Introduction

Timers are used in applications where time itself is the main focus. These include simple knowledge of how long a machine has been running to determine machine maintenance, for example, (elapsed time) to knowing when to change an elevator cable (cable life and safety). Timers generally have the ability to stop and then to continue on from the point at which they stopped. Timer Relays are used in applications where an output is required to make something happen at a predetermined point in time (to stop or start the process).

Application Examples

- Elapsed time indication for interval maintenance of construction and agricultural equipment
- Usage metering for determining charges on rental equipment
- Controlled process timing for adhesive application/curing equipment

Timers/Hour Meters Product Family Overview

Table 62. Product Family Overview

Product Family	Characteristics	Panel Cutout in Inches (mm)	Page Number
 *E5-224-C*	■ Non-replaceable battery (min. 8-yr. life) ■ Compact, low cost and high efficiency ■ 8-Digit LCD timer ■ Manual or electrical reset ■ Various timing modes (Hr/Min/Sec)	0.870 x 1.772 (22 x 44)	**63**
 *E5-_24-E*	■ Compact device with bright, LED display ■ Multiple functions available: count, time, rate, multifunction, double-function ■ 24V DC Power	0.870 x 1.772 (22 x 44)	**24**
 *E5-248-C*	■ Panel-mount, battery powered time relay ■ 8 timing modes, 9 time ranges ■ 3 programmable activation modes ■ 8A relay contacts (N.O. or N.C.)	1.772 x 1.772 (45 x 45)	**68**
 *E5-496-E*	■ Economical, multifunction display ■ Large, LED characters ■ AC or DC power options	1.772 x 3.622 (45 x 92)	**27**
 *Hour Meters*	■ Compact, low-cost LCD and electromechanical elapsed time meters ■ Various power options for almost any power supply	Various	**65**
 *E42DP55*	■ DIN Rail-mount, battery-powered time relay ■ 8 timing modes ■ 1 million operations or 10 years ■ 10A contact rating	N/A	**70**

EATON

1/16th DIN Hour Meters — Eaton

Cat. No. 7-T-65-4848PM-406

Features

- High shock resistance
- Without reset
- Small dimension
- Magnified figures
- Protection IP65
- Data retention if power is lost
- Long service life
- Optional mounting position

Applications

- General elapsed time
- Service interval for measurement systems —
  - Respiratory ventilators
  - Oxygen machines
  - Dialysis machines
- Small appliances
- UV lamps
- Display panels in cars

Standards and Certifications

- UL Recognized

Technical Data and Specifications

- Electrical Connection: Clamp terminal for cable diameter up to 14 AWG (2.5 mm^2), tightening torque max. 0.59 lb-ft (0.8 Nm)
- Power Consumption —
  - 10 – 30V DC: Approx. 500 mW
  - 100 – 130V DC: Approx. 750 mW
- Rated Voltages
  - 100 – 130V AC, 50 or 60 Hz
  - 10 – 30V DC
- On Time: 100%
- Display —
  - 7 at AC: 99999.99
  - 8 at DC: 999999.99
- Accuracy —
  - AC: Supply frequency + 30 mS
  - DC: <0.003% (24 h)
- Count Mode: Adding
- Height of Figures: 0.16 Inch (4 mm)
- Color of Figures: White and Red-on-Black
- Ambient Temperature: 5 to 122°F (-15 to 50°C)
- Mounting Position: Any
- Protection: IP65
- Housing: Plastic
- Weight: 1.7 oz (48 g)
- Operating Indicator of the Running Time Meter —
  - AC: Fast rotating wheel with red dashes
  - DC: 1/100 h display turns continuously by 1-digit in 36 sec.
- Test voltage: 2000V AC, 50 Hz for AC counters
- Options: Further voltages on request
- Color of Housing: Gray

Product Selection

Table 65. Product Selection — 1/16th DIN Hour Meters

Description	Catalog Number	*
Electromechanical Hour Meters		
10 – 30V DC, 1.89 x 1.89 Inch (48 x 48 mm) 10 – 30V DC, 1.89 x 1.89 Inch (48 x 48 mm), 50 pc. package	**8-T-65-4848PM-402** **8-T-65-4848PM-40284**	
100 – 130V AC, 1.89 x 1.89 Inch (48 x 48 mm) 100 – 130V AC, 1.89 x 1.89 Inch (48 x 48 mm), 50 pc. package	**7-T-65-4848PM-406** **7-T-65-4848PM-40684**	

Accessory

Cat. No. T4848DINADAPT

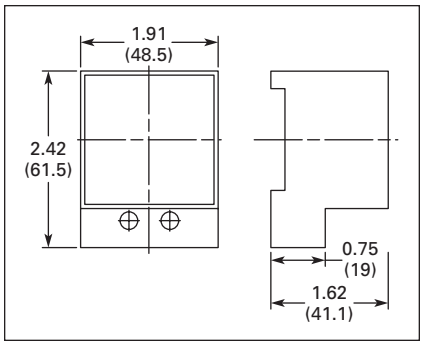

Figure 58. DIN Rail Adapter — Approximate Dimensions in Inches (mm)

Table 66. Product Selection — DIN Rail Adapter

Description	Catalog Number	*
DIN Rail Adapter for DIN Electromechanical Hour Meter	**T4848DINADAPT**	

Dimensions

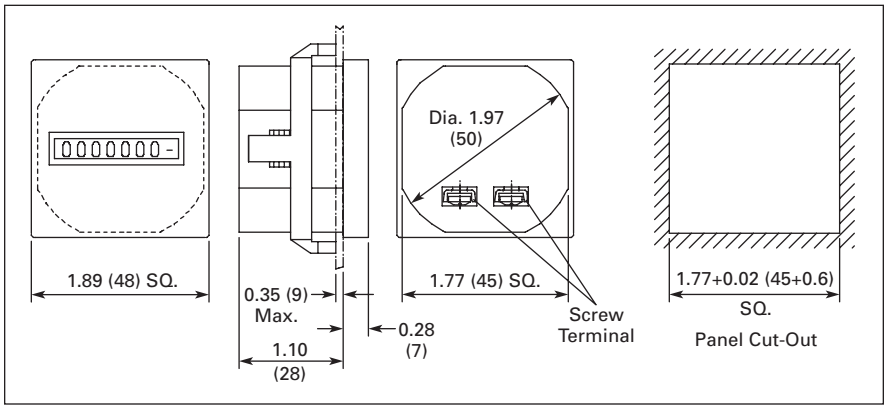

Figure 59. 1/16th DIN Hour Meters — Approximate Dimensions in Inches (mm)

Discount Symbol **CC-2**