

OLYMPUS[®]

Your Vision, Our Future

MICROSCOPE DIGITAL CAMERA

DP20

Faster, easier, more accurate inspections on the
production line

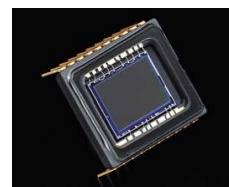


Smooth, high-resolution live image display — ideal for fast, efficient inspections on production lines

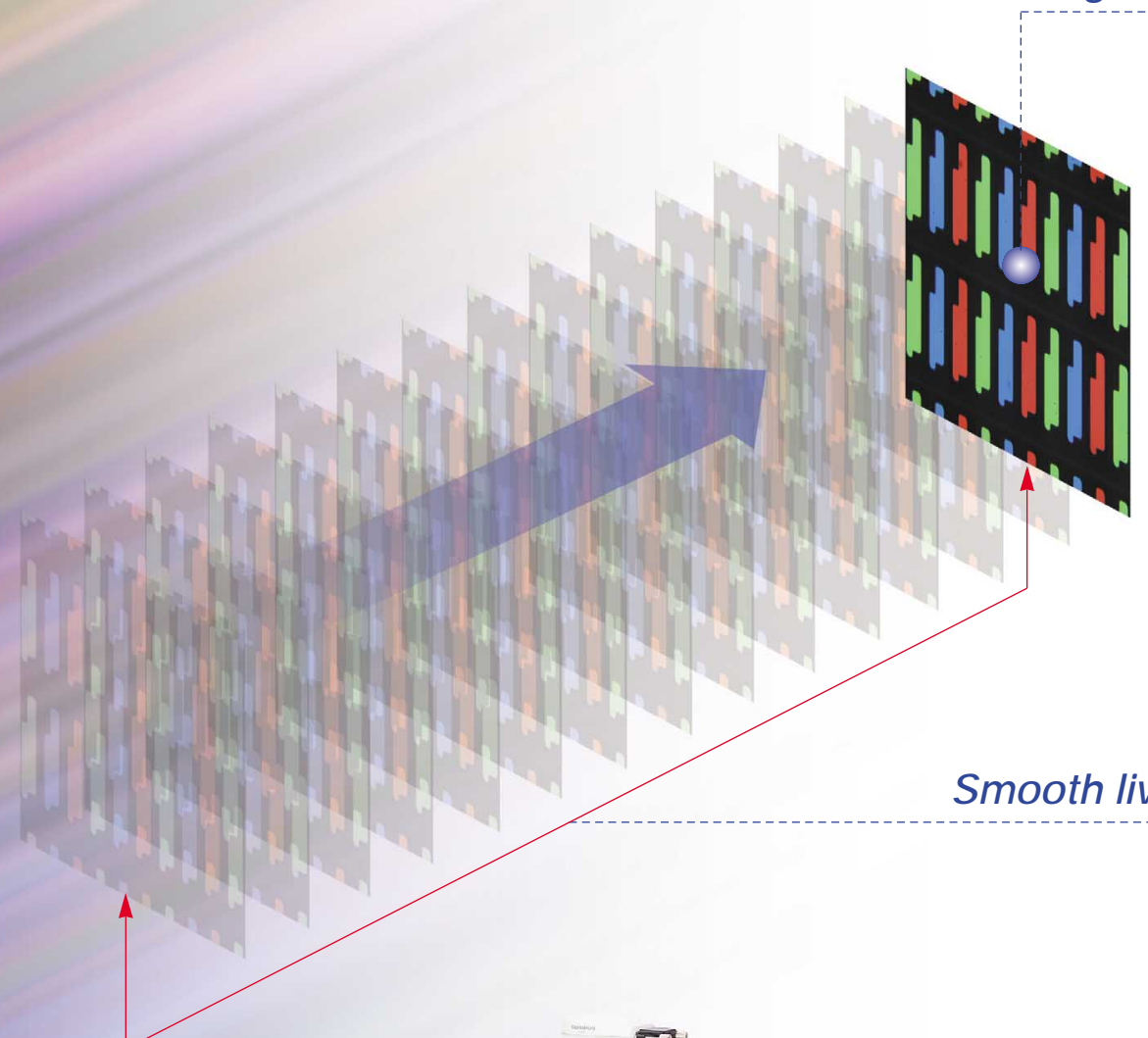
High-precision image

(UXGA*)

*Ultra extended graphics array



2-megapixel CCD



Smooth live image display

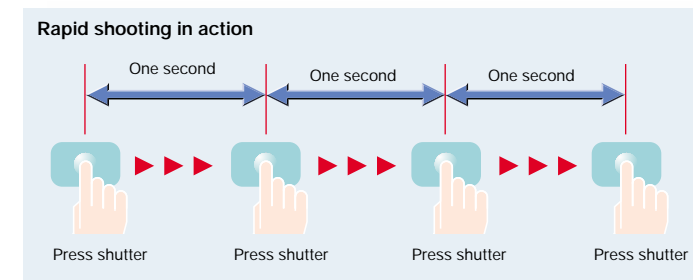
(15 frames/sec)



This high-performance line inspection camera displays smooth, high-resolution (1600x1200 pixels) live images at 15 frames/sec., providing a level of precision comparable to HDTV image quality. The operator can easily adjust the focus on the monitor, and (even when moving the inspection area) obtain seamless, clear moving images with faithful color reproduction ensured by the high resolution. The compact, space-saving design accommodates up to a UXGA (1600X1200 pixels) monitor, fully adequate for detailed observation, speedy inspection and consistent operator comfort.

High speed image capture allows work without interruption

With a conventional digital camera, work must be stopped each time the user wants to capture and store a high quality image. With the DP20, this is not necessary: its rapid shooting (up to 4 high-quality, uncompressed image shots with 1-second intervals) allows defects to be detected and captured continuously, while the inspection proceeds without interruption.



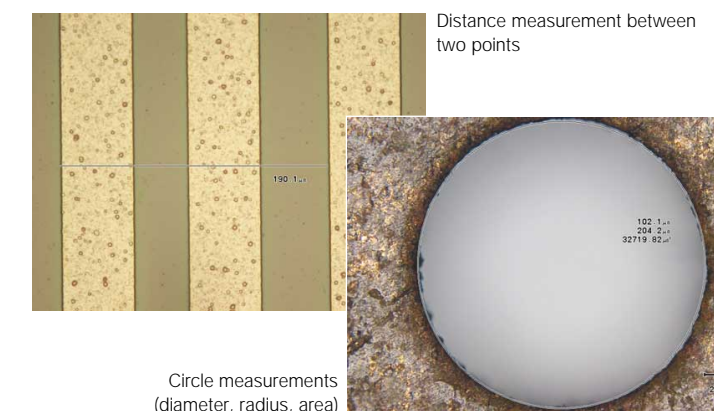
Familiar operating method lets the user concentrate on the inspection

Operating a camera can be a distraction in itself, compromising inspection efficiency and making mistakes more likely. The DP20 is controlled in the standard, familiar way — not via the mouse, but with all tasks from measurement to image acquisition performed by one-touch operation of functionally laid-out keys on a compact, easy-to-use control unit.



Standard-equipped measuring functions for easier quality control and report preparation

When defects are detected in a sample, the DP20's simple keystroke operation makes it easy to capture and store not only the image but also the relevant measurement data. Measurement functions equipped as standard are based on commonly-used scales, distance between two points, circle radius/diameter, circle area, and distance between the centers of two circles. As well as saving time, this facilitates quality control functions and the preparation of reports.



Circle measurements (diameter, radius, area)

With no PC required, the compact DP20 is a great space-saver

When combined with a microscope, the DP20's compact camera head and control unit occupy minimal space on the production line — especially since the DP20 is a standalone unit which does not need a PC for image recording and measurement.

PC-based control offers a wider range of image processing and measurement functions

The provision of analysis FIVE image analysis software enables control of the DP20 directly from a PC via high-speed USB2.0 connection. This software provides a wide range of advanced functions, including image acquisitions, image processing, measurements and analyses.

*Besides analysis FIVE, transfer software DP20-DRV is required.

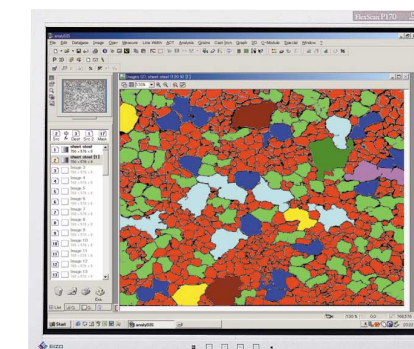
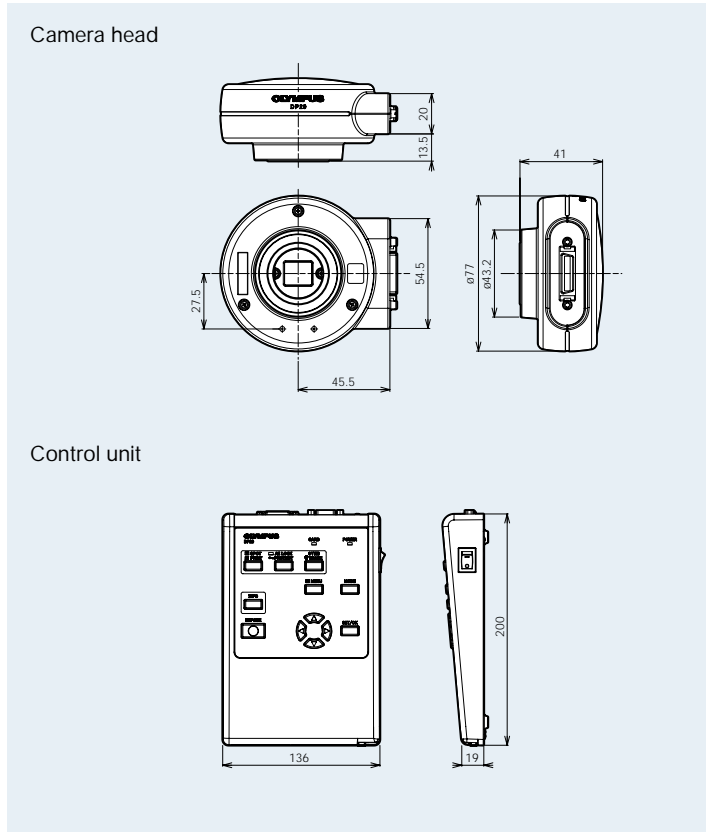


Image analysis software analysis FIVE

Dimensions

(unit: mm)



DP20 basic unit



Specifications

Camera type	With C-mount camera head and control unit	
Imaging sensor	Size	1/1.8 inch color CCD
	Effective recording pixels	2.01 megapixels (Total: 2.11 megapixels)
	Scanning method	Progressive scan
	Color filter	RGB primary color on-chip filter
	Recording range	7.04(H) x 5.28(V)mm, 8.8mm (diagonal length)
	Maximum recording pixels	1.92 megapixels (1600x1200)
Image size File format	Resolution: SHQ(TIFF) 1600x1200 (Approx. 5760kB) SHQ(JPEG) 1600x1200 (Approx. 2140kB) HQ(JPEG) 1600x1200 (Approx. 720kB) SQ1(JPEG) 1024x960 (Approx. 1365kB) SQ2(JPEG) 1024x960 (Approx. 460kB)	
Image display	Compatible with DDC2B Plug and Play display Resolution: UXGA 1600x1200 pixels SXGA 1280x1024 pixels (display area 1280x960 pixels) XGA 1024x768 pixels SVGA 800x600 pixels VGA 640x480 pixels *When main switch is turned ON while pressing menu button, the resolution is VGA (640x480 pixels).	
Recording media	Compact Flash Card (CF card) Type I (3.3mm thick) *Recommended media: Compact Flash cards (up to 4GB) from SanDisk Corporation or Lexar Media Inc.	
Camera mount	C mount	
ISO sensitivity selection	ISO100/200/400	
Photometry system	2.5% (center) spot, 30% (center) average measurement	
Exposure control	Auto/manual With AE lock (automatic exposure only) Exposure adjustment: ±2EV, step 1/3EV (automatic exposure only)	
Exposure time	Auto: 2-1/20000 s Manual: 8-1/20000 s	
Image display speed (frame rate)	Live image display: Max. 15 fps (resolution: 1600x1200 pixels) Display magnifications: 1x, 2x and 4x (electronic zoom) Reproductive image display: Image magnifications 1x, 2x and 4x (index display)	
Input/Output	DC input: main power source Data I/O: USB2.0 Monitor output: analog RGB, miniature D-SUB15-pin CF card slot: Type I	
Scale display	Scale imprint function: Display/hide Configurable microscope total magnifications: 00.01-9999.99 *Maximum of 7 settings for total magnification	
Measuring functions	The distance between two points, circle radius, circle diameter, circle area, and distance between the centers of two circles. *For optimal functionality, the following settings are necessary: Display resolution: 1600x1200 or 800x600 pixels Scale display: On Image file format: TIFF (still image in reproduction mode)	
Storage conditions	Temperature: -20-60°C, humidity: 10-90%	
Operational conditions	Indoors use Temperature: 0-35°C, humidity: 20-85% (non condensing)	

PC requirements for transfer software DP20-DRV

OS	Windows 2000 SP4 Windows XP SP1/SP2
RAM	128MB or more
HDD	Free disk space: 50MB (500KB ~ 6MB per image)
Input/Output device	USB2.0 port/CD-ROM drive
CPU	Pentium III 500MHz or higher
Display	Resolution: 800x600 pixels or higher Display color: 24-bit color or higher
USB	USB2.0

*All brands are trademarks or registered trademarks of their respective owners.

•OLYMPUS CORPORATION has obtained the ISO9001/ISO14001.

Specifications are subject to change without any obligation on the part of the manufacturer.

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