

2D 270° Functional Safety LiDAR

GS1-5 2D LiDAR Sensor



- Compliance the IEC61508/IEC62061 SIL 2 safety grade standard
- Compliance with ISO13849 PL d safety grade standard
- Compliance with the safety performance requirements of IEC61496 Type3
- Compliance with IEC60825 Class1 laser safety grade standards
- Number of protected regions: 64 groups
Number of secure regions: 128 units
- Minimum detection object diameter $\geq 20\text{mm}$, maximum 5 meters of safety protection area , maximum 20 meters of warning area
- IP65 waterproof and dustproof capability



FUNKTIONALE SICHERHEIT
GEPRÜFT
FUNCTIONAL SAFETY
APPROVED



Robotics



Security

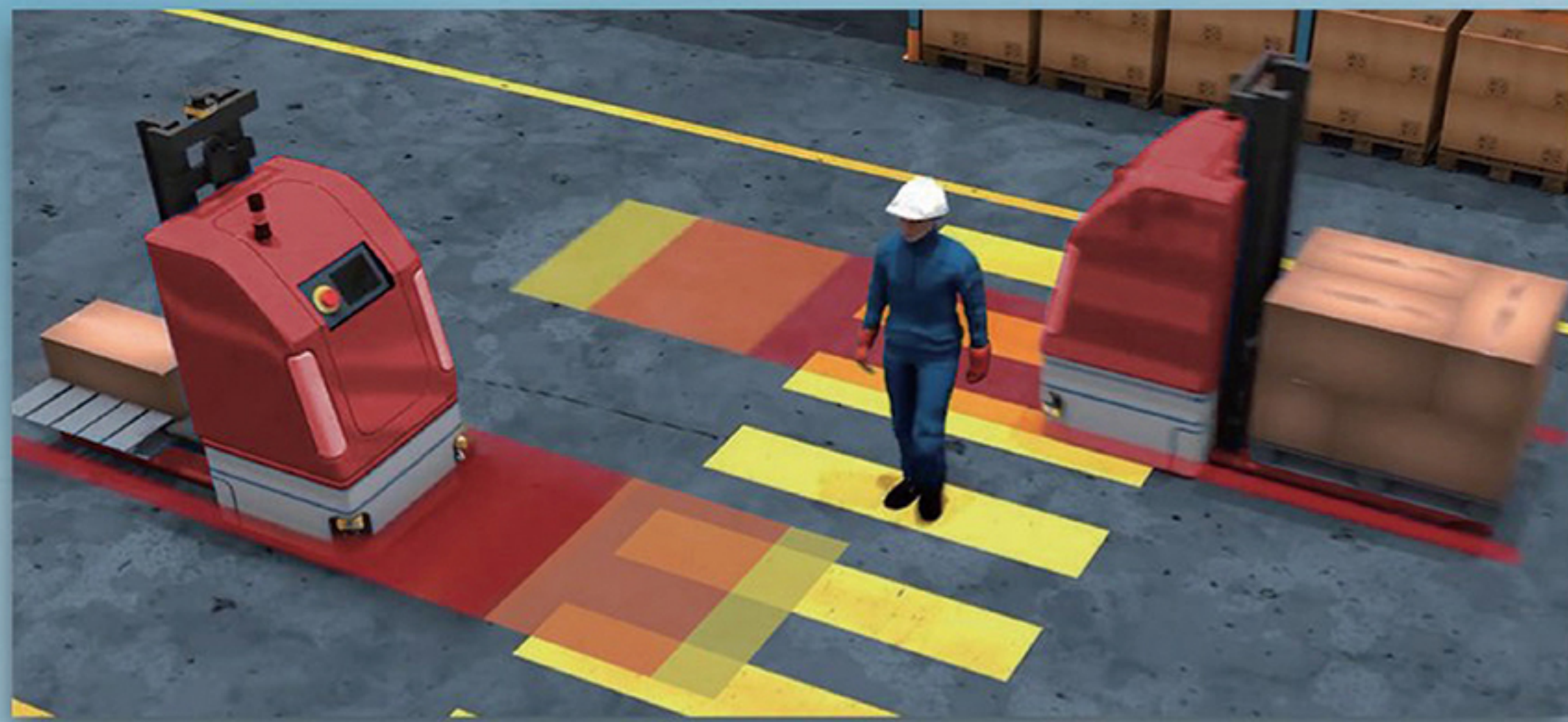


Industrial



Intelligent
logistics

APPLICATION SCENARIOS



Mobile Robot



Industrial Automation



Anti-pedestrian pinch



Specification table

Project	Technical data
Scope of protection	≤5m @ 2% Reflectivity
Measuring range	≤40m@80% Reflectivity
Number of protected regions	64 groups
Number of secure regions	128 units
Monitoring case	≤2
Scan angle	270°
Accuracy	Typical: ±30mm
Protection area resolution (configurable)	20mm、30mm、40mm、50mm、75mm、150mm
Angular resolution	0.167°
Response time	The fastest response time is ≤70ms
Multisampling	2~16
Scan cycle time	30ms
Generally necessary protective field supplement	65mm
Protection class	III
Rated Voltage	24 V DC (-30%~+20%)
Power consumption	≤6W (no load)
Type	Type 3 (IEC61496)
Safety integrity level	SIL 2 (IEC61508/IEC62061)
Category	Cat.3 (ISO13849)
Performance level	PL d (ISO13849)
Communication mode	CANopen safety、Ethernet
CAN output	1 group
OSSD	2 groups
Configuration method	Safety config tool
Display device	Color LCD screen, LED light
Mechanical dimensions	115mm*100mm*90mm
Weight	850g
Enclosure protection class	IP65
Material	Aluminum case Window cover: PC
Connecting cables	LAN Cable : 0.3m I/O&Power Cable : 2m
Installation method	Upright, reverse, and side mounting (optional bracket)
Operating temperature/Storage temperature	-10°C~+50°C/-25°C~+70°C
Air humidity	95%RH, no condensation
Ambient light	≤3k Lux(Ambient light source directly into the scanning plane)
Vibration resistance	IEC 60068-2-6/IEC 60068-2-64/IEC 60721-3-5/IEC TR 60721-4-5/IEC 61496-3 5M1 (IEC 60721-3-5) Sine vibration + random vibration
Shock resistance	IEC 60068-2-27/IEC 60721-3-5/IEC TR 60721-4-5/IEC 61496-3 5M1 (IEC 60721-3-5) single impact + durable impact
Altitude	≤2300m
Electromagnetic compatibility	Comply with IEC61496-1, IEC61000-6-2, IEC61000-6-3
Light type	Pulsed laser diode
Laser safety level	Class 1
Laser wavelength	905nm
Detectable reflectance	1.8%~high reflectivity
Areas with limited detection capabilities	≤50mm (50mm area in front of optical window cover)

Outline and mounting

