

MicroHAWK F430-F

Smart Camera

World's smallest fully-integrated vision system.

- Simple configuration with AutoVISION.
- 5 megapixel sensor available.
- Autofocus available.
- Alternate LED configuration available.
- Smallest in class.
- IP65 / IP67.
- Ethernet TCP/IP, EtherNet/IP.



MicroHAWK F430-F

Die MicroHAWK®-Plattform bietet die fortschrittlichsten Bildverarbeitungsfähigkeiten auf den weltweit kleinsten Smart-Kameras. Die MicroHAWK-Kameras basieren auf den hochleistungsfähigsten Bilderfassungsmodulen ihrer Klasse und sind vollständig mit Optikkomponenten, Prozessoren, Beleuchtungs- und Kommunikations-elementen integriert. Der MicroHAWK kann mit der vereinfachten AutoVISION®-Software für die industrielle Bildverarbeitung (für das Lesen von Barcodes sowie für grundlegende Vision-Aufgaben wie das Orten, Zählen, Erkennen der Präsenz/Nicht-Präsenz, OCR u. v. m.) oder der Visionscape®-Software für erweiterte Anwendungen gekoppelt werden. Die F430-F definiert den Bilderfassungsmarkt als kleinste industrielle Ethernet-Smart-Kamera der Schutzklasse IP65/67 neu.

Die F430-F ist mit dem vollständigen Portfolio an Microsans Bildverarbeitungs-Tools ausgestattet und wird in einem robusten und ultra-kompakten Gehäuse ausgeliefert. Es handelt sich daher um eine Komplettlösung für jegliche Herausforderungen bei der Bildverarbeitungs-Inspektion unter allen Bedingungen. Die F430-F setzt mit ihrer beispiellosen Benutzerfreundlichkeit, High-Speed-Kommunikation, optionalem Autofokus mit Flüssiglense und dem ultra-kleinen Formfaktor neue Maßstäbe als das ultimativ kompakte Machine-Vision-System der Branche.

- Einfache Konfiguration mit AutoVISION.
- 5-Megapixel-Sensor verfügbar.
- Autofokus verfügbar.
- Alternative LED-Konfiguration verfügbar.
- Kleinste ihrer Klasse.
- IP65/IP67.
- Ethernet TCP/IP und EtherNet/IP.

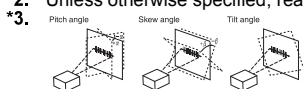
F430-F

Ratings and Specifications

| F430-F | | F430-F□□□□□03M-□□□□ | F430-F□□□□□12M-□□□□ | F430-F□□□□□50C-□□□□ |
|----------------------------|------------------------------------|---|----------------------|--|
| Symbologies *1 | 1D Symbologies | Code 39, Code 128, BC412, Interleaved 2 of 5, UPC/EAN, Codabar, Code 93, Pharmacode, PLANET, Postnet, Japanese Post, Australian Post, Royal Mail, Intelligent Mail, KIX | | |
| | 2D Symbologies | Data Matrix (ECC 0-200), QR Code, Micro QR Code, Aztec Code, DotCode | | |
| | Stacked Symbologies | PDF417, MicroPDF417, GS1 Databar (Composite and Stacked) | | |
| Reading Performance *2 | Number of Reading Digits | No Upper Limit (depending on bar width and reading distance) | | |
| | Aiming Light | Two Blue LEDs | | |
| | Illumination | Inner LEDs: Four White and Four Red (Wavelength: 625 nm) | | |
| | | Outer LEDs: | 8 Red or White | Outer LEDs: 8 Red or White; 24 Red or White for F430-F□□□□□12M-R□□ |
| | Reading Distance / Field of View | Refer to <i>Read Ranges</i> section for detail. | | |
| | Pitch Angle (α) *3 | ±30° | | |
| | Skew Angle (β) *3 | ±30° | | |
| Tilt Angle (γ) *3 | ±180° | | | |
| Vision Tools | | Locate, Decode, Optical Character Recognition (OCR), Count, Presence/Absence, Measure, Match String, String Format, Logic, Optical Character Verification (OCV), Symbol Quality Verification, Color Identification, Color Match | | |
| Image Capture | Focus | Liquid Lens Autofocus or Fixed Focus (Wide = 5.2 mm, Medium = 7.7 mm, Narrow = 16 mm, L = 16 mm) | | |
| | Resolution | 752 (H) x 480 (V) | 1280 (H) x 960 (V) | 2592 (H) x 1944 (V) |
| | Color / Monochrome | Monochrome CMOS | Monochrome CMOS | Color CMOS |
| | Shutter | Global Shutter | Global Shutter | Rolling Shutter |
| | Frames per Second | 52 fps | 40 fps | 5 fps |
| | Exposure | 50 to 66,667 μ s | 50 to 58,825 μ s | 50 to 66,667 μ s |
| Image Logging | | FTP | | |
| Trigger | | External Trigger (Edge or Level), Communication Trigger (Ethernet, RS-232C) | | |
| I/O Specifications | Input Signals | Trigger Input; New Master: Bi-Directional, Optoisolated, 4.5-28 V rated (10 mA @ 28 VDC) | | |
| | Output Signals | 3 Signals : Bi-Directional, Optoisolated, 1-28 V rated, (ICE < 100 mA at 24 VDC, current limited by user) | | |
| Communication | Connectivity | RS-232C, Ethernet TCP/IP, EtherNet/IP | | |
| | Ethernet Specifications | 100BASE-TX / 10BASE-T | | |
| Indicator LEDs | | PASS (Green), TRIG (Amber), MODE (Amber), LINK (Amber), FAIL (Red), PWR (Green) | | |
| Power Supply Voltage | | 5 to 30.0 VDC, 200 mV p-p max ripple | | |
| Current Consumption | | 0.18 A at 24 VDC (max.) | | |
| Environmental Immunity *4 | Ambient Temperature Range | Operating: 0 to 45° C Storage: -50 to 75° C (No Icing or Condensation) | | |
| | Ambient Humidity Range | Operating and storage: 5% to 95% (Non-Condensing) | | |
| | Ambient Atmosphere | No Corrosive Gases | | |
| | Vibration Resistance (Destructive) | Sine Vibration: 10 Hz to 55 Hz, 0.35 mm displacement, 20 cycles/axis. Random Vibration: 20 Hz to 2000 Hz, 6.295 Grms, 30 min/axis | | |
| | Shock Resistance (Destructive) | 50 G, 11 ms, sawtooth profile. 3X in each X, Y, Z axis | | |
| | Degree of Protection | IEC 60529 IP65 and IP67 | | |
| Weight | Main Body Only | Approx. 68 g | | |
| | Packaging Weight | Approx. 174 g (including packing) | | |
| Dimensions | Main Body Dimensions | 44.5 (W) x 44.5 (D) x 25.4 (H) mm | | |
| | Packaging Dimensions | 170 (W) x 117 (D) x 86 (H) mm | | |
| Accessories | | ReadMeFirst, CE Compliance Sheet | | |
| LED Safety Standard | | IEC 62471-1: 2006 Risk-Exempt Group | | |
| Safety Standards | | EN 61326-1:2013 FCC Part 15, Subpart B (Class B) UL60950-1 RCM, KC, EAC Pending | | |
| Materials | Case | Aluminum Diecast, Alumite (Black) | | |
| | Reading Window | Acrylic | | |
| Software | | AutoVISION, Visionscape FrontRunner | | |

*1. These symbologies are supported based on Omron's read capability validation standard. Omron recommends that validation be performed for each application.

*2. Unless otherwise specified, reading performance is defined with center of field of view, angle R=∞.



*4. In an electrically noisy environment, use only the F430-F in combination with a noise filter cable (V430-W□□F-□□M) to ensure proper operation.