

AreaScan3D

Calibrated 3D area sensor

Highlights

- Optical 3D sensor based on digital fringe projection
- Metric calibration
- Data output as 3D point cloud, range map or 2D image
- GenICam TL compliant
- M12 industrial standard connectors
- Aluminium housing
- M6 mounting holes
- IP65 protection
- Various measuring fields available
- OEM solutions available

Sensor Characteristics

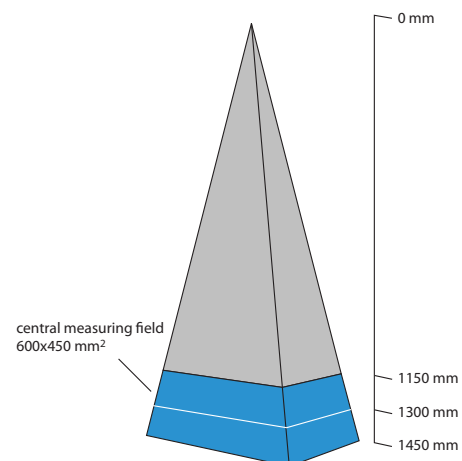
- Measuring volume 600 x 450 x 300 mm
- Measuring points 748 x 480
- Micro mirrors 480 x 320
- Point density 900 μm
- Height resolution > 65 μm
- Working distance 1300 mm
- Min. working distance 1150 mm
- Max. working distance 1450 mm
- Min. projection time (time the object has to stand still) < 0.5 s
- 3D data calculation period < 2 s

Data Transfer Characteristics

- GenICam TL compliant
- Interfaces to Common Vision Blox and HALCON
- Viewer software included
- 100 MBit Ethernet interface



Measuring Volume



Pin Assignment

①

Power
A-coded
M12-male
4 pin

Pin1 24V
Pin2 24V
Pin3 GND
Pin4 GND

②

Input/Output
A-coded
M12-female
8 pin

Pin1 Output
Pin2+4+5+6 GND
Pin3 Input
Pin7 reserved
Pin8 reserved

③

Ethernet
D-coded
M12-female
4 pin

Pin1 Tx+
Pin2 Rx+
Pin3 Tx-
Pin4 Rx-

Physical Characteristics

- Dimensions 138 x 55 x 171 mm
- Weight < 1 kg
- Case temperature +5 ... +40 °C (operating),
-20 ... +60 °C (storage/transport)
- Max. temperature gradient environment
1.5 K/min (operating), 2.5 K/min
(storage/transport)
- Relative humidity 5 ... 90% (operating),
5 ... 95% (storage/transport)
- Condensation not allowed (operating),
to be avoided (storage/transport)
- Altitude 0 ... 3050 m (operating),
0 ... 13000 m (storage/transport)
- Vibration to be avoided (operating),
storage/transport: sine, 5 g, 10 ... 500 Hz, all
main axes (acc. to DIN EN ISO 9022-36-08-0)
random, 0.015 g²/Hz, 5 ... 1000 Hz
- Impact to be avoided (operating),
storage/transport: 15 g, 11 ms half sine,
all main axes, max. 3 impacts per axis

Conformity to Standards

- Case sealing IP65
- Optical emission power and eye safety
free class / risk class 1 (no laser)
- EMV test acc. to EN 61000
- Mechanical stress acc. to EN 60 947-5-2
- Electrical protection class 1, acc. to
DIN EN 61140 (VDE 0140-1)

