MXN12 series

Color Cylindrical Observation camera

MXN®

Instruction Manual

◈ MXN12 series camera

◈ Contents

Camera x 1

Spacer sets x 3

Manual x 1

◈ Features

- High resolution CMOS camera (1.23 Mega pixels)
- 1/3.2” Color CMOS high resolution image sensor
- Waterproof Housing (IP69K rating)
- Automatic Electronic Iris
- Mirror Image (or Normal image via loop wire)
- 40˚/ 78˚/ 130˚ / 160˚ Viewing angle (optional)
- Compact Aluminum Housing
- Easy installation (flushmount)
- •Temperature Range -40˚C to +80˚C
- Vibration resistant (5G)
- Extra thick glass window (3mm)
- Suitable for Φ 25mm drilling hole
- Waterproof screw type connector, 4-pin mini-DIN
- Various angled spacers included
- ECE R10.05 approved (EMC)

* Available models: Lens Viewing angle per model:

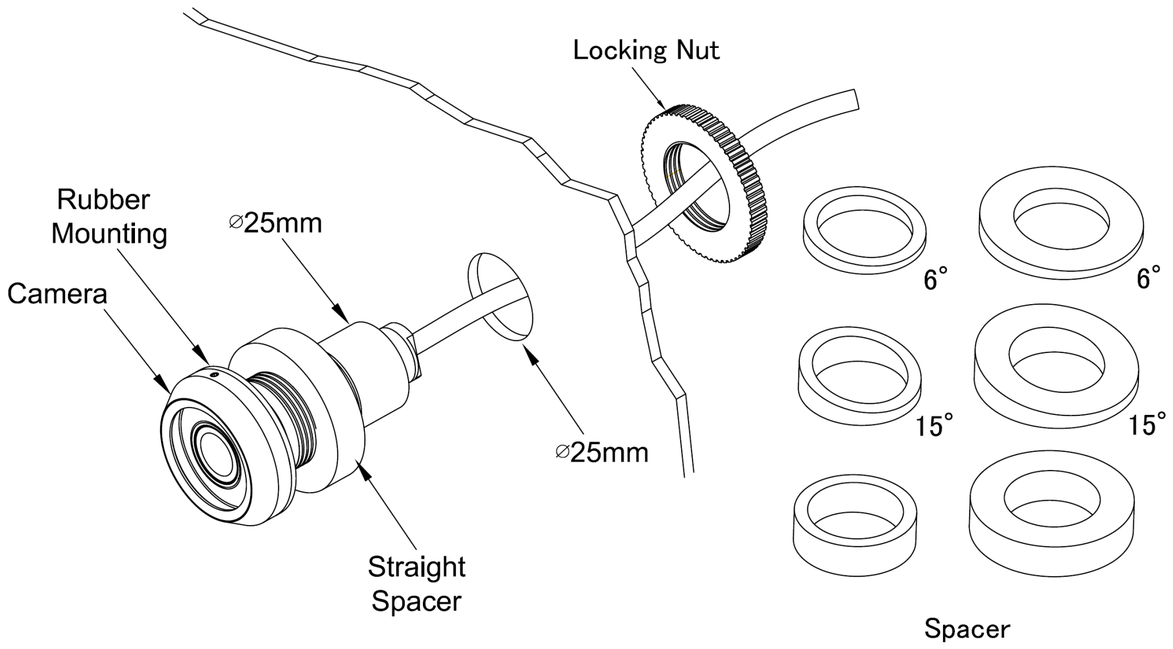
MXN12C-040	40˚ (Diagonal) x 30.9˚ (Horizontal) x 23.2˚ (Vertical)
MXN12C-078	78˚ (Diagonal) x 62˚ (Horizontal) x 45˚ (Vertical)
MXN12C	130˚ (Diagonal) x 102˚ (Horizontal) x 76˚ (Vertical)
MXN12CW	160˚ (Diagonal) x 115˚ (Horizontal) x 86˚ (Vertical)
MXN12CN (NTSC)	130˚ (Diagonal) x 102˚ (Horizontal) x 76˚ (Vertical)

◈ Technical Specifications

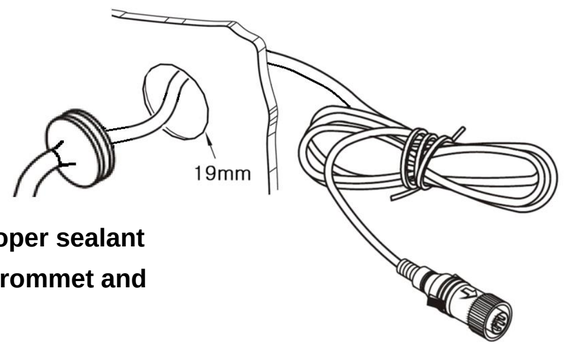
Image Sensor	1/3.2” Color Sony CMOS (Exmor)
Effective Pixels	CVBS – PAL (or NTSC), 1.23 MP, 1280(H) x 960(V)
Minimum Illumination	1 lux
Video Output	75Ω, 1.0Vp-p
Power Range	DC 9V ~ 32V
Power Consumption	DC 12V, 70mA
Operation Temperature	-40˚C to +80˚C
Lens Viewing Angle	Diagonal 40˚/ 78˚/ 130˚ / 160˚ (subject to camera model)
Material	Compact Aluminum Housing
Dimensions	Head part : Φ 40.2 mm Main body : Φ 25.0 mm Total length : 66.50 mm Flushmount depth: approx. 55.50 mm
Weight	Approx. 155g
Accessories	2 sets 15˚ spacers, 2 sets 6˚ spacers, 1 pce straight spacer

◈ Installation

▪ Camera Installation



▪ Cable grommet



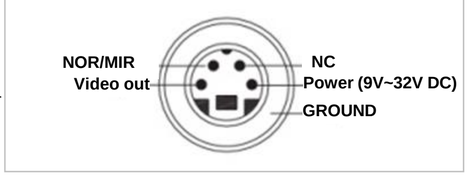
Drill a suitable hole (approx. Ø 19mm) and insert the cable grommet.
Just before final fixation, please apply a proper sealant (for prevention) between the hole and the grommet and also between the cable and the grommet.

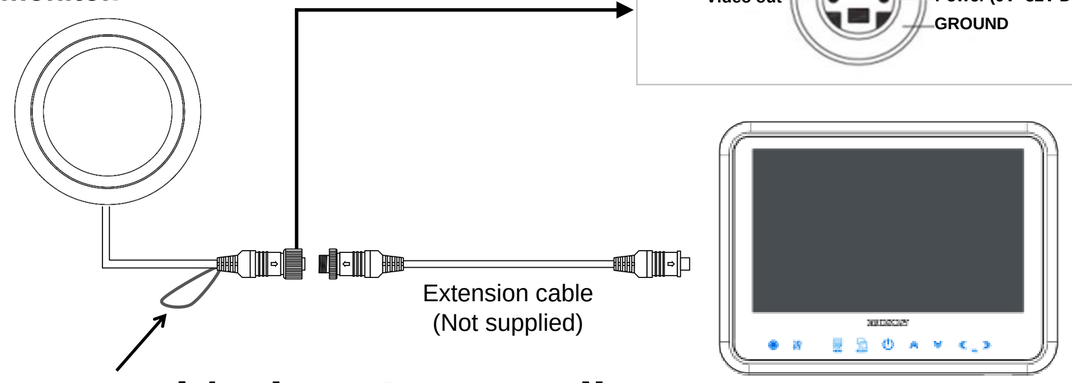
◈ Connections & Dimensions

▪ Wiring to Monitor

Run the cable from the camera to the monitor.

Camera pin configuration





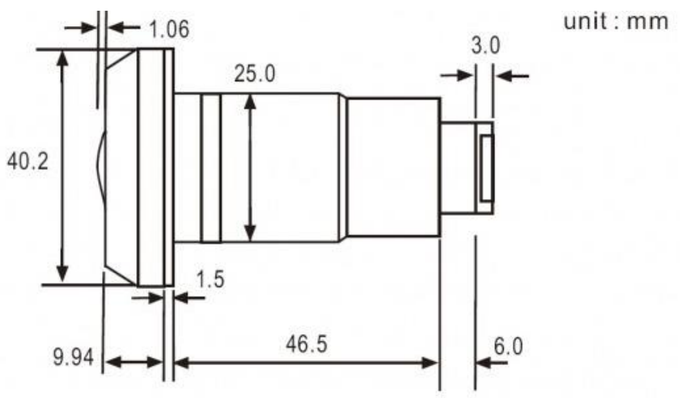
▪ Normal / Mirror Image adjustment

The Normal / Mirror image can be changed via the GREEN loop wire:

*** Green loop wire un-cut => MIRROR image**
*** Green loop wire cut => NORMAL image**

▪ Dimensions

unit : mm



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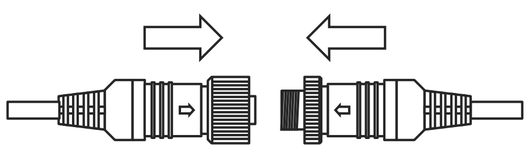
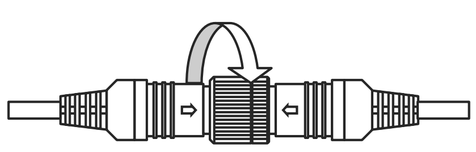
▪ Securing cable connection

1. **Match the arrow marks and press the connectors together.**



2. **Screw the camera connector up clockwise.**



3. **Tighten cable connection firmly in order to prevent water ingress.**

Note!
The warranty will not be valid if the problem is related to moist / corrosion in the connector.

▪ Caution !!

1. **Before making the connection, disconnect the ground terminal from the battery to avoid short circuits.**
2. **The plugs should be fully inserted into the connectors or jacks. A loose connection may cause malfunctioning of the unit.**
3. **A damaged cable may affect the operation of the camera and may even cause a malfunction of the camera or monitor: Avoid a damaged cable!**
4. **Protect the cable by using a guide tube, pipe or run the cable inside the vehicle as much as possible. Caution! Run the cable in natural shapes in order to prevent cable breaks.**
5. **Preferably use an acid free grease in between the waterproof screw type connectors and tighten them firmly eachother.**

*** Design And Specifications Are Subject To Change Without Notice.**