

# en-Gauge®



## Overview

The en-Gauge en-Vision Module (EVM) is the central element of the en-Gauge fire extinguisher monitoring system.

When combined with an en-Gauge enabled pressure gauge it allows a portable fire extinguisher to become a fully supervised component of a monitored alarm system.

## Operation

The EVM works in conjunction with an en-Gauge enabled fire extinguisher pressure gauge. The gauge has integral electronics providing extinguisher removal and pressure status signals to the EVM via a proprietary tether. The tether has a quick-disconnect type connector at the gauge end that is designed to break away from the extinguisher once the extinguisher has been removed from its designated location.

The EVM detects any potential obstruction that may block access to an extinguisher by utilizing an ultrasonic transducer housed in the EVM faceplate. An obstruction has to be blocking access to the extinguisher from 15 to 30 hours (default mode) before the EVM confirms the obstruction and generates an extinguisher trouble. The obstruction detection timing can be modified for specific applications using the dipswitches on the back of the EVM.

The EVM delivers the fire extinguisher status information both locally and remotely. The EVM annunciates any extinguisher status change (extinguisher alert or extinguisher trouble) locally through the use of Light Emitting Diodes (LEDs) located on the faceplate of the unit and through the use of an integral sounder.

The EVM can send an extinguisher alert or extinguisher trouble signal to other monitoring systems through the use of two form "C" relay outputs. The first relay output is designated the extinguisher alert output. This relay will change state if an extinguisher is removed from its designated location. The second relay output is designated the extinguisher trouble output. This relay will change state if the EVM senses that the extinguisher has had a pressure loss below a safe operational level, has had an obstruction continuously blocking access, or the unit's power source has dropped below a normal operational level. Both EVM output relays provide normally open or normally closed contacts.

The EVM can be powered via two 3 volt lithium batteries or from an external 12-24VDC power source. The EVM monitors its power source and will generate a unique trouble signal when the power level falls below a safe operating level.



## FEATURES

- Signals when the extinguisher:
  - Is removed from its designated location
  - Loses internal pressure
  - Is continuously obstructed.
- Signals when the monitoring device loses normal operational power.
- Code recognized to eliminate 30-day physical inspections
- Local visual and audible indication
- Powered by either battery (two 3V Lithium) or External (12-24VDC)
- Normally open or closed outputs interface to any monitoring system.
- Field adjustable obstruction detection timing & range
- Removable wiring terminal for ease of installation
- Aesthetically pleasing faceplate
- Fits into a standard single-gang electrical box
- Used with all types, sizes and make of portable fire extinguishers.



## WIRING TERMINAL DIAGRAM



- 1) Power In +
- 2) Power In -
- 3) Power Out +
- 4) Power Out -
- 5) Alert Relay NC
- 6) Alert Relay C
- 7) Alert Relay NO
- 8) Trouble Relay NC
- 9) Trouble Relay C
- 10) Trouble Relay NO

## EVM DIMENSIONAL DRAWING.

en-Gauge® is available through a network of factory trained, highly qualified, authorized distributors.

## Specifications

Battery Supply Voltage	6VDC
Battery Type	Two 3V Duracell Ultra Photo Duracell Part # DL123BU
Battery Life	3 Years in normal operating conditions
External Power Source Supply Voltage	12-24VDC
External Power Source Supply Current	
Normal State	4 mA
Alert State	6.5mA
Output Relay Contact Rating	1 Amp @30VDC
Dimensions	4.65" x 2.91" x 2.38"
Obstruction Detection Range	30" (Default Setting)/18" (Optional Setting)
Obstruction Detection Timing	0-15 Hours (Optional Setting) 5-20 Hours (Optional Setting) 15-30 Hours (Default Setting) 50-65 Hours (Optional Setting)
Extinguisher Gauge Tether	Length 48"
Operating Temperature Range	32 to 120 Degrees F
Shipping Weight	1 LB
Warranty	1 Year
Listings	TBD

## Ordering Information

Model	Description
F00133	EVM Externally Powered Kit (12-24VDC)
F00141	EVM Battery Powered Kit (Two 3VDC Batteries)
<b>Replacement Parts</b>	
A00084	EVM (Module Only)
C00054	3V Lithium Battery
C00078	Wall Grommet
C00126	Wiring Terminal
C00007	48" Tether

## Engineering Specification

Model shall be F00133 or F00141, en-Gauge en-Vision Module (EVM) as manufactured by en-Gauge, Inc. of Rockland, MA. The EVM shall be used for the electronic monitoring of en-Gauge enabled portable fire extinguishers. The EVM shall be installed and connected to each portable fire extinguisher with connection and device location as shown on the drawings and/or specified herein. The EVM shall be installed within 30-36 inches of each extinguisher as to not interfere with normal operation of the extinguisher. The EVM shall be mounted on or into a single-gang electrical box which shall incorporate the necessary facilities for extinguisher pressure gauge connection and monitoring system connection. The EVM shall have the capability to monitor the fire extinguisher for presence, low pressure condition, obstruction, and low power condition. The EVM shall provide two output relays for connection to an external monitoring system. The output relays shall provide both normally open and normally closed terminals. One output relay shall be designated the extinguisher alert relay and shall change state if the monitored extinguisher is removed from its designated location. The second output relay shall be designated the EVM trouble relay and shall change state if the extinguisher has a loss in pressure, has its access continuously blocked, or if input power drops below a normal operating range. The EVM output relays shall be rated at 1 Amp @ 30 VDC.

The EVM shall be powered by either two 3V batteries or by an external 12-24VDC power source. The EVM shall be Underwriters Laboratories Listed and Factory Mutual approved.



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