Introduction

Your Veeder-Root brand Series C342 panel instrument is powered by an external 12 - 24 VDC supply, features an 8 digit LCD display, and is housed in a ultra compact 1/32 DIN package.

This model has been configured at the factory to perform one of the following functions: Count Totalizer, Time Totalizer (Hours:Minutes:Seconds), Time Totalizer (Hours, 1/100 resolution), Tachometer or a PLC message display. There are also several programmable features that let you select a sinking or sourcing input, a count input filtering speed, and whether or not to enable the front panel reset.

The following pages of the manual will provide information on proper panel mounting of the device, terminal layout and wiring instructions, directions on how to access and set the field programmable features, as well as an overview of the basic operating functions of the unit. Also included are the key product specification, warranty procedures and ordering information should you require additional units.

Models Covered in this Manual

C342-0462 Totalizer: Accumulates and displays counted pulses. Total can be reset via front panel button (may be disabled) or remote reset terminals.

C342-1462 Time Totalizer: Accumulates time in Hours:Minutes:Seconds format. Can be reset via front panel button (may be disabled) or remote reset terminals.

C342-2462 Time Totalizer: Accumulates time in hours with 1/100 resolution. Can be reset via front panel button (may be disabled) or remote reset terminals.

C342-3462 Tachometer: Pulses are sampled for a 6 second period then displayed as a rate value in units per minute. A Display Hold input can freeze the current reading.

C342-4462 Message Display: Please refer to the additional instruction sheet which provides specific information on how to interface to a PLC.

- Available models include count and time totalization and rate metering
- Crisp 8 digit LCD display provides easy to read process values
- Compact 1/32 DIN bezel and 32mm behind the panel depth save panel space
- Power by 12 - 24 VDC, with nonvolatile RAM for retention of process value and settings
- Field programmable for NPN or PNP signals and for hi-speed (7.5 kHz) or low speed (30 Hz) filtering
- IEC IP65 rated front panel for use in washdown environments

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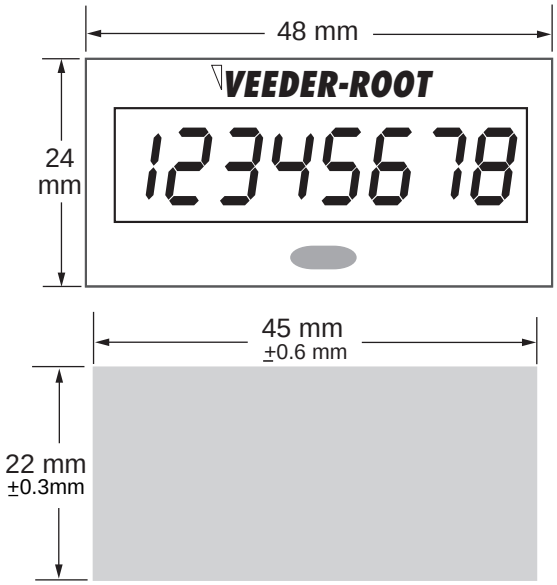
Technical Manual 702082-0001

Veeder-Root brand Series C342 DC Powered LCD Display

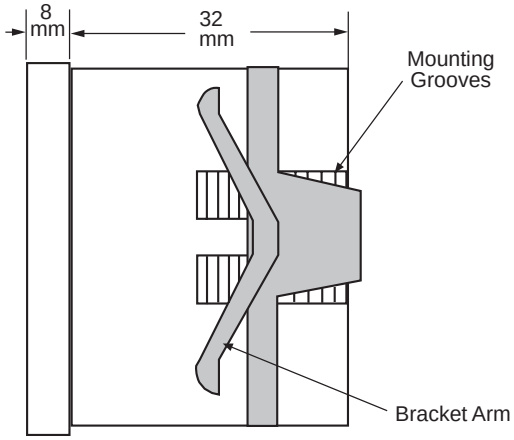
Dimensions



Panel Mounting

Make a panel cutout per the recommended opening illustrated by the figure above. Place the included gasket over the rear of the unit and place the unit in the panel cutout. Slide the panel mount bracket into place over the unit's rear allowing the bracket tabs to engage the grooves on the case. Continue to push forward until the bracket arm fits snugly against the panel.

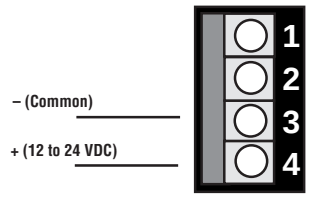
Top View



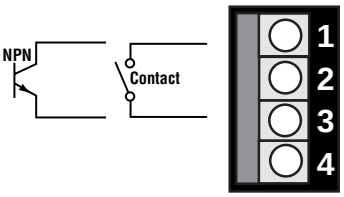
REAR TERMINAL CONNECTIONS

Wiring

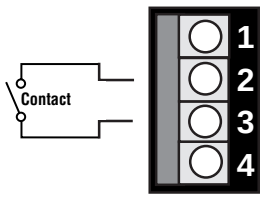
Insert wire into the appropriate openings as pictured in the drawing below. Turn the screws, located on the left side of the terminal block to tighten the clamp and secure the wire.



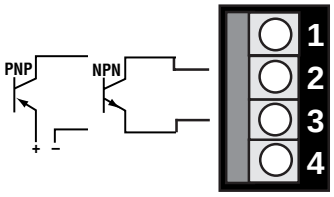
Power Wiring: Connect to 12 - 24 VDC (+20%/-10%) voltage source. Power requirement is 5 mA, Maximum.



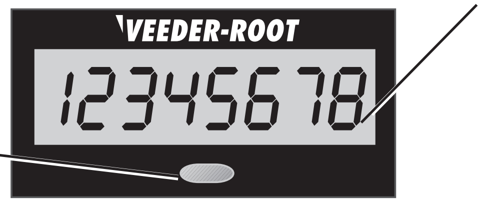
Remote Reset: the displayed value will be reset for counting or timing models. Count Input is ignored when the Reset is active. ***On tachometer version***, this terminal serves as a display hold input.



Signal Input (from switch): Contact closure signals are accumulated for count and tachometer versions. ***For timer versions***, timer runs when contact is closed. See "Programming" to select Low speed, NPN mode.



Signal Input (transistor): Signal pulses are accumulated for count and tachometer versions. ***For timer versions***, timer runs when signal is present. See "Programming" for selection of PNP or NPN signal.



On Time or Count models, used to reset the Process Value Display. May be disabled through the programming procedure, below. Also used in selection of Programming mode functions

Dependant on model, your C342 will perform one of the following functions:

C342-0462 Totalizer: The instrument will accumulate and display the pulses received on the count input terminals (2 & 3). Count capacity is 8 digits: 12345678. The total can be reset via the remote reset terminals (1 & 3) or the front panel.

C342-1462 Time Totalizer: The instrument will accumulate time when the input signal (terminals 2 & 3) is active. The time will be displayed in the format: 9999:59:59 Hours:Minutes:Seconds and can be reset via the remote reset terminals (1 & 3) or the front panel.

C342-2462 Time Totalizer: The instrument will accumulate time when the input signal (terminals 2 & 3) are active. The time will be displayed in hours with 1/100 resolution 999999.99 and can be reset via the remote input terminals (1 & 3) or the front panel.

C342-3462 Tachometer: Pulses received on the input terminals (2 & 3) are sampled for a 6 second period then displayed as a rate value in units per minute: 999990 . A Display Hold function (terminals 1 & 3) will freeze the current reading.

C342-4462 Message Display: Please refer to separate instruction sheet which provides specific information on how to interface to a PLC.

- Enter the Program Mode by holding the Front Panel Reset (FPR) key during power-up
- Scroll through the four input configuration choices by brief press and release of the FPR key
- When the desired choice appears, hold down the FPR for 2 seconds to select it
- Scroll between the two Front Panel Reset Enable choices by brief press and release of the FPR key. Hold the FPR key for 2 seconds to select the desired choice and return to the Operating Mode

Low Speed PNP Input: Configures the unit to accept a sourcing input and sets a filtering speed of 30 Hz

Note: This choice will not appear for Time Totalizer models

When desired input mode is displayed, hold for 2 seconds

loc

Front Panel Reset Locked: Pressing the front panel reset key during operation will not reset the accumulated count/time value

un loc

Front Panel Reset Unlocked: Pressing the front panel reset key during operation will cause the accumulated count/time value to be reset.

Hold for 2 seconds to return to Operating Mode

Count/Time Input:
Count Input: NPN or PNP Signal field selectable
Count Speed: 30 Hz or 7.5 kHz max
Logic: Low < 0.7 VDC, High > 5.0 VDC
Minimum Pulse Width: 70 µsecond
Maximum Input: 30 VDC

Operation:
Power Supply: 12 - 24 VDC (+20%/-10%), 5 mA, Max.
Display Type: 8 digit LCD
Display Height: 7 mm
Data Retention: Non volatile RAM, >10 years
Operating Temperature: -10°C to 50°C
Storage Temperature: -20°C to 60°C
Approvals: CE

Reset Input:
Type: NPN Signal, Contact Closure
Minimum Pulse Width: 15 ms

Physical:
Dimensions: 24mm x 48mm, 32mm deep
Mounting: Panel Mount (mounting bracket supplied)
22mm (± 0.3mm) x 45mm (± 0.6mm) panel cutout
Maximum Panel Thickness: 14mm
Connections: 4 screw terminals
Weight: Approximately 1 ounce
Front Panel Rating: IEC IP65

Part #	Description
C342-0462	Count Totalizer
C342-1462	Timer (H:M:S)
C342-2462	Timer (Hundreths of Hours)
C342-3462	Tachometer
C342-4462	Message Display

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Danaher Controls
1675 N. Delany Road
Gurnee, IL 60031–1282
Phone: 847.662.2666
Fax: 847.662.6633