

Laser Profiler

ESX-C Series



Appearance							
Installation Net Distance		19mm	22mm	54mm	80mm	100mm	
Contour Point		2048					
Measuring Range	DOF of Z-axis (MR)	7mm	11mm	25mm	70mm	200mm	
	Width of X-axis	Proximal FOV	11mm	16mm	28mm	54mm	110mm
		Reference Distance	12mm	17mm	31mm	68mm	170mm
		Distant FOV	13mm	18mm	35mm	80mm	230mm
Light Source	Wavelength	405nm					
	Laser class	2M/3R					
	Output Power	10mW					
X Resolution		5.6 ~ 6.3 μ m	7.8 ~ 8.9 μ m	13.4 ~ 16.4 μ m	27.1 ~ 40.0 μ m	54.0 ~ 114.2 μ m	
Z Repeatability		0.1 μ m	0.2 μ m	0.3 μ m	0.8 μ m	1.2 μ m	
Z Linearity(+/- % of MR)		0.02%	0.02%	0.02%	0.02%	0.02%	
Angle of Reflection		50°	45°	30°	30°	27°	
Scanning Speed		340 ~ 1000Hz					
Communication Interface		Gigabit Net Interface, 1 Input and 1 Output for 24VTTL, 2 RS485 bidirectional IO					
Power Consumption		11W					
Operating Voltage		24V DC \pm 10%					
Housing Material		Aluminium Alloy					
Protection Level		IP67					
Operating Temperature		0 ~ +50° C					
Vibration-Resistance		10 to 55Hz, Dual Amplitude of 1.5mm, 2 Hours in directions of X, Y, and Z Respectively					
Shock Resistance		Max Acceleration 15G, A Span with 11ms, Half-sine Wave Shock					
Model		ESX-C10	ESX-C20	ESX-C30	ESX-C100	ESX-C200	

Laser Profiler

ESX-C Series



Appearance						
Installation Net Distance			100mm	330mm	250mm	760mm
Contour Point			4096			
Measuring Range	DOF of Z-axis (MR)		200mm	350mm	490mm	1280mm
	Width of X-axis	Proximal FOV	110mm	195mm	230mm	700mm
		Reference Distance	170mm	262mm	385mm	1095mm
		Distant FOV	230mm	330mm	540mm	1490mm
Light Source	Wavelength		650nm			
	Laser class		2M/3R			
	Output Power		10mW			
X Resolution			54.0 ~ 114.2 μ m	92.8 ~ 164.9 μ m	115.5 ~ 265.1 μ m	338.8 ~ 731.8 μ m
Z Repeatability			1.2 μ m	2 μ m	6 μ m	15 μ m
Z Linearity(+/- % of MR)			0.02%	0.02%	0.02%	0.04%
Angle of Reflection			27°	23.2°	25°	27°
Scanning Speed			340 ~ 1000Hz			
Communication Interface			Gigabit Net Interface, 1 Input and 1 Output for 24V TTL, 2 RS485 bidirectional IO			
Power Consumption			11W			
Operating Voltage			24V DC \pm 10%			
Housing Material			Aluminium Alloy			
Protection Level			IP67			
Operating Temperature			0 ~ +50° C			
Vibration-Resistance			10 to 55Hz, Dual Amplitude of 1.5mm, 2 Hours in directions of X, Y, and Z Respectively			
Shock Resistance			Max Acceleration 15G, A Span with 11ms, Half-sine Wave Shock			
Model			ESX-CE200	ESX-CE300	ESX-CE500	ESX-CE1000

Laser Profiler

ESX-G Series



Appearance						
Installation Net Distance			18mm	40mm	90mm	140mm
Contour Point			4096			
Measuring Range	DOF of Z-zxis (MR)		7mm	24mm	74mm	192mm
	Width of X-axis	Proximal FOV	14mm	30mm	55mm	100mm
		Reference Distance	15mm	33mm	72mm	145mm
		Distant FOV	16mm	36mm	88mm	190mm
Light Source	Wavelength		405nm			650nm
	Laser class		2M/3R			
	Output Power		10mW			
X Resolution			6.9 ~ 8.4 μ m	14.6 ~ 20.1 μ m	28.8 ~ 47.1 μ m	51.7 ~ 99.6 μ m
Z Repeatability			0.2 μ m	0.4 μ m	0.6 μ m	1 μ m
Z Linearity(+/- % of MR)			0.02%	0.02%	0.02%	0.02%
Angle of Reflection			41°	38°	30°	24°
Scanning Speed			1000 (Full frame) ~ 20000Hz			
Communication Interface			Gigabit Net Interface,1 Input and 1 Output for 24VTTL,2 RS485 bidirectional IO			
Power Consumption			11W			
Operating Voltage			24V DC \pm 10%			
Housing Material			Aluminium Alloy			
Protection Level			IP67			
Operating Temperature			0 ~ +50° C			
Vibration-Resistance			10 to 55Hz, Dual Amplitude of 1.5mm, 2 Hours in directions of X, Y, and Z Respectively			
Shock Resistance			Max Acceleration 15G,A Span with 11ms, Half-sine Wave Shock			
Model			ESX-G10	ESX-G20	ESX-G100	ESX-GE200

Laser Profiler

ESX-P Series



Appearance					
Installation Net Distance					
Contour Point			18mm	40mm	90mm
Measuring Range	DOF of Z-zxis (MR)			1920	
	Width of X-axis	Proximal FOV	7mm	24mm	74mm
		Reference Distance	13mm	28mm	55mm
		Distant FOV	14.5mm	27mm	72mm
Light Source	Wavelength		16mm	36mm	90mm
	Laser class			405nm	
	Output Power			2M/3R	
X Resolution				10mW	
Z Repeatability			7.0 ~ 8.6 μ m	14.6 ~ 20.1 μ m	28.8 ~ 47.1 μ m
Z Linearity(+/-% of MR)			0.2 μ m	0.4 μ m	0.6 μ m
Angle of Reflection			0.02%	0.02%	0.02%
Scanning Speed			41°	38°	30°
Communication Interface			2500~56000Hz		
Power Consumption			Gigabit Net Interface, 1 Input and 1 Output for 24VTTL, 2 RS485 bidirectional IO		
Operating Voltage			11W		
Housing Material			24V DC \pm 10%		
Protection Level			Aluminium Alloy		
Operating Temperature			IP67		
Vibration-Resistance			0 ~ +50° C		
Shock Resistance			10 to 55Hz, Dual Amplitude of 1.5mm, 2 Hours in directions of X, Y, and Z Respectively		
Model			Max Acceleration 15G, A Span with 11ms, Half-sine Wave Shock		
			ESX-P10	ESX-P20	ESX-P100

Laser Profiler

ESX-P Series



Appearance				
Installation Net Distance		140mm	140mm	235mm
Contour Point			1920	
Measuring Range	DOF of Z-axis (MR)	191mm	191mm	250mm
	Proximal FOV	100mm	100mm	192mm
	Width of X-axis	145mm	145mm	247mm
	Reference Distance	190mm	190mm	302mm
Light Source	Wavelength	405nm	650nm	
	Laser class	2M/3R		
	Output Power	10mW		
X Resolution	51.7 ~ 99.7 μ m	51.7 ~ 99.7 μ m	100.7 ~ 160.3 μ m	
Z Repeatability	1 μ m	1 μ m	1.5 μ m	
Z Linearity(+/-% of MR)	0.02%	0.02%	0.04%	
Angle of Reflection	24°	24°	23.2°	
Scanning Speed	2500~56000Hz			
Communication Interface	Gigabit Net Interface, 1 Input and 1 Output for 24VTTL, 2 RS485 bidirectional IO			
Power Consumption	11W			
Operating Voltage	24V DC \pm 10%			
Housing Material	Aluminium Alloy			
Protection Level	IP67			
Operating Temperature	0 ~ +50° C			
Vibration-Resistance	10 to 55Hz, Dual Amplitude of 1.5mm, 2 Hours in directions of X, Y, and Z Respectively			
Shock Resistance	Max Acceleration 15G, A Span with 11ms, Half-sine Wave Shock			
Model	ESX-P200	ESX-PE200	ESX-PE300	

Laser Profiler

ESX-H Series



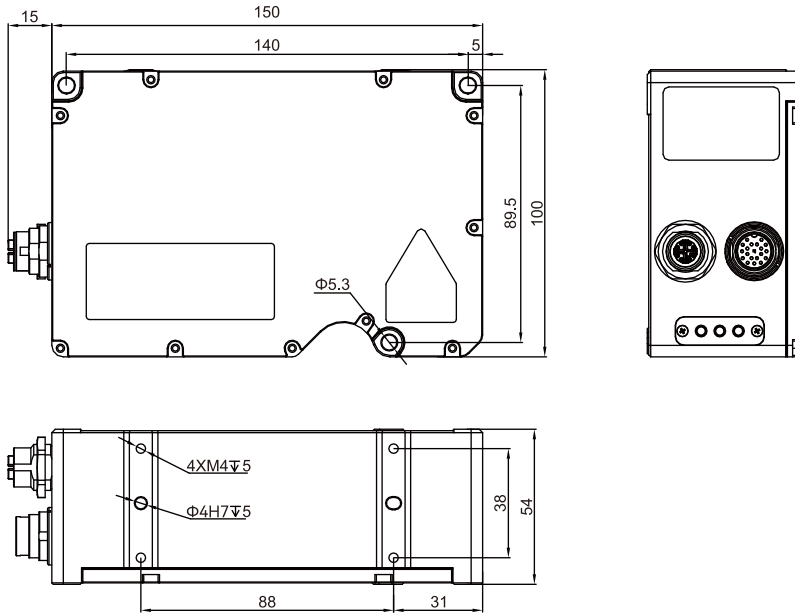
Appearance				
Installation Net Distance			30mm	50mm
Contour Point			4096	
Measuring Range	DOF of Z-zxis (MR)		6mm	18mm
	Width of X-axis	Proximal FOV	20mm	45mm
		Reference Distance	22mm	51mm
		Distant FOV	24mm	56mm
Light Source	Wavelength		405nm	
	Laser class		2M/3R	
	Output Power		10mW	
X Resolution			5.1 ~ 5.9 μ m	11.1 ~ 13.6 μ m
Z Repeatability			0.1 μ m	0.3 μ m
Z Linearity(+/- % of MR)			0.02%	0.02%
Angle of Reflection			50°	38°
Scanning Speed			1200 ~ 16000Hz	
Communication Interface			Gigabit Net Interface,1 Input and 1 Output for 24VTTL,2 RS485 bidirectional IO	
Power Consumption			11W	
Operating Voltage			24V DC \pm 10%	
Housing Material			Aluminium Alloy	
Protection Level			IP67	
Operating Temperature			0 ~ +50° C	
Vibration-Resistance			10 to 55Hz, Dual Amplitude of 1.5mm, 2 Hours in directions of X, Y, and Z Respectively	
Shock Resistance			Max Acceleration 15G,A Span with 11ms, Half-sine Wave Shock	
Model			ESX-H10	ESX-H20

Laser Profiler

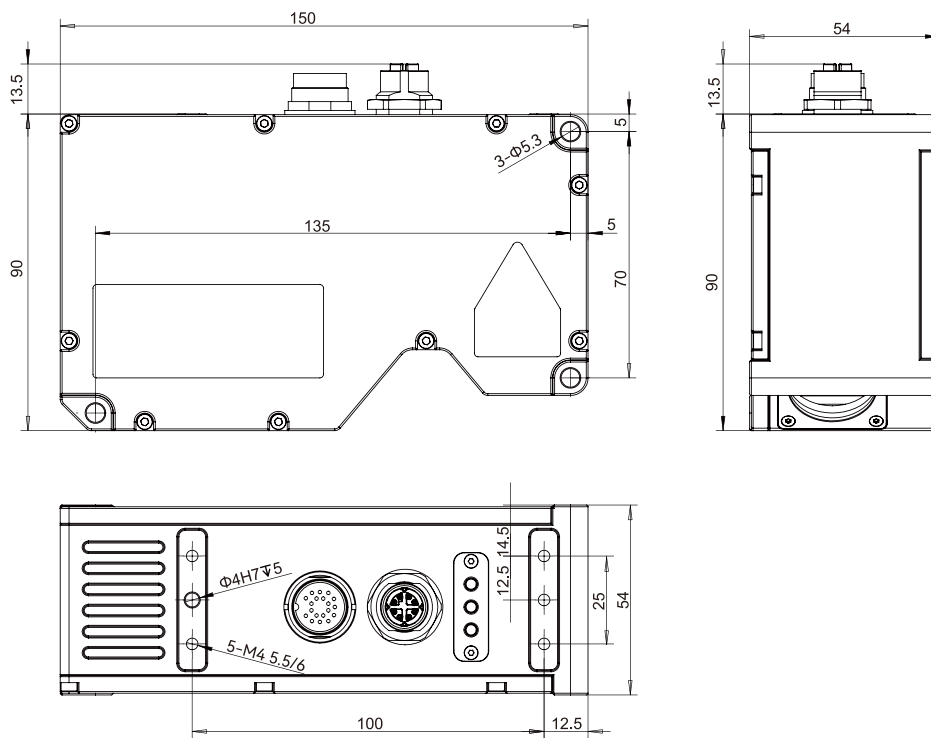
Dimension

Unit: mm

ESX-C20



ESX-C10

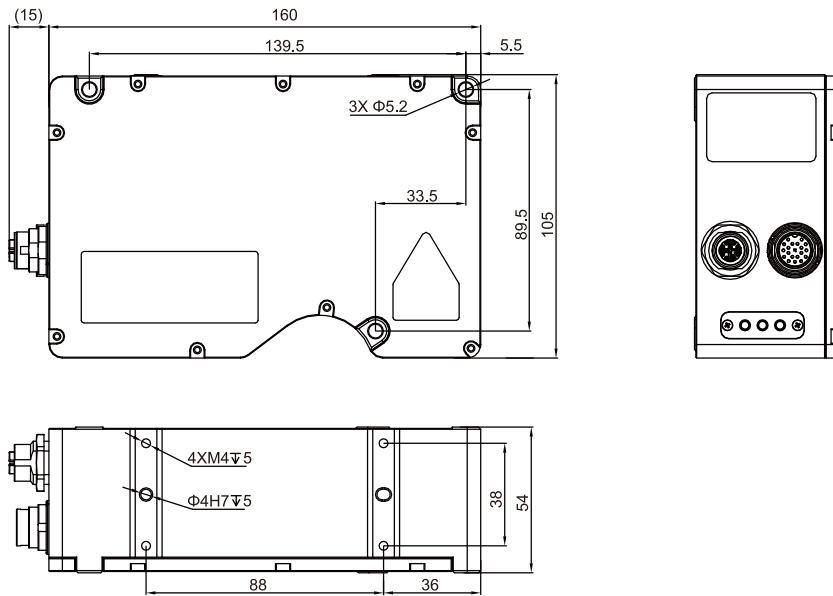


Laser Profiler

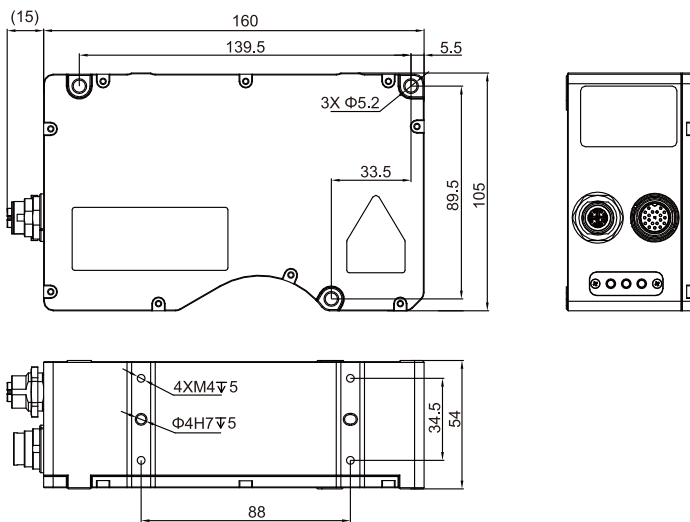
Dimension

Unit: mm

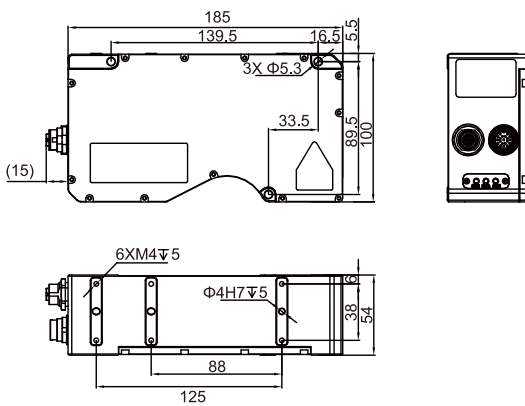
ESX-C30



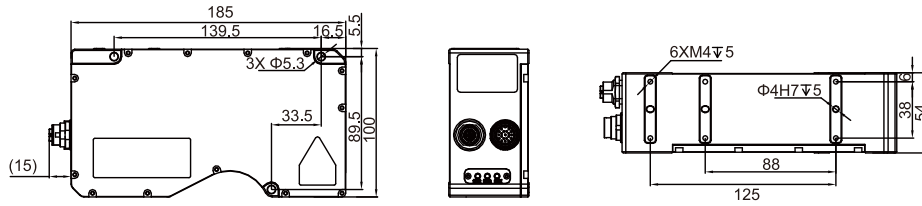
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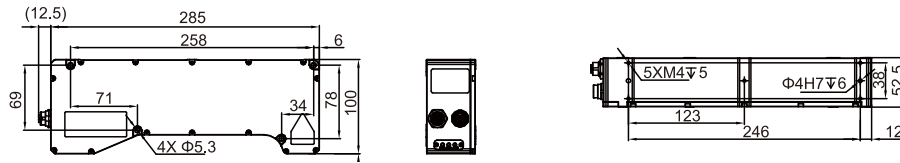
ESX-C200



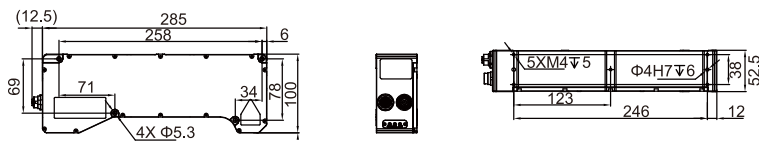
ESX-CE200



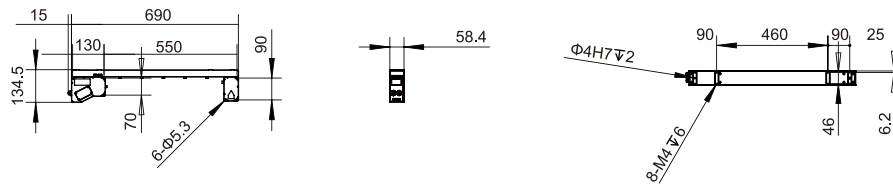
ESX-CE300



ESX-CE500



ESX-CE1000

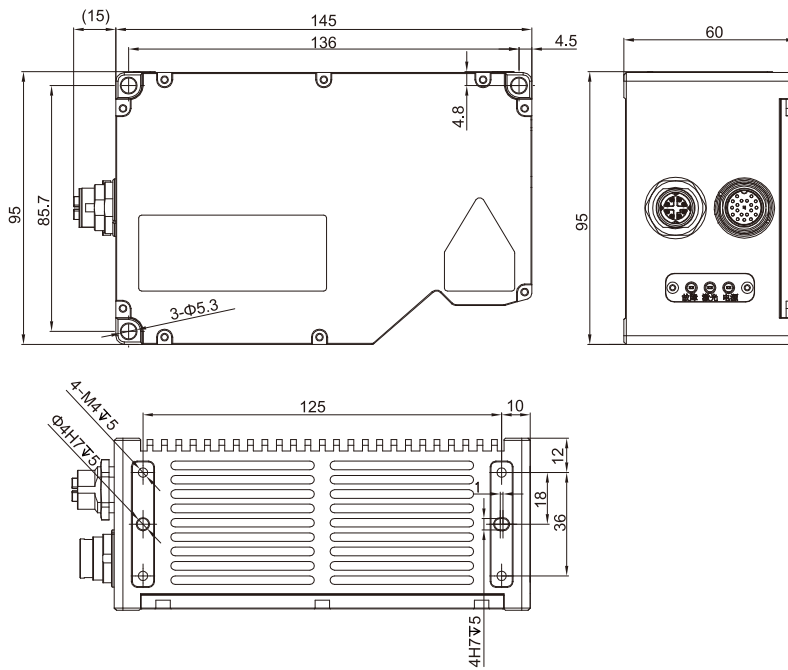


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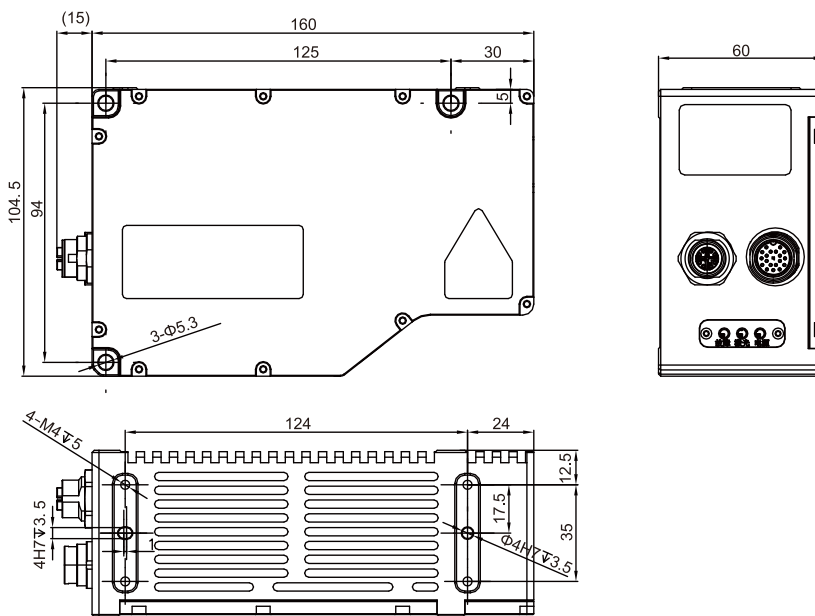
Dimension

Unit: mm

ESX-G10



ESX-G20

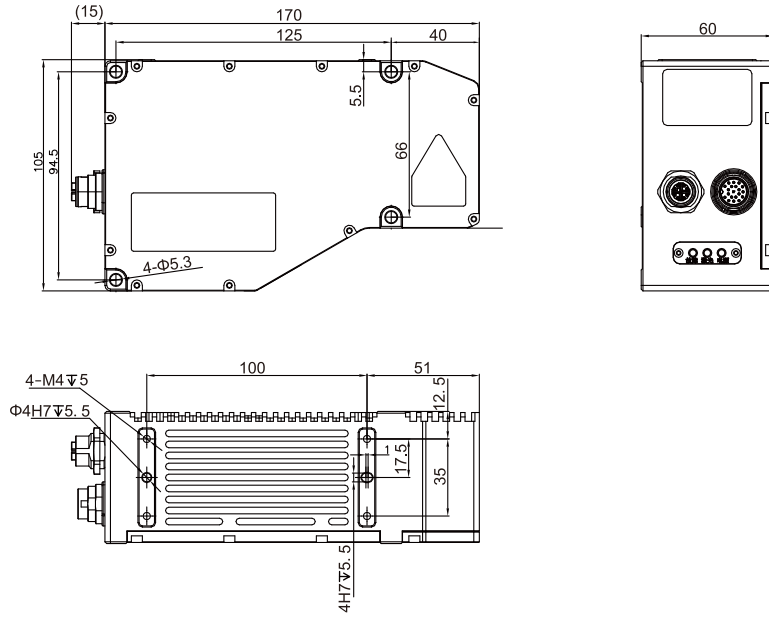


Laser Profiler

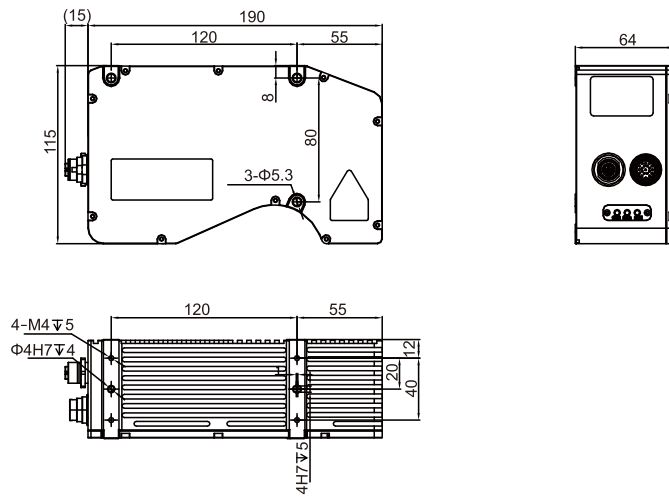
Dimension

Unit: mm

ESX-G100



ESX-GE200

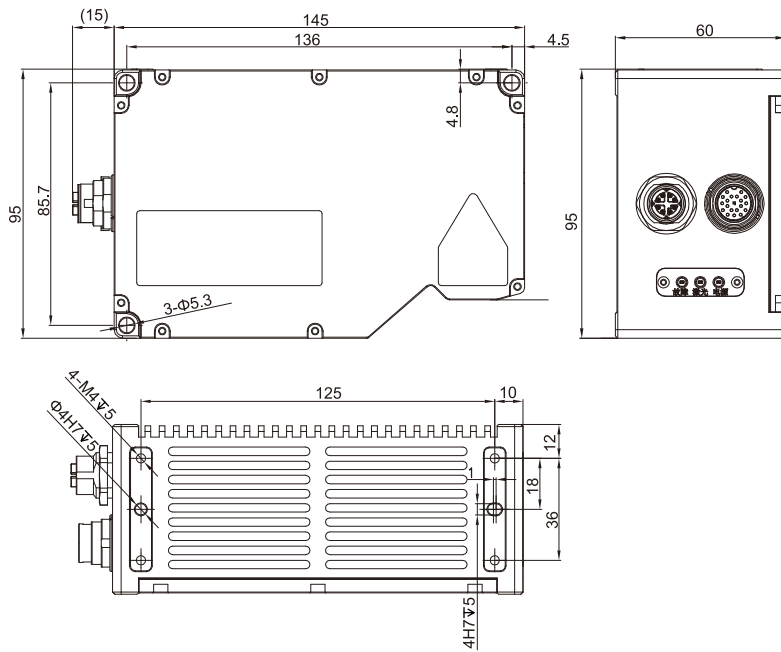


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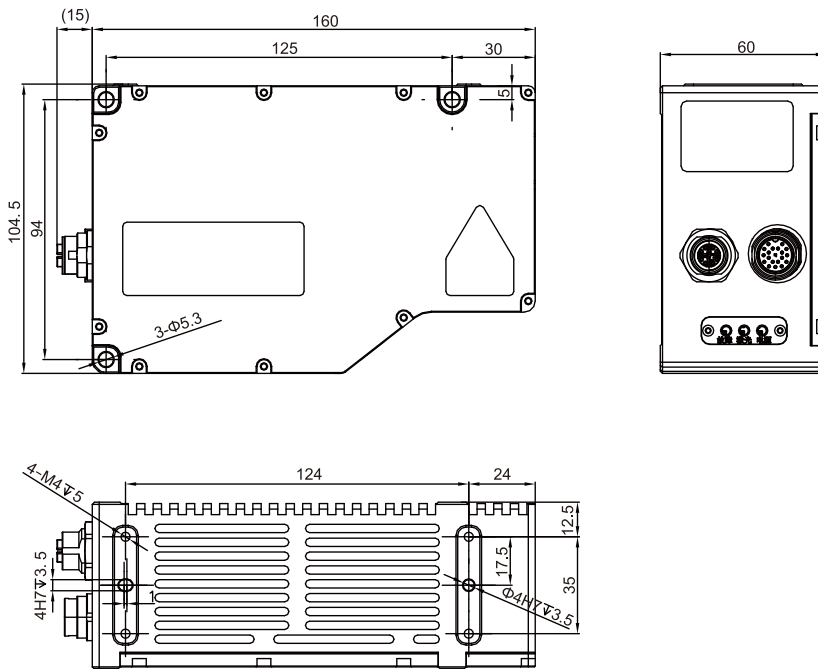
Dimension

Unit: mm

ESX-P10



ESX-P20

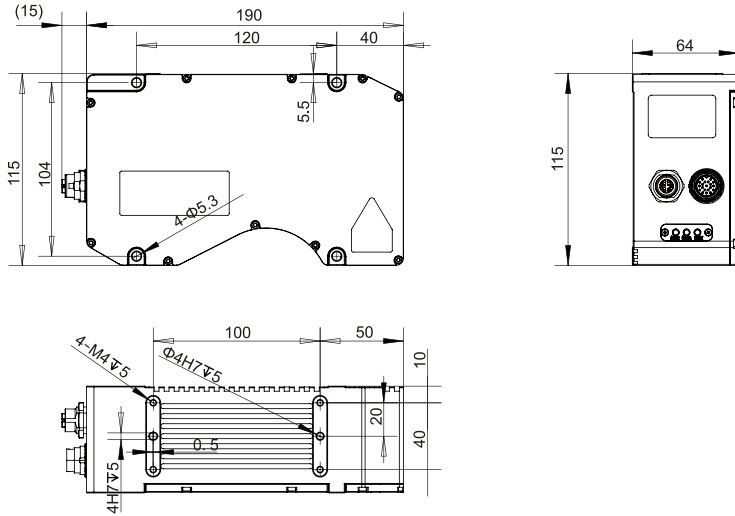


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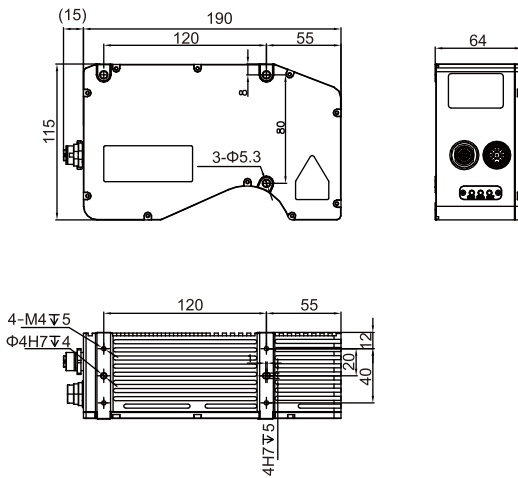
Dimension

Unit: mm

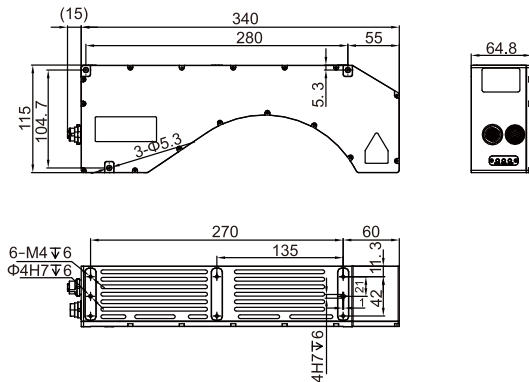
ESX-P100



ESX-P200 ESX-PE200



ESX-PE300

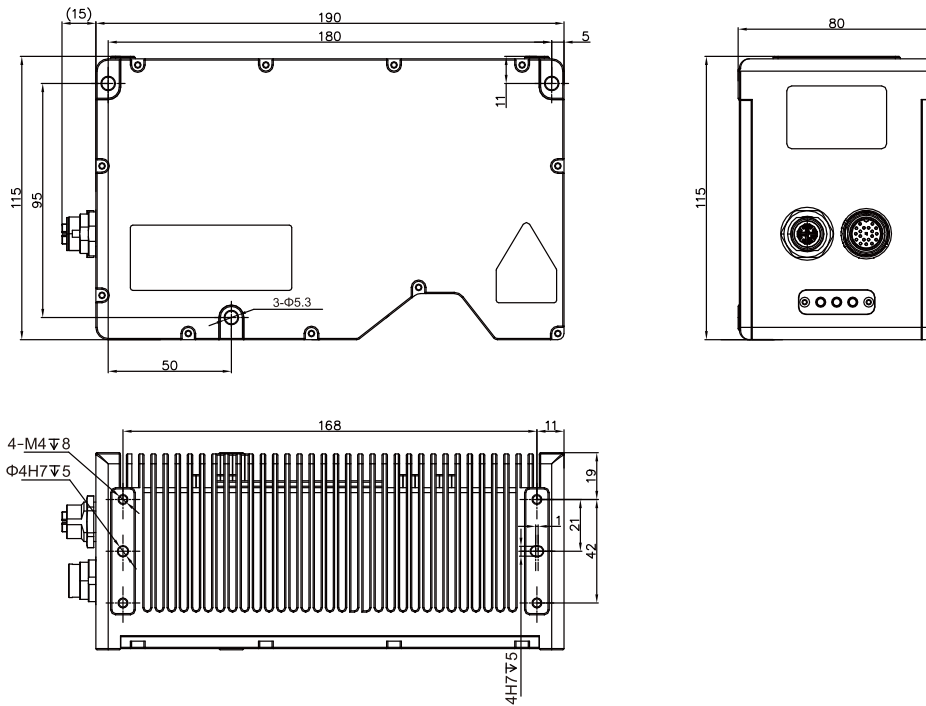


Laser Profiler

Dimension

Unit: mm

ESX-H10 ESX-H20



Interface Definitions

Circular connecting pins	Signal definition	Cable color	Feature
C	DIO2+	Orange	Multifunctional difference I/O2
B	DIO2-	Orangish-white	
D	INDEX+	Yellow	Encoder Z-phase input
E	INDEX-	Yellowish white	
I	A+	Gray	Encoder A-phase input
S	A-	Grayish	
H	B+	Purple	Encoder B-phase input
G	B-	Pure white	
T	DIO1+	Pink	Multifunctional difference I/O2
K	DIO1-	Pinkish white	
U	OUT+	Blue	Single-ended output
M	OUT-	Blue-white	
O	TRIG_EN+	Brown	Trigger enable
N	TRIG_EN-	Brownish white	
R	IN+	Green	Single-ended output
P	IN-	greenish white	
A	+24V	Red+reddish white two wires	Camera Power
L	GND	Black+black-white two wires	Power ground
F	EARTH_GND	Silver	Grounding