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Embedded vision hybrid

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Intelligent camera with programmable openness

Embedded vision hybrid

The Embedded Smart Cam Predator combines the simplicity of a smart camera with the programmable openness of a PC system. The computing power of the new hybrid is comparable to an i5 processor and holds its own against a PC system. Ease of operation complements its computing power.

The device needs no additional operating software and is completely independent of the operating system. Users choose Windows, Linux, Mac, Android or iOS for each application. Even control via an iPhone is straightforward. Application developers can continue writing code in their familiar development environment and then

transfer it to the camera.

At launch, the following image-processing libraries are available: HALCON in HDevelop, OpenCV and CVB (Common Vision Blox); further libraries will follow shortly. These can be transferred directly through the web interface or via FTP. In the code,



A wide range of industrial communication protocols is available to the operating-system-independent Embedded Smart Cam Predator.

users only have to follow the specified input/output interfaces. Standardised interfaces allow the user interface to communicate with the code modularly. Users can choose the algorithm library when ordering, and can expand it or change it completely later. Every inspection is visualised through the web interface, including live images, inspection results, statistics and control options.

Selectable communication

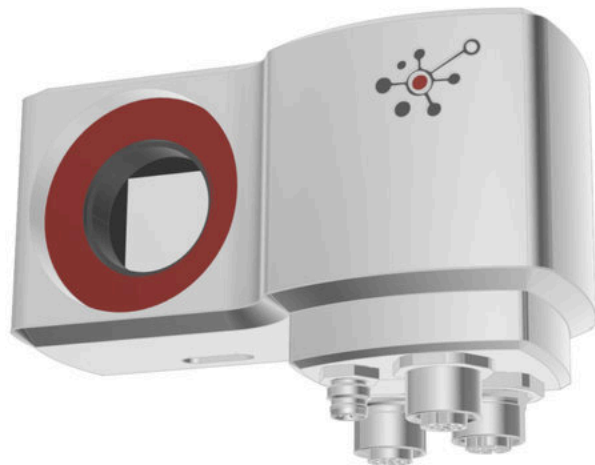
Two digital inputs and four real-time digital outputs are available for digital communication. A freely selectable communication interface (Profinet,

EtherCAT, Powerlink, DeviceNet, etc.; see Figure 1), together with the flexibility to change it later, completes the possibilities. The camera can communicate in any bus system and contact a higher-level controller through an integrated second network controller. For example, it can be integrated in a Profinet network and communicate with participants via Profinet while simultaneously sending results via OPC UA to a higher-level control centre or a cloud. Both controllers have their own industrial M12 connector.

Licensing via microSD card

Because the software is designed independently of the hardware and licensing is managed through a microSD card, the camera can be stocked without licences. Compared with competing products, this considerably reduces end customers' inventory costs. If the camera needs replacing, the SD card (at least 30 GB of space) can be removed and simply inserted into the new camera. The saved job then continues seamlessly without further work. Stored fault images and statistics are also retained.

The camera's intelligent thermal management in its solid aluminium enclosure allows compact dimensions of 115 × 54 × 62 mm while delivering full performance. Another feature is an integrated flash controller providing up to 2 A, with individually configurable parameters. Its own three-pin M8 connector can supply any LED light capable of flashing. The Predator series offers sensor resolutions from VGA to 5 MP (global shutter).



The Predator's computing power is comparable to an i5 processor and holds its own against a PC system.

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