

# MBE Mounts and Adapters

MBE Series



**BOSCH**

en Installation Guide



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# 1 Important safety instructions

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## Type numbers:

### **DANGER!**



High risk: This symbol indicates an imminently hazardous situation such as “Dangerous Voltage” inside the product. If not avoided, this will result in an electrical shock, serious bodily injury, or death.

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### **WARNING!**



Medium risk: Indicates a potentially hazardous situation. If not avoided, this could result in minor or moderate bodily injury.

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### **CAUTION!**



Low risk: Indicates a potentially hazardous situation. If not avoided, this could result in property damage or risk of damage to the unit.

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Read, follow, and retain all of the following safety instructions. Heed all warnings on the unit and in the operating instructions before operation.

1. Clean only with a dry cloth. Do not use liquid cleaners or aerosol cleaners.
2. Do not install unit near any heat sources such as radiators, heaters, stoves, or other equipment (including amplifiers) that produce heat.
3. Adjust only those controls specified in the operating instructions.
4. Unless qualified, do not attempt to service a damaged unit yourself. Refer all servicing to qualified service personnel.
5. Use only replacement parts specified by the manufacturer.
6. Install in accordance with the manufacturer's instructions in accordance with applicable local codes.
7. Use only attachments/accessories specified by the manufacturer. Equipment change or modification could void the user's guarantee or authorization agreement.

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## 2 MBE Series Mounts and Adapters

This manual describes the following MBE series mounting brackets and adapters:

**MBE-27B / MBE-27W:** a black or white mounting bracket for use with an EX27 Series All-Weather Camera.

**MBE-28B:** a black mounting bracket for use with the REG-D1 or the REG-L1 License Plate Camera.

**MBE-15B / MBE-15W:** a black or white adapter used to attach an MBE-27 or MBE-28, along with an EXMB.020B Heavy Duty L Bracket, to a pole.

This adapter can also accommodate the EXMB.028 Cable Managed Wall Bracket or the EXMB.023 Wall Bracket.

**MBE-17B / MBE-17W:** a black or white adapter used to attach an MBE-27 or an MBE-28, along with an EXMB.020B Heavy Duty L-Bracket, to a wall.

This adapter can also accommodate the EXMB.028 Cable Managed Wall Bracket or the EXMB.023 Wall Bracket.

Refer to *Section 6 Dimensional Outlines, page 20*, for dimensional drawings of each mount and adapter.

### 2.1 Unpacking

This equipment should be unpacked and handled with care. If an item appears to have been damaged in shipment, notify the shipper immediately.

Verify that all the parts listed in the product's Parts List below are included. If any items are missing, notify your Bosch Security Systems Sales or Customer Service Representative. The original packing carton is the safest container in which to transport the unit and must be used if returning the unit for service. Save it for possible future use.

## 2.2 Parts Lists

### MBE-15B / MBE-15W Pole Mount Adapter

Quantity	Description
1	Pole mount adapter plate, black or white
2	Metal bands with gear clamps
4	M6 x 20 mm bolts
4	M6 flat washers

### MBE-17B / MBE-17W Wall Mount Adapter

Quantity	Description
1	Wall mount adapter plate, black or white
4	M6 x 20 mm bolts
4	M6 flat washers

### MBE-27B / MBE-27W Wall Mount Bracket

Quantity	Description
1	Bracket arm for EX27, black or white
1	#6 Hex Key
1	EX27 interface plate
1	M8 x 45 mm bolt

### MBE-28B Wall Mount Bracket

Quantity	Description
1	Bracket arm for REG-D1/REG-L1, black
1	#4 hex key
1	#5 hex key
6	M5 x 10 mm bolts (attached to bracket)
6	M5 plastic captive washers (attached to bracket)

## 3 MBE-27/28 Wall Mount Applications

The MBE-27B, MBE-27W, and the MBE-28B Brackets can be mounted directly to a wall or to the MBE-17 Wall-Mount Adapter. The MBE-17 Wall-Mount Adapter provides extra support and can withstand heavier loads.

The MBE-28 Bracket also allows cables to run through the arm and up the mount head at the end of the arm to connect to the camera.

For a secure mounting installation, bolts should extend through the mounting surface and be secured with nuts, washers, and lock washers on the opposite side.

If studs are used, they should either be anchored in concrete or welded to a steel backer plate.



### CAUTION!

Ensure that the mounting fasteners have a minimum pull-out strength of 300 kg (661.4 lbs) per screw.

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### 3.1 Mounting the MBE-27/28 to a Wall

The MBE-27/28 can be mounted directly to a wall surface and can support up to 25 kg (55 lbs). Use the MBE-17 wall-mount adapter if your application requires extra support. Refer to *Section 3.2 Mounting the MBE-27/28 with the MBE-17 Wall Adapter, page 9*.

1. Determine a secure mounting location for the wall installation.
2. Use the four (4) holes on the flanges of the MBE-27/28 wall-mount bracket as a template to mark the position where the holes should be drilled to secure the mount.  
**MBE-28:** If routing cables through the wall, drill a 25 mm (1 in.) hole placed exactly in the middle of the four (4) marked holes.

3. Drill the four (4) holes in the installation location.
4. Using four bolts or studs (not supplied) with nuts, washers, and lock washers, fasten the MBE-27/28 to its mounting location and tighten all nuts securely.

**Note:** The minimum diameter bolt (or stud) required is 6 mm (.25 in.).

**CAUTION!**

Ensure that the mounting fasteners have a minimum pull-out strength of 300 kg (661.4 lbs) per screw.

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**NOTICE!**

The fasteners and mounting surface must be capable of supporting a maximum load of 25 kg (55 lbs).

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## 3.2 Mounting the MBE-27/28 with the MBE-17 Wall Adapter

The MBE-17 Wall-Mount Adapter provides increased support for the MBE-27 and the MBE-28 bracket. The MBE-17 also provides a mounting location for the EXMB.020B L-bracket, a heavy-duty bracket used to mount an additional piece of equipment, such as an illuminator.

The combination of the MBE-27/28 and the MBE-17 can support a total weight of 45 kg (100 lbs).

**Note:** The MBE-17 Wall-Mount Adapter has two distinct hole patterns for attaching various mounting brackets. Use the 94.2 x 40 mm (3.71 x 1.57 in.) hole pattern with the MBE-27/28 bracket. (Use the 86 x 40 mm hole pattern with the old EXMB.023 or EXMB.028 bracket.)

Refer to *Section 6 Dimensional Outlines, page 20*, for detailed dimensional drawings.

1. Determine a secure mounting location for the wall installation.
2. Use the six (6) holes on the flanges of the MBE-17 wall-mount adapter as a template to mark the position where the holes should be drilled to secure the adapter.  
**MBE-28:** If routing cables through the wall, use the center hole on the MBE-17 as a template to drill through the wall.
3. Drill the six (6) holes in the installation location, bolts not supplied.  
Note: The minimum diameter bolt (or stud) required is 6 mm (.25 in.).
4. Orient the MBE-17 so that the 94.2 x 40.0 mm (3.71 x 1.57 in.) hole pattern is at the top.
5. Using six bolts (or studs) with nuts, washers, and lock washers, fasten the MBE-17 to its mounting location and tighten all nuts securely.

**CAUTION!**

Ensure that the mounting fasteners have a minimum pull-out strength of 300 kg (661.4 lbs) per screw

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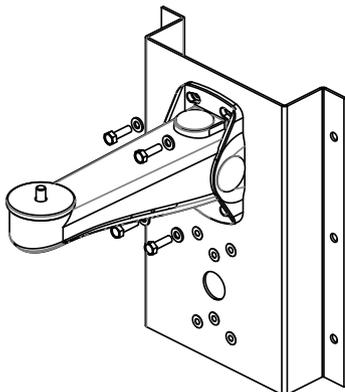
**NOTICE!**

The fasteners and mounting surface must be capable of supporting a maximum load of 45 kg (100 lbs).

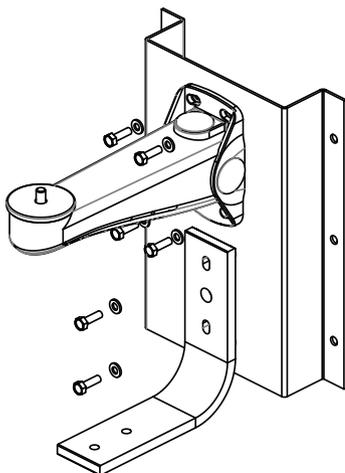
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6. Align the four holes on the MBE-27B, MBE-27W, or the MBE-28B bracket with the 94.2 x 40 mm (3.71 x 1.57 in.) hole pattern on the MBE-17 adapter.

7. Fasten the MBE-27 or MBE-28 bracket to the MBE-17 using the four (4) M6 x 20 hex bolts and washers that shipped with the MBE-17. Use the illustration below as a guide:



8. Optionally, attach the EXMB.020B to the MBE-17 using the two (2) M6 x 20 hex bolts that shipped with the EXMB.020B. Use the illustration below as a guide:



## 4 MBE-27/28 Pole Mount Applications

The MBE-27B, MBE-27W, and the MBE-28B Brackets can be mounted to pole using the MBE-15 Pole-Mount Adapter. The MBE-15 Pole-Mount Adapter comes with two (2) metal bands and a connected gear clamp that secures the MBE-15 to a pole. The MBE-15 Pole-Mount Adapter can accommodate a pole with a diameter of 89–203 mm (3.5–8 in.), extra straps can be used for larger pole diameters (not-supplied).

The MBE-15 also provides a mounting location for the EXMB.020B bracket, a heavy-duty L-bracket used to mount an additional piece of equipment, such as an illuminator.

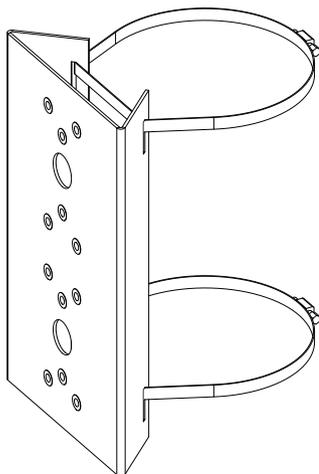
The combination of the MBE-27/28 and the MBE-15 can support a total weight of 90 kg (200 lbs).

**Note:** The MBE-15 Pole-Mount Adapter has two distinct hole patterns for attaching various mounting brackets. Use the 94.2 x 40 mm (3.71 x 1.57 in.) hole pattern with the MBE-27/28 bracket. (Use the 86 x 40 mm hole pattern with the old EXMB.023 or EXMB.028 bracket.)

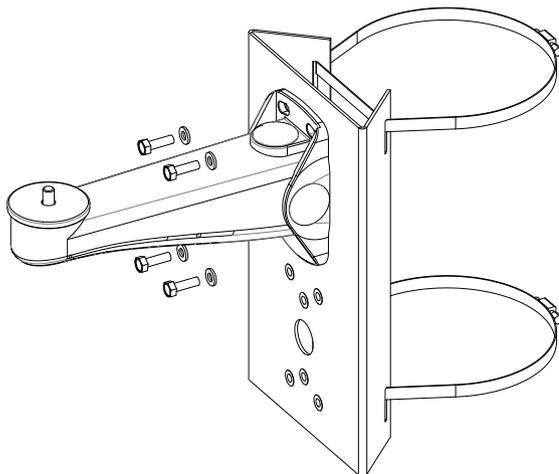
Refer to *Section 6 Dimensional Outlines, page 20*, for dimensional drawings of each mount and adapter.

1. Determine a secure mounting location for the pole installation
2. Orient the MBE-15 so that the 94.2 x 40 mm (3.71 x 1.57 in.) hole pattern is at the top.
3. Thread one end of one of the metal band through the two top slots of the MBE-15. Then, wrap the metal band around the pole and thread the end of the metal band into the gear clamp.
4. Tighten the gear clamp using a flat screwdriver or an 8 mm hex socket driver until the metal band is securely fastened to the pole.
5. Thread one end of the other metal band through the two bottom slots of the MBE-15. Then, wrap the metal band around the pole and thread the end of the metal band into the gear clamp.

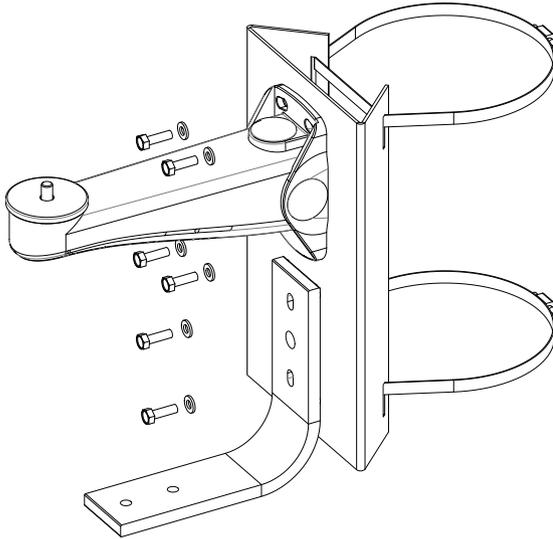
6. Tighten the gear clamp using a flat screwdriver or an 8 mm hex socket driver until the metal band is securely fastened to the pole.



7. Align the four holes on the MBE-27B, MBE-27W, or the MBE-28B bracket with the 94.2 x 40 mm (3.71 x 1.57 in.) hole pattern on the MBE-15 adapter.
8. Fasten the MBE-27 or MBE-28 bracket to the MBE-15 using the four (4) M6 x 20 hex bolts and washers that shipped with the MBE-15. Use the illustration below as a guide:



9. Optionally, attach the EXMB.020B to the MBE-15 using the two (2) M6 x 20 hex bolts that shipped with the EXMB.020B. Use the illustration below as a guide:



## 5 Attaching Cameras to the Brackets

The following table summarizes the cameras that are compatible with the MBE-27B, MBE-27W, and the MBE-28 brackets:

Bracket	Compatible Cameras
MBE-27B	EX27, EX27N All Weather Cameras
MBE 27W	EX27D Desert Camera
MBE-28B	REG-D1, REG-L1 License Plate Cameras

### 5.1 Attaching an EX27 to the MBE-27

The EX27 camera is an all-weather system that includes all of the best features of a “plug and play” camera without compromise to CCD optics and lens quality. Refer to the *EX27/EX27N/EX27D Installation Manual*, located on the Bosch Security System Web site, for complete camera details.



#### NOTICE!

Select a suitable location that protects the camera from accidental damage, tampering, and environmental conditions that exceed the camera’s specifications.



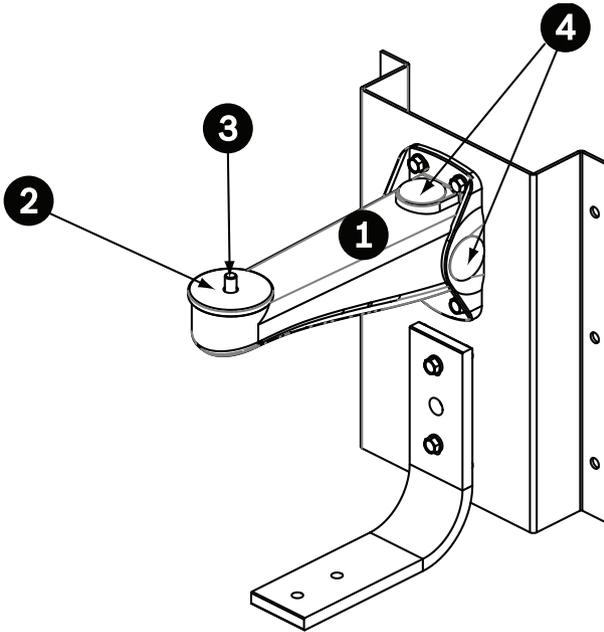
#### CAUTION!

The selected mounting location should not place the camera in a situation where its environmental specifications could be exceeded.

Ensure the selected location is protected from falling objects, accidental contact with moving objects, and unintentional interference from personnel. Follow all applicable building codes.

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Use the following illustration to identify the parts of the MBE-27 bracket:



**Figure 5.1** MBE-27 Bracket with MBE-17 Wall-Mount Adapter

1	MBE-27 Bracket	3	M8 x 45 mm bolt
2	Interface Plate	4	Hole Plugs

**Use the following procedure to mount an EX27 camera:**

1. Attach the MBE-27 Bracket to a wall or a pipe according to the instructions in *Section 3 MBE-27/28 Wall Mount Applications, page 8*, or *Section 4 MBE-27/28 Pole Mount Applications, page 12*.
2. Position the interface plate (item 2 in *Figure 5.1*) on the bracket.
3. Place the pan/tilt mounting bracket connected to the EX27 camera onto the interface plate (item 2) on the MBE-27.
4. Feed the M8 x 45 mm bolt through the bracket (item 1) and the interface plate (item 2) and into the pan/tilt mounting bracket.
5. Use the #6 hex key to tighten the M8 x 45 mm bolt (Item 3) and to secure the EX27 camera to the MBE-27 bracket.

6. Route the applicable wires to the EX27 camera. Remove any of the hole plugs (item 4) to facilitate cable management.
7. Refer to the *EX27/EX27N/EX27D Installation Manual* to configure and to use the camera.

## 5.2 Attaching a REG-D1/L1 to an MBE-28

The REG-D1 and REG-L1 License Plate Capture Cameras are designed and configured to capture images of license plates under a wide range of ambient light and weather conditions. Refer to the *REG-D1 Installation Instructions* or to the *REG-L1 Installation Instructions*, both located on the Bosch Security System Web site, for complete camera details.



### NOTICE!

Select a suitable location that protects the camera from accidental damage, tampering, and environmental conditions that exceed the camera's specifications.



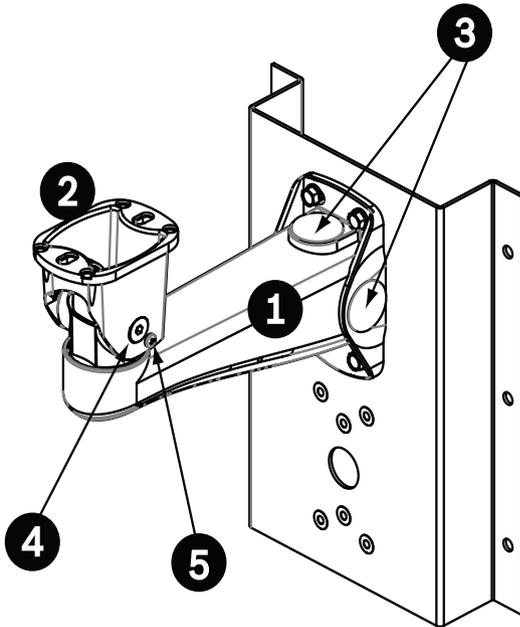
### CAUTION!

The selected mounting location should not place the camera in a situation where its environmental specifications could be exceeded.

Ensure the selected location is protected from falling objects, accidental contact with moving objects, and unintentional interference from personnel. Follow all applicable building codes.

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Use the following illustration to identify the parts of the MBE-27 bracket:



**Figure 5.2** MBE-28 Bracket with MBE-17 Wall-Mount Adapter

1	MBE-28 Bracket	4	Tilt Bolt
2	Bracket Mounting Head	5	Locking Bolt
3	Hole Plugs		

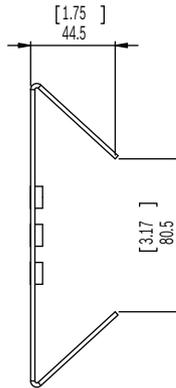
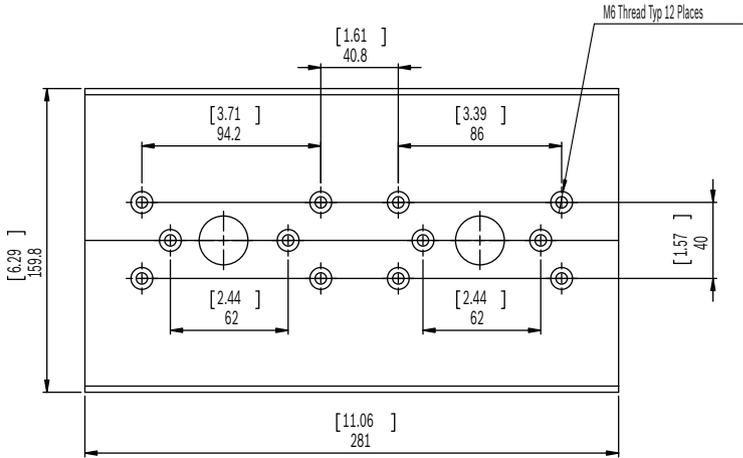
**Use the following procedure to mount a REG-D1 or REG-L1 camera:**

1. Attach the MBE-28B Bracket to a wall or a pole according to the instructions in *Section 3 MBE-27/28 Wall Mount Applications, page 8*, or *Section 4 MBE-27/28 Pole Mount Applications, page 12*.
2. Route the cable attached to the REG-D1 or REG-L1 camera through the MBE-28B and into the wall or through one of the plugs to facilitate cable management.
3. Align the six (6) inner screw holes on the REG-D1 or REG-L1 with the bolt holes on the bracket mounting head.

4. Secure the REG-D1 or REG-L1 to the MBE-28B using the six (6) M5 x 10 mm bolts with captive washers and the #4 hex key.
5. Adjust the tilt angle of the camera by loosening the tilt bolt (item 4) with the #5 hex key and the locking bolt (item 5) with a Phillips head screwdriver.
6. Place the camera at the desired tilt angle and tighten the tilt bolt and the locking bolt.
7. Adjust the pan angle of the camera by loosening the pan bolt, located beneath the bracket mounting head, by loosening the pan bolt using the #5 hex key. Place the camera at the desired pan angle and tighten the bolt.
8. Refer to the *REG-D1 Installation Instructions* or to the *REG-L1 Installation Instructions* to configure and use the camera.

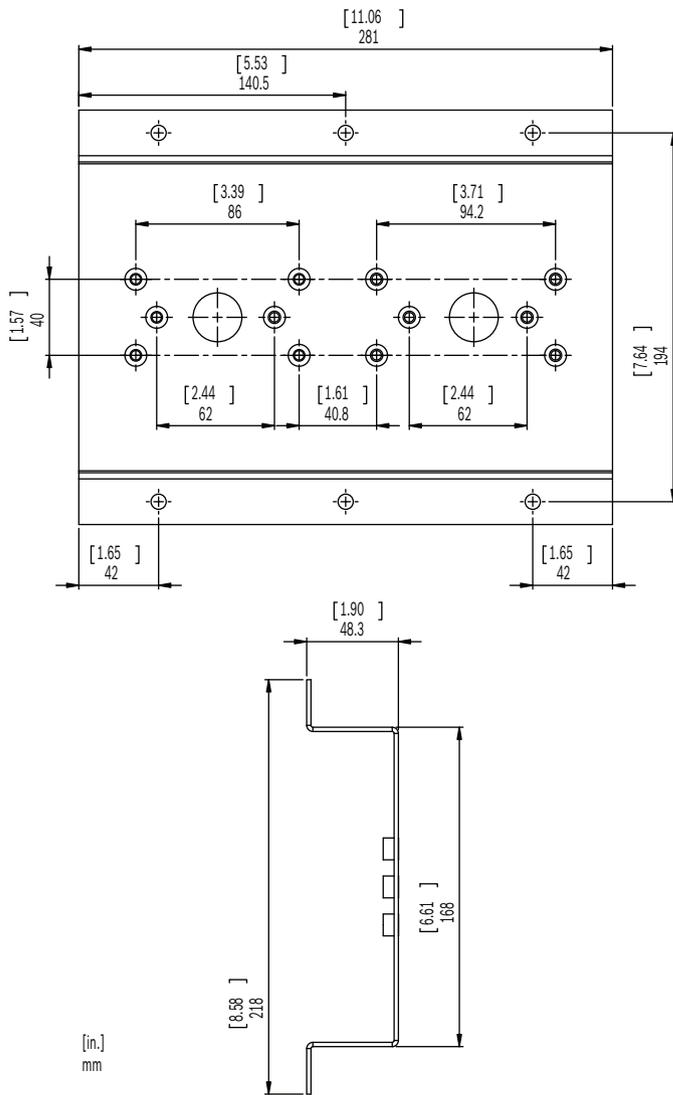
# 6 Dimensional Outlines

## MBE-15B / MBE-15W Pole-Mount Adapter

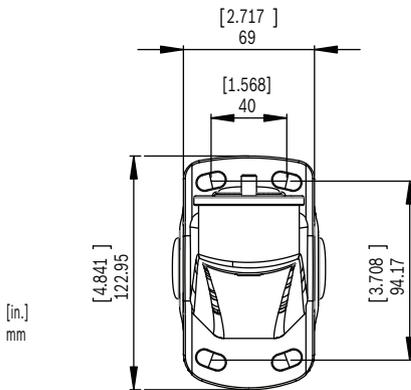
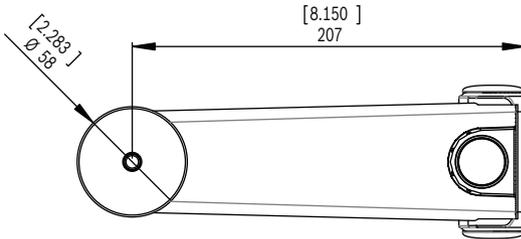
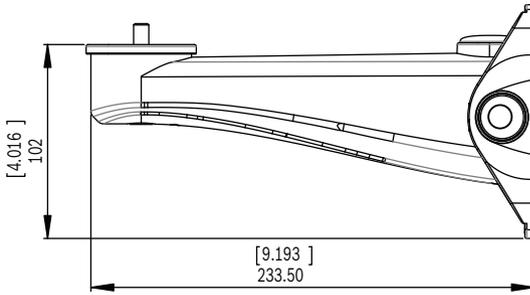


[in.]  
mm

**MBE-17B / MBE-17W Wall-Mount Adapter**

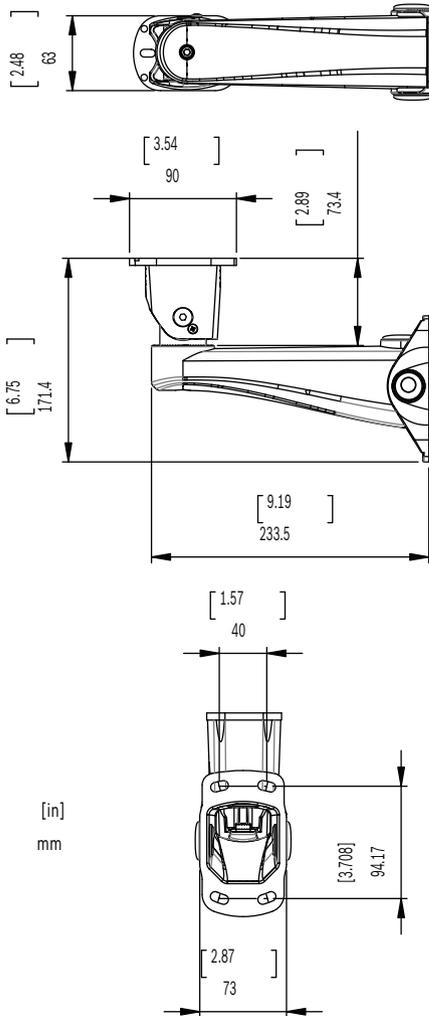


**MBE-27B / MBE-27W Bracket**



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### MBE-28B Bracket







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