



KLM LASER RADAR



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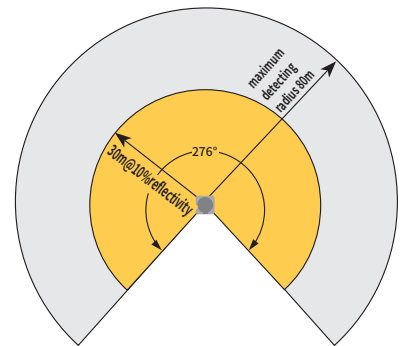
Product Description

KLM lidar is designed based on the principle of pulsed laser ranging. It can realize two-dimensional area detection with an angle of 276° (or 360°) by rotating scanning. Functional safety output and measurement output are available. User's need for safety obstacle avoidance and measurement can be met at the same time.

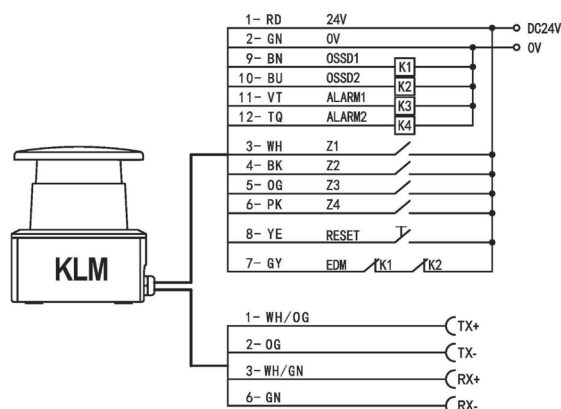


Product Features

- Accurate recognition of small-sized objects at long distance
- The scanning angle can be 276° or 360°.
- The measurement accuracy is not affected by the change of target reflectivity, and it has stable and consistent measurement in any complex application scenarios.
- The window adopts a stepped structure design to achieve super dirt resistance performance, which greatly reduces the number of maintenance and increase user maintenance cycle.
- Stable optical characteristics are especially suitable for reflector navigation applications.
- No blind zone design.
- Multi-echo pulse processing technology, excellent performance in rain and fog environment
- Functional safety Type3 certification, internal real-time dynamic self-check, fault-oriented safety.
- Support user-defined 16*3 groups of different shapes of defense zones, safety output + measurement data output. Meet the user's safety obstacle avoidance and measurement needs.



Typical wiring diagram



Technical parameters

Optical characteristics			
laser source	wave length 905nm, Class 1 laser products		
Detection radius	30m@10% reflectivity (black object)		
scanning angle	276°/360°	highest angle resolution	0.036°@10Hz, configurable
response time	33ms/circle (Typical value, configuration)		
Measurement error	±2cm@1sigma (Typical value)		
Electrical/mechanical parameters			
power supply	DC11V~DC28V		
Power-on start time	8s (Typical value)		
consumption	8W (Typical value)		
output	Ethernet UDP protocol output, PNP		
dimension	100×100×115mm		
Environmental characteristics			
environment temperature	work: -30°C~50°C storage: -40°C~70°C		
environment humidity	work: 35%RH~85%RH storage: 35%RH~95%RH		
Anti-light interference	80000Lux		
Impact resistance	Acceleration 10g; Pulse duration: 16ms; Number of collisions: triaxial, 1000±10 times per axis		
Anti-vibration	frequency 10Hz~55Hz; amplitude: 0.35±0.05mm; scanning times: 20 times per axis		
protection level	IP67		
EMC	EMI	EN61326-1: 2013 EN55011: 2009 + A1: 2010	
	EMS	EN61326-1: 2013 EN61000-4-2: 2009 EN61000-4-3: 2006+A1:2008+A2:2010 EN61000-4-4: 2004+A1:2010 EN61000-4-6: 2009 EN61000-4-8: 2010 EN61000-4-11: 2004	

Specifications model

Product series Detecting radius Scanning angle output installation
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function type	model	detection radius	scanning angle	output	installation
obstacle avoidance	KLM-0827BP	8m@1.8%reflectivity	276°	PNP	SZ horizontal installation/ CZ vertical installation
	KLM-1227BP	12m@1.8%reflectivity	276°	PNP	
measurement	KLM-2027DE	20m@10%reflectivity; 50m@70%reflectivity; maximum detecting radius40m	276°	ethernet	
	KLM-3027DE	30m@10%reflectivity; 80m@70%reflectivity; maximum detecting radius80m	276°	ethernet	
	KLM-2036DE	20m@10%reflectivity; 50m@70%reflectivity; maximum detecting radius40m	360°	ethernet	
	KLM-3036DE	30m@10%reflectivity; 80m@70%reflectivity; maximum detecting radius80m	360°	ethernet	
Obstacle avoidance&measurement dual output	KLM-0827PE	8m@1.8%reflectivity; 20m@10%reflectivity	276°	PNP+ethernet	
	KLM-1227PE	12m@1.8%reflectivity; 30m@10%reflectivity	276°	PNP+ethernet	

Dimensions



Installation method



SZ horizontal installation

CZ vertical installation