

CS Series DATA SHEET

PN: 202209098, Model: C6-S7-4090-CS-30-182-400-SX-1G-405-3R



The CS sensor series sets new standards in 3D laser triangulation technology with resolutions of up to 4096 pixels, profile frequencies of up to 162 kHz and fields of view of 7 to 1300 mm. These robust sensors with protection class IP67 and M12 connections for a reliable power supply and data transmission are available in various housing sizes. Integration is straightforward and takes place via standard interfaces such as Gigabit Ethernet or GenICam. The CS series thus offers a powerful, maintenance-free solution for OEM customers and end users in demanding industrial environments.

- **Highly standardized, factory-calibrated 3D sensors**
- **Large selection of models with X-FOV 7 - 1290 mm**
- **Four different sensor resolutions available (1280, 2040, 3070, 4090)**
- **High industrial protection class IP67 Available with different laser classes and wavelengths**



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Model Information

Model Name	C6-S7-4090-CS-30-182-400-SX-1G-405-3R
Part Number	202209098

General Data

Points per Profile	4096
Triangulation Angle	30 °
Working Distance	400 mm
Laser Safety Class	class3r
Laser Wavelength	405 nm
Laser Output Power	51 mW
Laser Line Width	-
Linearity Z-Axis	0.003 % of calibrated Z-Range
Profile speed with 200-row region	2092 Hz
Maximum profile speed	24875 Hz

Field of View

	Nominal	Near Field	Far Field
Scan Width	180.7 mm	152.3 mm	209 mm
X-Resolution	44.1 µm	37.2 µm	51 µm
Z-Resolution	2 µm	-	-

Z-Range

	Full	Near Field	Far Field
Z-Range	150 mm	75 mm	75 mm

Technical Specifications

Interface	Gigabit-Ethernet (1GigE)
Inputs	Encoder A+, A-, B+, B-, Z+, Z- (TTL level) Two freely configurable digital inputs (+5 to +24 VDC)
Outputs	Two freely configurable digital outputs (+5 to +24 VDC)
Power Supply	Sensor supply +10 to +24 VDC (max. +27 VDC) Laser supply +10 to +24 VDC
Housing	Anodized aluminum IP67 certified
Environmental Conditions	Operating temperature: 0 to +40 °C Storage temperature: -20 to +80 °C Relative humidity: 20 to 80 % (non-condensing)
Vibration Resistance	Sinusodial: DIN EN 60068-2-6:2008-10: 2g, 10-150 Hz Random: DIN EN 60068-2-64:2020-09: 7g, 10-500 Hz
Shock Resistance	DIN EN 60068-2-27: 2010-02: 15g, 3ms
Supported Standards	GenICam GigEVision
Firmware Features	RegionTracking, RegionSearch, Multiple Regions, MultiPart, AutoStart, HistoryBuffer, MultiSlope, MultiPeak
Software	SolutionPackage, MetrologyPackage, cxSDK for C, C++, .Net, Python, Matlab, Halcon

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