

Falcon HG and XDR Color Series

VGA300 / 1M120 / 1.4M100 Color Area Scan Cameras



Overview

Fast frame rates, excellent image quality, and global shutter CMOS technology—all in color!

Advancements in processing speeds bring with them the need for high speed, high quality color image capture in machine vision. Four new Falcon color cameras meet these needs with resolutions up to 1.4 megapixels and frame rates up to 300 fps. Global shutter technology means that exceptional image quality is maintained while capturing objects traveling at high speeds, ensuring that images do not experience smear or time displacement artifacts.

Fully programmable using base Camera Link, these color cameras feature exposure control, gain and offset adjustment, and flat-field correction. In addition, the camera's low power consumption makes it power over Camera Link (PoCL) compatible, thereby eliminating the need for a separate power cable and simplifying system integration. Further, camera technology enables transmission distances exceeding those of the competition. Delivered in a robust, compact body, this camera should be your definitive choice for high speed color imaging.

The XDR model (available in the 1.4M100 camera) maximizes the available dynamic range and the HG models provide improved responsivity and faster frame rates.

Key Features

- Color-Bayer pattern
- High responsivity
- Excellent dynamic range
- Global shutter and reset
- Exposure control
- Concurrent integration and readout
- Faster frame rates through vertical windowing
- Power over Camera Link
- Mini-Camera Link
- 10 meter transmission @ 80 MHz

Programmability

- Flat field correction
- Adjustable timing modes
- Adjustable gain and offset per color
- Test patterns and camera diagnostics

Typical Applications

- Electronics manufacturing
- Semiconductor inspection
- Print inspection-registration control
- Flat panel display inspection
- Industrial metrology
- General machine vision

Specifications

Resolution	VGA300—640 (H) x 480 (V) pixels 1M120—1024 (H) x 1024 (V) pixels 1.4M100—1400 (H) x 1024 (V) pixels
Data Rate	2 x 80 MHz
Max. Line/Frame Rate	VGA300—300 fps / 1M120—120 fps / 1.4M100—100 fps
Pixel Size	7.4 μm x 7.4 μm
Data Format	VGA300 and 1M120—8 bit / 1.4M100—8 bit or 10 bit
Output	Base mini-Camera Link, PoCL compatible
Lens Mount	C-mount
Responsivity	See graph
Dynamic Range	XDR model: 57 dB / HG model: 50 dB
Nominal Gain Range	4x digital
Size	44 mm x 44 mm x 44 mm
Mass	< 175 g
Operating Temp	0 °C to 50 °C
Power Supply	12 V to 15 V DC
Power Dissipation	< 3 W
Regulatory Compliance	CE and RoHS
Control	SDR26 mini-Camera Link
Data	Shared with Control
Power	Hirose 6 pin circular, or PoCL (shared with control)
Example Part Number	FA-22-01M1H-00-R, FA-23-3HK3H-00-R

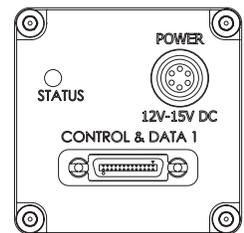
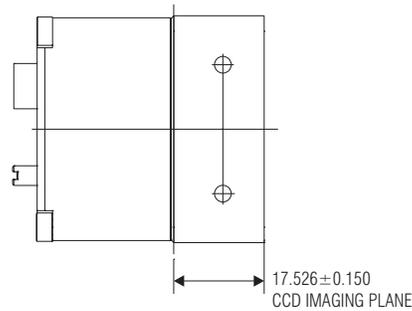
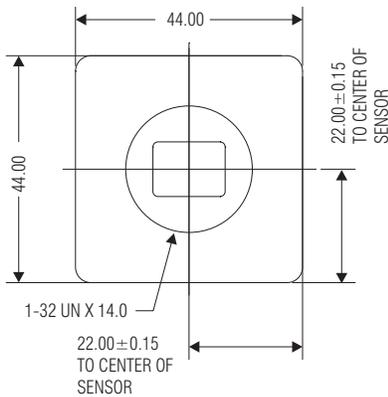
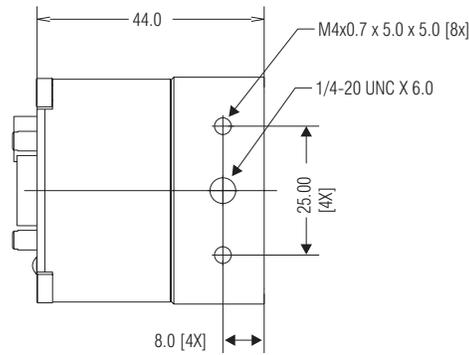
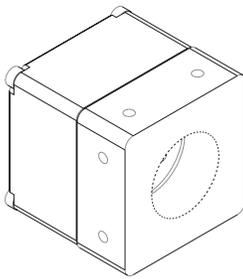
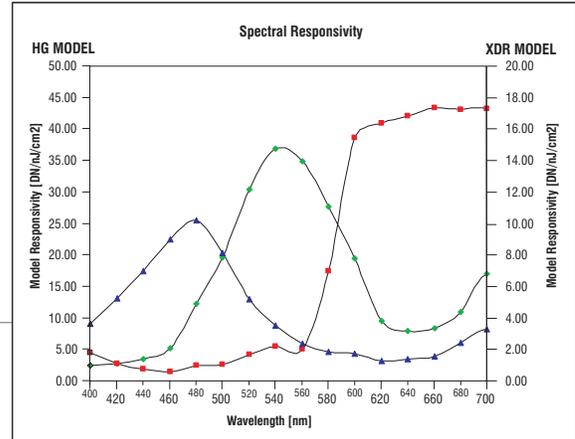
	Camera Models		
	VGA300	1M120	1.4M100
XDR	—	—	✓
HG	✓	✓	✓

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With its high resolution and speed you can inspect more products, in more detail, in a shorter amount of time.

The added feature of color makes the Falcon cameras the most compelling products in the industry.



Units: mm.



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Teledyne DALSA is an international leader in digital imaging and semiconductors and has its corporate offices in Waterloo, Ontario, Canada.



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