roboception

rc_visard NG Vision Platform

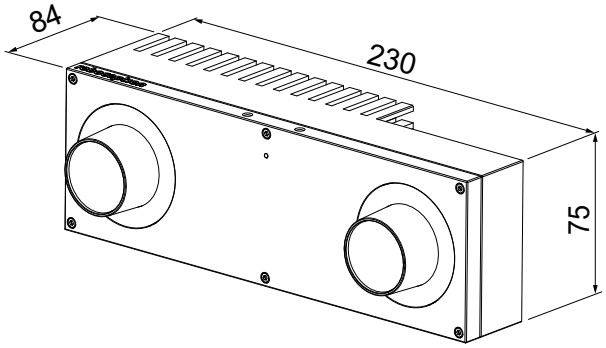
Technical Specifications

The rc_visard NG combines the high-performance rc_reason software suite with the UserSpace, which allows users to deploy their own software in Docker containers – directly on the sensor. This smart vision platform is powered by the high-performance NVIDIA® Jetson Orin™ series, the most advanced embedded AI solution for robot vision on the market today. Designed to perform most powerfully and power-efficiently, this small AI computer is housed directly in the sensor hardware, making the rc_visard NG smarter than ever!

Model (Type)	**rc_visard NG 160m-6-1,6M [|x]**	**rc_visard NG 160[m|c]-6-3,2M [|x]**
Baseline	160 mm	
Calibration	Factory-calibrated	
Sensor type (global shutter)	Monochrome	Monochrome | Color
Resolution	1440 x 1080 Pixels (1.6 MPixel)	2064 x 1552 Pixels (3.2 MPixel)
Depth image resolution, framerate and latency *	1440 x 1080 pixel (Full), 2.9 Hz, 550 ms 720 x 540 pixel (High), 10 Hz, 230 ms	2064 x 1552 pixel (Full), 1032 x 776 pixel (High)
Compute platform	NVIDIA® Jetson Orin Nano™ 8 GB or NVIDIA® Jetson Orin NX™ 16 GB	
Connectors	M12 plug, 8 Pin, A-coded (power, GPIO) and M12 socket, X-coded (GigE-network)	
Dimensions	230 mm x 84 mm x 75 mm (W x L x H)	
Weight	0.98 kg	
Supply voltage, power consumption	24 V (18 V - 30 V), 25 W (Orin Nano™) or 48 W (Orin NX™)	
Operating temperature	0° C to 50° C (Orin Nano™)	
Storage/transport temperature	-25° C to 70° C	
Relative humidity (non-condensing)	20 % to 80 %	
Environment	5 g Vibration, 50 g Shock	
Warm-up time	No warm-up time required after power-up	
Cooling	Passive	
Approvals	CE, IP 54, NRTL, FCC, ROHS	
Interface	WebGUI, GenICam (via SGM®Producer software library GenTL) REST-API, gRPC (also with onboard User Space)	

* Framerate and latency values are shown for SGM® Stereo on the Orin Nano™ 8 GB platform.





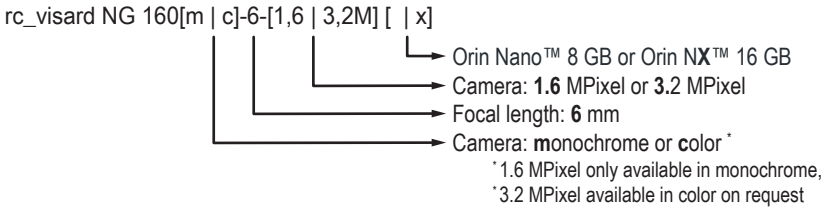


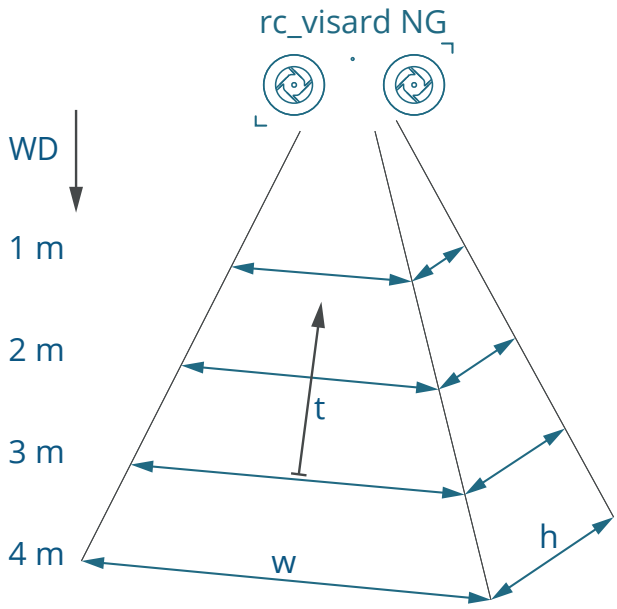
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Model	rc_visard NG 160m-6-1,6M	rc_visard NG 160[m|c]-6-3,2M	Working Distance (WD)
Field of view	Horizontal: 43° Vertical: 33°	Horizontal: 41° Vertical: 31°	
Workspace w x h [mm]	640 x 600 1440 x 1200 2240 x 1800 3040 x 2400	590 x 560 1350 x 1130 2110 x 1700 2870 x 2270	@ 1 m WD @ 2 m WD @ 3 m WD @ 4 m WD
Lateral resolution [mm]	0.6 | 1.2 1.2 | 2.3 1.7 | 3.4 2.3 | 4.5	0.4 | 0.8 0.8 | 1.6 1.2 | 2.4 1.6 | 3.1	@ 1 m WD @ 2 m WD @ 3 m WD @ 4 m WD
Depth resolution [mm]	0.3 | 0.5 0.9 | 1.8 2.0 | 4.0 3.5 | 7.0	0.2 | 0.4 0.7 | 1.3 1.4 | 2.8 2.5 | 4.9	@ 1 m WD @ 2 m WD @ 3 m WD @ 4 m WD
Average depth accuracy [mm]	0.9 | 1.8 3.5 | 7.0 7.9 | 15.7 13.9 | 27.8	0.7 | 1.3 2.5 | 4.9 5.5 | 10.9 9.7 | 19.3	@ 1 m WD @ 2 m WD @ 3 m WD @ 4 m WD
Depth range t [m]	0.57 | 0.60 1.45 | 1.60 2.39 | 2.60 3.36 | 3.60	0.30 | 0.60 0.91 | 1.60 1.67 | 2.60 2.51 | 3.60	@ 1 m WD @ 2 m WD @ 3 m WD @ 4 m WD

Values shown are for [full | high] depth image quality.
Depth range: the height above the ground plane (or load carrier bottom) within which objects are detected, with the working distance set to the ground plane. Depth range depends on depth image quality and working distance. Depth range at closer distance is much smaller than depth range at far distance.

We recommend to use the plug-and-produce software modules of the rc_reason suite for taking full advantage of this sensor's capabilities.





Find more information on
doc.rc-visard-ng.com

Enquiries via
info@roboception.de

Roboception GmbH
Kaflerstr. 2
81241 München
Deutschland

www.roboception.de
+ 49 (0) 89 889 50 79 -0