

VisionCam XM – Your Personal Vision Sensor.

The VisionCam XM offers a versatile, programmable camera at an attractive price-performance ratio. The main processor is a single- or dual-core ARM A15 processor which can be supported by a single- or dual-core DSP accelerator. Linux is the operating system, however we can provide the hard real-time OS SYS/BIOS, too.

Different sensors in color and monochrome enable the best choice between resolution and speed, no matter if used for area or line scan. For communication with the machine/process, there are 2 / 4 digital I/Os, a serial interface and 100 or 1.000 Mbit/s Ethernet interface. As a USP, IMAGO offers Ethernet-based real-time fieldbus support like Profinet, EtherCAT or SERCOS. The intelligent camera is delivered, as usual, with a rounded-off software, with which you can quickly integrate your application. Programming in C++ or other programming languages will quickly result in an intelligent camera specific to the application.

Sensor Options / CMOS – Global Shutter

Size	1/3"	1/3"	1/1.8"	1/1.8"
Resolution	752 × 480 pixel	1280 × 960 pixel	1280 × 1024 pixel	1600 × 1200 pixel
Framerate (full resolution)	60 fps	45 fps	45 fps	39 fps
Partial Scan	yes	yes	yes	yes
Color	Monochrome or bayer pattern	Monochrome or bayer pattern	Monochrome or bayer pattern	Monochrome or bayer pattern
Gain Range	1× - 4× analog	0,1× - 8× dig	1×, 2×, 4×, 8× analog	1×, 2×, 4×, 8× analog
Shutter Speed	85µs...2s (Δ = 30µs)	1µs...12µs & 23µs...2s (Δ = 1µs)	1µs...2s (Δ = 1µs)	1µs...2s (Δ = 1µs)

Processor

Manufacturer, Type	Texas Instruments AM5728 Sitara
ARM Cortex-A15 processor clock	2 × 1.5 GHz
Floating-Point DSP Processor Clock	2 × 750 MHz
SDRAM (DDR3L)	1 GByte
Flash Memory SD/SDHC	32 GByte µSDHC card (accessible)

Interfaces

Ethernet TCP/IP, FTP	1.000 MBit/s or 100 Mbit/s
Serial Interface	RS-232
Opto-isolated Digital Inputs	2
Opto-isolated Digital Outputs	4
Fieldbus	optional / (2× RJ45) / PROFINET, RT/IRT, EtherCat, SERCOS, ...



Mechanical / Electrical

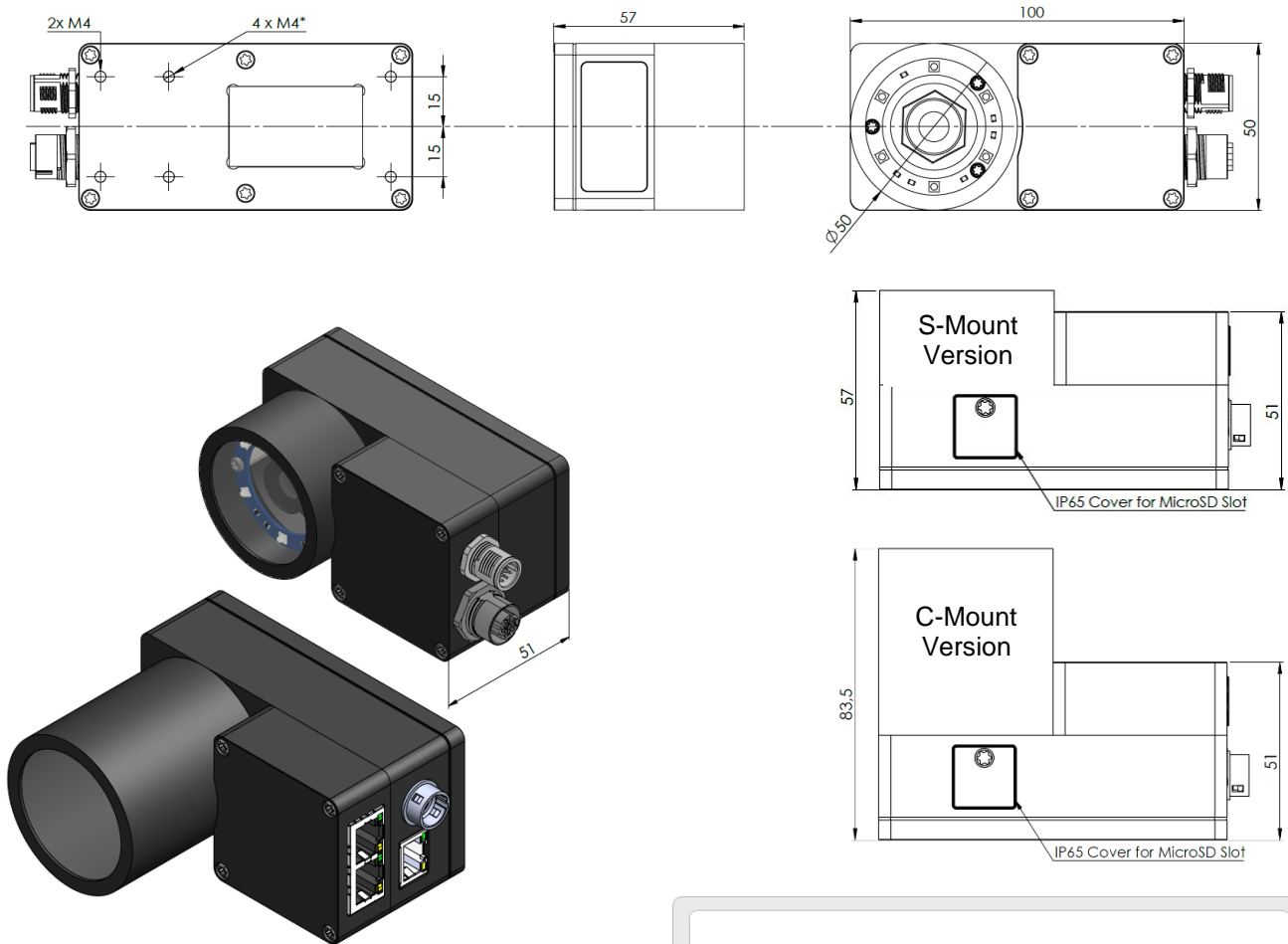
Lens Mount	S-Mount, C-Mount or CS-Mount
I/O Connector	Hirose – 12 Pin or M12 - 17 Pin
Ethernet Connector	1×/3× RJ 45 or 1× M12 - 8 Pin or M12 - 4 Pin (with 100 Mbit/s)
Dimension L × W × D	100 mm × 50 mm × 57 or 100 mm × 50 mm × 84 mm
Weight (without lens)	tbd
Power Supply	24 VDC / (11....26,4V)
Maximum Operating Temperature	0 °C ... + 50 °C
Protection Class	IP 65 with M12 connectors
Mounting	4× M4 front and back

VisionCam XM
 Embedded Industrial Vision Sensor
 Datasheet
 [Ver. 1.2 / 1.2017]

LED Strobe

Location	Internal	External
Maximum Strobe Current	2 A	2 A
Strobe Current Step Size	10 mA	10 mA
Minimum Flash Duration @ 2A	10 μ s	10 μ s
Flash Duration Step Size	1 μ s	1 μ s
Flash Memory SD/SDHC	32 GByte μ SDHC card (accessible)	

Dimensions



Block Diagram

