Ceiling Mount For Optical

MOBOTIX Sensor Modules

• For surveillance of long and narrow spaces (e.g., bus, train, hallway, etc.)
• Two optical sensor modules are integrated in the mount (S14D or S15D)
• Concealed cabling, weatherproof from -30 to +60 °C (IP65)
• Suitable for ceiling installation, with a 25° tilt of the lenses

Installation

1. Prepare opening
Prepare an opening at the desired mounting position of the SurroundMount that is large enough (diameter about 30 to 40 mm) to allow the sensor cables to pass through so that you can connect them.

2. Lead the sensor cables through the opening
Lead the sensor cables through the opening in the ceiling and allow them to protrude through (the longer they extend, the easier the installation).

3. Attach the hinged ferrites
Attach one hinged ferrite to each sensor cable (maximal distance to the connector 10 cm).

4. Select mounting type
Select the appropriate mounting type. Depending on the material and the thickness of the mounting surface, you can mount the SurroundMount:
- directly to the ceiling using the four stainless steel wood screws (item 1.6) with or without the dowels (item 1.7).
- to the ceiling (max. thickness 12 mm) using the backing plate (item 1.2) and the four stainless steel Allen screws (item 1.8). To do this, you have to push the screws through the ceiling and tighten them in the backing plate positioned to the back of the ceiling.

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For the S14D/S15D FlexMount cameras, two sensor modules with integrated lens, image sensor, LEDs and microphone are connected (via connector plugs) to the camera housing, which is installed hidden behind a wall or ceiling panel.

Installing two sensor modules that are pointing in opposite directions in long and narrow spaces (e.g., buses, air planes or trains) delivers double hemispheric images of up to 6 megapixels that, in terms of sharpness of detail, significantly outperforms a single hemispheric camera with just one lens. For these kinds of installations, MOBOTIX offers the SurroundMount. The 25° tilt of the two sensor modules on the SurroundMount allows the area directly underneath them to be captured without blind spots.

The SurroundMount can only be used with the following sensor modules of the S14D and S15D (day or night): L11/L12, L22/L25 and L43/L51.

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Innovations - Made in Germany
The German company MOBOTIX AG is known as the leading pioneer in network camera technology and its decentralized concept has made high-resolution video systems cost efficient.

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1. Set dowels or pre-drill screw holes

Depending on the desired mounting type, you will either set dowels or pre-drill screw holes for the boxing plate. In the second case, you can either use the drilling template provided at the end of this document or use the boxing plate with its four threaded bushings as a drilling template.

2. Attach housing

Place the seal (item 1.3) or the SurroundMount housing (item 1.2) onto the ceiling using the stainless steel wood screws (item 1.6). When using the boxing plate (behind ceiling brands or on slats) use the stainless steel Allen screws (item 1.8). You will need a crosshead screwdriver for the wood screws and a 3 mm Allen wrench for the Allen screws. Because space is limited in the housing, cross the sensor cables and leave the hinged ferrites outside the housing.

3. Attach housing

Insert the sensor cables into the mount and place the seal (item 1.3) on the housing. Make sure that the MOBOTIX lettering on the front of the sensor module is facing up. When using a Wall Backing Plate (item 1.7) as a drilling template, you can either attach the boxing plate or use the sensor modules in the housing.

4. Lead the sensor cables into the housing and attach the hinged ferrites

Attach one hinged ferrite to each sensor cable. We recommend to maintain a distance of 6 cm between the opening of the housing and the bend relief of the plug.

5. Set dowels or prepare screw holes

Depending on the desired mounting type, you either set the dowels or prepare screw holes (for the backing plate). In the second case, you can either use the backing plate with or without seal (item 1.3) on the SurroundMount housing (item 1.1). Attach the housing to the ceiling. For that you need the provided 1.5 mm Allen wrench.

6. Mount the housing

Place the backing plate with its four threaded bushings as a drilling template. Instead of concealed cable routing, the two sensor cables can be laid openly to the SurroundMount housing (item 1.2) either on the short side or on the short side of the housing. For that you need to pry open two of the four cable openings (see right image). On the wall of the housing this can be done, e.g., with small pliers. Recommended mounting steps for a cable routing on the long side of the housing:

1. Prepare screw holes (see drilling template on the backside).

When selecting the mounting position, the SurroundMount and the concerned housing, ensure that the sensor cables are long enough so that they can be screwed away together with the hinged ferrites without the Sensor Module. For that we recommend to maintain a distance of 12 cm between the opening of the housing and the bend relief of the plug.

2. Lead the sensor cables into the housing and attach the hinged ferrites

Insert the sensor cables into the mount and place the seal (item 1.3) on the housing. Make sure that the notches of the seal are positioned over the used cable openings. Attach the hinging to the ceiling.

3. Attach housing

Insert the sensor cables into the mount and place the seal (item 1.3) on the housing. Make sure that the notches of the seal are positioned over the used cable openings. Attach the hinging to the ceiling.

4. Connect sensor cables, attach sensor modules and secure them

Follow the steps 7 to 9 described in section "Installation". When inserting the sensor cables, ensure that the sensor cables are long enough so that they can be stored easily together with the plug. If the sensor cables are too short, you can either adjust the ceiling or mount the sensor modules to the wall (behind ceiling brands or on slats). Recommended mounting steps for a cable routing on the long side of the housing:

1. Prepare screw holes (see drilling template on the backside).

When selecting the mounting position, the SurroundMount and the concerned housing, ensure that the sensor cables are long enough so that they can be stored away together with the hinged ferrites without the Sensor Module. For that we recommend to maintain a distance of 12 cm between the opening of the housing and the bend relief of the plug.

2. Lead the sensor cables into the housing and attach the hinged ferrites

Attach one hinged ferrite to each sensor cable. We recommend to maintain a distance of 6 cm between the ferrite and the bend relief of the plug.

3. Attach housing

Insert the sensor cables into the mount and place the seal (item 1.3) on the housing. Make sure that the notches of the seal are positioned over the used cable openings. Attach the hinging to the ceiling.

4. Connect sensor cables, attach sensor modules and secure them

Follow the steps 7 to 9 described in section "Installation". When inserting the sensor cables, ensure that the sensor cables are long enough so that they can be stored easily together with the plug. If the sensor cables are too short, you can either adjust the ceiling or mount the sensor modules to the wall (behind ceiling brands or on slats).

Replacing Sensor Modules

The following optical sensor modules can be mounted in the SurroundMount housing:

- **S15D**: L12, L25, L51 (Day and Night each)
- **S14D**: L11, L22, L43 (Day and Night each)

Replacing Sensor Modules

1. Loosen set screws

Loosen the four set screws on the underside of the housing using the 1.5 mm Allen wrench.

2. Loosen sensor module

Turn the sensor module with the black module wrench (provided with the S15D) to the left until it reaches the stop (MOBOTIX lettering in the “9-o’clock position”). Remove the black module wrench.

3. Remove sensor module

Place the provided removal tool onto the sensor module. Place the removal tool and disconnect it from the sensor cable.

4. Replacing sensor module

After disconnecting the sensor module from the sensor cable, proceed as described in section Installation (7. Connect sensor cables, 8. Attach sensor modules and 9. Secure sensor modules).