



Features:

- ✓ High performance 2K resolution 3D smart camera
- ✓ Speckle-free blue laser optics
- ✓ Broad suite of true 3D vision tools
- ✓ In-Sight spreadsheet-based setup

Functions

8 core processor

FPGA image processing acceleration

Flexible mounting options

Patented speckle-free blue laser optics

Broadest range of true 3D point cloud vision tools

101 mm

150.5 mm

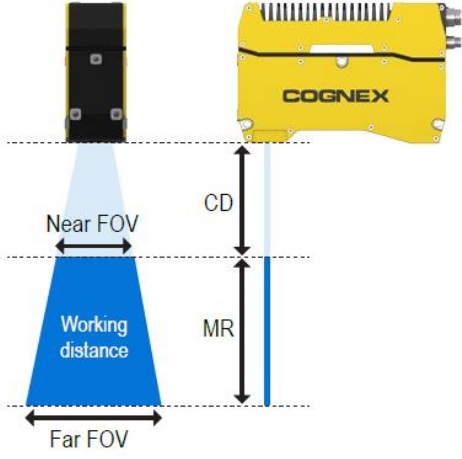
45 mm

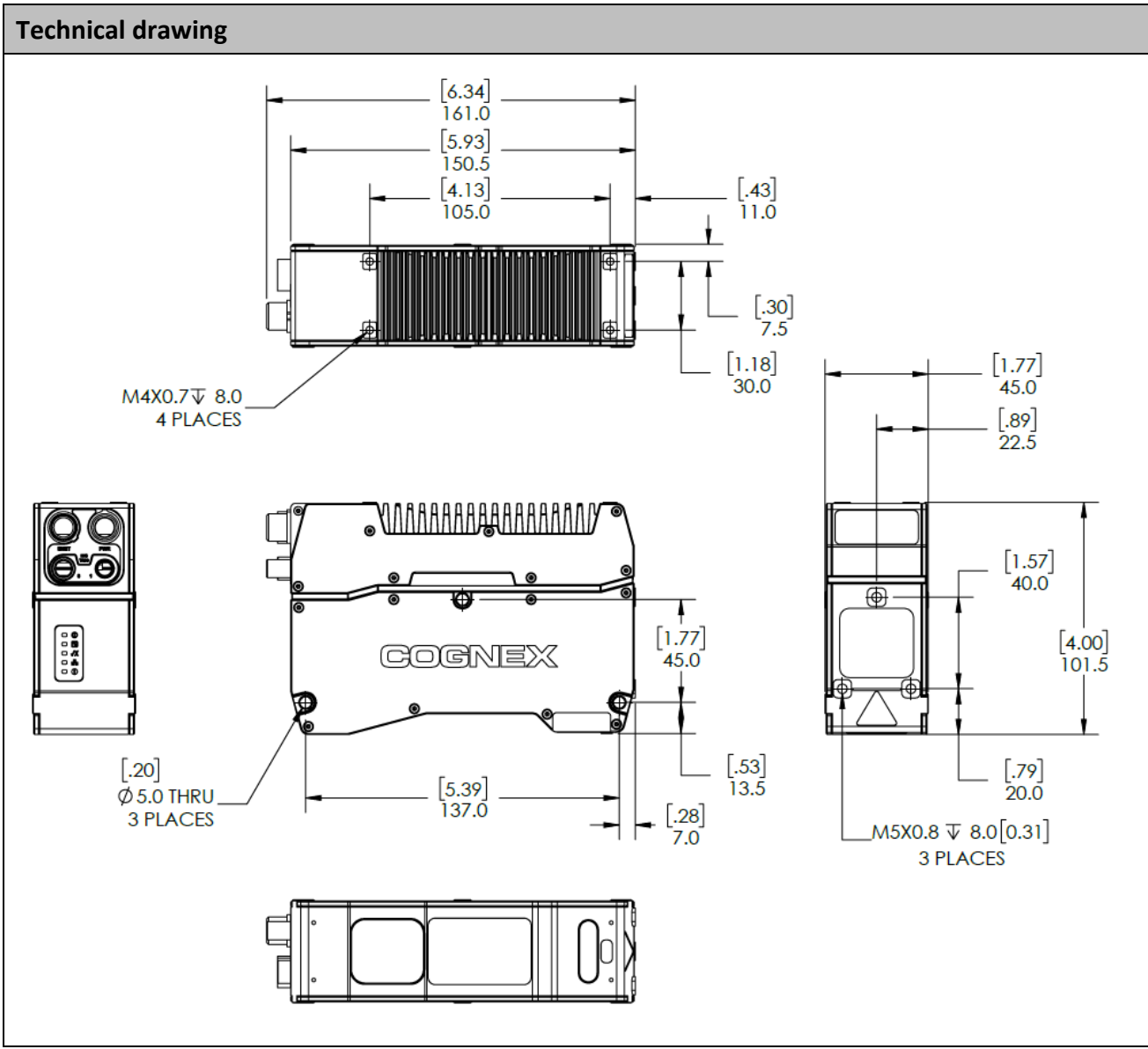
In-Sight industrial connectivity

Rugged IP65-rated industrial housing

Specification					
Models		IS3D-L4050	IS3D-L4100	IS3D-L4300	
Measurement range	Clearance distance		91.18 mm	123.97 mm	178 mm
	Z-axis (height)	Measurement range	110.05 mm	250.8 mm	745 mm
		Near field of view	58.27 mm	79.72 mm	101 mm
	X-axis (width)	Middle field of view	78.91 mm	139.21 mm	290.5 mm
Far field of view		99.55 mm	198.7 mm	480 mm	
Laser (light source)	Wavelength		450 nm		
	Laser class		2M		
	Output power		45 mW		
Spot size (middle field of view)		121 µm	199 µm	230 µm	
Sensor	Data points/profile		1920 points		
	X resolution	Top	30.3 µm	41.5 µm	52.6 µm
		Bottom	51.8 µm	103.5 µm	250 µm
	Z resolution	Top	2.5 µm	4.4 µm	6.9 µm
		Bottom	6.9 µm	25.9 µm	147.5 µm
	X repeatability	Top			
		Bottom			
	Z repeatability	Top	0.5 µm	1 µm	2 µm
		Bottom	0.5 µm	1 µm	2 µm
	Z linearity		0.1% of full scale		
Temperature characteristics		0.01% full scale/°C			
Environmental resistance	Housing protection		IP65		
	Operation temperature		0–45 °C (32–113 °F)		
	Storage temperature		-20–70 °C (-4–158 °F)		
	Maximum humidity		20 to 80% (no condensation)		
	Vibration		10 to 57, double amplitude 1.5 mm X,Y,Z, 3 hours in each direction		
	Shock		15/6 msec		
Housing material		Aluminum			
Weight		0,94 kg			
Dimensions		150,5 mm x 101 mm x 45 mm			
Power supply requirements		24 VDC +/- 10%, 750 mA maximum			
Inputs		Trigger, differential/single ended encoder, laser interlock			
Trigger		Input voltage limits: Trig+ - Trig - = -24 VDC to +24 VDC Input ON: >10 VDC (>6 mA) Input OFF: <2 VDC (<1.5 mA)			
Encoder specifications		Differential: A+/B+: 5–24V (1.0 MHz max) A-/B-: Inverted (A+/B+) Single ended: A+/B+: 12–24V (1.0 MHz max) A-/B-: VDC = ½ (A+/B+)			

Specification			
Models	IS3D-L4050	IS3D-L4100	IS3D-L4300
Interface	Gigabit Ethernet Integrated link and traffic LEDs Standard M12-8 X-coded female connector		

Working Distance				
Models	IS3D-L4050	IS3D-L4100	IS3D-L4300	
Clearance distance (CD)	93 mm	126 mm	178 mm	
Near field of view (Near FOV)	56 mm	78 mm	101 mm	
Far field of view (Far FOV)	96 mm	198 mm	480 mm	
Measurement range (MR)	110 mm	252 mm	746 mm	



Ordering data	
Item No.	Description
042335	3D Profile Scanner In-Sight 3D-L4050 Dimensions (WxDxH): 161x45x102mm ³ Minimum distance: 93mm Field of view at minimum distance: 56mm Maximum distance: 203mm Field of view at maximum distance: 96mm
042336	3D-Profils scanner In-Sight 3D-L4100 Dimensions (WxDxH): 161x45x102mm ³ Minimum distance: 126mm Field of view at minimum distance: 78mm Maximum distance: 378mm Field of view at maximum distance: 198mm
042337	3D-Profils scanner In-Sight 3D-L4300 Dimensions (WxDxH): 161x45x102mm ³ Minimum distance: 178mm Field of view at minimum distance: 101mm Maximum distance: 658mm Field of view at maximum distance: 480mm

Ordering data	
Item No.	Description
041371	Cable Ethernet, M12 x-cod. straight <-> RJ45, 2m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041242	Cable Ethernet, M12 x-cod. straight <-> RJ45, 5m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041372	Cable Ethernet, M12 x-cod. straight <-> RJ45, 10m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041373	Cable Ethernet, M12 x-cod. straight <-> RJ45, 15m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041497	Cable Ethernet, M12 x-cod. straight <-> RJ45, 30m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041866	Cable Ethernet, M12 X-cod. 90° <-> RJ45, 2m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041867	Cable Ethernet, M12 X-cod. 90° <-> RJ45, 5m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m
041868	Cable Ethernet, M12 X-cod. 90° <-> RJ45, 10m , IP67, 8-pole, CAT6, drag chain suitable for 10 million bending cycles, smallest bending radius 7.5x cable diameter, torsion-resistant up to 30,000 cycles at +/-180°/m