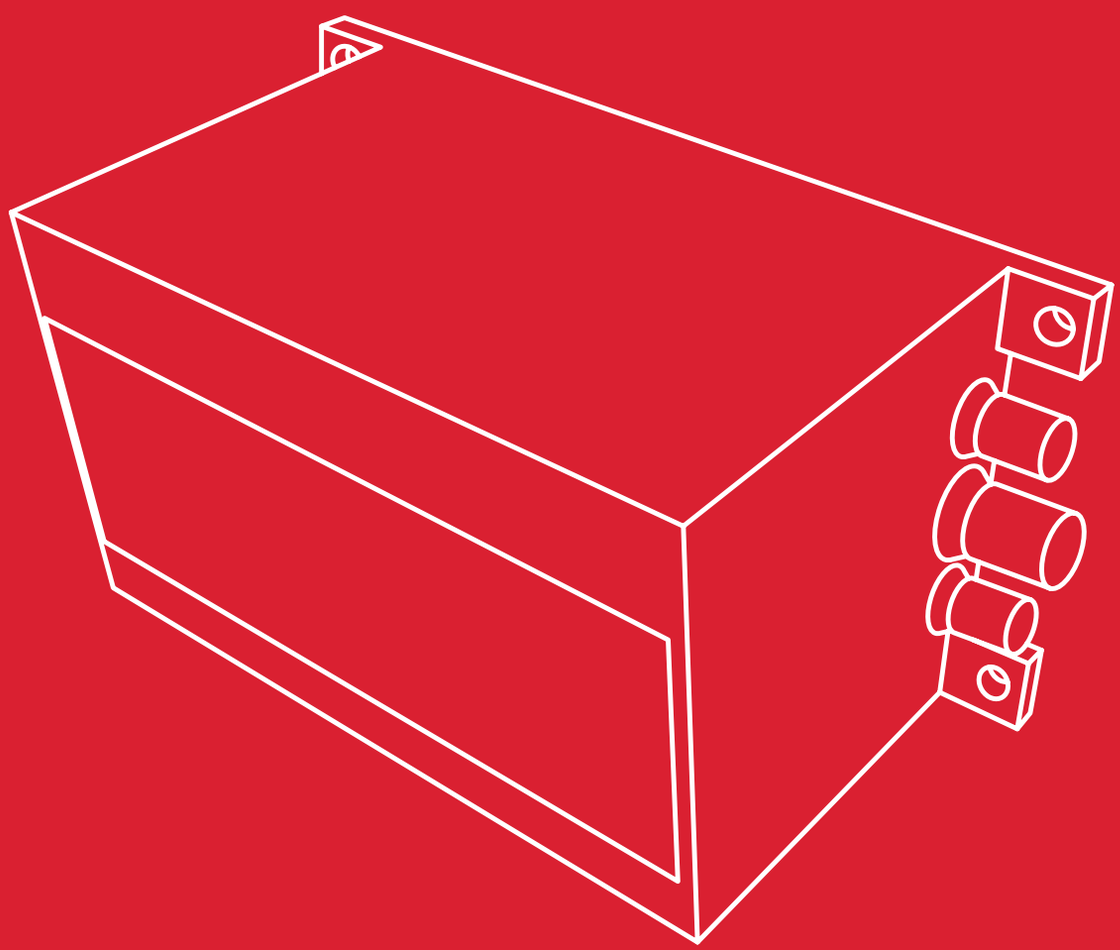
ibeo automotive

ibeo LUX 4L / ibeo LUX 8L / ibeo LUX HD

DATA SHEET



This information has been put together with greatest care. However, any performance data given in this leaflet is subject to compliance with certain surrounding conditions and hence may vary from case to case. Further, we reserve the right to make changes at any time without notice. We strongly recommend (i) reconfirmation with Ibeo Automotive whether this information is still fully valid, before using it for final designs and (ii) to verify performance data taking into account the actual surrounding conditions. Ibeo Automotive takes no responsibility for any consequences due to non-compliance with these recommendations. (Subject to change without notice – 2017-07)

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IBEO on board®

TECHNICAL DATA

LASER / OPTICAL	ibeo LUX 4L	ibeo LUX 8L	ibeo LUX HD
Laser class:	Class 1		
Wave length:	905 nm		
Technology:	Time of flight, Output of distance and echo pulse width		
Range:	50 m / 164 ft @ 10 % remission	50 m / 164 ft @ 10 % remission	30 m / 98 ft @ 10% remission
MEASUREMENT	**ibeo LUX 4L**	**ibeo LUX 8L**	**ibeo LUX HD**
Horizontal field of view:	110° (50° to -60°)		
Vertical field of view:	3.2°	6.4°	3.2°
Multi-layer:	4 parallel scanning layers	8 layers (2 pairs of 4 layers)	4 parallel scanning layers
Multi echo:	Up to 3 distance measurements per shot (allow measurements through atmospheric clutter like rain and dust)		
Data update rate:	25.0 Hz		
Operating temperature range:	-40° to 85° C / -40° to 185° F		
Accuracy (distance independent):	10 cm / 3.9 in		
Angular resolution:	Horizontal: up to 0.25° Vertical: 0.8°		
Distance Resolution:	4 cm / 1.57 in		
SOFTWARE	**ibeo LUX 4L**	**ibeo LUX 8L**	**ibeo LUX HD**
Raw data pre-processing (embedded):	All measurements will be classified and tagged as valid / ground / clutter		
Real time object tracking (embedded):	Object properties: position, size, speed		
Ego motion compensation (embedded):	Requires vehicle ego motion data		
Fusion:	Fusion of multiple sensors (LUX 4L, 8L, HD) for 360° FOV is possible		
MECHANICAL / ELECTRICAL	**ibeo LUX 4L**	**ibeo LUX 8L**	**ibeo LUX HD**
Power supply:	9 to 27 V		
Power consumption:	7 W (average), < 10 W (max)	8 W (average), <10 W (max)	7 W (average), < 10 W (max)
Dimensions (W x D x H):	164.5 x 93.2 x 88 mm 6.47 x 3.67 x 3.46 in		
Protection class:	IP 69K (IEC 60529, DIN 40050-9 (using protected plug connectors) IP 68 (IEC 60529 (2 m, 24 h))		
DATA I / O	**ibeo LUX 4L**	**ibeo LUX 8L**	**ibeo LUX HD**
Ethernet:	Output: Raw- and object data Input: Configuration / time sync via NTP server		
CAN :	Output: Object data Input: Ego motion data		
RS232:	Sync		