![DET-TRONICS logo]

Instructions

Eagle Quantum Premier®

Hazardous Location Electronic Based

Fire and Gas Alarm Control Panel and Automatic

Releasing for Pre-Action and Deluge Systems

EQ3900E Series

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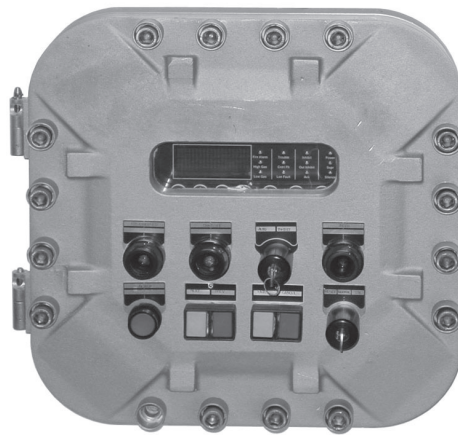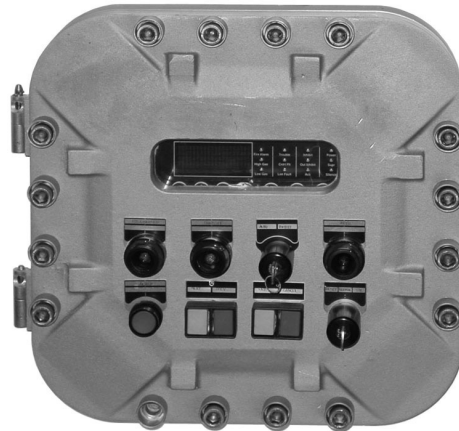EQ3900E Series

Explosionproof / Flameproof

DESCRIPTION

As part of providing a total systems solution to industrial clients around the world, Detector Electronics Corporation offers several certified systems enclosures for mounting in hazardous locations.

These enclosures can be configured to house various combinations of Eagle Quantum Premier controllers and 8 channel IO modules, along with a power distribution module. They are intended for use in hazardous locations, with certifications that include Class 1, Division 1 and Class 2, Division 1 per the National Electrical Code.

Regulations require that enclosures and their contents be certified as an entity for use in a hazardous location.

FEATURES

• Hazardous area certified solution (Explosionproof Class I, Zone 1)
• Simple wire installation into terminal blocks
• Configurable device selection for the enclosure
• Electronics and wiring tested at the factory

ENCLOSURE

Depending upon the equipment selection, the front door may or may not have a window, indicators, and operators installed.

SPECIFICATIONS

INPUT VOLTAGE—
24 Vdc nominal, 18 to 30 Vdc. 10% overvoltage will not cause damage to equipment.

TEMPERATURE RANGE—
Operating: -4°F to +140°F (-20°C to +60°C)
Storage: -40°F to +140°F (-40°C to +60°C)

HUMIDITY—
5% to 95%, non-condensing.

CERTIFICATION—

FM/CSA: See Appendix A for FM and CSA details.

Refer to the Eagle Quantum Premier manual (form number 95-8533) for system certification details, individual controller and module specifications, and installed equipment operation details.

WEIGHT (Approximate, wo Electronic Assemblies)—
12x12x8:   83 pounds (38 kg)
12x24x12:   225 pounds (102 kg)

INSTALLATION

The enclosure must be securely bolted in place.

MOUNTING

Refer to the appropriate drawing for mounting dimensions.

ENCLOSURE ENTRY

The number and position of wiring entries must be specified when the enclosure is ordered. The enclosures can accept a certain number and size of entries as specified by enclosure manufacture. Only manufacturer recommended cable glands can be used with the enclosures. Consult with Det-Tronics Corporation on the exact number and sizes of entries that are available for each enclosure.

WIRING INSTRUCTIONS

Electrical wiring schematics for the custom device configuration will be provided with the enclosure. Wiring is made to the appropriate terminals located inside of the enclosure and is secured in place.

ORDERING INFORMATION

Refer to the EQ3900E Enclosure Model Matrices for details.

For assistance in ordering a system to fit your application, please contact:

Detector Electronics Corporation
6901 West 110th Street
Minneapolis, Minnesota 55438 USA
Operator: (952) 941-5665 or (800) 765-FIRE
Customer Service: (952) 946-6491
Fax: (952) 829-8750
E-mail: det-tronics@det-tronics.com

or contact your local sales office, which can be found on the Det-Tronics web site:

www.det-tronics.com

EQP3900E Enclosure Model Matrix

MODEL	DESCRIPTION	
EQ3900E	EQP, Class 1, Division 1/Zone 1 Enclosure Solution	
	TYPE	**CONFIGURATION**
	XXXXXXXX-XXX	Sales Order # Drawing Packet

EQP3900E Design Criteria

EQ3900E EQP System Enclosure Solutions										
Size	Window	Operator(s)	Controller EQ3xxx	I/O Modules (EQ7xx)	EQ3800PDM	EQ3LTM	EQ2220GFM	EQ2230RSP	Terminal Strip	Fuse(s)
12x12x08	Optional	≤8	≤1	≤1	≤1	≤1	≤1	≤1	≤1	Yes
12x24x12			≤1	≤4	≤1	≤1	≤1	≤1	≤1	Yes

Notes:

EQ3xxx = EQ3001, EQ3005, EQ3015, EQ3150.

EQ37xx = EQ3700DCIO, EQ3710AIM, EQ3720RM, EQ3730EDIO, EQ3750ASH, EQ3760ASM, EQ3780HSDM.

Operator(s) = Lamps (Amber, Red, Green, White), Push-Buttons, Double Push-Buttons, Key Switch (2 & 3 Position).

Note: No ingress rating with operators installed.

Note: Terminals and fuses must be NRTL listed. Installation must follow OEM requirements.

Mounting Bracket

1.00

16.50

Back side

Side View

1.00

Mounting Bracket

Back side

Mounting Bracket

Top side

Back side

7.00

2.00

0.50
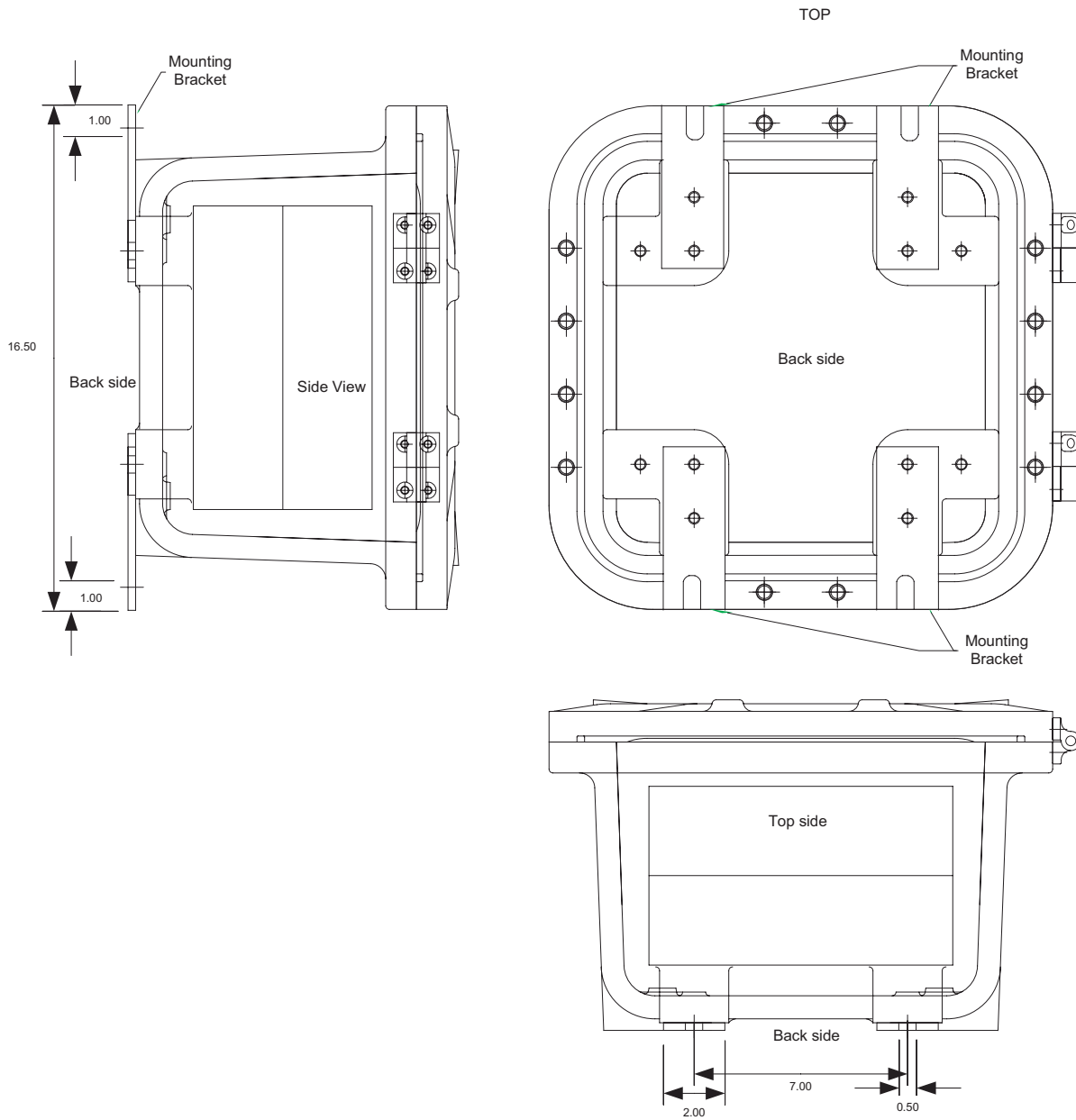
Explosionproof / Flameproof EXB-12128
Enclosure Mounting Bracket Location
(12" x 12" x 8")

TOP

Mounting
Brackets

1.00

25.86

Back side

Back side

1.00

Mounting
Brackets

TOP

Back side

7.00

2.00

0.50
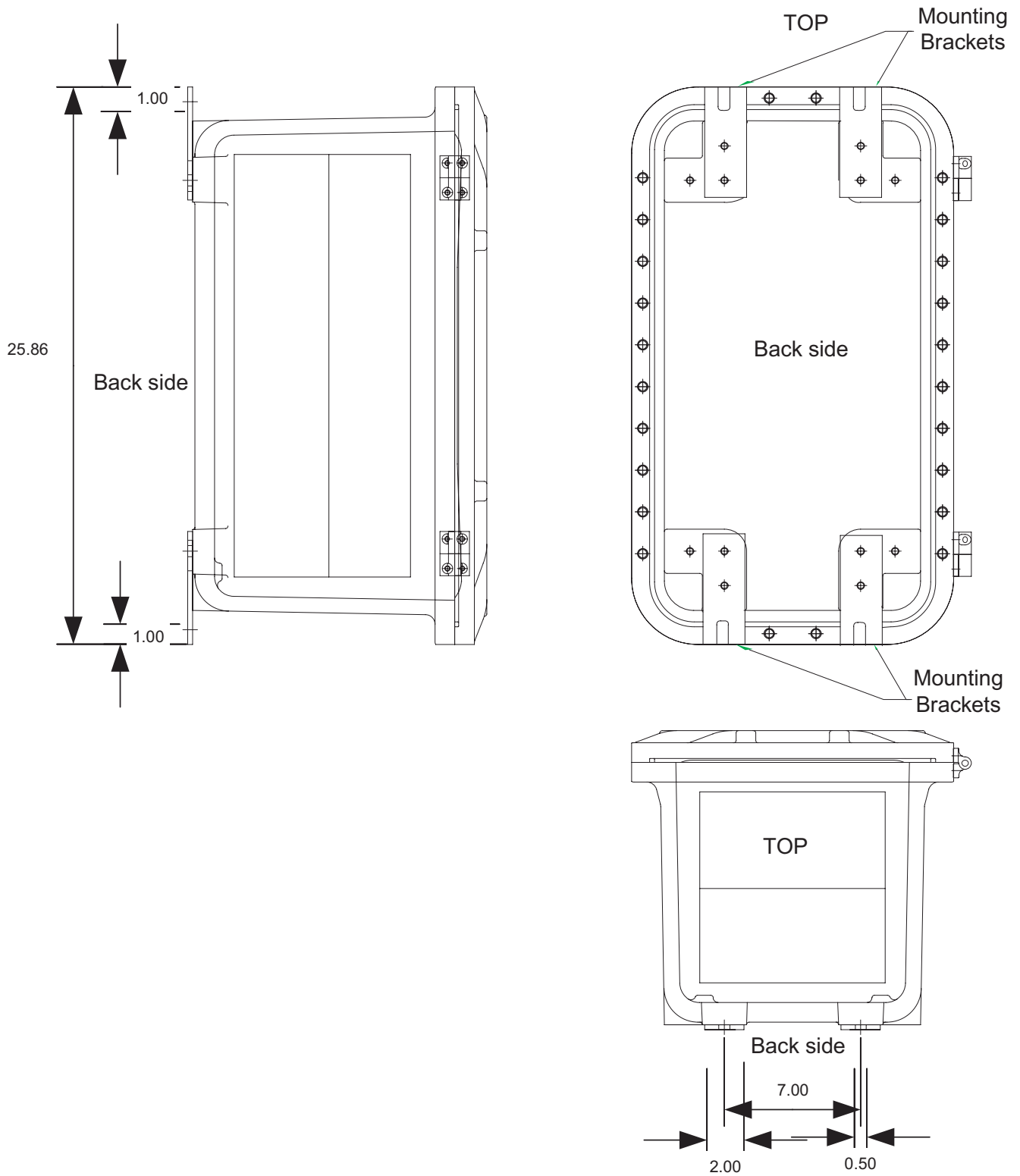
Explosionproof / Flameproof EXB-122412
Enclosure Mounting Bracket Location
(24" x 12" x 12")

APPENDIX A

FM and CSA APPROVALS

When Key Switch is Installed

Class I, Div. 1, Groups C & D.
Class II, Div. 1, Groups E, F, & G.
Ambient temperature limits -4°F to +140°F (-20°C to +60°C)
Conduit seal required within 18" of enclosure

When Operators Except Key Switch are Installed

Class I, Div. 1, Groups B, C & D.
Class II, Div. 1, Groups E, F, & G.
Ambient temperature limits -4°F to +140°F (-20°C to +60°C)
Conduit seal required within 18" of enclosure

When No Operators are Installed

Class I, Div. 1, Groups B, C & D (T5).
Class II, III Div. 1, Groups E, F, & G (T5).
Class I, Zone 1, Group IIB (T5).
Type 4
Ambient temperature limits -4°F to +140°F (-20°C to +60°C)
Conduit seal required within 18" of enclosure

EQUIPMENT SAFETY SYMBOLS

Symbol	Description
	Direct current
	Alternating current
	Both direct and alternating current
3	Three-phase alternating current
	Earth (ground) current
	Protective conductor terminal
	Frame or chassis terminal
	On (power)
	Off (power)
	Equipment protected throughout by double insulation or reinforced insulation
	Caution, possibility of electric shock
	Caution, hot surface
	Caution*
	In position of bi-stable push control
	Out position of bi-stable push control
	Ionizing radiation

* Manufacturer to state that documentation must be consulted in all cases where this symbol is marked.

FlexSonic® Acoustic
Leak Detector

X3301 Multispectrum
IR Flame Detector

PointWatch Eclipse® IR
Combustible Gas Detector

FlexVu® Universal Display
with GT3000 Toxic Gas Detector

Eagle Quantum Premier®
Safety System

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