

Technical Data

		iCON iCS20	iCON iCS50 Robotic
3D POINT ACCURACY			
Combination of angle and distance measurement	Laser	1.0 mm @ 10 m (0.04 in @ 33 ft) 2.5 mm @ 50 m (0.10 in @ 164 ft) 10.5 mm @ 250 m (0.41 in @ 820 ft)*	1.0 mm @ 10 m (0.04 in @ 33 ft) 2.0 mm @ 50 m (0.08 in @ 164 ft) 8.0 mm @ 250 m (0.31 in @ 820 ft)*
	vPen	1.5 mm @ 10 m (0.06 in @ 33 ft)**	1.0 mm @ 10 m (0.04 in @ 33 ft)
	vSphere	3.0 mm @ 50 m (0.12 in @ 164 ft)**	2.5 mm @ 50 m (0.10 in @ 164 ft)
	vPole tip	3.0 mm @ 50 m (0.12 in @ 164 ft)****	3.0 mm @ 50 m (0.12 in @ 164 ft)****
	ANGULAR MEASUREMENT		
Accuracy Hz and V	Standard deviation ISO 17123-3	5" (1.54 mgon)	3" (0.93 mgon)
Working Range		horizontal (Hz): 360°, vertical (V): 290°	
DISTANCE MEASUREMENT			
Range	Reflectorless (Kodak White, 90% reflective)	0.3 to 50 / 250 m (0.98 - 164 / 820 ft)*	
	Reflectorless (Kodak Grey, 18% reflective)	0.3 to 50 / 120 m (0.98 - 164 / 394 ft)*	
	Standard prism (GPR1)	3.0 to 50 / 250 m (9.84 - 164 / 820 ft)*	
	Reflective tape (GZM31)	1.0 to 50 / 150 m (3.28 - 164 / 492 ft)*	
	vTarget (CVT3, CVT6)	1.2 to 40 m (3.94 - 131 ft)***	
	vPen	0.7 to 10 m (2.30 - 33 ft)**	
	vSphere	1.5 to 50 m (4.92 - 164 ft)**	
Accuracy Standard deviation ISO 17123-4	Non-Prism / Any surface	1.0 mm @ 10 m (0.04 in @ 33 ft)	<1.0 mm @ 10 m (<0.04 in @ 33 ft)
		1.5 mm @ 50 m (0.06 in @ 164 ft)	6.0 mm @ 250 m (0.24 in @ 820 ft)*
	Standard prism (GPR1)	1.5 mm @ 50 m (0.06 in @ 164 ft)	3.5 mm @ 250 m (0.14 in @ 820 ft)*
	Reflective tape (GZM31)	1.5 mm @ 50 m (0.06 in @ 164 ft)	2.5 mm @ 150 m (0.08 in @ 492 ft)*
Laser dot size	Coaxial, visible red laser (II class)	17.2 x 27.3 mm @ 50 m (0.68 in x 1.41 in @ 164 ft)	
AUTOMATIC AIMING			
Auto aiming range	Standard prism (GPR1)	3.0 to 250 m (9.84 to 820 ft)*	
	vTarget	1.2 to 40 m (3.94 to 131 ft)***	
CAMERA			
Field of view / Resolution	Overview camera (diagonal)	27.6° (4.91 m @ 10 m / 16 ft @ 33 ft) / 12.33 MP	
	On-Axis camera (diagonal)	7.5° (1.31 m @ 10 m / 4.29 ft @ 33 ft) / 12.33 MP	
	Fish-eye camera (circular)	~200° (circular) / 13.31 MP	
Zoom		16x	
GENERAL			
Instrument category		iCON Construction Tool	iCON Robotic Construction Tool
Motorization		Motorized (robotic upgrade possible)	Robotic
Direct drives		180°/s	
Tilt compensation range		±3°	
Interfaces		USB-C (2.0), WLAN	
Weight		3.37 kg	
Environmental Specifications	Dust / Water / Humidity	IP54	
	Operating temperature	-20°C to +50°C	
	Charging temperature	0°C to +60°C	
	Storage temperature	-25°C to +70°C	
POWER MANAGEMENT			
Battery		Rechargeable Li-Ion	
Operating time		> 8h	
Charging time		70% in 1h, 100% in 2h	

* iCS 250 m option required.

** iCS20 requires iCS Robotic option

*** With rough aiming with the camera. Fully autonomous detection from 2 m / 6.56 ft to 25 m / 82 ft.

**** Including tilt compensation with vSphere at H3.



Laser class 2 in acc. with IEC 60825-1