

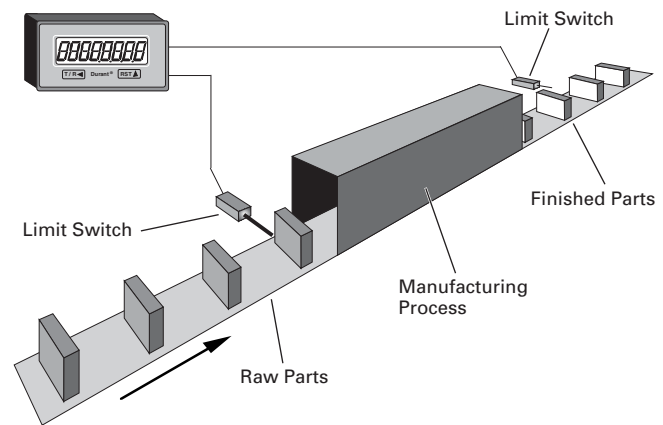
Product Family Overview

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
 <i>E5-024-C</i>	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Replacement for mechanical counters Transaction counting Parts counting Position indication or measurement 	0.870 x 1.772 (22 x 44)	22
 <i>E5-24-E</i>	<ul style="list-style-type: none"> Compact device with bright, LED display Multiple functions available: count, time, rate, multifunction, double-function 24V DC Power 	<ul style="list-style-type: none"> 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
 <i>E5-496-E</i>	<ul style="list-style-type: none"> Economical, multifunction display Large, LED characters AC or DC power options 	<ul style="list-style-type: none"> Large, easy-to-read display Position display Motor/pulley RPM 	1.772 x 1.622 (45 x 92)	27
 <i>Courier</i>	<ul style="list-style-type: none"> Replaceable lithium battery 8-digit, high-visibility LCD display Optional backlighting Various input options available 	<ul style="list-style-type: none"> 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
 <i>Eclipse</i>	<ul style="list-style-type: none"> 6-digit, super bright LED display Multiple models available: totalizers, ratemeters, count controls, digital panel meters and flow controls 	<ul style="list-style-type: none"> 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
 <i>Ambassador</i>	<ul style="list-style-type: none"> 8-digit, high-visibility, 2-line LCD display User-configurable control inputs Highly flexible control/display 	<ul style="list-style-type: none"> 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
 <i>President</i>	<ul style="list-style-type: none"> Bright LED display w/14 mm characters Simple configuration with 14-button tactile keypad Many different versions fit almost any application 	<ul style="list-style-type: none"> 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
 <i>Electromechanical</i>	<ul style="list-style-type: none"> Various price, voltage and size ranges for different duty cycles and environments Long life and always readable display 	<ul style="list-style-type: none"> Coin-operated equipment Gaming machines Printing presses Secondary machines (e.g. punch press) 	Various Mounting Configurations	16
 <i>Mechanical</i>	<ul style="list-style-type: none"> Various size ranges for different duty cycles and environments No power supply needed Long life and always readable display 	<ul style="list-style-type: none"> Winding and spooling equipment Position display Mechanical piece/cycle counting 	Various Mounting Configurations	3

1/8 DIN LED Multifunction Totalizer/Timer/Ratemeter



Cat. No. E5-496-E0401

Features

- Display counter adding and subtracting
- Position display
- Frequency counter/ratemeter
- Timer, res. up to 0.001 sec.
- Programmable mode
- Display Range: -199.999 – 999.999 with zero blanking
- Connection with screw terminal
- Locking SET-Key for reset

Standards and Certifications

- UL Recognized
- CE Marked

Technical Data and Specifications

- Supply Voltage: 10 – 30V DC with reverse polarity protection; 90 – 260V AC
- Current Consumption: Max. 50 mA 6 VA
- Display: 6-digit red, 7-segment LED display; 0.55 Inch (14 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 for all inputs
- Input Resistance: Approx. 10 kΩ
- Counting Frequency: 60 kHz, can be damped to 30 Hz depending on operating mode at position display max. 25 kHz ①
- Reset Time: 5 mS
- Resolution Timer: Up to 0.001 sec.

① For further specifications, please refer to the user manual.

- Input Switching Level —
 - DC Version (standard version)
 - High: $0.6 \times U_B - 30V$ DC
 - Low: $0 - 0.2 \times U_B$ [V DC]
 - AC Version
 - High: 12 – 30V DC
 - Low: 0 – 4V DC
- Input Switching Level —
 - 5V Version
 - High: 4 – 30V DC
 - Low: 0 – 2V DC
- Voltage Supply for Sensors: 24V DC $\pm 15\%/100$ mA at AC versions
- Accuracy —
 - Tachometer: <0.1%
 - Timer: <50 ppm
- Ambient Temperature: -4 to 149°F (-20 to 65°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 oz (150 g)

Product Selection

Table 31. Product Selection — 1/8 DIN LED Multifunction Totalizer/Timer/Ratemeter

Description	Catalog Number	*
LED Multifunction Counter/Timer/Ratemeter		
90 – 260V AC Power 3.78 x 1.89 Inch (96 x 48 mm)	E5-496-E0401	
10 – 30V DC Power 3.78 x 1.89 Inch (96 x 48 mm)	E5-496-E0402	

Dimensions

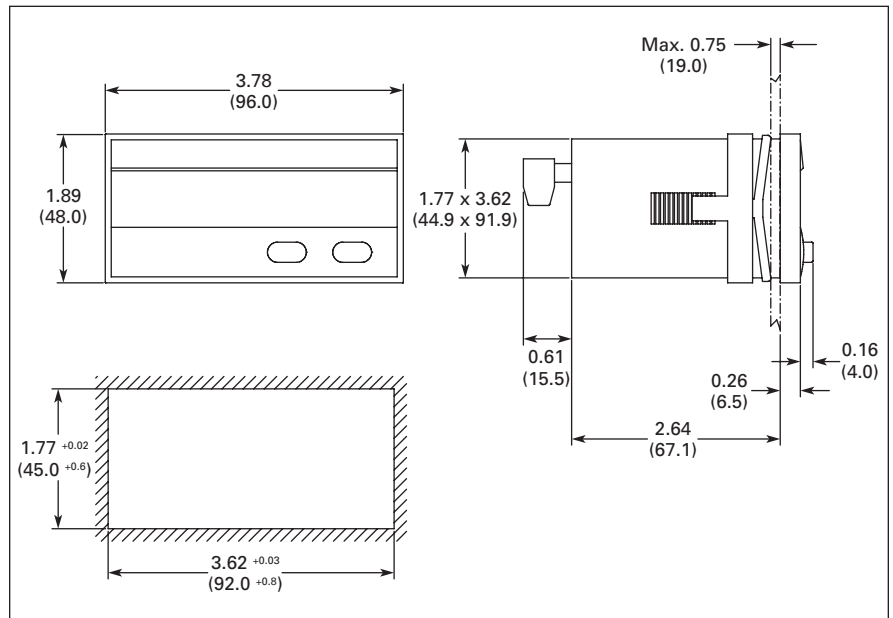


Figure 40. 1/8 DIN LED Multifunction Totalizer/Timer/Ratemeter — Approximate Dimensions in Inches (mm)