

Zivid Two

Technical specification

PRELIMINARY

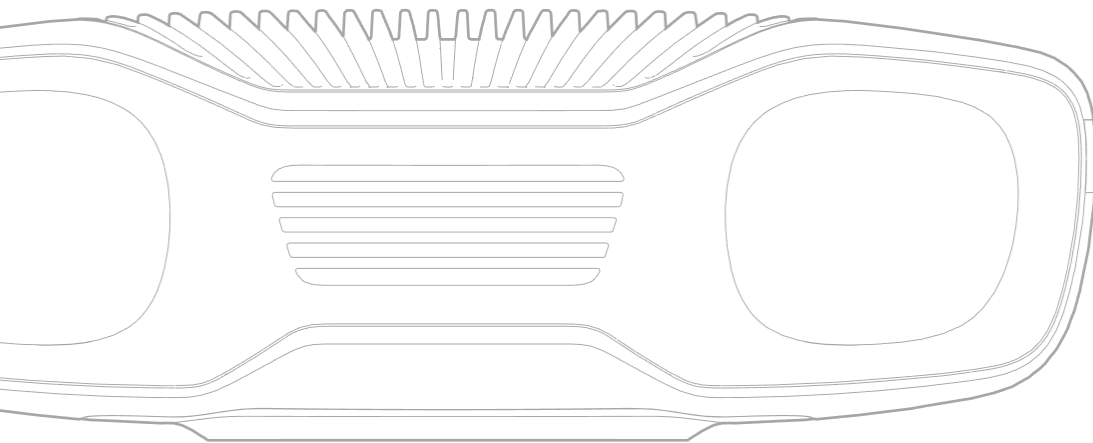


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General specifications

3D technology	Structured light
Imaging	1944 x 1200 (2.3 MP) Native 3D Color
Point cloud output	3D (XYZ) + Color (RGB) + SNR
Aperture (A)	f/1.8 to f/32
Shutter (S)	1/600 s to 1/10 s
Gain (G)	1x to 16x
Projector Brightness (B)	1/4x to 1.8x 1x = 360 lumens
Exposures per 3D frame	13
Min acquisition time	60 ms
Calibration	Factory calibrated Zivid Camera Model 2 (ZCM2)
Data interface	Ethernet (10 GigE)
Power	24 V DC
Operating temperature	0° to 45° C
Storage temperature	-20° to 60° C
Safety and EMC	CE CB EN60950 FCC Class A

Operating distance and field of view

Recommended working distance (mm)	400 to 1200
Max working distance (mm)	300 to 1500
Field of view (mm)	754 x 449 at 700
Spatial resolution (mm)	0.39 at 700

FIGURE 1 - FIELD OF VIEW

All values in degrees or mm.

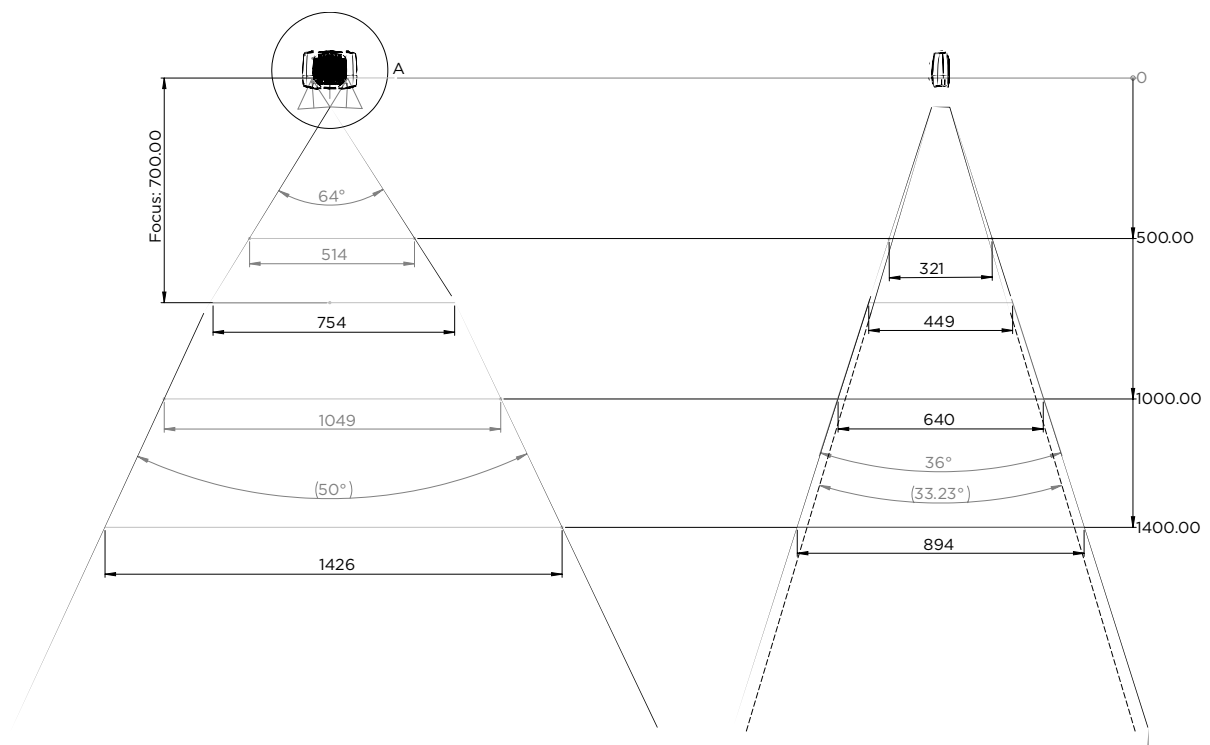
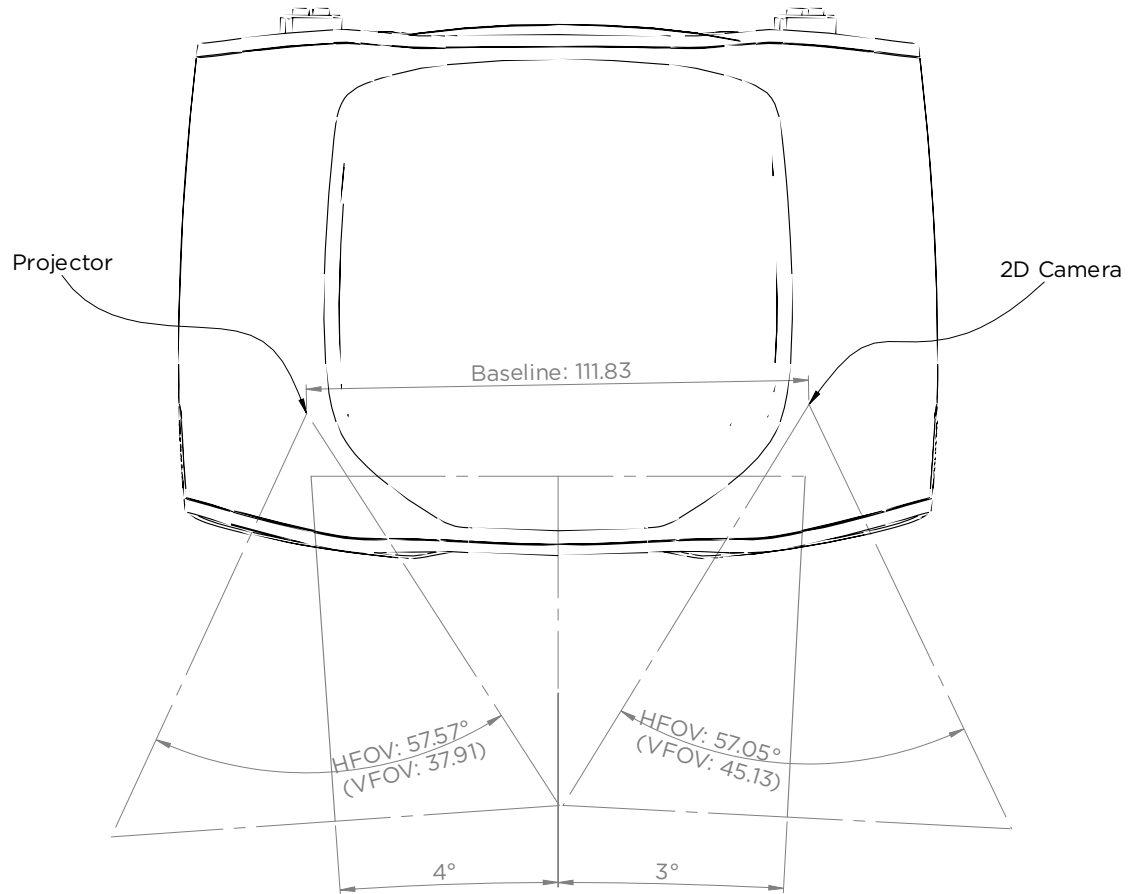


FIGURE 2 - FIELD OF VIEW

All values in degrees or mm.



Accuracy specifications

Common conditions

Applies to all specifications unless otherwise stated.

Parameter	Description	Typical
Working distance (D)		700 mm
Ambient temperature (Ta)		25°C
Ambient light (La)		250 lux
Aperture (A)		f/4.0
Gain (G)		1.0x
Projector Brightness (B)		1.8x
Framerate	Capture rate used during measurement.	0.2 FPS
Other		81% center crop HDR = off 10 min warm-up

Typical specifications

Typical numbers are given at common conditions unless otherwise specified.

Property	Description	Typical
Point precision	1 σ Euclidian distance variation for a point between consecutive measurements.	60 μ m
Local Planarity Precision	1 σ Euclidian distance variation from a plane for a set of points within a smaller local region.	90 μ m
Global Planarity Trueness	Average deviation from a plane in field of view with noise filtering.	< 180 μ m
Global Planarity Accuracy	Average deviation from a plane in field of view without noise filtering.	< 240 μ m
Dimension Trueness	Average dimension error in field of view over 10 consecutive measurements.	< 0.20 %
	Standard deviation of dimension error in field of view over 10 consecutive measurements.	0.10%

FIGURE 3 - POINT PRECISION VS. WORKING DISTANCE

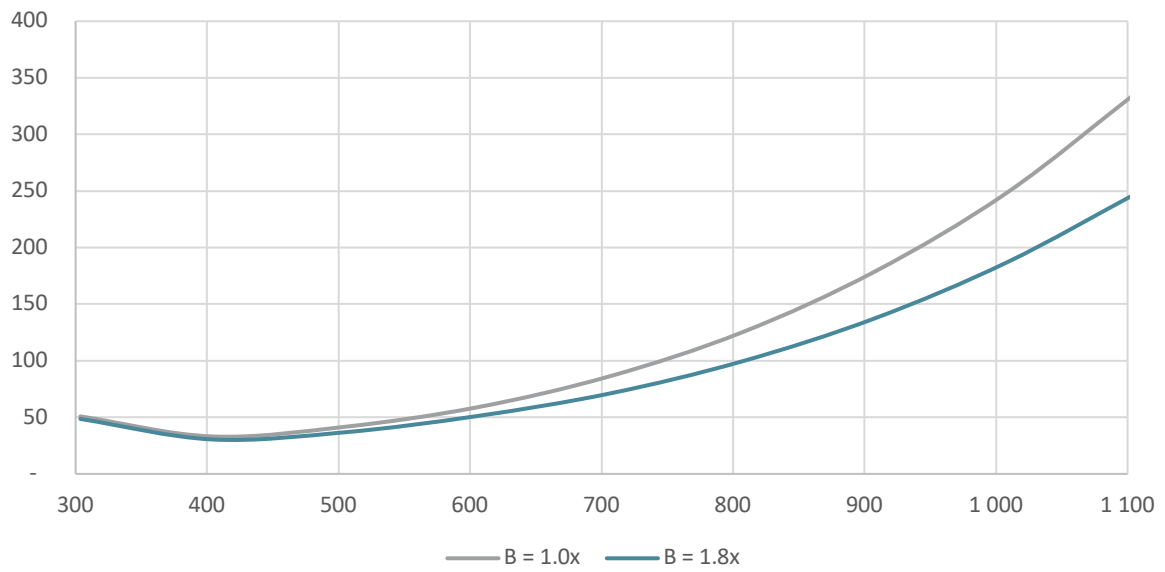
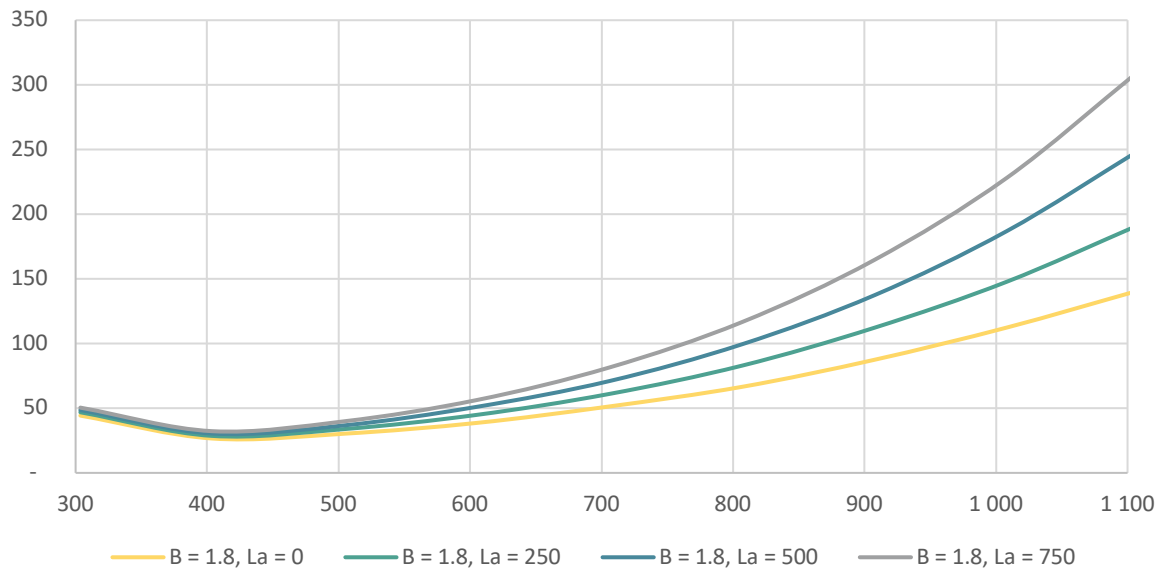


FIGURE 4 - POINT PRECISION VS. WORKING DISTANCE VS. AMBIENT LIGHT



Physical specifications

Size and weight	Magnesium body 169 mm x 56 mm x 122 mm 880 g
Environmental	IP65 5 G Random 15 G Shock
Power connector	M12-5
Data connector	10 GigE M12-8
Power adapter	24 V 5A EU, US, and UK power plug options

Mechanical drawings

FIGURE 5 - DIMENSIONS

All values in degrees or mm.

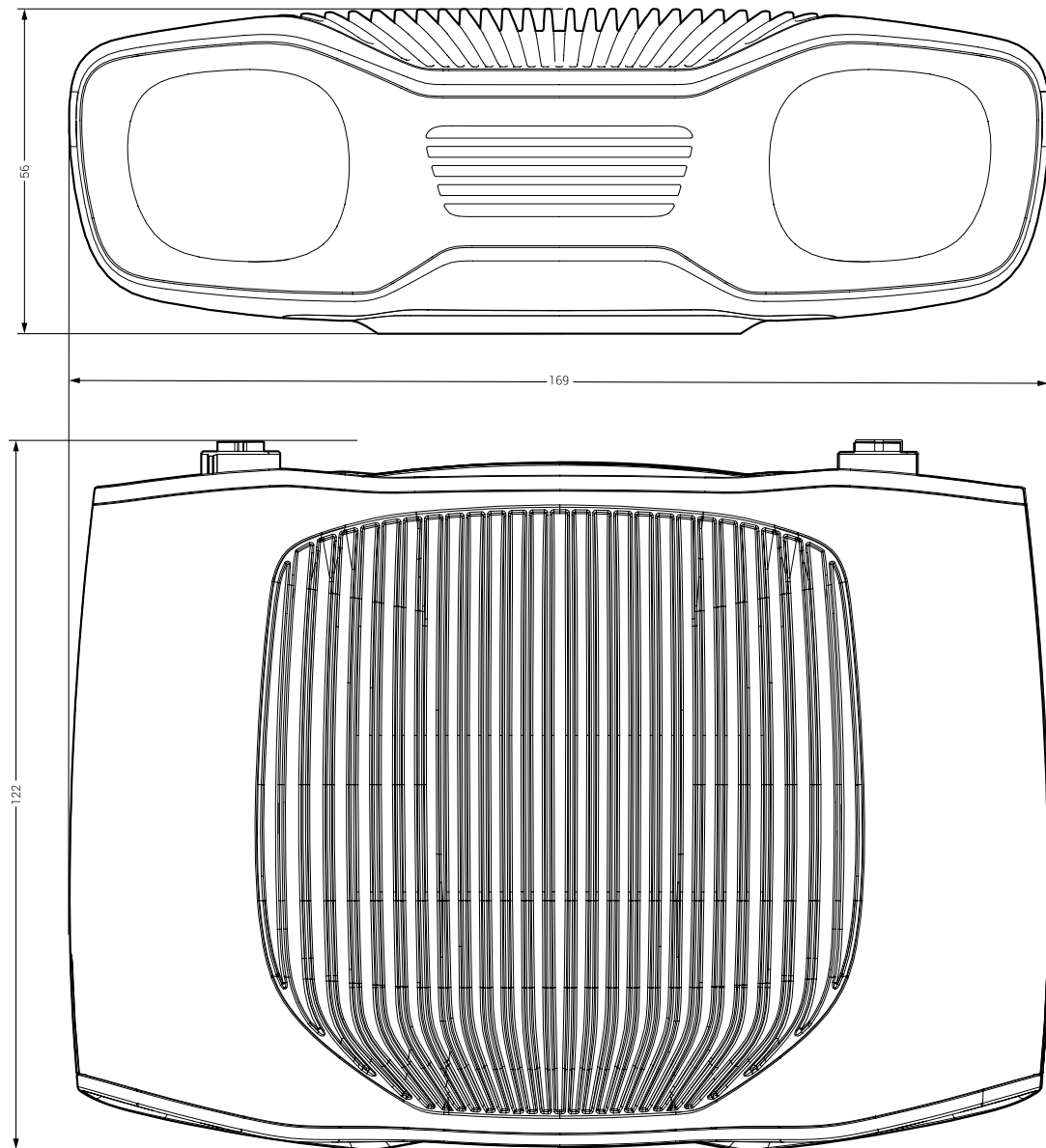
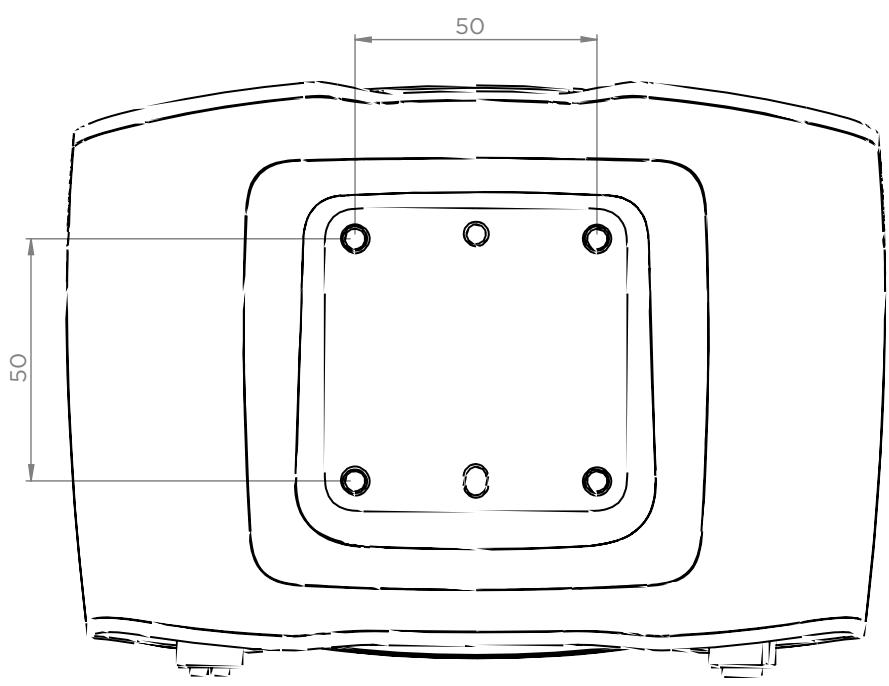
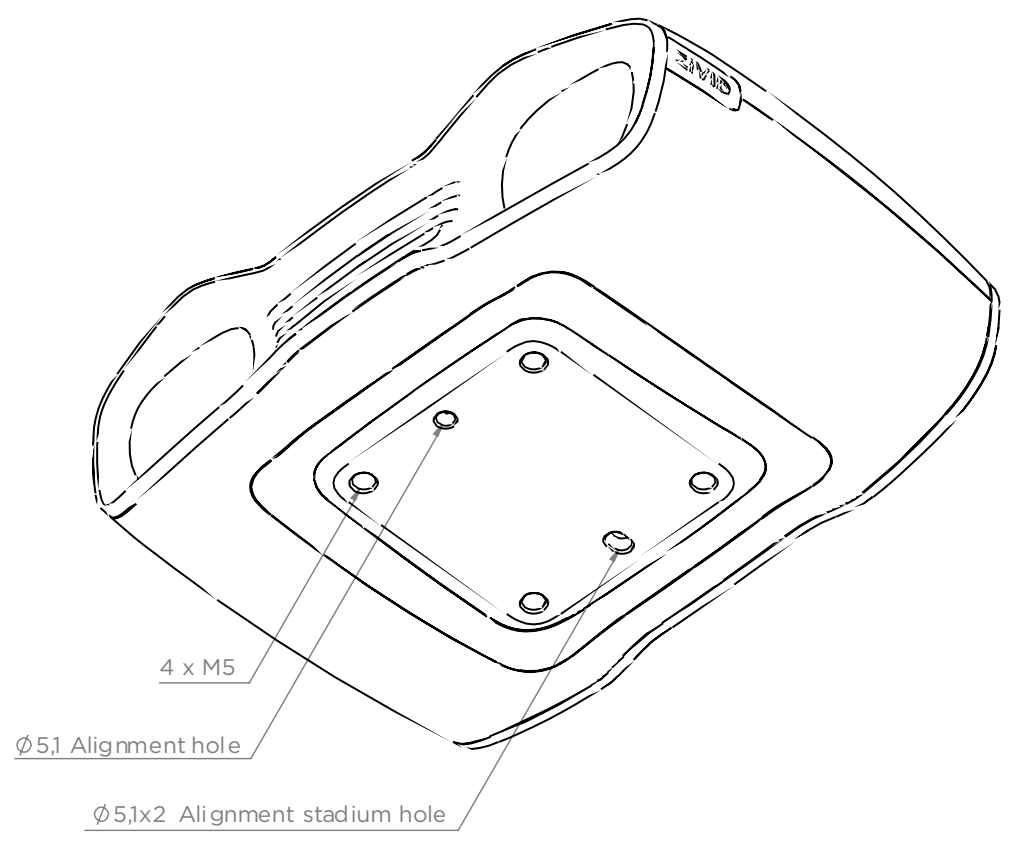


FIGURE 6 - MOUNTING OPTIONS

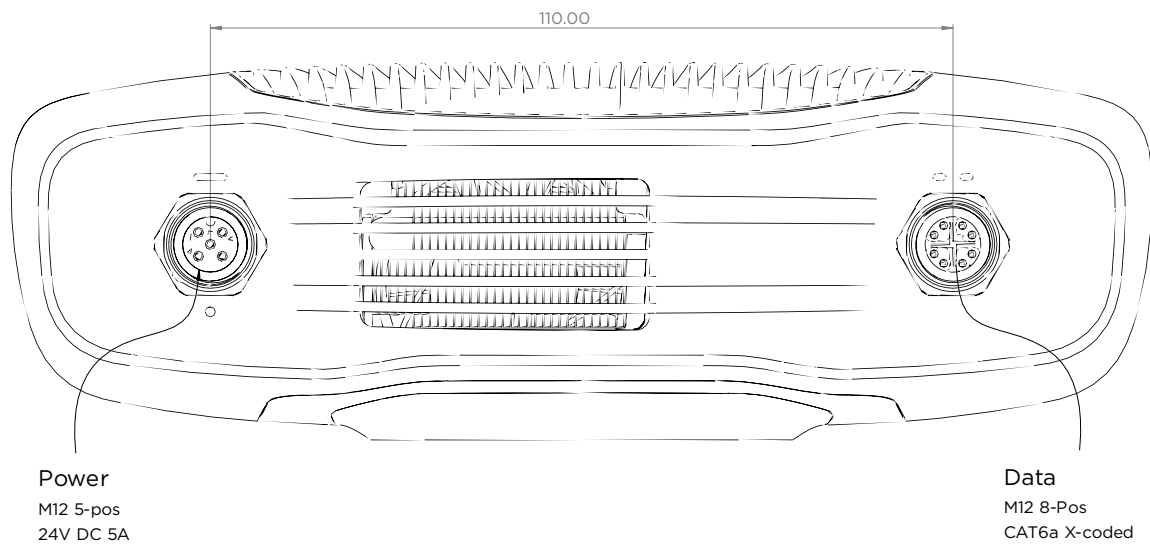
All values in degrees or mm.



Connectors

FIGURE 7 - CONNECTORS

All values in degrees or mm.



Revision history

Ver.	Date	Notes
0.1	11/20	Initial version. Preliminary.

Zivid AS
Gjerdrums vei 10A
N0484 Oslo
Norway

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