

1 YEAR
WARRANTY

Ω OMEGA® **User's Guide**



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OSXL-100-PE Thermal Imaging Camera Enclosure


Introduction


Please read this manual completely before installing and operating your thermal imager and protective enclosure. It's important to read and follow all notes, cautions, warnings and safety precautions before operating your camera. More information may be found in the OSXL-101 Series Manual.

1.1. Precautions

- This device is not designed for use in any medical or nuclear applications.
- Do not operate this device in flammable or explosive environments.
- Never operate with a power source other than the one recommended in this manual.
- Do not operate this device outside of the recommended use outlined in the thermal imager manual.
- Never use your OSXL-101 Series Thermal Imager as a portable device. Your unit has been designed to be operated in a permanent installation only.

 NOTE: In order for your thermal imager enclosure to achieve the NEMA-4X rating, you must follow the assembly instructions carefully.

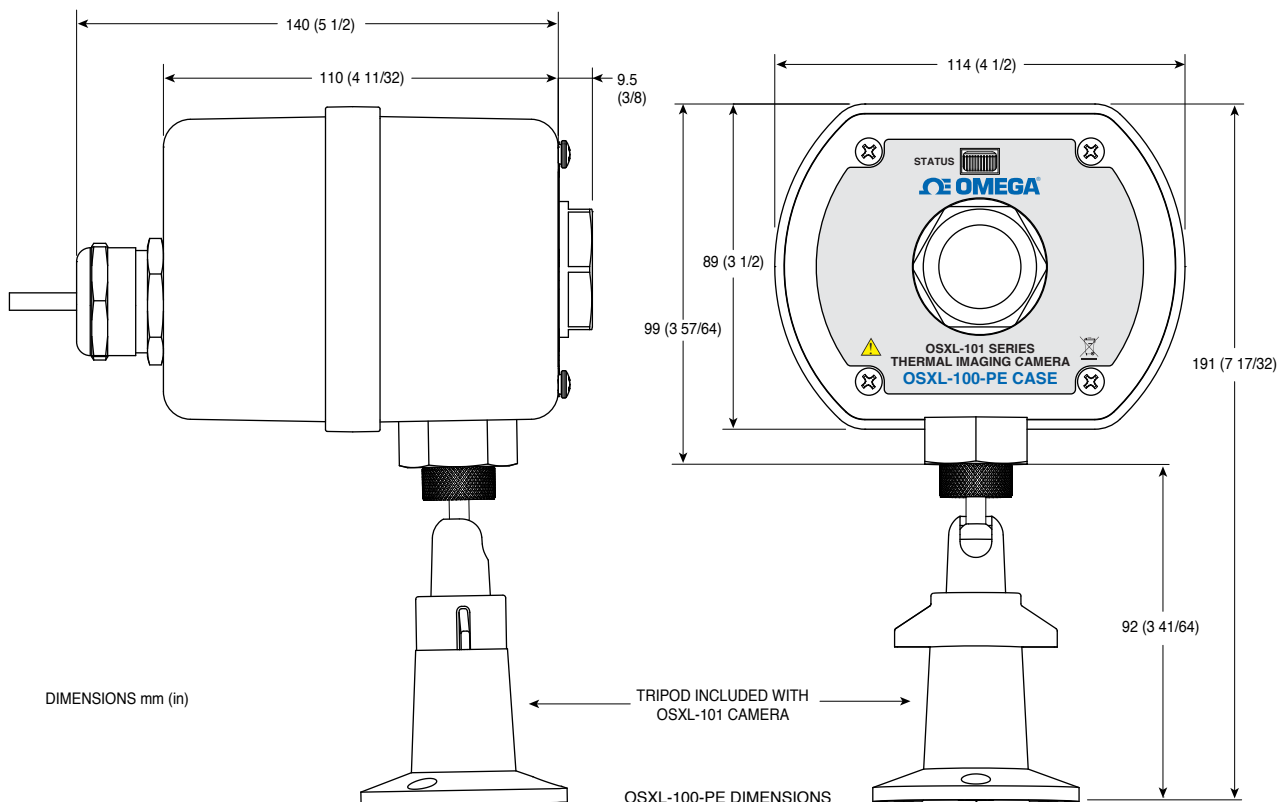
 NOTE: There are no user serviceable parts inside your device. Attempting to repair or service your unit may void your warranty.

 NOTE: The OSXL-100-PE is intended for use only with the OSXL-101-25 and OSXL-101-25H model Cameras. Using OSXL-100-PE on units other than those listed above, may result in an impeded field of view.

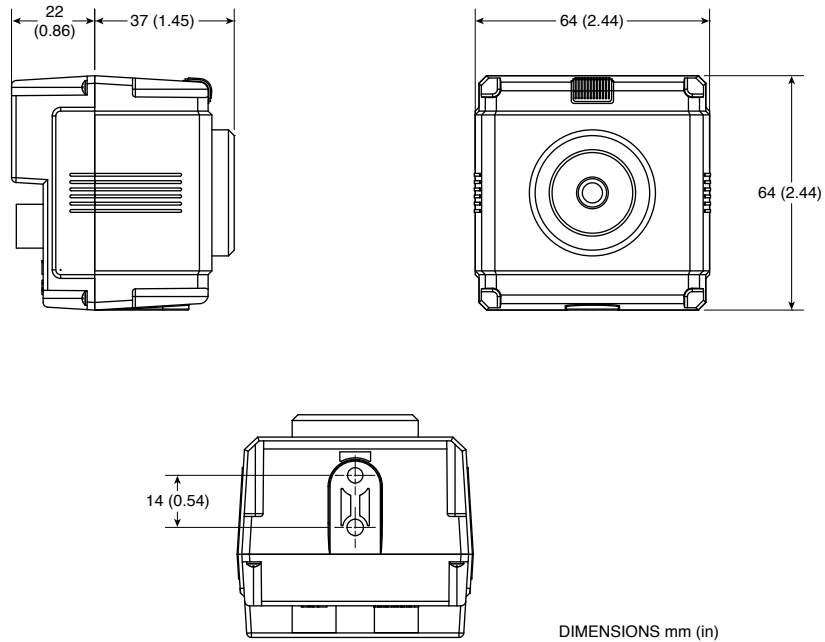
Items Included

- 1 Rear Assembly + Front Cover
- 4 Self Sealing Mounting Screws
- 1 1/4-20 Camera Mounting Screw
- 2 Grommets
- 2 IP65-rated Pass-Thru Cable Glands

OSXL-100-PE Dimensions



OSXL-101 Camera Dimensions



General Description

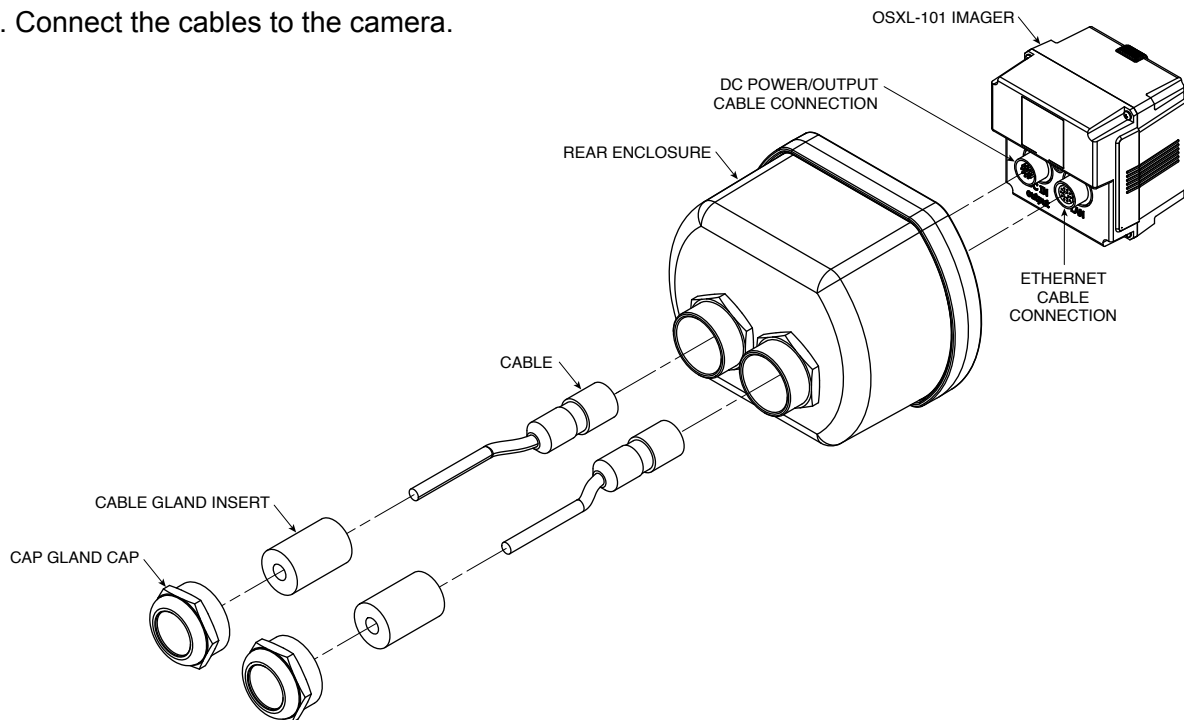
The Omega OSXL-100-PE is a NEMA-4X Stainless Steel Protective enclosure for the OSXL-101 thermal imager. The case allows connections for both power and Ethernet, and the front of the case has an optical window for the thermal imaging camera to see through as well as a clear window to see the status lamp of the camera.




NOTE: In order for your thermal imager enclosure to achieve the NEMA-4X rating, you must follow the assembly instructions carefully.

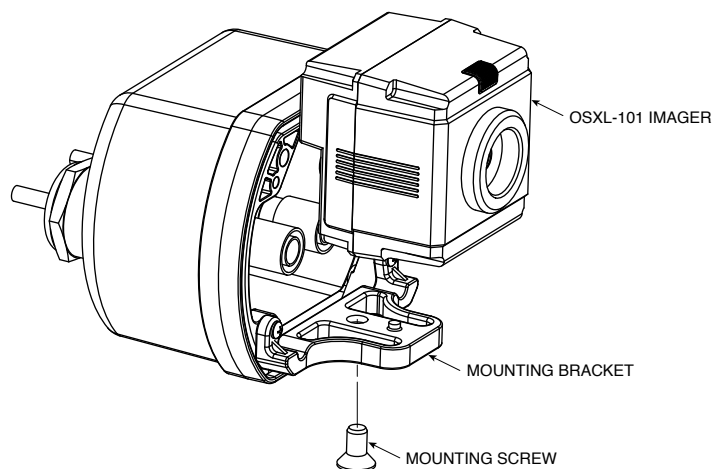
■ Assembly Instructions

1. Prepare the case for camera mounting by running the Power/Alarm and LAN connector cables through the case.
2. Connect the cables to the camera.



3. Screw camera into place on the plastic mounting bracket, using two of the screws provided, and the mounting nut.

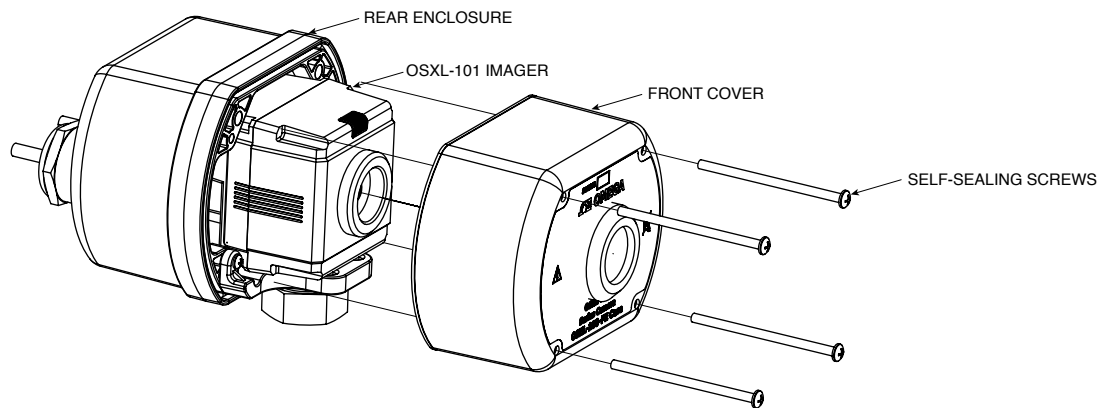
 **NOTE:** Install the screws with a torque of 20 oz. in. – This is important for compliance with the NEMA-4X rating.



4. Attach other end of the case to the camera assembly, using the 4 self-sealing screws provided.



NOTE: Install the screws with a torque of 9 in-lbs, applying torque sequentially in 1/2 turn increments, about a star-pattern. – This is important for compliance with the NEMA-4X rating.



Actual Temperature Reading

By using the optical filter in the protective enclosure, although it does not affect the IR image quality, it does affect the temperature reading of the IR camera. Since the IR filter does not transmit IR energy 100%, there is some transmission loss.

The equation that fits the IR filter characteristics and can be used to get the actual temperature reading is as follows:

$$Y = -1E-08 * (X^4) + 1E-05 * (X^3) - 0.0037 * (X^2) + 1.800 * X - 22.615$$

where,

X is the temperature reading (°C) of the IR camera with the IR filter.

Y is the temperature reading (°C) of the IR camera without the IR filter.



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WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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