E·T·N
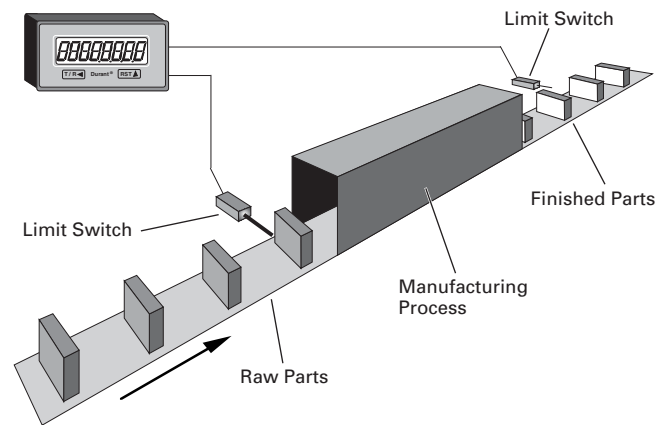
Introduction

Totalizers are used in a wide variety of applications where accurate totals are needed. Typical applications include counting the number of parts produced, amount of material used, or the number of machine cycles occurring. Totalizers are the simplest and most common type of counter. As an added bonus, some models can perform both totalizing and ratemeter functions.

Application Example

Parts are fed into a machine or process, an operation is performed, and the finished parts exit the machine or process. The subtract totalizer is used to indicate the number of parts in process.

Application Example

Totalizer Product Family Overview

Table 1. Product Family Overview

Product Family	Characteristics	Typical Applications	Panel Cutout in Inches (mm)	Page Number
E5-024-C	■ Non-replaceable battery (min. 8-yr. life) ■ Compact, low cost and high efficiency ■ 8-Digit LCD totalizers ■ Manual or electrical reset ■ Various counting modes/inputs	■ Replacement for mechanical counters ■ Transaction counting ■ Parts counting ■ Position indication or measurement	0.870 x 1.772 (22 x 44)	**22**
E5-_24-E	■ Compact device with bright, LED display ■ Multiple functions available: count, time, rate, multifunction, double-function ■ 24V DC Power	■ Count, measure, time where small package and easy-to-read display required ■ Position display ■ Motor/pulley RPM	0.870 x 1.772 (22 x 44)	**24**
E5-496-E	■ Economical, multifunction display ■ Large, LED characters ■ AC or DC power options	■ Large, easy-to-read display ■ Position display ■ Motor/pulley RPM	1.772 x 1.622 (45 x 92)	**27**
Courier	■ Replaceable lithium battery ■ 8-digit, high-visibility LCD display ■ Optional backlighting ■ Various input options available	■ Portable/mobile/remote flow monitoring (e.g. sewer pumping, pesticide application) ■ Position display, RPM ■ Length measurement (e.g. carpet, cable)	1.299 x 2.677 (33 x 68)	**25**
Eclipse	■ 6-digit, super bright LED display ■ Multiple models available: totalizers, ratemeters, count controls, digital panel meters and flow controls	■ Length measurement and control ■ Flow monitoring and control ■ Process monitoring and display ■ Voltage and current monitoring and display	1.772 x 1.622 (45 x 92)	**28**
Ambassador	■ 8-digit, high-visibility, 2-line LCD display ■ User-configurable control inputs ■ Highly flexible control/display	■ Flow control where simultaneous total and rate display are required ■ Cut-to-length and other simple processes where flexibility of inputs/outputs required	2.667 x 2.667 (68 x 68)	**34**
President	■ Bright LED display w/14 mm characters ■ Simple configuration with 14-button tactile keypad ■ Many different versions fit almost any application	■ Cut-to-length machinery with batching ■ Parts batching/palletizing ■ Die press positioning control ■ Applications where parameter changes are required	2.667 x 5.433 (68 x 138)	**30**
Electromechanical	■ Various price, voltage and size ranges for different duty cycles and environments ■ Long life and always readable display	■ Coin-operated equipment ■ Gaming machines ■ Printing presses ■ Secondary machines (e.g. punch press)	Various Mounting Configurations	**16**
Mechanical	■ Various size ranges for different duty cycles and environments ■ No power supply needed ■ Long life and always readable display	■ Winding and spooling equipment ■ Position display ■ Mechanical piece/cycle counting	Various Mounting Configurations	**3**

1/32 DIN LED Multifunction Totalizer/Timer/Ratemeter

Cat. No. E5-024-E0402

Features

■ Display counter adding and subtracting
■ Position display
■ Frequency counter/ratemeter
■ Timer
■ Display Range: -199.999 – 999.999 with zero blanking
■ Screw terminal
■ Locking SET-Key

Standards and Certifications

■ UL Recognized
■ CE Marked

Technical Data and Specifications

■ Supply Voltage: 10 – 30V DC with reverse polarity protection
■ Current Consumption: Max. 50 mA
■ Display: 6-digit red, 7-segment LED display; 0.31 Inch (8 mm) high
■ Data Backup: EEPROM
■ Housing: Dimension 3.78 x 1.89 Inch (96 x 48 mm) according to DIN 43 700; RAL 7021 gray
■ Polarity of Inputs: Programmable, NPN or PNP
■ Input Resistance: Approx. 10 kΩ
■ Counting Frequency: 20 kHz, can be damped to 30 Hz, position display max. 11 kHz
■ Resolution: Timer 0.001 sec.
■ Reset Time: 5 mS
■ Level of Inputs —
  ❏ High: $0.6 \times U_B$ – 30V DC
  ❏ Low: $0 – 0.2 \times U_B$ [V DC]
■ Octocoupler Output: Max. 30V, 10 mA
■ Error —
  ❏ Tachometer: <0.1%
  ❏ Timer: <50 ppm

■ Ambient Temperature: 14 to 122°F (-10 to 50°C)
■ Storage Temperature: -13 to 167°F (-25 to 75°C)
■ EMC: According to EC EMC directive 89/36/EWG

■ Immunity to Interference: EN 61 000-6-4/ EN 55011 Class B
■ Emitted Interference: EN 61 000-6-2
■ Protection: IP65 (from front)
■ Weight: Approx. 5.29 (150 g)

Product Selection

Table 29. Product Selection — 1/32 DIN LED Multifunction Totalizer/Timer/Ratemeter

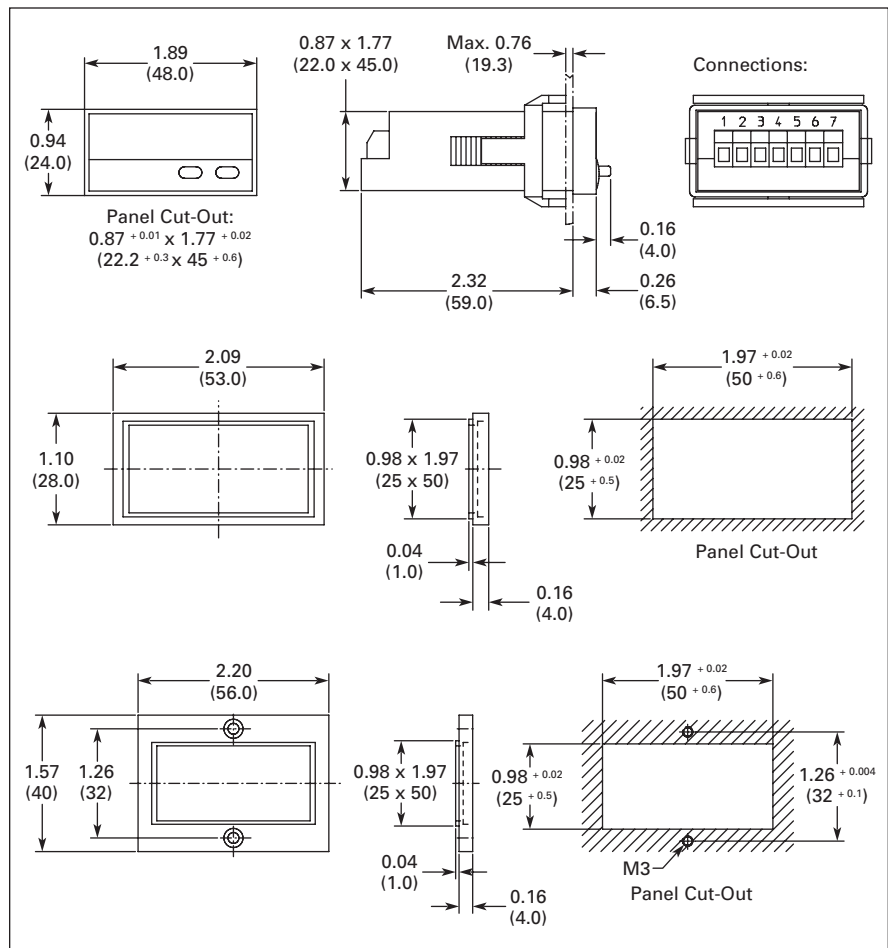| Description	Catalog Number	*
LED Single Channel Totalizer, 10 – 30V DC Power 0.94 x 1.89 Inch (24 x 48 mm)	**E5-024-E0402**	
LED Multifunction Totalizer/Timer/Ratemeter 10 – 30V DC Power 0.94 x 1.89 Inch (24 x 48 mm)	**E5-424-E0402**	
LED Double-Function Totalizer/Timer/Ratemeter 10 – 30V DC Power 0.94 x 1.89 Inch (24 x 48 mm)	**E5-524-E0402**	
LED Totalizer with Quadrature, 10 – 30V DC Power 0.94 x 1.89 Inch (24 x 48 mm)	**E5-024-E0432**	

Dimensions

Figure 38. 1/32 DIN LED Multifunction Totalizer/Timer/Ratemeter — Approximate Dimensions in Inches (mm)

Discount Symbol **CC-4**