



**Datasheet**  
**Optical Tracking System CamBar B1α**  
**Variant S**



<b>Measurement volume</b>	Measurement distance between camera and measuring object	150 mm to 500 mm
	Measurement area at 150 mm distance	90 mm x 100 mm (W x H)
	Measurement area at 500 mm distance	400 mm x 320 mm (W x H)
<b>Accuracy</b>	3D Positioning accuracy of a marker field	0,01 mm *
	Max length measurement error between two single points.	0,05 mm
<b>Measurement frequency</b>	Resolution 1032x772 pixel	Up to 45 Hz
<b>Dimensions</b>	Dimension CamBar B1α (W/H/D)	17 cm x 8 cm x 18 cm
	Weight CamBar B1α	1,9 kg
	Cable length MiniSplitter/CamBar	3 m **
<b>Target markers</b>	Marker size from ... to ...	2.0 mm to 2.5 mm ***
	Retro reflective markers	✓
	White, diffusely reflecting Markers	✓
	Spherical and flat round markers	✓ ****
<b>Transport / Storage</b>	Temperature range	-10°C to +60°C
	Humidity	Up to 75% at 30°C, not condensing
	Max. acceleration during transport	75 G for < 5 ms
	Air pressure	70 – 106 kPa*****
<b>Operation</b>	Operating temperature	10°C to 35°C
	Humidity	25 to 70%, not condensing
	Air pressure	70 – 106 kPa
	Operating mode	Continuous
<b>Power supply</b>	Voltage	24 V DC (18 – 28 V DC)
	Power consumption	13 W
<b>Cleaning</b>	Cleaning agent	Soap suds, some alcohol-based Disinfectants
<b>Classification</b>	Protection against electrocution.	Protection class I
	IP-Protection	IP40
<b>Lighting</b>	Wavelength	810 nm
<b>Interface</b>	Interface to computer unit	Gigabit Ethernet

\* Standard deviation of the position of the center of balance of a point field of four single points (depending on the reasonable geometrical structure of the point field). View angle on flat targets < 23°.

\*\* additional lengths upon request

\*\*\* The minimum diameter of the signalization is depending of the measuring distance. Other marker sizes on request.

\*\*\*\* Spherical targets are possible in theory. However, the smallest available spherical targets are 5mm in diameter and therefore too big. We recommend flat markers.

\*\*\*\*\* At an altitude of sea level up to approximate 3000 meters.