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 2MP sensor is 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
- 4 LEDs

Processor

Type	Quad Core ARM Cortex-A53
Processor Clock	4 x 1.8 GHz
DDR RAM	2 GB DDR4
Mass Storage	1 × µSD Card ≥ 32 GB

Interfaces

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

Sensor

Optical Size	1/3"	1/3.1"	1/1.8"
Resolution	1920 x 1080 pixels	2048 x 1536 pixels	2472 x 2064 pixels
Pixel Size	2.8 µm	2.25 µm	2.74 µm
Framerate	115 fps	125 fps	96 fps
Partial Scan	yes	yes	yes
Color	mono / color	mono / color	mono / color

Lens Properties (Optional)

Lens Mount	S-Mount
Focal length	e.g. 3.6mm / 4 mm / 6 mm / 7.5 mm LiqLens / 9 mm / …

LED Strobe

LED Color	White
Quantity	4 x High-Brightness
Pulse Duration	Synchronized with shutter

Mechanical / Electrical

Power Supply	21 VDC – 28 VDC
Dimension W × H × D	45 mm x 53.7 mm x 25.5 mm
Weight	125 g
Temperature Range	+ 5 to + 40 °C
Ethernet Cable	0.5 m, M12 8 pin
I/O & Power Cable	0.5 m, M12 8 pin
Certification	IP50, CE
Mounting	4 x M3

Documentation

Hompage	Link
SDK Documentation	Link
Hardware Manual	Link

Dimensional Drawing
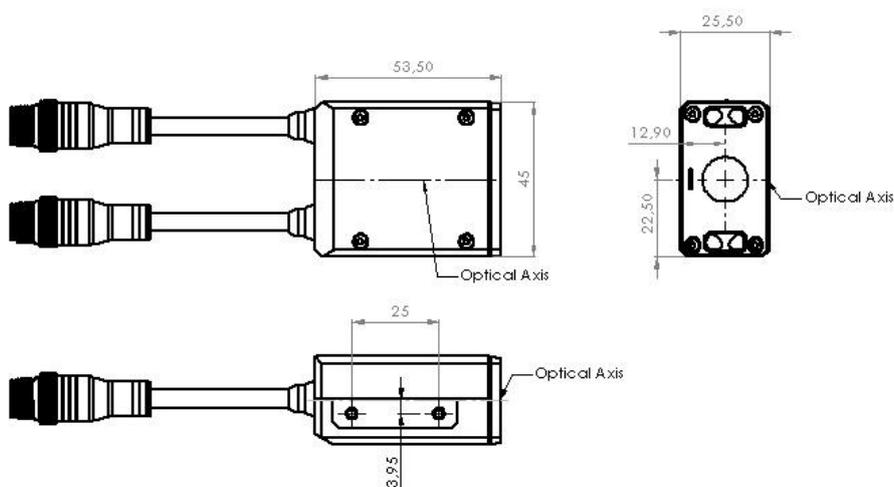
The smartest embedded vision components

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 distunguish our products today.

And we are proud of them.