SentiAcu SPL300-Pro Series

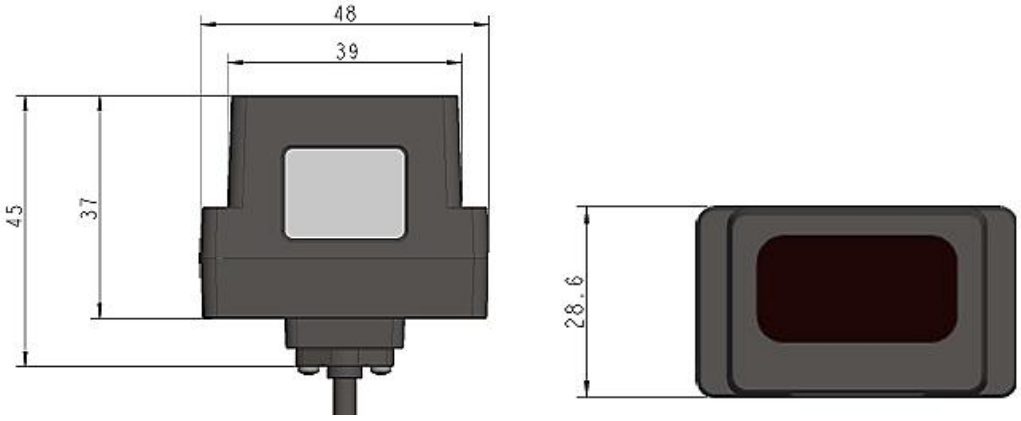
Datasheet

SPL300-Pro series is a mid-long range single-point LiDAR of SentiAcu. Features a compact size and lightweight design, along with an IP67 protective housing. Supports dual communication protocol via UART and CAN. Multiple built-in operating modes let customers to change its parameters and configuration to meet different applications.

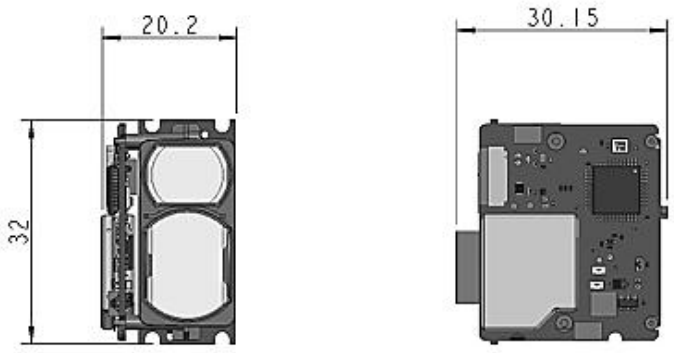
Technical Specifications

Performance Parameters		
Model	SPL300-Pro	SPL300
Detection range①	270 m @ 90% ref. 100 KLux 150 m @ 30% ref. 100 KLux 90 m @ 10% ref. 100 KLux	290 m @ 90% ref. 100 KLux 170 m @ 30% ref. 100 KLux 100 m @ 10% ref. 100 KLux
Blind zone	≤ 0.1 m	
Accuracy②	± 10 cm (< 10 m), 1% (≥ 10 m)	
Repeatability②	< 3 cm @ 1σ	
Distance resolution	1 cm	
Default frame rate	Up to 10,000 Hz (1 ~ 10,000 Hz configurable, default 50 Hz)	
Ambient light resistance	100 KLux	
Optical Parameters		
Light source	EEL	
Central wavelength	905 nm	
FoV	< 0.5°	
Eye safety	Class1 (IEC 60825-1:2014; EN 60825-1:2014+A11:2021)	
Mechanical and Electrical Parameters		
Average power consumption③	≤ 0.45 W	
Peak current③	< 0.75 A	
Power supply	DC 5 V ± 10%	
Logical voltage	3.3 V TTL	
Connector	JST GH 1.25 mm 6 pin	
Operating temperature	- 20 ℃ ~ + 60 ℃	

Storage temperature	- 40 ℃ ~ + 80 ℃	
Protection level	IP67	NA
Typ. Dimensions④	49.4 mm × 37.0 mm × 28.6 mm	32.0 mm × 30.2 mm × 20.2 mm
Typ. Weight④	34.5 g (excluding cables)	10.5 g
Communication Protocol		
Communication Interface	UART / CAN (Can be switched by command)	
Baud rate	Default 115200 (Configurable)	
Data bit	8	
Stop bit	1	
Parity	None	
Dimensions (Unit: mm)		



TFA300



TFA300-L

Notes:

1. Measured when the whole light spot falls on the target;
2. 100 KLux, 90% reflectivity target, measured when all light spots fall on the target object;
3. Measured at a temperature of 25 ℃, 50 Hz;
4. The weight and size are typical values for reference only. For detailed tolerance parameters, please consult the technical personnel of SentiAcu.