

# Absolute Scanner AS1

## Key features

With the Absolute Scanner AS1, there are no compromises. There's no need to reduce scanning speed to achieve best-quality data, even when using a WiFi connection; no sacrificing usability and productivity in the search for better quality. Just premium engineering that guarantees reliable, high-accuracy results.



Absolute Scanner AS1 specifications	
Accuracy (sensor)*	0.016 mm (P <sub>Form.Sph.1x25:005</sub> )
Point acquisition rate	up to 1.2 million points/s
Points per line	max. 4000
Line rate	max. 300 Hz
Line width (mid)	150 mm
Standoff	165 ± 50 mm
Minimum point spacing	0.027 mm
System scanning certification	yes
Laser class	2
Operating temperature	5–40°C
Weight	0.4 kg

\* see the AS1 SSA column in the specifications table for the complete Scanning System Accuracy (arm + scanner)



Fully modular wrist (standard accessories)

# Absolute Arm 7-Axis

## Key features



### Absolute Encoders

Exclusive to Absolute Arm, no referencing needed: power on and measure.

### Advanced construction

High-end carbon-fibre ensures thermal stability and uneven tube lengths typical in industrial robot design make the arm lighter to use.

### Sensor recognition

Change touch probes or mount sensors on the fly without realignment.

### Handling grips

Ergonomic infinite-rotation grips minimise operator fatigue, ensure thermal stability and maximise accuracy.

### Zero-G counterbalance

Effectively balances the arm while minimising torque in the arm's base, making movement effortless.

### Built-in Bluetooth®

Connect to productivity-boosting accessories such as headphones or temperature sensors.

### Control packs (WiFi and battery)

Boost functionality with full scanning performance over WiFi or single-cable connection (USB or Ethernet) and battery power (hot-swappable dual battery pack).

### RDS SMART

Proprietary software featuring Self-Monitoring Analysis and Reporting Technology that manages the arm in the field by monitoring diagnostics including shocks and temperature changes.

### RDS Quick Measure

Built-in utility program allows basic measurements without additional software.

### 24-month warranty

As standard on all Absolute Arm systems.

### Worldwide service

Our network of Hexagon service centres around the world can provide local support and servicing for arms and all compatible sensors.

## Absolute Arm 7-Axis accuracy and size specification

	Model	E <sub>UNI</sub> <sup>(1)</sup>	P <sub>SIZE</sub> <sup>(2)</sup>	L <sub>DIA</sub> <sup>(3)</sup>	P <sub>FORM</sub> <sup>(4)</sup>	AS1 SSA <sup>(5)</sup>	Weight <sup>(6)</sup>	Max. reach
83 series	8320-7	0.043 mm	0.016 mm	0.054 mm	0.033 mm	0.059 mm	8.8 kg	2.48 m
	8325-7	0.048 mm	0.023 mm	0.060 mm	0.043 mm	0.065 mm	9.1 kg	2.98 m
	8330-7	0.078 mm	0.034 mm	0.090 mm	0.058 mm	0.082 mm	9.4 kg	3.48 m
	8335-7	0.092 mm	0.042 mm	0.115 mm	0.067 mm	0.099 mm	9.7 kg	3.98 m
	8340-7	0.114 mm	0.051 mm	0.140 mm	0.084 mm	0.118 mm	10.0 kg	4.48 m
	8345-7	0.158 mm	0.078 mm	0.168 mm	0.106 mm	0.163 mm	10.3 kg	4.98 m
85 series	8520-7	0.029 mm	0.010 mm	0.038 mm	0.021 mm	0.041 mm	9.0 kg	2.48 m
	8525-7	0.031 mm	0.012 mm	0.048 mm	0.025 mm	0.047 mm	9.3 kg	2.98 m
	8530-7	0.057 mm	0.020 mm	0.083 mm	0.038 mm	0.064 mm	9.6 kg	3.48 m
	8535-7	0.069 mm	0.024 mm	0.099 mm	0.045 mm	0.078 mm	9.9 kg	3.98 m
	8540-7	0.084 mm	0.030 mm	0.120 mm	0.050 mm	0.089 mm	10.2 kg	4.48 m
	8545-7	0.113 mm	0.048 mm	0.140 mm	0.065 mm	0.141 mm	10.5 kg	4.98 m
87 series	8725-7	0.029 mm	0.011 mm	0.044 mm	0.023 mm	0.043 mm	9.3 kg	2.98 m
	8730-7	0.053 mm	0.018 mm	0.076 mm	0.035 mm	0.056 mm	9.6 kg	3.48 m
	8735-7	0.064 mm	0.022 mm	0.092 mm	0.041 mm	0.068 mm	9.9 kg	3.98 m
	8740-7	0.078 mm	0.028 mm	0.110 mm	0.046 mm	0.080 mm	10.2 kg	4.48 m
		8745-7	0.104 mm	0.044 mm	0.125 mm	0.060 mm	0.121 mm	10.5 kg

<sup>(1)</sup>E<sub>UNI</sub> Maximum permissible longitudinal error of measurement – according to ISO 10360-12:2016

<sup>(2)</sup>P<sub>SIZE</sub> Maximum permissible probe deviation, size – according to ISO 10360-12:2016

<sup>(3)</sup>P<sub>FORM</sub> Maximum permissible probe deviation, shape – according to ISO 10360-12:2016

<sup>(4)</sup>L<sub>DIA</sub> Maximum permissible probe deviation, position – according to ISO 10360-12:2016

<sup>(5)</sup>SSA Scanning System Accuracy: L<sub>DIA</sub> according to ISO 10360-8 annex D

<sup>(6)</sup>Weight Weight without scanner

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Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

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