

# SLP HT Series

Datasheet



**150 m**

Maximum Range

**<5 mm**

Accuracy

**60 kHz**

Pulse Rate

**IP67**

Ingress Protection

**90°**

Field Of View

**1100°C**

Maximum Temperature



## LiDAR for Automation

The 2D LiDAR sensor for automation applications requiring non-contact measurements on hot surfaces.

The new SLP HT is the ultimate solution delivering the full package combining efficiency and durability.



## Scan on hot surfaces

Robust and wear resistant, the SLP HT scanner is the measuring and detection solution for a wide variety of indoor and outdoor applications.

Measure long-distance on hot objects with temperatures up to 1100°C!

# Technical Features

## SLP HT Series

		SLP HT
DATA SPECIFICATIONS	<b>WORKING RANGE</b>	
	Maximum range @ R=100%, Lambertian reflector (m)	150
	Maximum range @ R=10%, Lambertian reflector (m)	45
	Optimal installation distance* (m)	from 7 to 10
	<b>ACCURACY DATA</b>	
	Resolution (mm)	1
	Repeatability 1 $\sigma$ @ strong signal on 850°C Temperature (mm)	8
	Repeatability 1 $\sigma$ @ strong signal on 1100°C Temperature (mm)	20
	Accuracy (systematic error) (mm)	$\leq 5$
	<b>SPOT PROPERTIES</b>	
	Divergence in scan direction (°)	0.076
	Divergence perpendicular to scan direction (°)	0.029
	Spot close to the sensor window (mm)	12 x 18
	Focusing distance (m)	45
	<b>SCAN PROPERTIES</b>	
	Maximum scan and profile angle (°)	90
	Scan mirror type	4-mirrors polygon
	Maximum scanning duty cycle at 90° FOV	50 %
	<b>MULTI-ECHO EVALUATION</b>	
	Number of evaluated and returned echoes	Up to 4
	<b>ENVIRONMENT</b>	
	Surface temperature range**	T < 1100°C
	Function in strong sunshine	Ambient light control

\* To reach the optimal performances in the measurements, it is recommended to install the device at a distance between 7 meters and 10 meters from the target, with the laser beam hitting the target surface with the smallest incidence angle.

\*\* SLP HT are special laser scanners dedicated to the measurement on hot surfaces of up to 1100°C.

Thanks to the rough housing rated IP67, the SLP HT can operate in harsh environments in ambient temperatures of up to +50°C.

In case the device needs to be installed in a warmer environment, a cooling system is recommended.

# Technical Features

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		Fast	Normal	Fine	Interlaced
SCAN MODES	Beam scan angle step (°)	0.18	0.09	0.045	0.0225
	Measurements in 90° scan (points)	500	1000	2000	1000
	Scan rate (Hz)	60	30	15	30
	Number of interlaced scans per profile	-	-	-	4
	Profile rate (Hz)	-	-	-	7.5
	Measurements per profile (points)	-	-	-	4000

		SLP HT
LASER DATA	Measurement laser type	Pulse Laser Diode
	Wavelength (nm)	905
	Laser Eye Safety Class; EN 60825-1; 94,96,01	1
	Pulse rate (kHz)	Up to 60
HW / SW INTERFACES	Ethernet	TCP/UDP 100 Mb/s
	RS232	selectable Bauds, 8n1 (for 1PPS only)
	Digital outputs	2 x 3.3 to 5 VDC programmable - Isolated switching outputs
	Digital inputs	2 x 3.3 to 5 VDC programmable - Isolated inputs
	External encoder inputs	3.3 to 5 VDC TTL input, channels A/B/Z
	Ethernet address configuration	Static and DHCP
	Sensor configuration	Binary commands, Web interface
POWER SUPPLY	Power supply	24 VDC ± 5 VDC power supply
	Direct power supply	yes
	PoE power supply	yes
	Power consumption (W)	12 (heater off)
	Start-up time (s)	< 30
ENCLOSURE	Ingress Protection rating	IP67
	Operating temperature range	-30°C to +50°C
	Storage temperature range	-30°C to +70°C
	Enclosure	Aluminum die casting, seawater resistant, powder coated
	Front window	AR-coated glass
DESIGN	Height x Width x Length (mm)	247 x 121 x 109
	Weight (kg)	2.8

# Options and Accessories

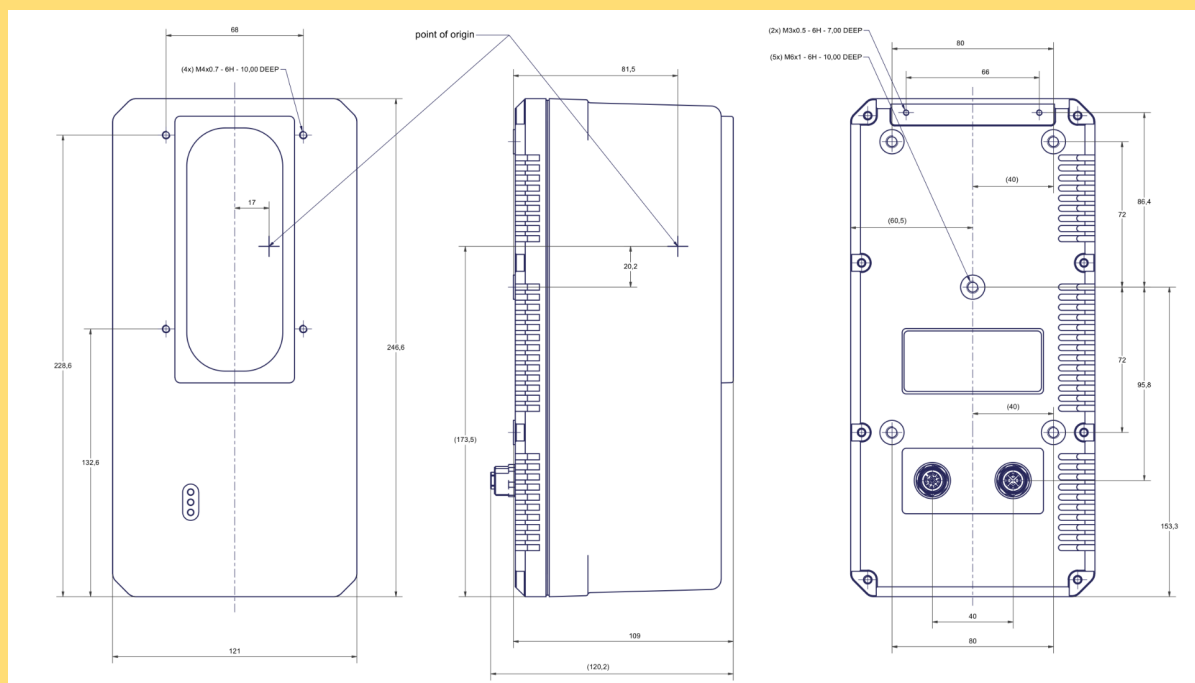
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OPTIONS & ACCESSORIES	Article No.	Description
	AC-CBXX-0A1C-00	Multifunction cable without connectors, 5 m
	AC-CBXX-1A2C-00	Multifunction cable with connectors, 5 m
	AC-CBXX-XB1C-00	Data cable 8 pin Ethernet with POE support, 5 m
	AC-CBXX-XD1A-00	Power cable for POE Injector, 2 m
	AC-PWXX-XAXX-00	POE Injector
	AC-HDXX-XAXX-01	Sensor holder, sensor FOV 90°-180°
	AC-HDXX-XG1X-01	Sensor holder, sensor FOV 45°-135°
	AC-PHXX-XA1X-00	Window Protection for scanner with FOV 90°, 1 scan line
	AC-DKXX-XA5X-00	Developer kit for SLP

*Note: Cables are available in various lengths. Contact us for further information.*

## Outline Drawing

SLP HT Series



since 1976

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