# TECHNICAL BULLETIN

# **Veeder-Root** brand SERIES 7999 - MITE TOTALIZERS

Model Number: 79998D-110

Bulletin No.: 701962-0000

Revision: None May 19, 1995

A. DESCRIPTION. Series 7999 is a self-powered, eight digit electronic totalizing counter.

WARNING: THIS PRODUCT CONTAINS A LITHIUM BATTERY, THEREFORE IT MUST NOT BE CUT OPEN, OR DISPOSED OF IN A FIRE OR EXPOSED TO TEMPERATURES OUTSIDE THE RANGE +14° F to +140° F (-10° C to +60° C). CONTACT LOCAL AUTHORITIES FOR INFORMATION REGARDING A SUITABLE DISPOSAL SITE.

### **B. SPECIFICATIONS.**

Display: Eight-digit LCD, 0.315" (8mm) character height.

**Power**: Internal lithium battery. Ten years typical life (at 20° C).

Operating Temperature Range: +14° F to +140° F (-10° C to +60° C).

Storage Temperature Range: +14° F to +140° F (-10° C to +60° C).

Enclosure Rating: Front panel meets NEMA4/IP65 requirements, when used with clip mount and gasket provided.

Mounting: Panel mount (clip mount provided).

### Inputs:

Common: (Pin 1)

Panel Reset Enable: (Pin 2) Link to common to enable front panel reset button.

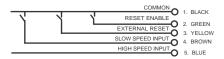
Remote Reset: (Pin 3) Provides reset via remote contact closure or open collector negative edge triggered. 0.7 V threshold, minimum pulse length 15ms.

Slow Speed Count Input: (Pin 4) Contact-closure/open-collector input, 30Hz maximum, negative edge triggered, 0.7V threshold, 15ms minimum pulse width.

High Speed Count Input: (Pin 5): Contact-closure/open-collector input, 10kHz maximum, negative edge triggered, 0.7V threshold, 50µs minimum pulse width. TTL/CMOS compatible.

Connection: Integral plug. Mating connector provided. Accessory screw termination adaptor available (see "Accessories").

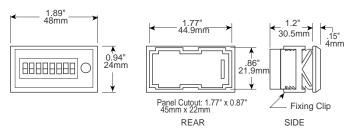
# CONNECTION DETAILS.



### C. ACCESSORIES. Adaptor modules plug directly onto the rear of the 7999 totalizer:

- 1. Screw Terminal Adaptor: Provides the convenience of screw terminal connection of input signal and remote reset. Part No. 108937-0001.
- 2. AC/DC Input Module: Allows use of high voltage input signal of 5 to 240 VAC/DC. Optically isolated for maximum immunity to electrical transients. Connections are via screw termination.

Part No. 108938-0001.



# **TECHNICAL BULLETIN**

# **Veeder-Root** brand SERIES 7999 - MITE TOTALIZER

Model Number: 79998D-410, Add/Subtract Totalizer

Bulletin No.: 701961-0000

Revision: None May 19, 1995

A. DESCRIPTION. The Series 7999 Eight-Digit Add/Subtract Totalizer (Model 79998D-410) is a self-powered counter.

WARNING: THIS PRODUCT CONTAINS A LITHIUM BATTERY, THEREFORE IT MUST NOT BE CUT OPEN, OR DISPOSED OF IN A FIRE OR EXPOSED TO TEMPERATURES OUTSIDE THE RANGE +14° F to +140° F (-10° C to +60° C). CONTACT LOCAL AUTHORITIES FOR INFORMATION REGARDING A SUITABLE DISPOSAL SITE.

#### B. SPECIFICATIONS.

Display: Eight-digit LCD, 0.315" (8mm) character height.

**Power**: Internal lithium battery. Ten years typical life (at 20° C).

Operating Temperature Range: +14° F to +140° F (-10° C to +60° C). Storage Temperature Range: +14° F to +140° F (-10° C to +60° C).

Enclosure Rating: Front panel meets NEMA4/IP65 requirements, when used with clip mount and gasket provided.

Mounting: Panel mount (clip mount provided).

Inputs:

Common: (Pin 1)

Panel Reset Enable: (Pin 2) Link to common to enable front panel reset button.

Remote Reset: (Pin 3) Provides reset via remote contact closure or open collector negative edge

triggered. 0.7 V threshold, minimum pulse length 15ms.

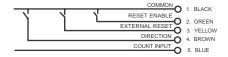
Direction Input: (Pin 4) Electronic input, TTL/CMOS compatible.

Add: No connection

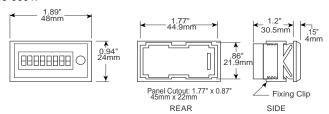
Subtract. Connect to common

Signal Input: (Pin 5) Electronic inputs, TTL/CMOS compatible. 10 kHz maximum, negative edge switching. Minimum pulse length 50 usec. Negative edge switching; Logic O: <0.7 VDC; Logic 1: >2.4 VDC. Maximum Input: 18 VDC.

Connection: Integral plug. Mating connector provided. Accessory screw termination adaptor available (see "Accessories").



- C. ACCESSORIES. Adaptor modules plug directly onto the rear of the 7999 totalizer:
- 1. Screw Terminal Adaptor: Provides the convenience of screw terminal connection of input signal and remote reset. Part No. 108937-0001.
- 2. Quadrature Input Module: For use with Model Number 79998D-410. Allows use of quadrature input signal. Input type: NPN Transistor. Impulse frequency response is 2500 Hz maximum. Operating voltage: 10-30 VDC supply. Connections are via screw termination. Part No. 108939-0001.



# **TECHNICAL BULLETIN**

# Veeder-Root brand SERIES 7999 - MITE TIMERS

Model Number: 79998D-510 and 79998D-610

Bulletin No.: 701960-0000

Revision: None May 19, 1995

A. DESCRIPTION. Series 7999 Timers (seconds or minutes and seconds, Model 79998D-510; and hours and minutes or hours and hundredths. Model 79998D-610) are self-powered time indicators.

WARNING: THIS PRODUCT CONTAINS A LITHIUM BATTERY. THEREFORE IT MUST NOT BE CUT OPEN. OR DISPOSED OF IN A FIRE OR EXPOSED TO TEMPERATURES OUTSIDE THE RANGE +14° F to +140° F (-10° C to +60° C). CONTACT LOCAL AUTHORITIES FOR INFORMATION REGARDING A SUITABLE DISPOSAL SITE.

### B. SPECIFICATIONS.

Display: Eight-digit LCD, 0.315" (8mm) character height.

Power: Internal lithium battery. Ten years typical life (at 20° C).

Operating Temperature Range: +14° F to +140° F (-10° C to +60° C). Storage Temperature Range:  $+14^{\circ}$  F to  $+140^{\circ}$  F ( $-10^{\circ}$  C to  $+60^{\circ}$  C).

Enclosure Rating: Front panel meets NEMA4/IP65 requirements, when used with clip mount and gasket provided.

Mounting: Panel mount (clip mount provided).

Inputs:

Common: (Pin 1)

Panel Reset Enable: (Pin 2) Link to common to enable front panel reset button.

Remote Reset: (Pin 3) Provides reset via remote contact closure or open collector negative edge

triggered. 0.7 V threshold, minimum pulse length 15ms.

Timing Input: (Pin 4) Contact-closure/open-collector, negative edge triggered, 0.7V threshold, 15ms minimum pulse width.

Timing Mode Select: (Pin 5):

No connection 79998D-510: seconds

79998D-610: hours and minutes

79998D-510: minutes and seconds Link to common

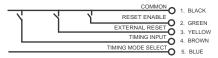
79998D-610: hours and hundredths

Accuracy: ± 20ppm @ 20° C

Connection: Integral plug. Mating connector provided. Accessory screw termination adaptor available (see

"Accessories").

## **CONNECTION DETAILS**



- C. ACCESSORIES. Adaptor modules plug directly onto the rear of the 7999 timer:
- 1. Screw Terminal Adaptor: Provides the convenience of screw terminal connection of input signal and remote reset. Part No. 108937-0001.
- 2. AC/DC Input Module: Allows use of high voltage input signal of 5 to 240 VAC/DC. Optically isolated for maximum immunity to electrical transients. Connections are via screw termination. Part No. 108940-0001.

