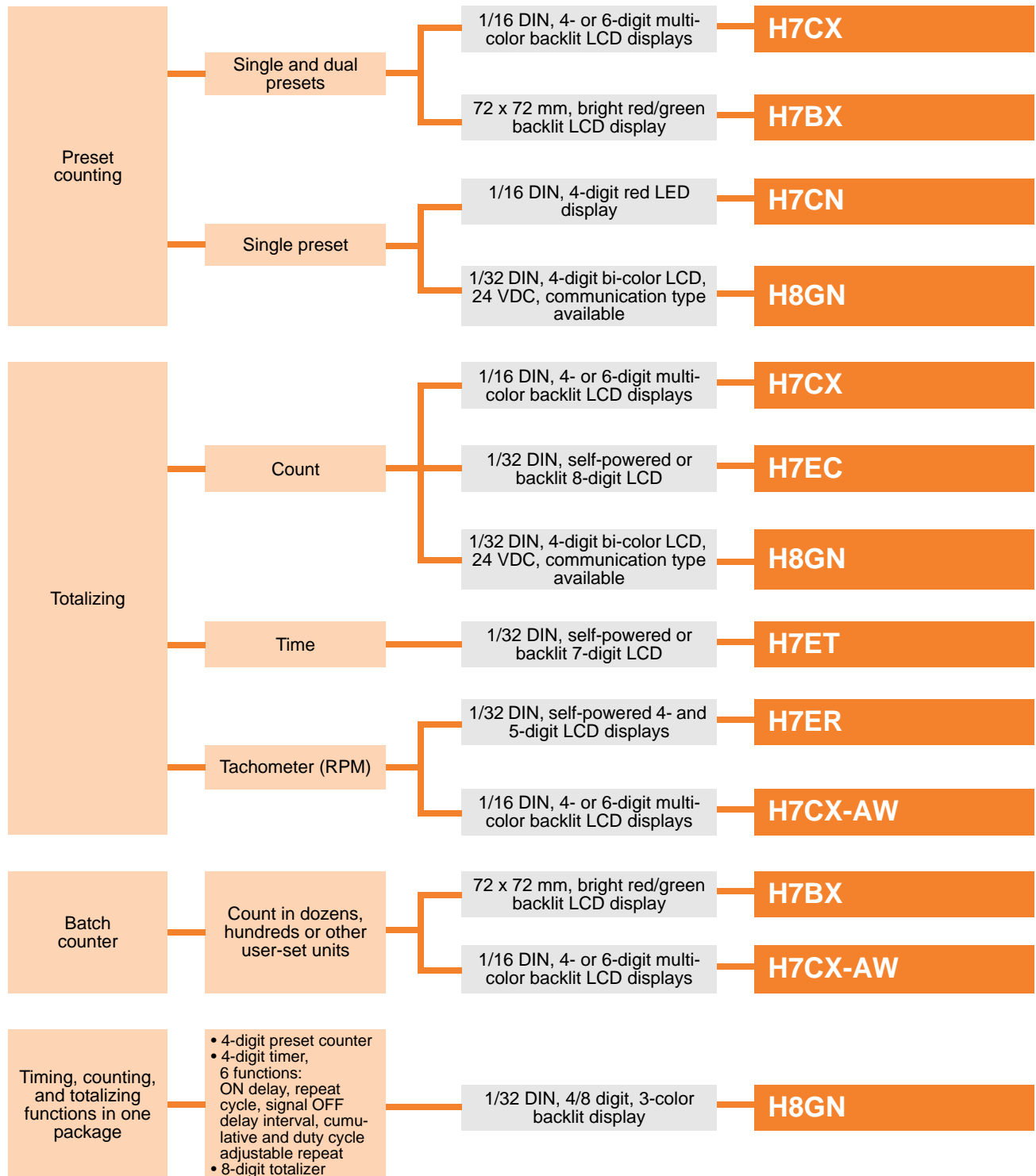


Contents

| | | |
|------------------------|---|------|
| Selection guide | | T-ii |
| H7CX | Digital multi-function counter, 1/16 DIN | T-1 |
| H7EC | Count totalizer, 1/32 DIN | T-4 |
| H7ET | Time totalizer, 1/32 DIN | T-5 |
| H7ER | Tachometer, 1/32 DIN | T-6 |
| H7BX | Digital multi-function counter with large display, 72 x 72 mm | T-7 |
| H7CN | Single preset counter with 4-digit LED display, 1/16 DIN | T-7 |
| H8GN | 1/32 DIN counter/timer combination with serial communications | T-8 |

Selection Guide



Multi-Function Digital Counters H7CX



Advanced 1/16 DIN Size Preset Counters

- High-speed response up to 5 KHz
- Fully scalable
- Large, reverse-lit LCD display for long distance legibility
- Programmable display color (from green to red or red to green) helps operators identify status changes quickly
- Protect settings with 5 levels of key access
- Built-in sensor power supply available
- Accepts voltage and non-voltage inputs, PNP/NPN selectable
- Wide range of input modes: Increment, decrement, command, individual and quadrature
- NEMA 4/IP66 front panel
- Panel mounting adapter and waterproof packing provided with screw terminal connection types






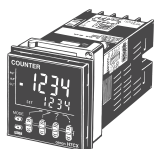
Specifications

- Supply voltage: 100-240 VAC, 50/60 Hz, 12 to 24 VDC, 12 to 24 VDC/24 VAC (-A11 models)
 - 12 VDC, 100 mA for inputs
- Counting functions: 1-stage counter, 1-stage counter with totalizer (-A and A11 models)
 - 1-stage counter, 2-stage counter, 1-stage counter with totalizer, 1-stage counter with batch counter, dual counter, tachometer (-AW models)
- Counting ranges: -999 to 9,999 (4-digit); -99,999 to 999,999 (6-digit)
- Control output: SPDT contact output rating 5 A @ 250 VAC
- Output functions: One-shot and sustained outputs with 8, 11 or 12 user selections






Preset Digital Counters

| Appearance/ Dimensions L x W x H mm | Counting action | Display digits | Sensor power supply | Supply voltage | Connection type | Model |
|---|--|-------------------|------------------------|-----------------------------|--------------------|-----------------------|
| 48 x 48 x 78.5 | 1-stage counter, 1-stage counter with totalizer | 6 | 12 VDC | 100 to 240 VAC, 50/60 Hz | 11-pin socket | H7CX-A11-AC100240 |
| | | | | 24 VAC/12 to 24 VDC | | H7CX-A11D1-DC1224AC24 |
| 48 x 48 x 106 | | 4 | | 100 to 240 VAC, 50/60 Hz | Screw terminal | H7CX-A4-AC100240 |
| 48 x 48 x 70 | | | Not provided | 12 to 24 VDC | | H7CX-A4D-DC1224 |






Preset Digital Counters (Continued)

| Appearance/ Dimensions L x W x H mm | Counting action | Display digits | Sensor power supply | Supply voltage | Connection type | Model |
|---|---|-------------------|------------------------|-----------------------------|--------------------|-----------------------------|
|  48 x 48 x 106 | 1-stage counter, 1-stage counter with totalizer | 6 | 12 VDC | 100 to 240 VAC, 50/60 Hz | Screw terminal | H7CX-A-AC100240 |
|  48 x 48 x 70 | | | Not provided | 12 to 24 VDC | | H7CX-AD-DC1224 |
|  48 x 48 x 106 | 1-stage counter, 2-stage counter, 1-stage counter with totalizer, 1-stage counter with batch counter, dual counter, tachometer | | 12 VDC | 100 to 240 VAC, 50/60 Hz | | H7CX-AW-AC100240 |
|  48 x 48 x 106 | | | | 24 VAC/12 to 24 VDC | | H7CX-AWD1-DC1224AC24 |

Accessories

| Description | Appearance | Dimensions H x W x D mm | Specification | Model |
|--|---|----------------------------|---|------------------------------|
| Panel mounting adapter |  | 58 x 48 | Order separately for H7CX-A11 and H7CX-L8 models | Y92F-30 |
| Waterproof packing |  | — | | Y92S-29 |
| Track mounting/front connecting socket |  | 74 x 50 x 31.2 | 11-pin socket with built-in hold down latches | P2CF-11 |
| |  | 74 x 50 x 31.2 | 11-pin, finger-safe socket with built-in hold down latches | P2CF-11-E |
| Back connecting socket for panel mounting |  | 45 x 45 x 27 | 11-pin round socket | P3GA-11 |
| | | 48 x 48 x 37.5 installed | 11-pin socket with finger-safe terminal cover | P3GA-11 with Y92A-48G |

Accessories (Continued)

| Description | Appearance | Dimensions H x W x D mm | Specification | Model |
|----------------|---|----------------------------|--|-----------|
| Hard cover |  | 50.5 x 50.5 x 16 | Protects front panel from dirt and water | Y92A-48 |
| Soft cover |  | 50.5 x 50.5 | Protects front panel against oil penetration from operators' hands, to IP54P | Y92A-48F1 |
| Mounting track |  | 500 L x 35 H x 7.3 D | 0.5 m length | PFP-50N |
| | | 1000 L x 35 H x 7.3 D | 1 m length | PFP-100N |
| |  | 1000 L x 35 H x 16.0 D | 1 m length | PFP-100N2 |
| End plate |  | 50 x 10 x 10 | Holds track-mounted devices in place | PFP-M |

Self-Powered Totalizers H7EC



Subminiature Count Totalizer

- Large 8-digit display with 8.6 mm height
- Backlit LCD display available for improved visibility
- PNP/NPN DC voltage input available
- Key-protect switch to prevent front face resetting
- Offers both 1 kHz input for high speed no chatter input signals or 30/20 Hz inputs for relay and switch (high chatter) inputs
- Up counting
- NEMA 4/IP66 front face
- Black case matches panel aesthetics
- Battery powered (user replaceable)



Specifications

- Supply voltage: Backlight models require 24 VDC • Inputs: AC/DC voltage: 24 to 240 VAC/VDC, 50/60 Hz; 6 to 240 VDC at “High” logic level, 0 to 2.4 VAC, 50/60 Hz or 0 to 2 VDC at “Low” logic level, No-voltage: Short-circuit impedance 10 kΩ max.
- Reset time: 20 ms reset signal

Self-Powered Totalizer

| Appearance/ Dimensions H x W x D mm | Counting action/speed | Display digits | Sensor power supply | Supply voltage | Input type | Connection type | Model |
|---|------------------------------------|-------------------|---------------------------|---------------------|---------------------------------------|--------------------|------------|
| | Count totalizer/ 30 Hz or 1 kHz | 8 | No | Battery | PNP/NPN universal DC voltage input | Screw terminal | H7EC-NV-B |
| | | | | Backlight 24 VDC | | | H7EC-NV-BH |
| | Count totalizer/ 20 Hz | | | Battery | AC/DC multi-voltage input | | H7EC-NV-B |
| | Count totalizer/ 30 Hz or 1 kHz | | | No-voltage | H7EC-N-B | | |

Accessories

| Description | Appearance | Dimensions H x W x D mm | Specification | Model |
|---------------------|------------|----------------------------|------------------------|----------|
| Replaceable battery | | 24.5 dia. x 7.7 H | Battery replacement | Y92S-36 |
| Panel adapter | | 26 x 45 x 4 | Flush mounting adapter | Y92F-75 |
| | | 24.8 x 48.8 x 4 | | Y92F-77B |

Self-Powered Time Counter H7ET



Subminiature Counters Display Accumulated Time in Use

- Displays cumulative time counting the output signals from a sensor; input applied enables the timing circuit to start; disabling the inputs stops the timing sequence
- Large seven-digit display with 8.6 mm height
- Key-protect switch prevents front resetting
- Available with backlit LCD
- Selectable time range: 999999.9h or 3999d 23.9h and 999h 59m 59s or 9999h 59.9m
- NEMA 4/IP66 front face
- Black case for sleek aesthetics
- Battery powered (user replaceable)



Specifications

- Supply voltage: Backlight models require 24 VDC • Inputs: AC/DC voltage: 24 to 240 VAC/VDC, 50/60 Hz; 6 to 240 VDC at “High” logic level, 0 to 1.5 VAC, 50/60 Hz or 0 to 2 VDC at “Low” logic level, DC voltage input, 4.5 to 30 VDC at “High” logic level; 0 to 2 VDC at “Low” logic level, No-voltage: Short-circuit impedance 10 kΩ max. • Reset time: 20 ms reset signal

Self-Powered Time Totalizer

| Appearance/Dimensions H x W x D mm | Counting action/ Time range | Display digits | Sensor power supply | Supply voltage | Input type | Connection type | Model | | | | |
|---------------------------------------|--|----------------|---------------------|---|------------------------------------|-----------------|------------|---------|---------------------------|----------------|-------------|
| | Time Counter/ 999999.9h or 3999d23.9h (selectable) | 7 | No | Battery | PNP/NPN universal DC voltage input | Screw terminal | H7ET-NV-B | | | | |
| | | | | Backlight 24 VDC | | | H7ET-NV-BH | | | | |
| | Battery | | | H7ET-NV1-B | | | | | | | |
| | Backlight 24 VDC | | | H7ET-NV1-BH | | | | | | | |
| | Time Counter/ 999999.9h or 3999d23.9h (selectable) | | | Time Counter/ 999h59m59s or 9999h59.9m (selectable) | 7 | | No | Battery | AC/DC multi-voltage input | Screw terminal | H7ET-NFV-B |
| | | | | | | | | | No-voltage input | | H7ET-N-B |
| | | | | | | | | | AC/DC multi-voltage input | | H7ET-NFV1-B |
| | | | | | | | | | No-voltage input | | H7ET-N1-B |

Accessories

| Description | Dimensions H x W x D mm | Specification | Model |
|---------------------|----------------------------|------------------------|----------|
| Replaceable battery | 24.5 dia. x 7.7 H | Battery replacement | Y92S-36 |
| Panel adapter | 26 x 45 x 4 | Flush mounting adapter | Y92F-75 |
| | 24.8 x 48.8 x 4 | | Y92F-77B |

Self-Powered Tachometer H7ER



Subminiature Tachometers

- Large display with 8.6 mm height
- PNP/NPN DC voltage input available
- Selectable dual revolution display on 5-digit models extends up to 10,000 rpm
- Revolution is displayed according to encoder resolution used:
 - 4-digit: 1000 rps or s⁻¹ (1 pulse/rev.), 1000 rpm or m⁻¹ (60 pulse/rev.)
 - 5-digit: 1000.0 rps or s⁻¹ (10 pulse/rev.), 1000.0 rpm or m⁻¹ (600 pulse/rev.) 10,000 rpm or m⁻¹ (60 pulse/rev.), switchable
- NEMA 4/IP66 front face
- Battery powered (user replaceable)



Specifications

- Supply voltage: Backlight models require 24 VDC
- Inputs:
 - PNP or NPN universal DC voltage input, 4.5 to 30 VDC at "High" logic level; 0 to 2 VDC at "Low" logic level
 - No-voltage: Short-circuit impedance 10 kΩ max.
- Minimum signal width: 1 kHz: 0.5 ms; 10 kHz: 0.05 ms

Self-Powered Tachometers

| Appearance/ Dimensions H x W x D mm | Counting action/speed | Display digits | Encoder resolution | Supply voltage | Input type | Connection type | Model |
|---|--------------------------|-------------------|---|------------------|--|--------------------|------------|
| | Tachometer/ 1 kHz | 4 | 1000 rps or s ⁻¹ (1 pulse/ rev.), 1000 rpm or m ⁻¹ (60 pulse/ rev.) | Backlight 24 VDC | PNP/NPN universal DC voltage input No-voltage input | Screw terminal | H7ER-NV-BH |
| | | | | Battery | | | H7ER-NV-B |
| | Tachometer/ 10 kHz | 5 | 1000.0 rps or s ⁻¹ (10 pulse/ rev.), 1000.0 rpm or m ⁻¹ (600 pulse/rev. 10,000 rpm or m ⁻¹ (60 pulse/rev.), switchable | Backlight 24 VDC | PNP/NPN universal DC voltage input | H7ER-NV1-BH | |
| | | | | Battery | PNP/NPN universal DC voltage input | H7ER-NV1-B | |

Accessories

| Description | Dimensions H x W x D mm | Specification | Model |
|---------------------|----------------------------|------------------------|----------|
| Replaceable battery | 24.5 dia. x 7.7 H | Battery replacement | Y92S-36 |
| Panel adapter | 26 x 45 x 4 | Flush mounting adapter | Y92F-75 |
| | 24.8 x 48.8 x 4 | | Y92F-77B |

Digital Counters H7BX

Quick Link
T427

72 x 72 mm Multi-Function Counter with a Bright, Easy-to-view, Negative Transmissive LCD

- Provides a total and preset counter, batch counter, dual counter, and tachometer
- Large highly visible display with backlit transmissive LCD
- Selectable display color (red/green) enables checking output status at a distance
- Easy operation with a key for each digit
- Perform all basic settings with a DIP switch
- Wide range of inputs accepted for NPN/PNP inputs (multi-inputs) and 2-wire DC sensors
- Degree of protection: IP54 equivalent (front section only)



Specifications

- Supply voltage: 100 to 240 VAC, 24 VAC/12 to 24 VDC
- Inputs: voltage or no-voltage inputs; 12 VDC external power supply
- Counting functions: 1-stage preset counter, 2-stage preset counter, total and preset counter, batch counter, dual counter, tachometer
- Ranges: counting -99,999 to 999,999 (6-digit); tachometer 0 to 999,999 (6 digits)
- Control output: contact output: 3 A at 250 VDC/30 VDC (resistive load); transistor output: 100 mA max. at 30 VDC max.
- Output functions: One-shot and sustained outputs with up to 12 user selections
- Reset time: 1 ms or 20 ms selectable

Digital Counters H7CN

Quick Link
T428

1/16 DIN, Single Preset Counter with Four-Digit LED Display

- Simple to set and operate
- Easy-to-read 8 mm-high LED display
- Contact (SPST-NO or SPDT) or solid-state (open-collector) outputs
- Single counting speed per model: 30 cps models stocked; 5 kcps available
- Separate UP, DOWN and REVERSIBLE counting models
- Memory protection circuit available on AC models
- 8-pin or 11-pin round socket models available
- Panel-mount adapter, sockets and accessories available separately
- UL, CSA approved



Specifications

- Supply voltage: 100-240 VAC, 50/60 Hz
- Counting functions: 1-stage (single preset) UP counter
- Counting ranges: 0 to 9,999 (4-digit)
- Control output: Contact and transistor options
- Output functions: Sustained output until reset

Digital Counters

H8GN

Quick Link
T429

Timing, Counting, and Totalizing Functions in One 1/32 DIN Size Package

- Choose between 4-digit preset counter and 4-digit timer operation
- Preset counter can be programmed to display the monitoring total count value (8-digit totalizer)
- Built-in prescaling for counter operation
- ON/OFF-duty adjustable repeat-cycle mode that can be used to perform cyclic control is available for timer operation
- Four preset values programmable via the front panel key (SV-bank)
- Available with RS-485 communications
- Inputs: no voltage
- Degree of protection: NEMA 4X/IP66 front panel



Specifications

- Supply voltage: 24 VDC
- Inputs: No-voltage inputs
- Counting functions: Increment, decrement, individual, quadrature inputs, totalizing
- Timing functions: Signal ON-delay, repeat cycle, signal OFF-delay, interval, cumulative, ON/OFF-duty adjustable repeat cycle
- Ranges: Counting -999 to 9,999; Time ranges 0.000 to 9.999 s, 0.00 to 99.99 s, 0.0 to 999.9 s, 0 to 9999 s, 0 min 00 s to 99 min 59 s, 0.0 to 999.9 min, 0 h 00 min to 99 h 59 min, 0.0 h to 999.9 h, 0 h to 9999 h
- Control output: SPDT contact output: 3 A at 250 VAC/30 VDC (resistive load)
- Output functions: One-shot, sustained output, and overrun display
- Reset time: 1 ms or 20 ms selectable