

Photoneo 3D Sensor

Quick Start Guide

- Information about the scanning range and parameters of your Photoneo 3D Sensor is available in the device datasheet.
- Full user manual, datasheets, CAD models, and other instructions see <https://photoneo.com/downloads/device-resources/>



Scope of delivery

- Photoneo 3D Sensor
- Box and cushion (it is recommended to keep the cushion for further transport of the device)
- Quick Start Guide and Datasheet
- According to the specific part numbers in the order:
 - Desktop PoE injector (input: 90 ~ 264 VAC, output: 33.6 W, 56 V, IEEE802.3at), power cable 1.8 m)
 - Ethernet cable M12-X male - RJ45 male, 5 m, PUR

Operation of the Device

Use the PhoXi Control application on your computer, or a GigE Vision-compatible 3rd party application to operate the Photoneo 3D Sensor. PhoXi Control allows users to control the device either manually through a graphical user interface or programmatically through the provided API. Download PhoXi Control and GigE Vision examples at <https://photoneo.com/downloads/phoxi-control/>.

Safety

Photoneo scanning device is a Laser Class 3R device or a Laser Class 2 device. Class 3R lasers are considered safe when handled carefully. Class 2 lasers are considered safe for normal operation. See the label on the back of the device to determine its laser class.



⚠ WARNING

Do not deliberately look into the laser beam. This may cause injury to the retina. Laser-protective eyewear is normally not necessary. For additional safety measures, consult the Laser Interlock feature in the User Manual.



RoHS

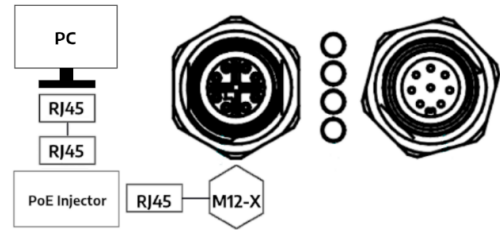
The device described in this documentation may be operated only by qualified personnel. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with this device.

Connecting the Device

The device can be connected and powered in 2 ways:

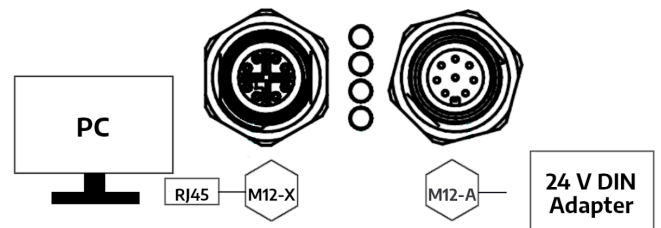
1) Power over Ethernet (Data + Power)

- Recommended powering option, using PoE injector and 1 Gbps Ethernet cables
- Connect the Ethernet cable from the device to the data + power port on the PoE injector
- Connect the Ethernet cable from the data port on the PoE injector to the PC



2) Ethernet (Data) + 24 V (Power & GPIO):

- Connect the device by Ethernet cable directly to the PC
- Use 24V power adapter
- The power connector provides additional I/O functionality



Disconnecting Device

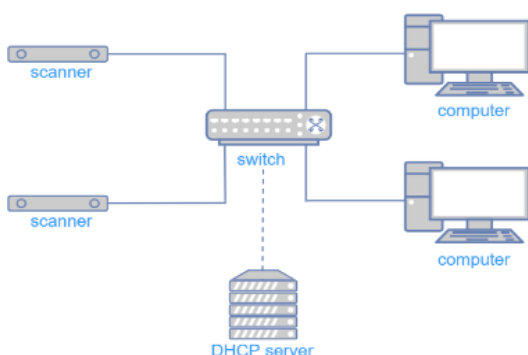
Always disconnect from the device in PhoXi Control or other applications using the GigE standard before physical disconnection of the device. Make sure the device is not scanning before turning off the device.

Supported Network Topologies

Scanner connected directly to a computer

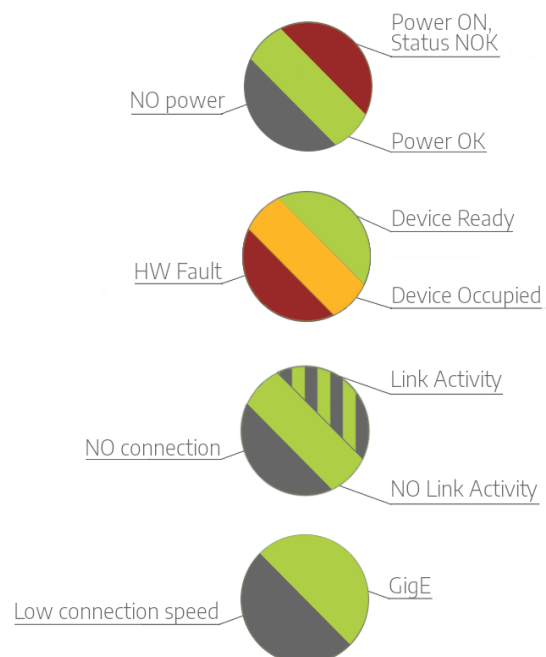


Scanner connected to a computer via switch



Status LEDs

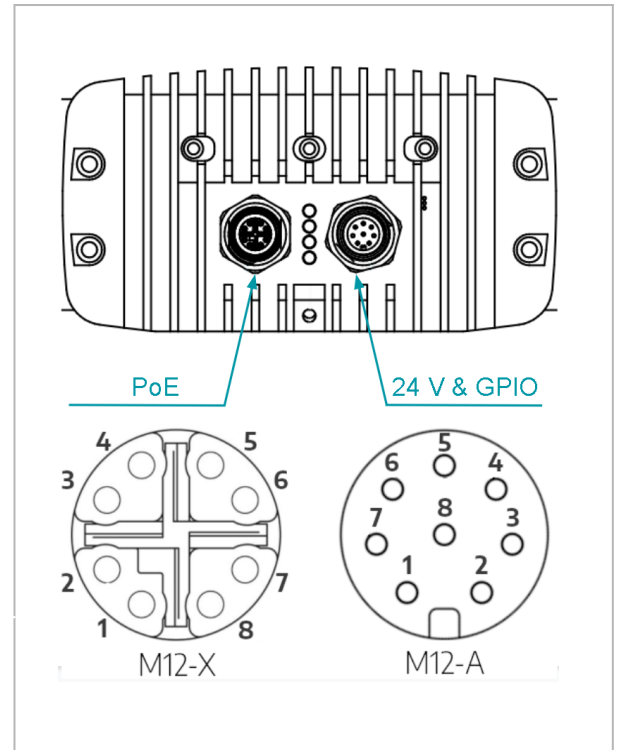
Different colors of Status LEDs on the back of the device indicate the following states of the device



M12-A Coded - 24 V & GPIO Pinout

Pin	Pinout	Function
1	DC_IN	+ 24 V
2	OPTO_IN2_GND	*laser interlock ground
3	GND	ground
4	OPTO_IN1	** hardware trigger input signal
5	OPTO_IN1_GND	hardware trigger input ground
6	OPTO_OUT	** hardware trigger output signal
7	OPTO_OUT_GND	hardware trigger output ground
8	OPTO_IN2	** *laser interlock signal

* laser interlock requires a special firmware package,
 ** 5 - 24 V



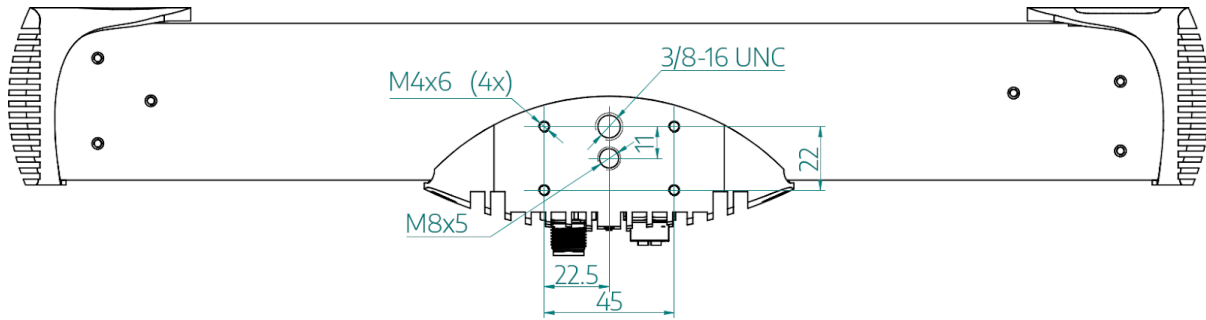
Powering Requirements

Connector	M12 X-coded	M12 A-coded
PoE Standard	IEEE802.3at	-
Operating voltage U_e DC	min. 55 V	24 V (20 - 30 V)
Residual ripple maximum (% of U_e)	0.5 %	2 %
Rated operating current I_e (I_{max})	0.36 A (0.6 A)	1 A (2 A)
Minimum power	33 W	60 W
Shielding	Fully Shielded RJ45	-
Transfer data rate	1 Gbit	-
Maximum recommended cable length	20 m	20 m

Accessories Options

Photoneo offers multiple accessories options including different cabling variants and power adapters. Please contact your sales representative for inquiries about the available options.

Mounting Instructions



⚠ WARNING - Hot surface

The surface of the processing unit becomes hot to touch when the device is in use. Mount the device on a metal mounting plate that will act as a thermal bridge to dissipate the heat or use the carbon body to manipulate the device.

- Use 4x M4 screws with a metal mounting plate of suitable size - preferred mounting method for heat dissipation.
- Use an M8 screw.
- Use a 3/8 - 16 UNC screw with a tripod.

Environment Conditions

- Ensure that mounting construction is rigid enough to avoid vibrations when scanning static scenes.
- Allow clearance around all heatsinks of 25 mm for natural convection cooling.
- The full operating temperature of the device is 0 °C to 40 °C
 - The operating temperature for the optimal scanning performance is 22 °C to 25 °C.
- Separate the device from high-voltage devices and devices generating high electrical noise.

Warranty

Warranty conditions are stated in General Terms and Conditions on the Photoneo website:

<https://photoneo.com/kb/terms-conditions>

Contact

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Offices: United States, P.R.China, Germany, South Korea



<https://photoneo.com/contact-us>