



Vision Sensor PV3

ULTRA COMPACT IMAGE PROCESSING COMPUTER

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The VisionSensor PV3 is an extremely small, programmable camera, that can also be used as GigE vision camera with or without preprocessing. The Quad-Core ARM Cortex-A53 runs with a modern Debian based Linux OS. The sensors are available in color or monochrome. For communication with the machine/process, there are 2 digital inputs, 4 digital outputs and a 1000 Mbit/s Ethernet interface. This allows image acquisition with HW and SW trigger as well as a free running mode. Programming in C++ or other programming languages will quickly result in an intelligent camera specific to the application. Halcon Embedded as the leading library for machine vision is supported, too.

Key Features

- Ultra compact and powerful
- Sensor Trigger
- Digital I/Os: 2IN / 4 OUT



Processor

Type	Quad Core ARM Cortex-A53
Processor Clock	4 x 1.8 GHz
DDR RAM	2 GB DDR4
Mass Storage	1 x μ SD Card \geq 32 GB

Interfaces

Ethernet	1000 Mbit/s
Digital In/Out	2 x Input / 4 x Output, opto-isolated, 24V

Sensor

Optical Size	1/3"	1/3"	1/1.8"	1/1.8"
Resolution	1920 x 1080 pixels	1920 x 1080 pixels	2560 x 1936 pixels	2560 x 1936 pixels
Pixel Size	2.8 μ m	2.8 μ m	2.8 μ m	2.8 μ m
Framerate	115 fps	115 fps	53 fps	53 fps
Partial Scan	yes	yes	yes	yes
Color	mono	color	mono	color

Lens Properties

Lens Mount	C-Mount	S-Mount	S-Mount	C-Mount
Focal length	-	9 mm	6 mm Macro	6 mm
Field of View (H x V)	-	$\approx 34^\circ \times \approx 20^\circ$	$\approx 53^\circ \times \approx 29^\circ$	$\approx 48^\circ \times \approx 28^\circ$

Mechanical / Electrical

Power Supply	21 VDC – 28 VDC	21 VDC – 28 VDC	21 VDC – 28 VDC	21 VDC – 28 VDC
Dimension W x H x D	50 mm x 50 mm x 40.8 mm	50 mm x 50 mm x 58.7 mm	50 mm x 50 mm x 57 mm	50 mm x 50 mm x 84 mm
Weight	205 g	265 g	220 g	305 g
Temperature Range	+ 5 to + 40 °C	+ 5 to + 40 °C	+ 5 to + 40 °C	+ 5 to + 40 °C
Ethernet Cable	0.5 m, M12 8 pin	0.5 m, M12 8 pin	0.5 m, M12 8 pin	0.5 m, M12 8 pin
I/O & Power Cable	0.5 m, M12 8 pin	0.5 m, M12 8 pin	0.5 m, M12 8 pin	0.5 m, M12 8 pin
Mounting	4 x M4	4 x M4	4 x M4	4 x M4

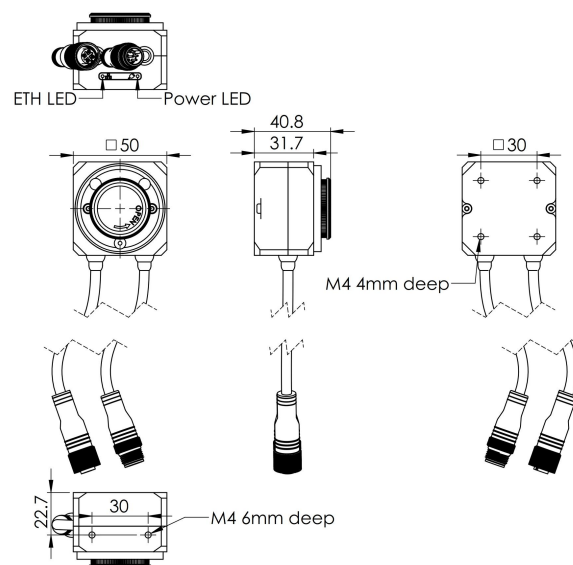
Documentation

Homepage	Link
SDK Documentation	Link
Hardware Manual	Link

LED Strobe

White LED	LED Ring Illumination
Pulse Duration	Synchronized with shutter

Dimensional Drawing



The smartest embedded vision components

For more than 30 years, IMAGO has been supplying machine vision technology to machine builders to improve product quality, make processes smoother, avoid production errors, reduce manufacturing costs and make systems more efficient.



What we do

With the focus on what counts for our customers, we develop hardware components for industrial image processing. Be it in factory automation, the printing industry, for the food and beverage industry, pharmaceutical or logistics industry. IMAGO supplies vision systems, smart cameras, vision sensors and the appropriate software for the optimized use of our products. We pay special attention to miniaturization, high frame rates, increasing computing power and environmentally friendly power consumption. These characteristics already distinguish our products today.

And we are proud of them.