The Vision HAWK is a flexible industrial smart camera that delivers powerful vision capabilities in a compact, easy-to-use package. Developed for vision users of all experience levels in a broad range of applications, the Vision HAWK features an intuitive vision interface, optional C-mount lens design, integrated lighting, simple plug and play connectivity and high resolution, optical zoom.

With the Vision HAWK, both integrators and end-users have a scalable, fully integrated vision solution to confidently solve any inspection, verification, or auto ID application.

**Vision HAWK: At a Glance**
- Fully integrated with processor, lens and illumination
- Easy connection to industrial control systems through Microscan Link
- Storage for multiple jobs
- Integrated Ethernet TCP/IP and EtherNet/IP networking
- Optional C-Mount Lens and Color Sensor models available

**Powerful Capabilities**
Features a robust tool set to address a wide range of automation challenges using vision technology. Combined with patented liquid lens autofocus, the Vision HAWK can easily cover almost any vision or barcode application.

**Advanced Optical System**
High resolution, modular optical zoom system enables the Vision HAWK to inspect objects and labels at distances from 20 mm to 800 mm and beyond.

**Fully Integrated**
The Vision HAWK features on-board optically isolated I/O connections for trigger and results.

**Scalable System**
AutoVISION software allows easy expansion to more complex vision applications through migration to full Visionscape software.

**Ease of Use**
In addition to a compact size for flexible positioning, the Vision HAWK includes AutoVISION software with an intuitive interface, step-by-step guides, and a library of templates that allow easy set up and deployment.

**Rugged Design**
The Vision HAWK features a rugged industrial design with a cast alloy IP65/67 enclosure and M12 connectors. Integrated Ethernet protocols are included for high speed communication.

**Application Examples**
- Automotive
  - Assembly verification
  - Part identification
- Packaging
  - Label positioning
  - Contents verification
- Electronics
  - Assembly verification and identification
- Semiconductors
  - Packages and components

For more information on this product, visit www.microscan.com.
Vision HAWK Smart Camera Specifications and Options

MECHANICAL (INTEGRATED OPTICS)
- Height: 1.59" (40.5 mm)
- Width: 2.27" (57.6 mm)
- Depth: 3.79" (96.3 mm)
- Weight: 10 oz. (280 g)

MECHANICAL (C-MOUNT OPTICS)
- Height: 4.03" (102.3 mm)
- Width: 2.27" (57.6 mm)
- Depth: 1.59" (40.5 mm)
- Weight: 11 oz. (320 g)

ENVIRONMENTAL
- Enclosure: Die-cast aluminum, IP65/67 rated
- Operating Temperature: 0° to 50°C (32° to 122°F)
- Storage Temperature: 29° to 70°C (-20° to 158°F)
- Humidity: Up to 90% (non-condensing)

COMMUNICATION INTERFACE
- Interface: RS-232, Ethernet TCP/IP and EtherNet/IP
- Protocol: EN 55022:98 ITE Disturbances
- Safety Class: Class 1 visible laser
- Operating Life: 50,000 hours @ 25°C

LIGHT SOURCE (INTEGRATED OPTICS)
- Type: High output LEDs
- Output Wavelength: Red = 655 nm nominal; White = 6500K nm (typ.)
- Safety Class: Class 1 visible laser

SENSORS
- WVGA: CMOS, 752 by 480 pixels, up to 60 fps
- SXGA (Mono & Color): CCD, 1280 by 960 pixels, up to 60 fps
- WUXGA: 2/3 inch sensor, CMOS, 2048 by 1088 pixels, up to 60 fps (only available in C-mount configuration)

SHUTTER OPTIONS
- WVGA: 25μs to 100ms (1/40,000 to 1/10), default = 400μs (1/2,500)
- SXGA (Mono & Color): 6μs to 100ms (1/150,000 to 1/10), default = 666μs (1/1,500)
- WUXGA: 25μs to 100ms (1/40,000 to 1/10), default = 400μs (1/2,500)

SYMBOLS
- 2D Symbolic codes: Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code, Dot Code
- Stacked Symbolic codes: PDF417, Micro PDF417, GS1 Databar (Composite & Stacked)

ELECTRICAL
- WVGA Power Requirement: 5-28 VDC, 200 mA p-p max ripple, 135 mA at 24 VDC (typ.)
- SXGA (Mono & Color) Power Requirement: 5-28 VDC, 200 mA p-p max ripple, 170 mA at 24 VDC (typ.)
- WUXGA Power Requirement: 5-28 VDC, 200 mA p-p max ripple, 140 mA at 24 VDC (typ.)

PROTOCOLS
- Point-to-Point, Point-to-Point w/XON/XOFF, Ethernet TCP/IP, EtherNet/IP, PROFINET I/O

SOFTWARE OPTIONS
- WVGA, SXGA (Mono), WUXGA: AutoVISION included, VisionScape and Verification/OCV upgrades available
- SXGA (Color): VisionScape included

INTEGRATED OPTIONS MODEL: FIELD OF VIEW AND WORKING DISTANCE

INTEGRATED OPTIONS MODEL: MODULAR ZOOM OPTICS

PIN ASSIGNMENTS
- Connector A: M12 12-pin plug
- Connector B: M12 8-pin socket

CONNECTOR A PIN ASSIGNMENTS

CONNECTOR B PIN ASSIGNMENTS

LASER LIGHT (INTEGRATED OPTICS)
- Type: Laser diode
- Operating Wavelength: Red = 655 nm nominal; White = 6500K nm (typ.)
- Safety Class: Class 1 visible laser

QMS CERTIFICATION

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Read Range and other performance data is determined using high quality Grade A symbols per ISO/IEC 15416 and ISO/IEC 15416 in a 25° C environment.