

Waterproof Installation of Dome Cameras

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Introduction

ACTi outdoor dome cameras are all waterproof, rated as IP66. However, this waterproof condition is guaranteed only if both camera and the cables are properly sealed off. It is necessary to use **waterproof flex conduit** to protect the Ethernet cable that connects the camera from its outdoor installation spot to the indoors or to the nearest waterproof junction box. The flex conduit can be mounted to the camera by using **conduit gland** (US: conduit fitting). The conduit gland is not included to the package of the dome camera and has to be purchased separately from local providers.

While purchasing conduit gland, the installer only needs to know the camera-side dimension. It is **3/4"** (trade size), or with actual physical diameter of **26.441mm**. All the following ACTi models have the same hole dimension: ACM-7411, ACM-7511, TCM-7011, TCM-7411, TCM-7811, KCM-7111, KCM-7211.

As for the size of the other end of the conduit gland (hosting the flex conduit), it is up to the user to decide. Different sizes are available in the market. It is recommended to use the size that can host at least 1/2" (trade size) tubing so that the Ethernet cable together with RJ-45 head can go through it smoothly.

The following chapter explains how to mount the flex conduit to the camera by using conduit gland.

Installation of Conduit

Have the Ethernet cable inserted through the flex conduit together with RJ-45 connector. You may also consider to do the RJ-45 connector crimping after pushing the cable through the conduit.

Disassemble the conduit gland.



Slide the **clamping nut** around flex conduit some 10-20 cm away from the top. Fit the **sealing insert** (made of rubber) to the top of the flex conduit.



On the camera side, decide which of the 2 possible holes you are going to use to connect the flex conduit. There is one hole on the side, and one on the bottom. Whichever you pick, remember to seal off the other one with the metal **patch** (included in the camera set).



Scenario 1 – using the side hole.



Scenario 2 – using the bottom hole.



Screw the **body** of the conduit gland into the camera and fix it with the **lock nut** (included in the set of conduit gland that you purchased) from the inside of the camera..



Connect the Ethernet cable to the camera's network port. If you are not using PoE, then please remember to pull the DC power cable through the flex conduit as well, and connect to the camera at this point.



Push the head of the flex conduit, wrapped with sealing insert, into the body of the conduit gland.



Screw the clamping nut tightly onto the body of the conduit gland.



Adjust the viewing angle and focus of the camera and put the dome cover back on, and tighten it by using the screws.



You have completed a fully waterproof installation!

Installation in Humid Environment

Sometimes the installation has to be conducted in a rainy day or in a very humid environment. In such cases the main concern is the humidity that would remain inside the camera and might produce fog on the dome cover later.

In case of proper use of conduit, this is not the concern – the flex conduit acts as the ventilation system linking to the dry indoor environment and eventually the humidity caused by the installation in rainy day will be gone!