

## Line Scan Cameras

# Piranha2 P2-2x-xxx40

*Piranha2 is smaller, faster, and more responsive than the original... and it has Camera Link™ too.*

*Line Scan imagers use a single line of sensor pixels to build up a two-dimensional image. Fax machines are low-resolution examples.*

### The best gets better.

Piranha2 takes performance to a higher level. Two 8 or 10-bit outputs at 40MHz deliver 80MHz throughput, and boosted responsivity means the Piranha2 needs less light than the original, even at higher speed.

Available in resolutions from 1k to 8k, the camera is small, light, and uses a single power supply. The compact design is shallower and smaller than previous cameras. Cabling interfaces are simplified with the Base Camera Link™ high-speed serial standard. The camera is more sensitive, but still provides quieter, more uniform output thanks to CDS (correlated double sampling) and embedded flat-field correction algorithms. Gain and offset are fully programmable for each output channel, and the camera can output test patterns for cable/system troubleshooting. All resolutions provide appropriate, readily-available standard lens options (c-mount, f-mount, and M72x0.75 photography standards).

Piranha2 is the most powerful linescan camera in the world. Set it loose on your toughest imaging challenge.



## Features

- 80 MHz throughput
- Resolutions from 1k to 8k
- High responsivity
- Base Camera Link™
- Single 12V to 15V power supply
- Diagnostic LED for immediate feedback

## Programmability

- Programmable pixel-to-pixel correction
- Adjustable analog and digital gain
- Analog and digital offset control
- 8 or 10 bit selectable output
- Adjustable integration time and line rate
- Test pattern, line statistics, and camera diagnostics

## Typical Applications

- Printed circuit board inspection
- High performance document scanning/image lift
- Postal/parcel sorting
- Flat panel display inspection

## Camera Specifications

<b>Resolution</b>	1024/2048/4096/6144/8192
<b>Data Rate</b>	2x40MHz
<b>Max. Line/Frame Rate</b>	65 / 35 / 18 / 12 / 9kHz
<b>Pixel Size</b>	10 / 10 / 7 / 7 / 7μm
<b>Data Format</b>	2x8 or 2x10-bit via Base Camera Link
<b>Lens Mount</b>	See Chart
<b>Responsivity</b>	64DN/(nJ/cm <sup>2</sup> ) @10dB
<b>Dynamic Range</b>	up to 492:1
<b>Nominal Gain Range</b>	±10dB
<b>Size</b>	50x85x50 or 85x85x50mm
<b>Mass</b>	< 450g
<b>Operating Temp</b>	front plate: 10-50°C
<b>Power Supply</b>	12 to 15V
<b>Power Dissipation</b>	< 7.5W
<b>Regulatory Compliance</b>	CE, MIL-STD-810E
<b>Control</b>	MDR26 Camera Link
<b>Data</b>	Shared with Control
<b>Power</b>	Hirose HR10 6-pin
<b>Example Part Number</b>	P2-22-04K40

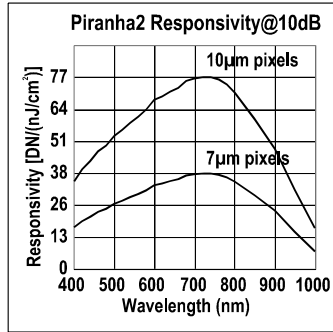
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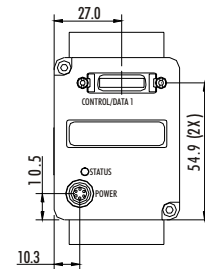
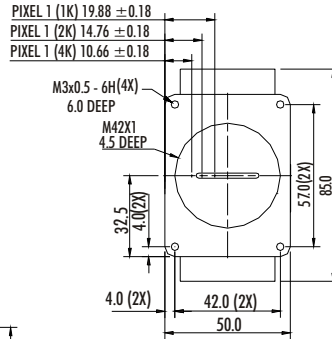
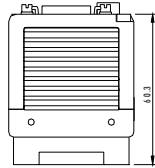
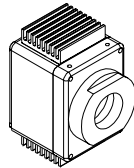
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### Responsivity



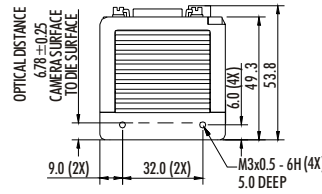
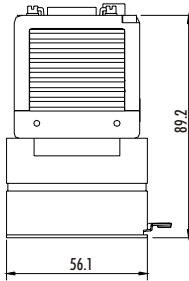
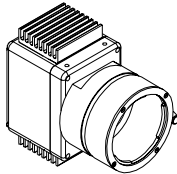
### Mechanical Dimensions

1K/2K/4K 2 TAP WITH C-MOUNT

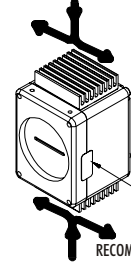


1K/2K/4K 2 TAP WITH F-MOUNT

All units in mm.

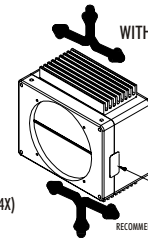
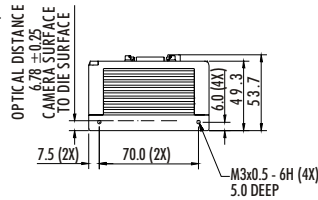
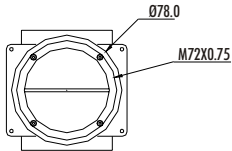
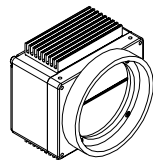
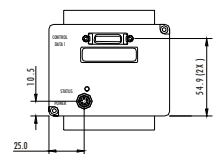
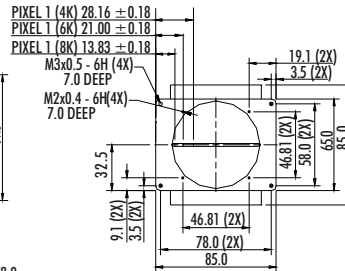
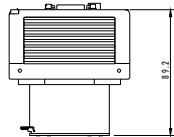
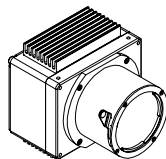


2 TAP WITHOUT ADAPTER



RECOMMENDED AIRFLOW

6K/8K 2 TAP WITH F MOUNT



WITHOUT ADAPTER

6K/8K 2 TAP WITH LARGE FORMAT ADAPTER  
 All units in mm.



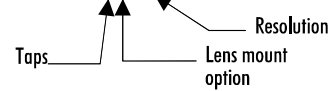
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## Piranha2 P2-2x-xxx40 Line Scan Cameras

Camera Configuration	Available Lens Mount Options	Order Option	Lens Mount Configuration
1K, 2 Tap	M42x1, C-mount and F-mount	P2-x0-0xk40	No mount or adapter
2K, 2 Tap	M42x1, C-mount and F-mount	P2-x1-0xk40	C-mount
4K, 2 Tap	M42x1 and F-mount	P2-x2-0xk40	F-mount
6K, 2 Tap	No mount, F-mount and M72x0.75	P2-x3-0xk40	M72x0.75 adapter
8K, 2 Tap	No mount, and M72x0.75		

E.g. P2-22-02k40 is a 2 Tap, 2k camera with an F-mount



## For More Information

For more detailed information on this and other products, including pinouts, timing, software, and signal descriptions see the user's manual. The user's manual is available at <http://vfm.dalsa.com>. You can also contact your local rep or visit our website at <http://vfm.dalsa.com>.

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This information subject to change without notice.