

LS2000

Total awareness of your vehicle's surroundings

A high-resolution, top-precision laser scanner for both reflector and natural navigation AGVs.

The two-dimensional laser scanner equipped with Pulse Ranging Technology enables reliable and extremely precise measurements with great repeat accuracy and short response times. LS2000 accurately detects reflectors for the proven NDC8 laser navigation and performs precise measurements of the environment for NDC8 Natural Navigation.



Features

- One model solution
 - Flat reflector environment
 - Cylindrical reflector environment
 - Combined reflector/natural navigation (future)
- 360° angle of measurement
- Best in class angle accuracy (< 1 mrad (0.057 degree))
- Best in class distance measurement
- Fast initiate in large layouts with reflector navigation
- Compact size
- Robust Ethernet communication
- 360° information display on the window for status and diagnostics
- Fully integrated in NDC8 system
 - Configuration in Vehicle Application Designer
 - Diagnostics in Vehicle Diagnostic Tool
- Freeze room applications (LS2000T)

Order Information	
LS2000	63032-01
LS2000T	63032-18
Supply cable, 5m, M12 female, 4-pin	CAB V1-G-BK5M-PUR-U
LS2000 Adapter Plate Kit	63032-11 (mounting plate with guiding pins and screws)

Technical Information		
	LS2000	LS2000T
Supply voltage, nominal	24 V	24 V
Supply voltage, min/max	10/30 V	10/30 V
Power consumption	Max 10 W (≤ 400 mA @ 24 V)	Max 15 W (≤ 600 mA @ 24 V)
Distance, reflectors	Up to 100 m	Up to 100 m
Distance, environment	0.1 - 10 m (10 % reflectivity), 0.1 - 30 m (90 % reflectivity)	0.1 - 10 m (10 % reflectivity), 0.1 - 30 m (90 % reflectivity)
Laser Class	IEC 60825-1:2007 Laser Product Class 1	IEC 60825-1:2007 Laser Product Class 1

Ambient conditions		
	LS2000	LS2000T
Temperature, operation	-10 to +50 °C	-30 to +50 °C
Temperature, cold start	-10 to +50 °C	-30 to +50 °C
Temperature, storage	-20 to +70 °C	-40 to +70 °C
Relative humidity, operation	95 %, non-condensing	95 %, non-condensing
Relative humidity, storage	Max 95%	Max 95%
Vibration class	IEC 60721-3-5 Class 5M2	IEC 60721-3-5 Class 5M2
Climatical class	IEC 60721-3-5 Class 5K2, except low operating temp. -10 °C	IEC 60721-3-5 Class 5K2, except low operating temp. -30 °C
Protection class	IP65	IP67

Dimensions	
Width	106 mm
Depth	117.5 mm
Height	116.5 mm
Weight	800 g

Connectors		
Pin	Power Connector M12	LAN Connector M12
	Signal	Signal
1	24 V DC	TD+
2	Not used	RD+
3	Ground (GND)	TD-
4	Not used	RD-

