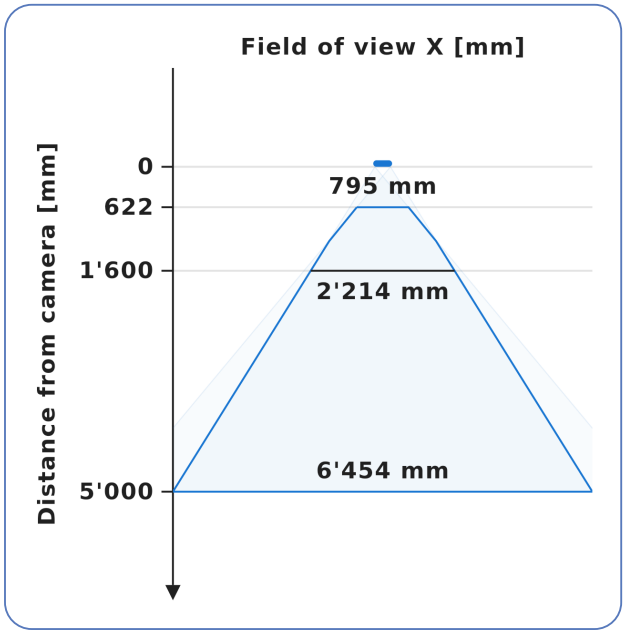
C67-4/1600-S/35-BL

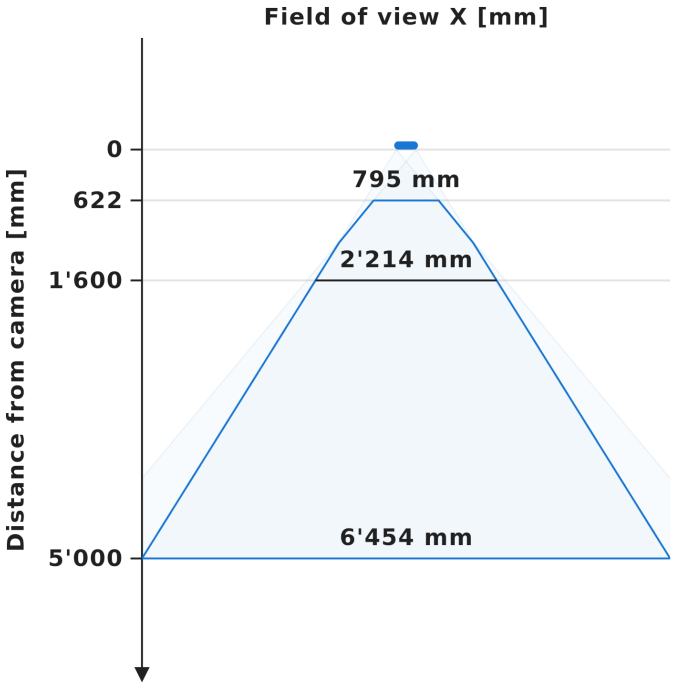


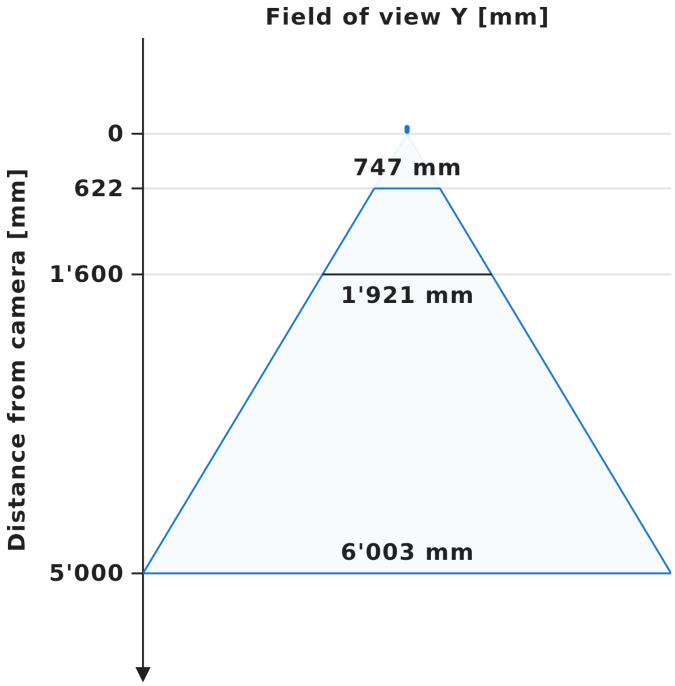


Overview

Full model name		C67-5M8C-4/28|5/18|2.45/24|1600-240/35-BL
3D technology		Active Stereo with FlexView Technology
Sensors & projector	3D stereo	2'472 × 2'064 (5 MP) Sensor binning: 1236 x 1032, 1.2 MP Custom resolutions via Sensor AOI Bandpass filter
	Color	3'840 × 2'160 (8 MP)
	Projector	200 W, Blue (465 nm), FlexView Pattern Pulse limit 120 ms, duty cycle 10 %
	Front LED	20 W, White Pulse limit 120 ms, duty cycle 35 %
Lenses	Stereo	4 mm, F2.8
	Color	2 mm, F2.4
	Projector	5 mm, F1.8

Operating Distance & Field of View





Focus distance	1'600 mm
Operating distance	622–5'000 mm (extended range, blur ≤ 2.5 px) 825–5'000 mm (optimal range, blur ≤ 1.5 px)
Field of view	69° (H) x 62° (V)
Baseline	240 mm
Half vergence angle	3.5°

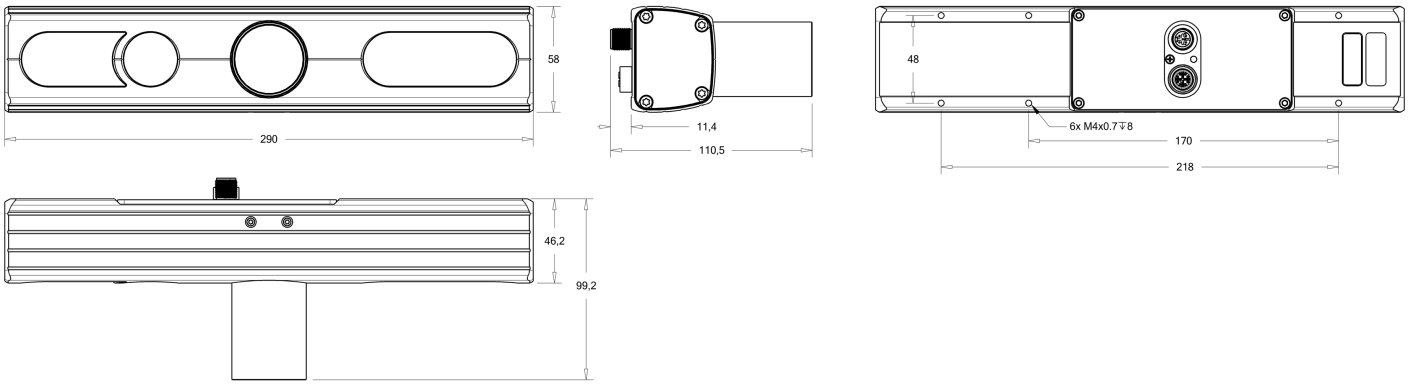
Performance over Operating Distance

Distance (mm)	FoV X (mm)	FoV Y (mm)	Local noise (mm)	Pixel size (mm)	Blur (px)
622	795	747	0.13	0.40	2.50
1'000	1'411	1'201	0.33	0.64	0.95
1'500	2'089	1'801	0.75	0.96	0.11
2'000	2'713	2'401	1.33	1.28	0.32
2'500	3'336	3'001	2.08	1.60	0.57
3'000	3'960	3'602	3.00	1.92	0.74
3'500	4'583	4'202	4.08	2.24	0.86
4'000	5'207	4'802	5.33	2.56	0.95
4'500	5'830	5'403	6.75	2.88	1.02
5'000	6'454	6'003	8.34	3.20	1.08

Color Camera Performance over Operating Distance

Distance (mm)	FoV X (mm)	FoV Y (mm)	Pixel size (mm)	Blur (px)
622	879	734	0.23	5.38
1'000	1'413	1'179	0.37	1.28
1'500	2'119	1'769	0.55	0.09
2'000	2'825	2'359	0.74	0.21
2'500	3'531	2'949	0.92	0.31
3'000	4'238	3'538	1.10	0.33
3'500	4'944	4'128	1.29	0.33
4'000	5'650	4'718	1.47	0.32
4'500	6'357	5'307	1.66	0.30
5'000	7'063	5'897	1.84	0.29

Mechanical Specifications



Dimensions	290 × 58 × 100 mm
Weight	1'160 g
Housing material	Aluminum
Housing IP rating	IP65, IP67
Vibration (sinusoidal)	30–500 Hz / 5 g IEC 60068-2-6
Shock	60 g / 1.9 ms, 25 g / 6 ms IEC 60068-2-27
Cleaning	Housing: water, iso-propanol, ethyl alcohol Lenses: water, iso-propanol

The above IP ratings apply only when a network cable is attached.

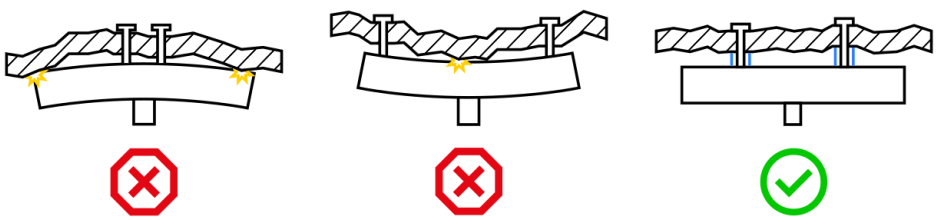
Do not use abrasive cleaning equipment or substances for optical surfaces and windows; use only optical quality tissue/cloth.

Mounting

Screws	4 × M4
Mounting pattern	Two M4 screws on each side of the connector panel
Torque	2.4 Nm
Max thread depth	8 mm

In dynamic or high-vibration applications secure the screws with Loctite 243 (or similar).

The housing is part of the calibrated camera geometry; avoid deforming it and contact only the mounting-thread areas (use spacer bolts on flat surfaces).



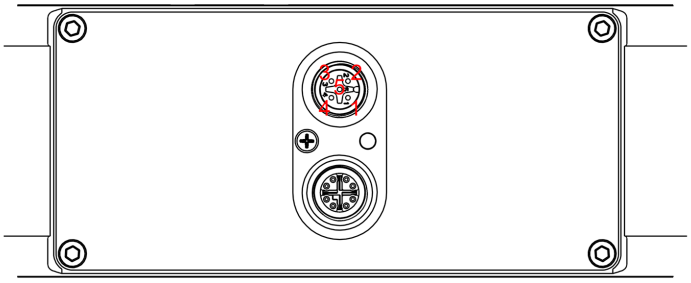
Environmental Conditions

Recommended operational temperature	0–40 °C
Extended operational temperature*	0–50 °C
Storage temperature	-10–50 °C
Relative humidity	0–100 % (non-condensing)

* Devices can be operated above the recommended operational temperature, up to the extended limit, without risk of failure, but with reduced performance. This includes increased image and point cloud noise, reduced projector duty cycle and power output, and reduced calibration accuracy. Prolonged operation in a hot environment also reduces the lifetime of the light source and electronic components.

Electrical Specifications

GPIO Port



Pin	Function	Specification
1	Power Input	24 V DC (min 20, max 27 V) Max current: 10 A
2	Trigger Input	0–24 V Switching threshold rising: 6.6 V, falling: 4.9 V
3	Reserved	-
4	Ground	-
5	Flash Output	0–24 V Voltage level low < 1.3 V, high > dc_in - 1.3 Max current (sink / source): 20 / 20 mA

The trigger and flash signals are ground referenced and push-pull driven.

DC Power Supply

Power supply requirements	24–27 V, 10 A
Internal fuse	Internal 4 A fuse
Connector	M12 5 Pin A-Coded, male (camera)

Cable

Cable length	Required wire thickness	Required power supply
0–5 m	≥ 0.5 mm²	≥ 24 V
5–15 m	≥ 1.5 mm²	≥ 24 V
15–25 m	≥ 1.5 mm²	≥ 27 V
> 25 m	≥ 2.5 mm²	≥ 27 V

Ethernet & Power-over-Ethernet

Ethernet standards	5 GBit 2.5 GBit 1 GBit
Connector	M12 8 Pin X-Coded, female (on camera)
Power-over-Ethernet	PoE++ PD Class 8, 90 W required Projection power is limited with PoE compared to DC power.
Cable requirements	CAT.6A M12 8 Pin X-Coded, female (on camera)

The highest supported speed is recommended for best performance; lower speeds operate at reduced performance.

Compliance & Certifications

EN 61000-6-3:2007+A1:2011	EMC Emission
EN 55032:2015	EMC Emission
EN 61000-6-2:2005	EMC Immunity
EN IEC 61000-6-2:2019	EMC Immunity
IEC 62471:2006 Risk Group 2	Eye Safety

Accessories

Recommended Calibration Plate

Plate	Calibration Plate 390 × 390 × 4 mm
Dimensions	390 × 390 × 4 mm
Grid spacing	96 mm
Substrate	Safety glass
Part number	13510
Mounting kit	13476

Ethernet Cables

Ethernet Cable M12 X-coded to RJ45	Part no.: 13019 (5 m), 13020 (10 m), 13021 (20 m) Connectors: M12 X-coded, Cat.6A, straight, IP67 / RJ45, IP20, Cat.6A, straight, overmolded (black) Torsion resistant, robot and drag-chain compatible Ethernet cable.

GPIO / Sync Cables

M12 5-Pin Cable (Open Endings)	Part no.: 13637 (5 m), 13639 (10 m) Connectors: M12 5-Pin A-coded / Open wire ends Open wire-end cable for the M12 5-pin camera connector; suitable for torsional stress.
M12 5-Pin Cable (M12 to M12)	Part no.: 13836 (5 m), 13837 (10 m) Connectors: M12 5-Pin A-coded / M12 5-Pin A-coded Extension cable for the M12 5-pin camera connector; suitable for torsional stress.

Power Supplies & PoE Injectors

M12 5-Pin Power Supply (Desktop)	Part no.: 12137 Desktop power supply providing 24 V to cameras with M12 GPIO connector. Cameras with M8 connector can be powered via the M12 to M8 adapter.
PoE++ Injector, 90 W, AC Input	Part no.: 13847 Industrial 1-port 802.3bt PoE injector, DIN-rail mountable, AC input.
PoE++ Injector, 90 W, DC Input	Part no.: 13846 Industrial 1-port 802.3bt PoE injector, DIN-rail mountable, DC input.

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