

# SCAPE Mini Pro 3D Scanner™

## Product Option OP13-20/21/22



### Introduction

The SCAPE Mini Pro series is part of the SCAPE hand-eye 3D sensor system, which uses a high-power laser light source and offers strong resistance to ambient light interference. It is also rugged, compact, and lightweight, making it easy to install directly on a robot arm for high-precision tasks such as guidance, grasping, welding position detection, and more. The Mini Pro series features a large field of view, which is within the reach of the robot and is not constrained by the number or position of boxes, offering high flexibility for integrated systems.

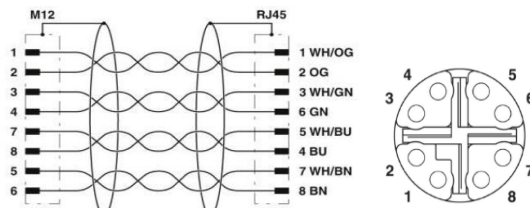
### Technical Performance Specifications

The SCAPE Mini Pro Industrial 3D Scanner comes in 3 different options: Mini Pro-700 which is extremely compact and can work at close range, Mini Pro C-700 and Mini Pro C-1000 which include color camera but have two different scan volumes. All models generate up to 1.3 M points and use blue laser light (447 nm).

Model	Mini Pro-700 (OP13-20)	Mini Pro C-700 (OP13-21)	Mini Pro C-1000 (OP13-22)
Working Range (Z-direction)	400-700 mm	400-700 mm	380-1000 mm
Field of View (see plots on page 2) <sup>1</sup>	700 x 600 mm	700 x 620 mm	650 x 640 mm
Lateral Resolution (XY-plane) <sup>1</sup>	0.55/0.59 mm	0.55/0.61 mm	0.51/0.63 mm
Min Surface Area for Scanning <sup>1</sup>	2.0 x 2.0 mm	2.0 x 2.0 mm	2.0 x 2.0 mm
Depth Uncertainty RMS Closest to/Furthest from Scanner	0.4/0.7 mm	0.4/0.7 mm	0.38/1.0 mm
Baseline	80 mm	125 mm	125 mm

### Electrical Connections

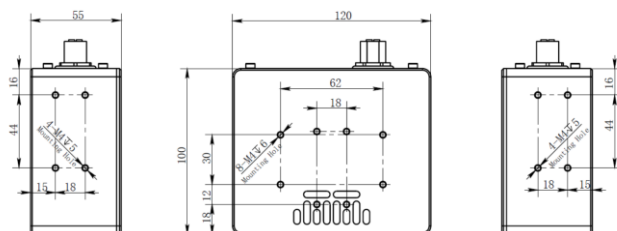
#### Ethernet port



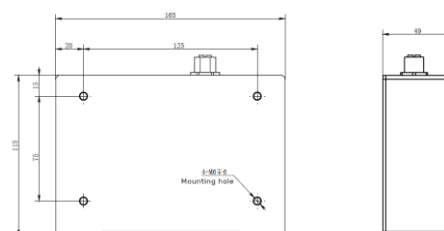
Connect 1 Gbps POE ethernet cable with RJ45/M12-X connector (supplied with scanner). If supplying own cables: Use category Cat5e or better ethernet cables (cables capable of 1 Gbps or 10 Gbps transfer rate).

### Mounting (all models):

#### SCAPE Mini Pro-700



#### SCAPE Mini Pro C-700, SCAPE Mini Pro C-1000



<sup>1</sup> At max. distance

## HARDWARE SPECIFICATION

LED Status	Red	Green	Yellow
On	Power available through ethernet cable (POE)	Connecting	Continuously on, it indicates a short circuit in the network cable
Off	No power available through ethernet cable	Connected, normal operation	No communication
Flashing	-	-	Signal is normal, and communication is ongoing

## Physical Specifications

### Dimensions and Weight

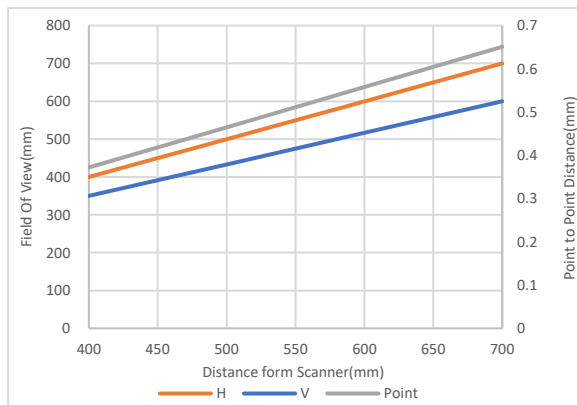
Mini Pro-700: 120 x 100 x 55 mm    780 g  
 Mini Pro C-700: 165 x 115 x 49 mm    1030 g  
 Mini Pro C-1000: 165 x 115 x 49 mm    1030 g

### Safety Classification (EN 62471) and Protection

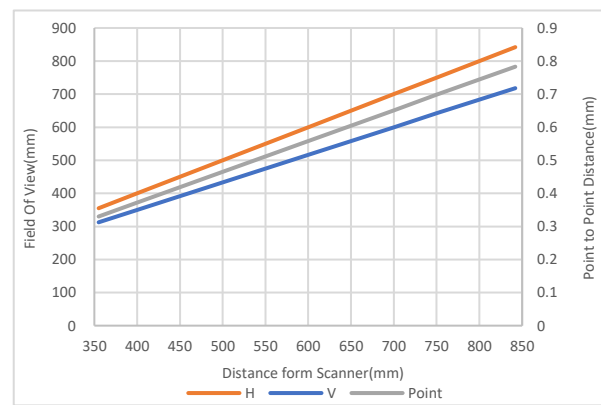
Class 3R. Class 3R lasers are considered safe when handled carefully. Avoid direct eye exposure. IP65.

## Field of View and sensor resolution as a function of scanning distance

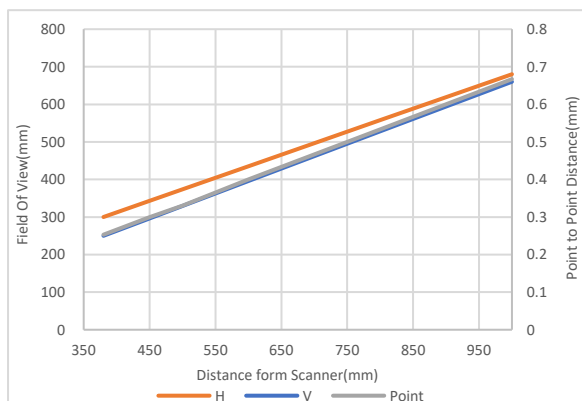
### Mini Pro-700



### Mini Pro C-700



### Mini Pro C-1000



### SCAPE Mini Pro Box Content

- SCAPE Industrial 3D Scanner (Mini Pro-700, Mini Pro C-700 or Mini Pro C-1000)
- Ethernet cable RJ45/M12 X-coded 5 m (between SCAPE Controller PC and scanner)
- Power supply injector for POE

### SCAPE Controller PC Extra Requirements

1 Ethernet connector, 1 Gbit