



by **Schneider** Electric

I N S T A L L A T I O N

Fortified Enclosure Integrated Camera Systems



**High Temperature, Low Temperature,
High Humidity, and
12 VDC-Powered Enclosures**

C3952M-B (5/14)

Contents

Important Safety Instructions	5
Important Notices	6
Regulatory Notices	6
Warranty Statement	6
Description	7
Models	7
IP Camera Systems	7
IP Camera Systems with Pelco FMCI-PF1 Media Converter	8
Analog Camera Systems	8
Recommended Mounts	8
Parts List	9
User-supplied Parts List	9
General Information	9
Installation	10
Wall Mounting	10
Preparing the Mounting Surface	10
Routing the Cables Through the Rear of the Mount Arm	10
Routing the Cables Through the Conduit Holes in the Mount Arm	12
Mounting to a Pole/Corner	13
EPM Esprit Pole Mount	13
ECM100 Esprit Corner Mount	13
Connecting Power and Data	14
Connecting Power	14
FH-H Series Enclosures	14
FH-L, FH-M, and FH-S Enclosures	14
Connecting Data	15
Connecting Ethernet or Coaxial Cables	15
Connecting Fiber Cable	15
Enclosure Setup	16
Verifying Input Voltage on FH-L and FH-M Series Models	16
Measuring Input Voltage	16
Manually Activating the Heating System	17
Setting Field of View	17
Temperature Alarm Settings on FH-H Series Models	17
Installing the Desiccant Canister	18
FH-H Series Enclosure Models	18
FH-L, FH-M, and FH-S Series Enclosure Models	19
Maintenance	20
Specifications	21
FH-H Series	21
FH-L Series	21
FH-M Series	22
FH-S Series	22

List of Illustrations

- 1 Attach the Gasket to the Rear of the Mount 10
- 2 Replacing the PG9 Gland Bushing 10
- 3 Loosen the Six Captivated Fasteners on Each Cover 11
- 4 Inserting the Data Cable and PG9 Gland 12
- 5 Inserting the Data and Power Cables 13
- 6 FH-H Series: High Voltage Power Compartment Separated From Low Voltage Compartment 14
- 7 FH-L, FH-M, FH-S Series: Power Connection Area for Low Temperature, High Humidity, and 12 VDC Enclosures 14
- 8 Connecting Ethernet/Coaxial Connections with BNC Connector 15
- 9 Connecting Ethernet/Coaxial Connections with RJ-45 Connector 15
- 10 Connecting the Fiber Optic Media Converter 15
- 11 Location of 24 VAC Input and Thermostat 16
- 12 Removing and Replacing Black Panel Cover on FH-H Series Enclosure Models 18
- 13 Placement of Desiccant Canister in FH-L, FH-M, and FH-S Series Enclosure Models 19

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
7. Only use attachments/accessories specified by the manufacturer.
8. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
9. Installation should be done only by qualified personnel and conform to all local codes.
10. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
11. Use only installation methods and materials capable of supporting four times the maximum specified load.
12. Use stainless steel hardware to fasten the mount to outdoor surfaces.
13. An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.
14. A readily accessible disconnect device shall be incorporated in the building installation wiring.

CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Only use replacement parts recommended by Pelco.

After replacement/repair of this unit's electrical components, conduct a resistance measurement between the line and exposed parts to verify the exposed parts have not been connected to the line circuitry.

The product and/or manual may bear the following marks:



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

15. Mount the enclosure at least 2.5 m (8 feet) above the ground when the unit is installed in an area that is accessible by the general public.

CAUTION:
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

Important Notices

REGULATORY NOTICES

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits of a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

This Class A digital apparatus complies with Canadian ICES-003.

Industry Canada ICES-003 Compliance Label:
CAN ICES-3(A)/NMB-3(A)

WARRANTY STATEMENT

For information about Pelco's product warranty and thereto related information, refer to www.pelco.com/warranty.

Description

The FH Series fortified camera systems include a camera, lens, enclosure, power supply, and optional fiber optic system in one assembly. The FH Series offers four unique fortified camera systems. Each camera system is distinguished by high temperature, low temperature, high humidity, or 12 VDC operating conditions.

All FH Series camera systems include an impact-resistant enclosure designed to house a selection of analog or IP cameras and any one of three lens choices. IP camera systems can be configured with an optional fiber optic media converter. All FH Series fortified camera systems arrive tested, certified, and prewired for immediate installation.

MODELS

IP CAMERA SYSTEMS

High Temperature	Low Temperature	High Humidity	12 VDC	Camera	Lens
FH-HI10LW-6	FH-LI10LW-6	FH-MI10LW-6	FH-SI10LW-6	IXE-10LW	13M2.2-6
FH-HI10LW-12	FH-LI10LW-12	FH-MI10LW-12	FH-SI10LW-12		13M2.8-12
FH-HI10LW-50	FH-LI10LW-50	FH-MI10LW-50	FH-SI10LW-50		13M15-50
FH-HI20DN-6	FH-LI20DN-6	FH-MI20DN-6	FH-SI20DN-6	IXE-20DN	13M2.2-6
FH-HI20DN-12	FH-LI20DN-12	FH-MI20DN-12	FH-SI20DN-12		13M2.8-12
FH-HI20DN-50	FH-LI20DN-50	FH-MI20DN-50	FH-SI20DN-50		13M15-50
FH-HIXE21-6	FH-LIXE21-6	FH-MIXE21-6	FH-SIXE21-6	IXE21	13M2.2-6
FH-HIXE21-12	FH-LIXE21-12	FH-MIXE21-12	FH-SIXE21-12		13M2.8-12
FH-HIXE21-50	FH-LIXE21-50	FH-MIXE21-50	FH-SIXE21-50		13M15-50
FH-HIXE31-6	FH-LIXE31-6	FH-MIXE31-6	FH-SIXE31-6	IXE31	13M2.2-6
FH-HIXE31-12	FH-LIXE31-12	FH-MIXE31-12	FH-SIXE31-12		13M2.8-12
FH-HIXE31-50	FH-LIXE31-50	FH-MIXE31-50	FH-SIXE31-50		13M15-50
FH-HIXP31-6	FH-LIXP31-6	FH-MIXP31-6	FH-SIXP31-6	IXP31	13M2.2-6
FH-HIXP31-12	FH-LIXP31-12	FH-MIXP31-12	FH-SIXP31-12		13M2.8-12
FH-HIXP31-50	FH-LIXP31-50	FH-MIXP31-50	FH-SIXP31-50		13M15-50
FH-HIXP51-6	FH-LIXP51-6	FH-MIXP51-6	FH-SIXP51-6	IXP51	13M2.2-6
FH-HIXP51-12	FH-LIXP51-12	FH-MIXP51-12	FH-SIXP51-12		13M2.8-12
FH-HIXP51-50	FH-LIXP51-50	FH-MIXP51-50	FH-SIXP51-50		13M15-50

IP CAMERA SYSTEMS WITH PELCO FMCI-PF1 MEDIA CONVERTER

High Temperature	Low Temperature	High Humidity	12 VDC	Camera	Lens
FH-HI10LW-6-F	FH-LI10LW-6-F	FH-MI10LW-6-F	FH-SI10LW-6-F	IXE-10LW	13M2.2-6
FH-HI10LW-12-F	FH-LI10LW-12-F	FH-MI10LW-12-F	FH-SI10LW-12-F		13M2.8-12
FH-HI10LW-50-F	FH-LI10LW-50-F	FH-MI10LW-50-F	FH-SI10LW-50-F		13M15-50
FH-HI20DN-6-F	FH-LI20DN-6-F	FH-MI20DN-6-F	FH-SI20DN-6-F	IXE-20DN	13M2.2-6
FH-HI20DN-12-F	FH-LI20DN-12-F	FH-MI20DN-12-F	FH-SI20DN-12-F		13M2.8-12
FH-HI20DN-50-F	FH-LI20DN-50-F	FH-MI20DN-50-F	FH-SI20DN-50-F		13M15-50
FH-HIXE21-6-F	FH-LIXE21-6-F	FH-MIXE21-6-F	FH-SIXE21-6-F	IXE21	13M2.2-6
FH-HIXE21-12-F	FH-LIXE21-12-F	FH-MIXE21-12-F	FH-SIXE21-12-F		13M2.8-12
FH-HIXE21-50-F	FH-LIXE21-50-F	FH-MIXE21-50-F	FH-SIXE21-50-F		13M15-50
FH-HIXE31-6-F	FH-LIXE31-6-F	FH-MIXE31-6-F	FH-SIXE31-6-F	IXE31	13M2.2-6
FH-HIXE31-12-F	FH-LIXE31-12-F	FH-MIXE31-12-F	FH-SIXE31-12-F		13M2.8-12
FH-HIXE31-50-F	FH-LIXE31-50-F	FH-MIXE31-50-F	FH-SIXE31-50-F		13M15-50
FH-HIXP31-6-F	FH-LIXP31-6-F	FH-MIXP31-6-F	FH-SIXP31-6-F	IXP31	13M2.2-6
FH-HIXP31-12-F	FH-LIXP31-12-F	FH-MIXP31-12-F	FH-SIXP31-12-F		13M2.8-12
FH-HIXP31-50-F	FH-LIXP31-50-F	FH-MIXP31-50-F	FH-SIXP31-50-F		13M15-50
FH-HIXP51-6-F	FH-LIXP51-6-F	FH-MIXP51-6-F	FH-SIXP51-6-F	IXP51	13M2.2-6
FH-HIXP51-12-F	FH-LIXP51-12-F	FH-MIXP51-12-F	FH-SIXP51-12-F		13M2.8-12
FH-HIXP51-50-F	FH-LIXP51-50-F	FH-MIXP51-50-F	FH-SIXP51-50-F		13M15-50

ANALOG CAMERA SYSTEMS

High Temperature	Low Temperature	High Humidity	12 VDC	Camera	Lens
FH-HC20-8	FH-LC20-8	FH-MC20-8	FH-SC20-8	C20-DW-6	13VDIR3-8.5
FH-HC20-12	FH-LC20-12	FH-MC20-12	FH-SC20-12		13VDIR2.8-11
FH-HC20-50	FH-LC20-50	FH-MC20-50	FH-SC20-50		13VDIR7.5-50
FH-HC20X-8	FH-LC20X-8	FH-MC20X-8	FH-SC20X-8	C20-DW-6X	13VDIR3-8.5
FH-HC20X-12	FH-LC20X-12	FH-MC20X-12	FH-SC20X-12		13VDIR2.8-11
FH-HC20X-50	FH-LC20X-50	FH-MC20X-50	FH-SC20X-50		13VDIR7.5-50

RECOMMENDED MOUNTS

EPM Medium duty mount for pipe/pole applications
 ECM100 Corner mount adapter

PARTS LIST

The following installation tools and parts are supplied:

Qty Description

- 1 FH Series fortified camera system (enclosure, wall mount, camera, lens, power supply)
- 1 Conduit plate
- 1 Conduit plate gasket
- 1 Reusable desiccant canister (REACH compliant) silica gel pack
- 1 Duplex fiber gland bushing (two-hole)
- 1 Ethernet female-to-female adapter
- 1 Fiber optic connector (FSFP module)*
- 1 PG9 data gland
- 1 PG9 data gland locknut

Supplied only with FH-F models.

USER-SUPPLIED PARTS LIST

The following installation tools and parts are needed but not supplied:

- Network/power cabling
- #2 Phillips screwdriver
- Standard flat head screwdriver
- Mounting hardware
- Glands for conduit plate

GENERAL INFORMATION

If installing conduit, the cabling/wiring must conform to local code for protection against environmental conditions when exiting from a building or outdoor-rated termination box.

The fortified camera system is environmentally sealed (IP66, NEMA Type 4X rating) in the camera enclosure and area of the mount arm where data cables/wires are terminated. The remainder of the mount arm is rated IP54, NEMA 3R.

The power supply types must be LPS or class 2 rated for FH-L Series (low temperature), FH-M Series (high humidity), and FH-S Series (12 VDC).

The FH-L Series (low temperature) models are equipped with a "cold start" feature. This feature prevents the camera from powering on if the temperature inside the enclosure is below -23°C (-10°F). When power is restored, the camera power will not turn on until the enclosure reaches an acceptable temperature for proper camera operation. Therefore, the camera might not turn on for an hour or more in extreme temperatures of -60°C (-76°F). Failure to provide the specified operating voltage will disable this feature and prevent camera operation. Refer to *Verifying Input Voltage on FH-L and FH-M Series Models* on page 16 for proper operation.

The FH-H Series (high temperature) power supply unit is located in the wall mount arm. A 15 or 20 amp breaker must protect the wiring from the building prior to connecting the FH-H Series power unit. The high voltage (power) and low voltage (data) cabling must be routed separately through the two conduit plate entry holes. A plate inside the FH-H Series housing maintains separation of power and data supply.

Installation

WALL MOUNTING

There are two methods for routing cables to the mount arm: through the rear opening or through the two conduit holes at the bottom of the mount. Choose the method suitable for your installation.

PREPARING THE MOUNTING SURFACE

1. Mark the four fastener positions (4.75-inch bolt circle) on the mounting surface using the supplied conduit plate as a template.
2. Prepare the mounting surface with the appropriately sized fasteners (not supplied).
3. Attach the gasket (supplied) to the rear of wall mount arm.

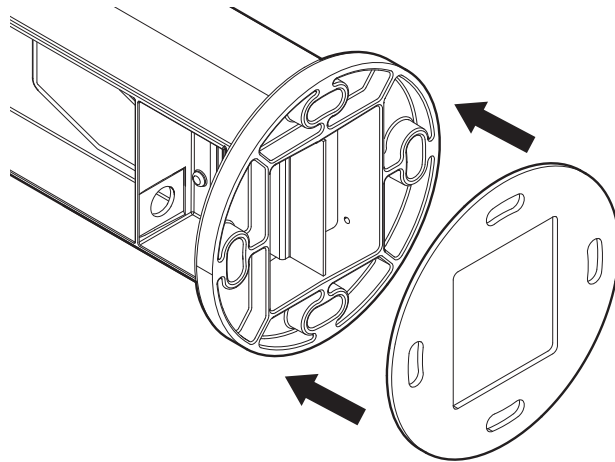


Figure 1. Attach the Gasket to the Rear of the Mount

ROUTING THE CABLES THROUGH THE REAR OF THE MOUNT ARM

1. Remove one or both knockout hole(s) on the conduit plate. For the FH-H Series, both holes must be used to properly separate high voltage and ground wires from low voltage data wires.
2. Attach the conduit fittings (not supplied) or sealing glands (not supplied) to the conduit plate. The sealing cable nut should face into the wall to allow clearance inside the mount arm cavity.
3. Prepare the conduit plate.
 - a. Thread the power and data cables through the holes of the conduit plate (supplied) and glands (not supplied) leaving approximately 12 inches of cable hanging from the wall.
 - b. Slide the conduit plate toward the mounting surface so that the mounting studs pass through the conduit plate to temporarily hold the plate in place.
 - c. *(Optional)* If using sealing glands, be sure to tighten the glands.
4. Insert the PG9 gland.
 - a. Loosen the rounded nut on PG9 gland (supplied) so the wire can easily slide through the gland.
 - b. If installing duplex fiber cable, you must replace the rubber bushing of the PG9 gland with the two-hole bushing (supplied).

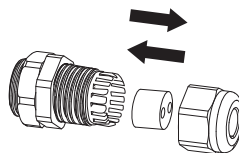


Figure 2. Replacing the PG9 Gland Bushing

- c. Thread the data cable (coaxial, Cat5e, or fiber) through the large, rounded nut of the PG9 gland that has a rubber bushing.
 - d. Slide the PG9 gland toward the conduit plate and lightly tighten the nut to hold the gland in place at 8 inches from the end of the data cable.
5. Install the appropriate connector (BNC, RJ-45, or fiber connector) on the data cable.
 6. Loosen (but do not remove) the six 8-32 captivated fasteners on each cover to expose the interior of the mount arm.

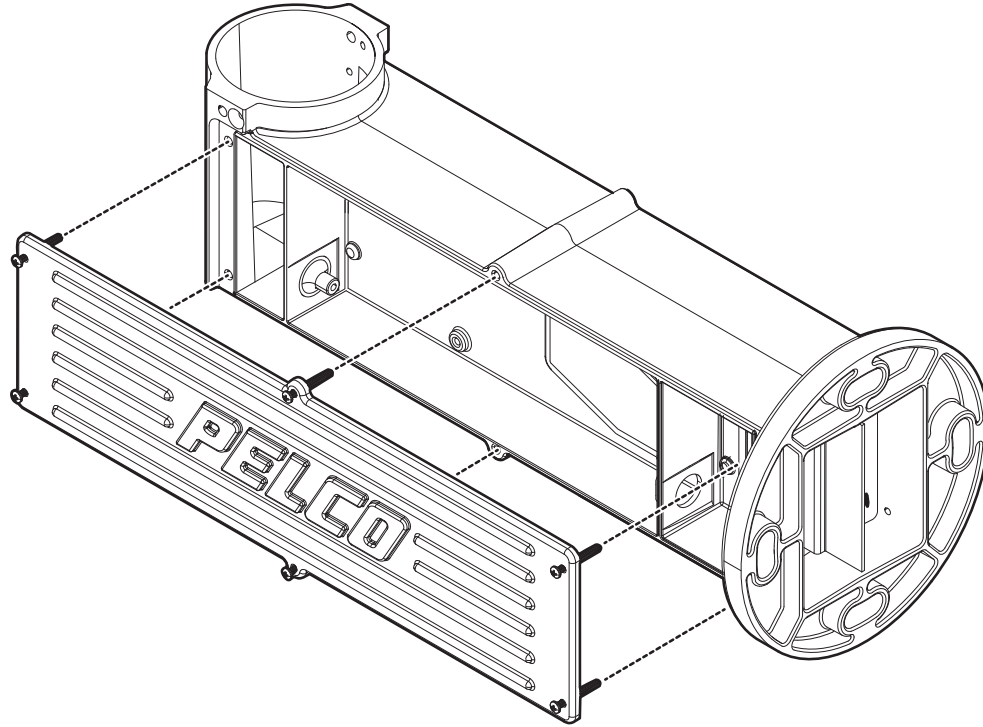


Figure 3. Loosen the Six Captivated Fasteners on Each Cover

7. Attaching the assembly to mounting surface.
 - a. Holding the mount arm near the mounting surface, feed the data and power cables through the rear opening of the mount arm.
 - b. Insert the data cable connector and cable through the gland hole at the rear of the IP66 mount arm compartment (refer to Figure 5 on page 13).
 - c. Pull the power cables through the rear mount arm opening, and then route them to the opposite side of the mount arm. Figure 7 on page 14 shows the power side of the compartment; Figure 8 on page 15 shows the compartment for the data cable(s).
8. Attach the enclosure system to the mounting surface using the appropriate fasteners (not supplied).
9. Loosen the rounded PG9 gland bushing nut as necessary to insert the threaded end of the gland through the wall of the IP66 compartment as shown in Figure 8 on page 15.
10. Slide the PG9 gland locknut (supplied) over the data connector and wire toward the PG9 gland. Tighten the locknut to the gland to create a seal to the mount arm data compartment. *It is important to tighten the locknut as this creates a water- and dust-tight seal to the data connection area.*
11. Tighten the rounded gland bushing nut to create a seal around the cable.
12. Connect the wiring as outlined in *Connecting Power and Data* on page 14.

ROUTING THE CABLES THROUGH THE CONDUIT HOLES IN THE MOUNT ARM

1. Hang the conduit plate on the four threaded studs.
2. Attach the enclosure system to the wall using the appropriate fasteners (not supplied).
3. Loosen the six 8-32 fasteners on each cover to expose the interior of the mount arm.
4. Remove the hole plug(s) from the conduit hole(s). For the FH-H Series, both holes must be used to properly separate high voltage and ground wires from low voltage wires.
5. Insert cabling through the conduit prior to installation, leaving approximately 15 inches of data cable extending past the conduit gland and 6 inches of power cable extending past the conduit gland.
6. Insert the PG9 gland.
 - a. Loosen the rounded nut on PG9 gland (supplied) so the wire can easily slide through the gland.
 - b. If installing duplex fiber cable, you must replace the rubber bushing of the PG9 gland with the two-hole bushing (supplied). Refer to Figure 2 on page 10.
 - c. Thread the data cable (coaxial, Cat5e, or fiber) through the large, rounded nut of the PG9 gland that has a rubber bushing.
 - d. Do not tighten the gland.
7. Before attaching conduit to the mount arm, install the appropriate RJ-45, BNC, or fiber data cable connector.
8. With the PG9 gland located near the end of the cable, feed the data cable and gland through the appropriate conduit hole at the bottom of the arm and out of the mount arm side opening. Fasten the conduit to the mount arm.
9. Create a loop in the data cable, and then insert the cable and PG9 gland through the hole located on the vertical wall of the IP66 mount arm cavity.

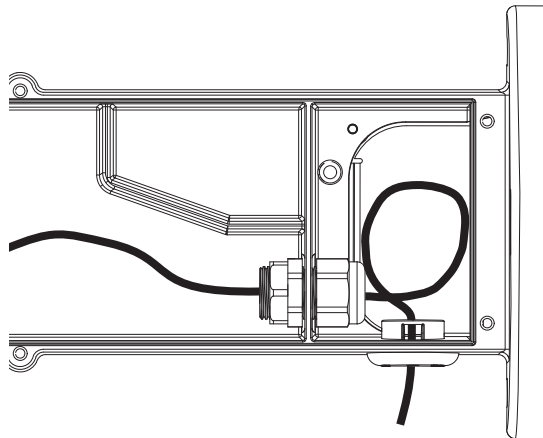


Figure 4. Inserting the Data Cable and PG9 Gland

10. Insert the PG9 gland.
 - a. Slide the PG9 gland locknut (supplied) over the data connector and wire toward the PG9 gland.
 - b. Tighten the locknut to the gland to create a seal to the mount arm data compartment.
 - c. Adjust the cable to the desired length inside the data cavity.
 - d. Tighten the rounded PG9 gland nut. *It is important to tighten the locknut to create a water- and dust-tight seal to the data connection area.*
11. Install the power cabling through the appropriate conduit hole and attach the conduit to the mount arm.

12. Connect the wiring as outlined in *Connecting Power and Data* on page 14.

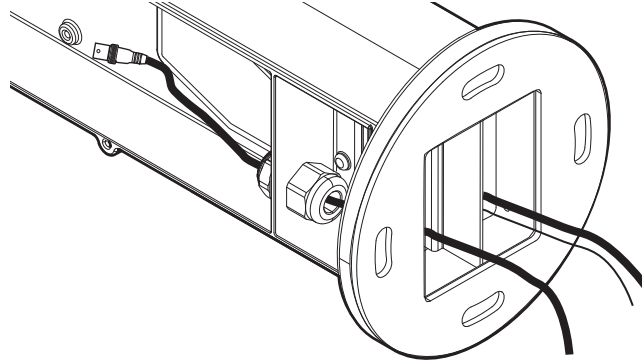


Figure 5. Inserting the Data and Power Cables

MOUNTING TO A POLE/CORNER

EPM ESPRIT POLE MOUNT

1. Attach the mount to the pole with three stainless steel straps (supplied).
2. Route the cables to the unit using one of the following procedures:
 - **Through rear opening:** Refer to *Routing the Cables Through the Rear of the Mount Arm* on page 10.
 - **Through conduit holes:** Refer to *Routing the Cables Through the Conduit Holes in the Mount Arm* on page 12.

ECM100 ESPRIT CORNER MOUNT

1. Mark the fastener positions on the mounting surface using the EMC100 mount as a template.
2. Route the cables to the unit using one of the following procedures:
 - **Through rear opening:** Refer to *Routing the Cables Through the Rear of the Mount Arm* on page 10.
 - **Through conduit holes:** Refer to *Routing the Cables Through the Conduit Holes in the Mount Arm* on page 12.

Connecting Power and Data

CONNECTING POWER

FH-H SERIES ENCLOSURES

The FH-H Series assembly contains a plate separating the high voltage (power) compartment from the low voltage (data) compartment as shown in Figure 6.

1. Connect the blue neutral wire to the AC LO (NEUT) connector.
2. Connect the brown hot wire to the AC HI (HOT) connector.
3. Connect the ground wire to the ground terminal.

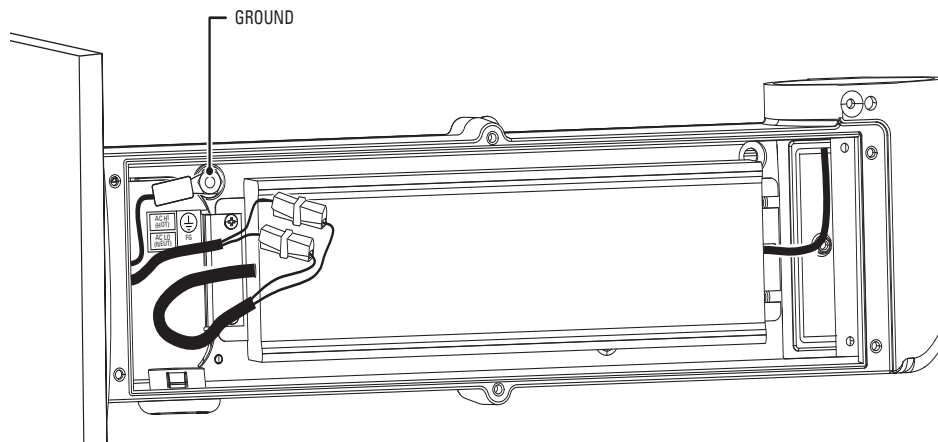


Figure 6. FH-H Series: High Voltage Power Compartment Separated From Low Voltage Compartment

FH-L, FH-M, AND FH-S ENCLOSURES

For FH-L or FH-M Series, you can connect the 24 VAC wires to either of the power connector wires.

For the FH-S Series, *you must observe polarity* by connecting the neutral wire to the unit's neutral connector (black wire) and the hot wire to the unit's hot wire connector (red wire). Failure to observe wiring polarity might cause damage to the system.

⚠ WARNING: The FH-S Series is powered by 12 VDC only. Applying high voltage directly to the FH-S Series will damage the housing, void the warranty, and create an electrocution hazard that can be harmful or fatal. Do not begin wiring until you have fully read and understand these installation instructions.

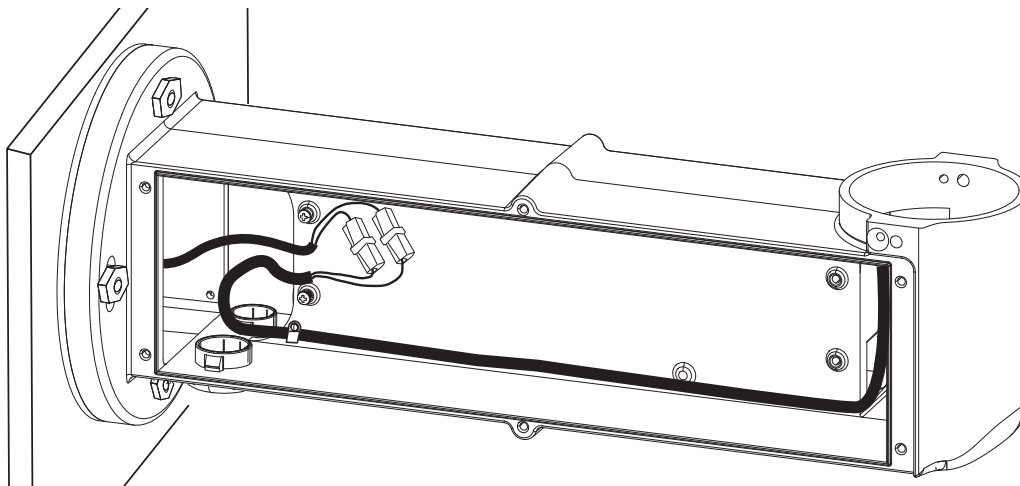


Figure 7. FH-L, FH-M, FH-S Series: Power Connection Area for Low Temperature, High Humidity, and 12 VDC Enclosures

CONNECTING DATA

CONNECTING ETHERNET OR COAXIAL CABLES

Connect the BNC or RJ-45 connector to the arm component's pre-wired data connector.

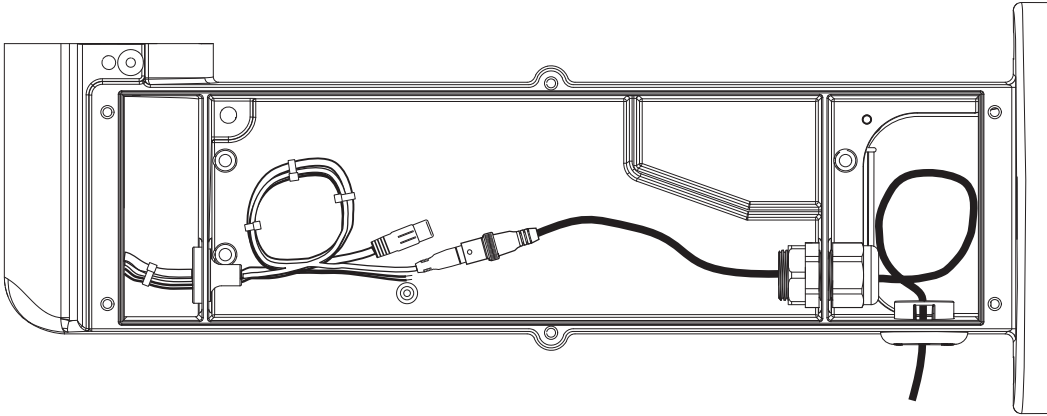


Figure 8. Connecting Ethernet/Coaxial Connections with BNC Connector

The female-to-female adapter (supplied) is required to connect RJ-45 ethernet cables.

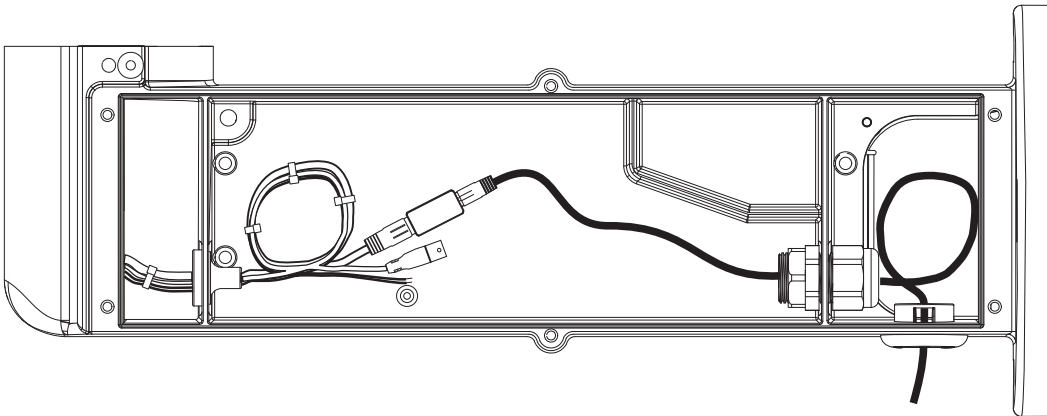


Figure 9. Connecting Ethernet/Coaxial Connections with RJ-45 Connector

CONNECTING FIBER CABLE

Insert the supplied fiber optic connector (FSFP module) into the fiber optic media converter.

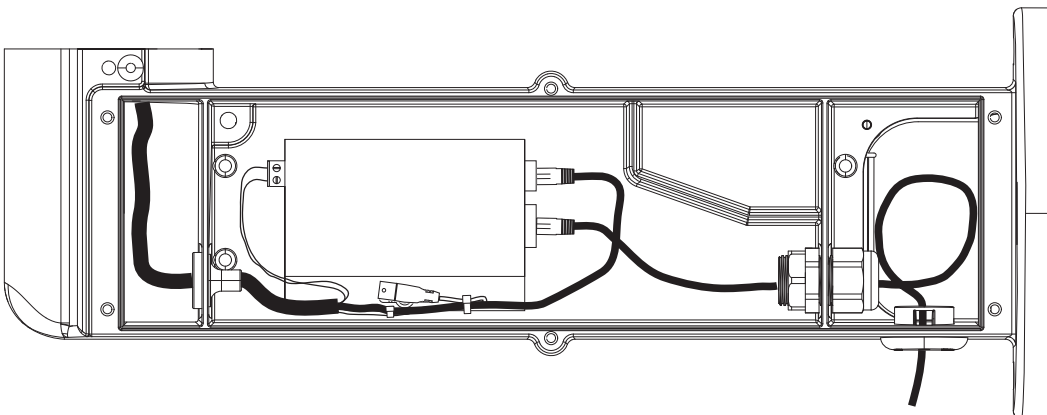


Figure 10. Connecting the Fiber Optic Media Converter

Enclosure Setup

VERIFYING INPUT VOLTAGE ON FH-L AND FH-M SERIES MODELS

The recommended input voltage is 24 VAC. Measure the input voltage during installation to verify that the voltage meets the requirements of the specific model series as stated in *Specifications* on page 21.

MEASURING INPUT VOLTAGE

1. Loosen the seven screws in the enclosure lid using a #2 Phillips screwdriver (not supplied).
2. Verify that all system components (camera, fans, and heating elements) are operating.

The fans should rotate immediately when power is applied. However, in outdoor installations with temperatures above 10°C (50°F) the heating system might require manual activation.

Additionally, in outdoor installations with temperatures below 0°C (32°F), the FH-L Series models might require manual activation of the camera power. Refer to *Manually Activating the Heating System* on page 17.

NOTE: The FH-L Series models are designed to prevent the camera from powering on if the temperature inside the enclosure is below -23°C (-10°F). The camera might not power on if the FH-L Series models are installed when the temperature is below -23°C (-10°F).

3. Measure the input voltage by placing meter probes on the 24 VAC input connector terminal block.

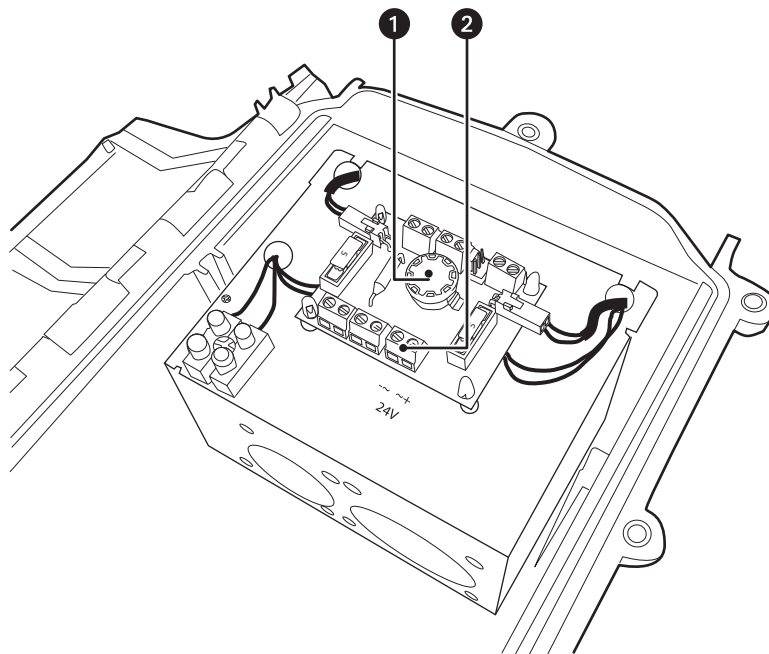


Figure 11. Location of 24 VAC Input and Thermostat

- 1 Thermostat
- 2 24 VAC Input Connector Terminal Block

MANUALLY ACTIVATING THE HEATING SYSTEM

The thermostat is mounted to the printed circuit card located at the rear of the enclosure (refer to Figure 11).

1. Power on the heating system by placing a cold object on the thermostat or spray the thermostat with cold spray. You might hear a click indicating the power has been turned on to the thermostat.
2. Verify that the heaters are on by hovering your hand above one of the heating elements mounted to the front of the sled, at the side of the lens.

The FH-M Series models have a thermal, pad-type heater mounted to the front window that can be touched safely.

SETTING FIELD OF VIEW

Loosen the seven screws in the enclosure lid using a #2 Phillips screwdriver. Refer to your camera and lens manuals to set the field of view and to focus the lens.

TEMPERATURE ALARM SETTINGS ON FH-H SERIES MODELS

The FH-H Series enclosures are equipped with a temperature sensor circuit that sends a message to the camera. A bi-metal contact closure from an on-board temperature switch is connected to the camera's alarm input. Temperature alarm settings differ between analog and IP camera systems.

Analog camera systems: The camera is programmed at the factory to display OVERTEMP in the camera OSD when the temperature switch senses a temperature of 66°C, ±4°C (150°F, ±7°F).

IP camera systems: An administrator must configure the camera's Alarm source and Open/Close Relay handler to activate the relay when the enclosure sends a temperature alarm (refer to the Sarix® IX/IXE Series camera manual for event source and handler configuration). The handler will remain active as configured by an administrator until normal operating temperature in the enclosure is restored or falls below 48°C, ±6°C (120°F, ±10°F).

Refer to your camera manual for additional specific information about connecting an alarm input.

INSTALLING THE DESICCANT CANISTER

FH-H SERIES ENCLOSURE MODELS

1. Remove the desiccant canister (supplied) from its packaging.
2. Remove the black panel covering the camera compartment.
3. Place the desiccant canister in the enclosure near the camera, making sure the small inspection window on the desiccant canister is facing the camera.
4. Replace the black panel cover (refer to Figure 12). The grooved edge of the cover panel must face downward toward the camera compartment for it to seat properly.
5. Close the lid and tighten the seven screws to seal the enclosure.

The desiccant canister reduces condensation within the enclosure. When the orange beads in the inspection window become clear, reactivate the desiccant canister by placing it in a vented 150°C (300°F) oven for at least three hours, or until the beads are orange.

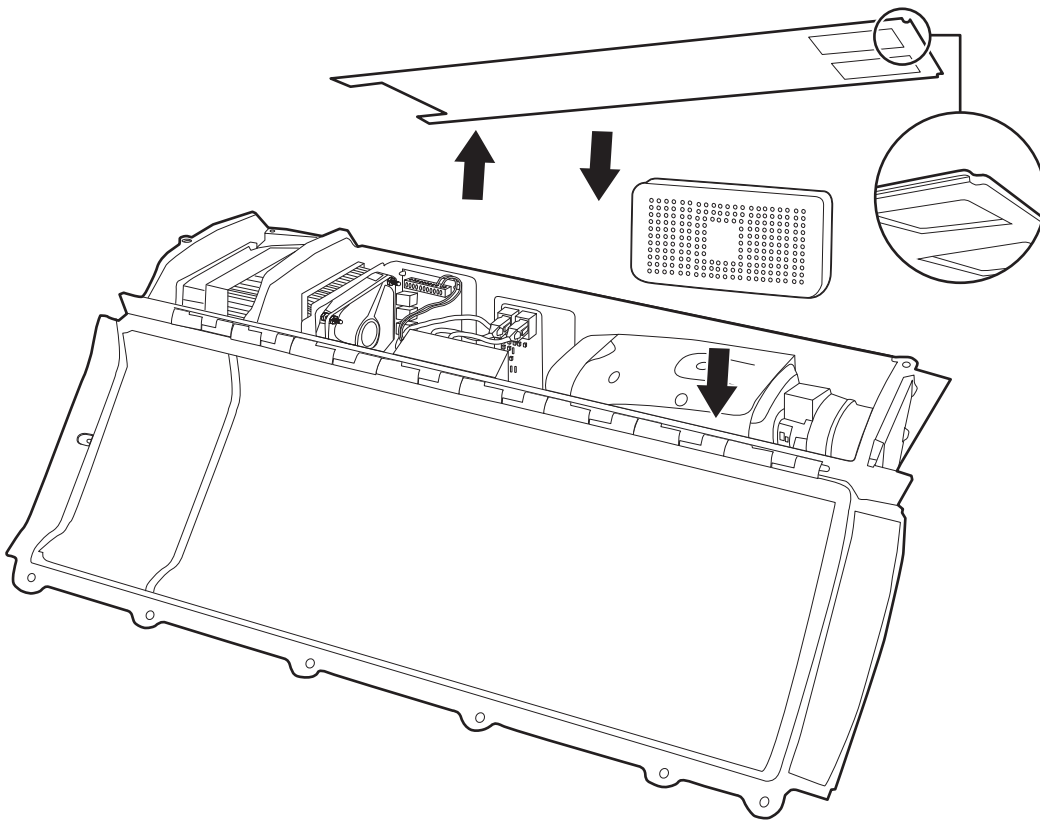


Figure 12. Removing and Replacing Black Panel Cover on FH-H Series Enclosure Models

FH-L, FH-M, AND FH-S SERIES ENCLOSURE MODELS

1. Remove the desiccant canister (supplied) from its packaging.
2. Place the desiccant canister in the enclosure near the camera, making sure the small inspection window on the desiccant canister is facing the camera (refer to Figure 13).
3. Close the lid and tighten the screws to seal the enclosure.

The desiccant canister reduces condensation within the enclosure. When the orange beads in the inspection window become clear, reactivate the desiccant canister by placing it in a vented 150°C (300°F) oven for at least three hours, or until the beads are orange.

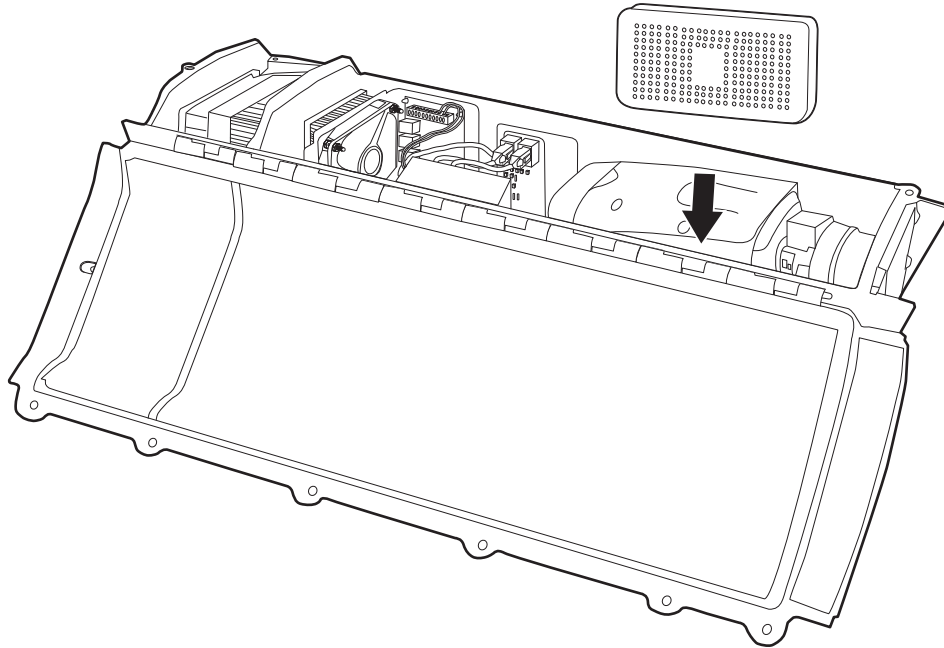


Figure 13. Placement of Desiccant Canister in FH-L, FH-M, and FH-S Series Enclosure Models

Maintenance

Clean the window regularly to maintain picture clarity. Use a soft cloth and a mild, nonabrasive detergent and water.

The desiccant canister reduces condensation within the enclosure. When the orange beads in the inspection window become clear, reactivate the desiccant canister by placing it in a vented 150°C (300°F) oven for at least three hours, or until the beads are orange.

FH-H Series: Perform periodic maintenance to inspect and remove debris from the exterior fan and cooling device area to maintain proper operation and prolong the operational life of the enclosure system. Compressed air can be used to remove dirt and debris. It is recommended that the power be disconnected before maintenance is performed.

Specifications

FH-H SERIES

GENERAL

Construction	
Enclosure	High-grade thermoplastic
Mounting arm	Die-cast aluminum
Window	High optic Lexan™
Construction	Aluminum and polycarbonate
Finish	White; powder coated mount arm and knuckle
Environment	Outdoor
Operating Temperature	−10° to 70°C (14° to 158°F)
Storage Temperature	−10° to 60°C (14° to 140°F)
Dimensions	64.11 x 19.21 x 39.12 cm (25.24" D x 7.56" W x 15.40" H)
Unit Weight	
Analog Models	7.2 kg (16.0 lb)
IP Models	8.1 kg (18.0 lb)

MECHANICAL

Latching	7 captivated, Phillips head screws
Window Face Plate	6 Phillips head screws

ELECTRICAL

Connections	RJ-45, fiber, or coaxial
Input Voltage	100 to 240 VAC nominal
Power Consumption	1.7 A maximum at 100 to 240 VAC
Active Cooler	Thermostatically controlled

FH-L SERIES

GENERAL

Construction	
Enclosure	High-grade thermoplastic
Mounting arm	Die-cast aluminum
Window	High optic Lexan™
Finish	White; powder coated mount arm and knuckle
Environment	Outdoor
Operating Temperature	−60° to 45°C (−76° to 113°F)
Storage Temperature	−10° to 60°C (14° to 140°F)
Dimensions	64.11 x 19.21 x 39.12 cm (25.24" D x 7.56" W x 15.40" H)
Unit Weight	
Analog Models	7.2 kg (16.0 lb)
IP Models	8.1 kg (18.0 lb)

MECHANICAL

Latching	7 captivated, Phillips head screws
Window Face Plate	6 Phillips head screws

ELECTRICAL

Connections	RJ-45, fiber, or coaxial
Input Voltage	22.8 to 26.4 VAC
Power Consumption	3.9 A maximum at 24 VAC
Heating Element	Thermostatically controlled

FH-M SERIES

GENERAL

Construction	
Enclosure	High-grade thermoplastic
Mounting arm	Die-cast aluminum
Window	High optic Lexan™
Finish	White; powder coated mount arm and knuckle
Environment	Outdoor
Operating Temperature	–20° to 45°C (–4° to 113°F)
Storage Temperature	–10° to 60°C (14° to 140°F)
Humidity (Operating and Storage)	10% to 95% RH (noncondensing)
Dimensions	64.11 x 19.21 x 39.12 cm (25.24" D x 7.56" W x 15.40" H)
Unit Weight	
Analog Models	7.2 kg (16.0 lb)
IP Models	8.1 kg (18.0 lb)

MECHANICAL

Latching	7 captivated, Phillips head screws
Window Face Plate	6 Phillips head screws

ELECTRICAL

Connections	RJ-45, fiber, or coaxial
Input Voltage	22.8 to 26.4 VAC
Power Consumption	1.5 A maximum at 24 VAC
Active Dehumidifier	Thermostatically controlled

FH-S SERIES

GENERAL

Construction	
Enclosure	ABS high-grade thermoplastic
Mounting arm	Die-cast aluminum
Window	High optic Lexan™
Finish	White; powder coated mount arm and knuckle
Environment	Outdoor
Operating Temperature	–20° to 45°C (–4° to 113°F)
Storage Temperature	–10° to 60°C (14° to 140°F)
Dimensions	64.11 x 19.21 x 39.12 cm (25.24" D x 7.56" W x 15.40" H)
Unit Weight	
Analog Models	7.2 kg (16.0 lb)
IP Models	8.1 kg (18.0 lb)

MECHANICAL

Latching	7 captivated, Phillips head screws
Window Face Plate	6 Phillips head screws

ELECTRICAL

Connections	RJ-45, fiber, or coaxial
Input Voltage	12 VDC ±5%
Power Consumption	1.2 A maximum at 12 VDC

REVISION HISTORY

Manual #	Date	Comments
C3952M	12/13	Original version.
C3952M-A	1/14	Changed power consumption specifications for FH-H Series and FH-M Series enclosures, added mounting safety instruction.
C3952M-B	5/14	Changed installation method and temperature specification changes.

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