

-SENS | -DSN DIGITAL SENSORS



-Sens | -DSN Digital Sensors


A Member of


GRENZBACH

INOS-SENS | INOS-DSN DIGITAL SENSORS

INOS-DSN Camera INOS-DSN Laser

- Highest Flexibility in sensor component placement

INOS-Sens Stereo INOS-Sens Laser Triangulation

- Precalibrated Sensors
- Quick Replacement

Maestro Software

- Intuitive user interface
- Supporting all commissioning and configuration steps
- Gap & Flush Editor

Sensor Hardware

In the latest generation of inos sensors INOS-Sens digital and INOS-DSN digital we incorporated the experience of over 15 years of projects in robotic guidance and inline metrology. The sensors of the INOS-Sens and INOS-DSN families are designed for robustness, high accuracy and fast and simple replacement in the field. Fast image acquisition, robustness against ambient light and exposure control in combination with control of the illumination provide a superior signal to noise ratio. The digital Gigabit Ethernet based technology guarantees reliable and fast data transmission from the sensors to the processing units even over distances of up to 100 m.

Sensor Software

The sensor data is processed with inos image processing software. The software provides algorithms optimized for the different application fields and materials used in the automotive industry. inos software is capable of processing 2D vision images in grayscale and color, to 3D laser triangulation and stereo vision images. Our Maestro user interface makes all tasks required for configuration, maintenance and operation of the sensors intuitive and easy to learn.

	INOS-Sens Digital (mobile)	INOS-Sens Digital (stationary)	INOS-DSN Digital
Measurement Principle	Laser Triangulation / Stereo 3D	Laser Triangulation / Stereo 3D	Laser Triangulation / Stereo 3D / 2D Vision
stat. Repeatability 6σ	<30 μm	<30 μm	<30 μm
Accuracy	<0.1 mm	<0.1 mm	<0.1 mm
Application	Robot Mounted / Stationary	Stationary	Robot Mounted / Stationary
Stand Off	160 - 400 mm	460 - 1500 mm	free configurable
Size [WxLxH] [mm]	40x100xstandoff + 80	40 x 100 x standoff + 80	Kamera: 40 x 40 x 100 Laser: 40 x 40 x 100 LED Light: depending on model
Weight	<1.5 kg	<2.5 kg	<300 g per component
Sensor Resolution [Megapixel]	1,3 / 5 different/higher resolutions on request	1,3 / 5 different/higher resolutions on request	1,3 / 5 different/higher resolutions on request
Image Acquisition	SW Trigger / HW Trigger Exposure 9 μs - 2 s 50 Hz Full Frame >200 Hz reduced AOI	SW Trigger / HW Trigger Exposure 9 μs - 2 s 50 Hz Full Frame >200 Hz reduced AOI	SW Trigger / HW Trigger Exposure 9 μs - 2 s 50 Hz Full Frame >200 Hz reduced AOI
Environment	IP54 / (IP65 on request)	IP54 / (IP65 on request)	IP54 / (IP65 on request)
Light Source	Laser Projector / 1-19 lines LED illumination / Samples upon request	Laser Projector / 1-19 lines LED illumination / Samples upon request	Laser Projector / 1-19 lines LED illumination / Samples upon request
Operating Conditions	10 °C - 45 °C	10 °C - 45 °C	10 °C - 45 °C
Power	<5 W @ 24 V	<5 W @ 24 V	<5 W @ 24 V
Interface	GigE	GigE	GigE

inos Automationssoftware GmbH
 Curiestraße 4
 70563 Stuttgart, Germany
 Phone: +49 711 686897-00
 Fax: +49 711 686897-09
 E-mail: info@inos-automation.de

Grenzebach – INOS Automation Software Inc.
 1301 Rankin Drive
 Troy, MI 48083, USA
 Phone: +1 248 536-0430
 Fax: +1 248 307-1108
 E-mail: info.gdet@grenzebach.com