

1. Description

Line Scan System consists of a 5000-pixel CCD line scanning camera, digital frame grabber, power/data cable, software modules and drivers for Windows, and source code examples for DOS. The line scan camera has a CCD array of 5000 photosensitive elements. Sensor's output is a LVDS stream of data; accepted by a dedicated PCI frame grabber. Typical application is dimensional measurements. Sensor has M42x1 threaded lens connection.

2. Optical specifications

Parameter	Value	Units
Quantity of pixels	5000	-
Pixel size	5.0 x 7.0	microns
Distance between pixels	7.0	microns
Total array length	35.0	mm
Back flange length	45.0	mm
Spectral sensitivity range	350 – 800	nm
Pixel scanning rate	Programmable 16.0, 8.0, 4.0, or 2.0	MHz
Pixel depth	8	bits

First pixel of the array is marked on the flange of the device. Pixel intensity information is read sequentially, with destructive mode.

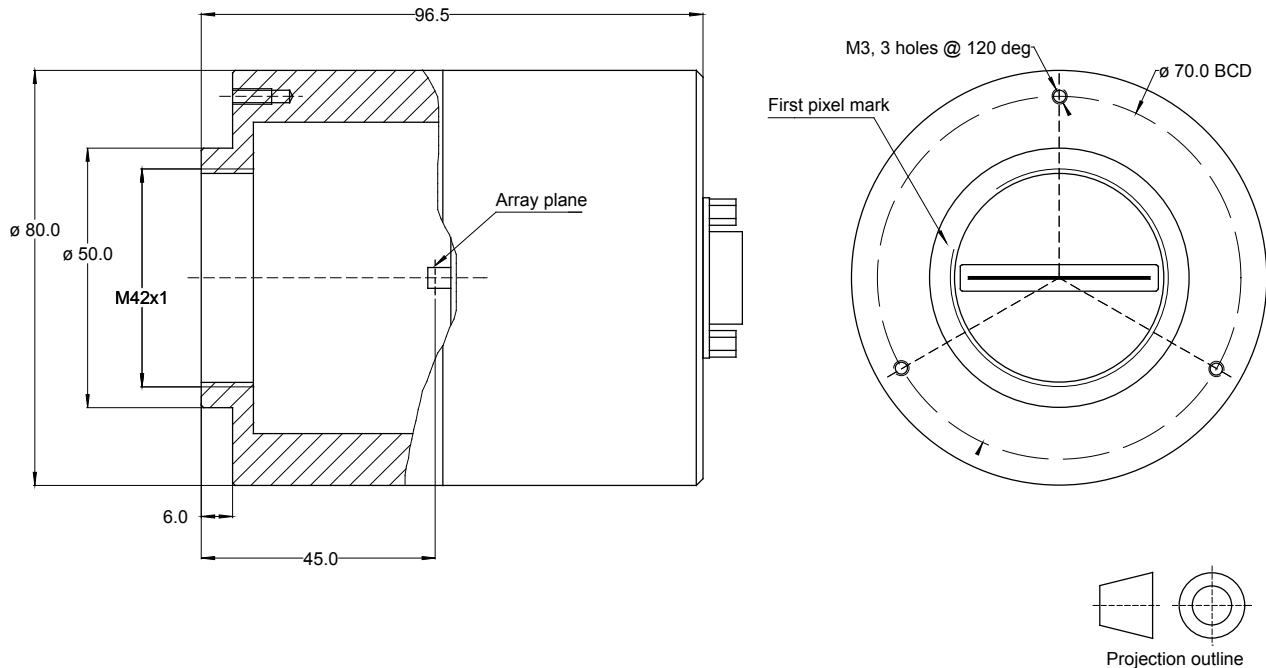
3. Mechanical specifications

Parameter	Value	Units
Flange mounting diameter tolerance	-0.05 .. +0.00	mm
Flange mounting depth tolerance	-0.05 .. +0.00	mm
Weight	200	grams
Housing material	Aluminum, anodized flat black	-
Attachment thread	M42x1	-
Operating temperature range	-10 .. +60	Celsius deg
Protection	IP 54	-
Maximum allowable shock	3	G
Maximum allowable relative humidity	Up to 90% permissible	%
Output connector	15-pin D, male	-

4. Software, frame grabber specifications

PCI-bus frame grabber allocates 1 Mbytes of memory in the 32-bit PCI memory space. Pixel intensity values can be randomly read directly from the frame grabber's on-board memory. Frame grabber controls the digital camera via incorporated I²C interface to set video and windowing parameters, initiates single frame snapshot, or reset the camera. The frame grabber can be accessed in both DOS and Windows modes. Customers can create they own applications under DOS or Windows environments. Detailed information on the line camera's parameters as well as the source code examples are included. They demonstrate how to read image data, control exposure time, and use the 32-bit memory areas.

For the DOS mode, a 32-bit DOS extender or a 32-bit compiler is required. **No drivers required.** For Windows, the frame grabber can be directly accessed with the use of drivers provided. WDM drivers are compatible with Windows 98, Me, NT, 200, and XP.



5. Available options

1. Power/Data cable up to 10 meters
2. M42x1 to F-mount adapter
3. Lens engineering and sourcing

Notice

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