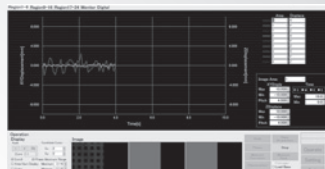


DSMC-100A

Sampling Moire Camera



Sampling Moire Camera DSMC-100A-2 M1



XYZ displacement image measuring software

*Please separately prepare a lens.

*Japanese version: Contact us.

Unless otherwise specified, English version will be delivered.

Simplified remote XYZ-displacement measurement by using a camera

- Acquisition of displacement information via high-speed imaging (maximum of 500 fps)
- Simultaneous measurement of up to 16 points possible with 1 camera
- Results can be checked immediately after making measurements.
- Support for synchronized measurement using up to 3 cameras
- Measurement using any period is possible.

Minute displacement - including the depth direction of various structures - can be measured at high speeds for multiple points simultaneously with one camera. Using this product makes it possible to perform remote/contactless monitoring of bridges and other large infrastructure structures.

The results of outsourced New Energy and Industrial Technology Development Organization (NEDO) work are utilized.

Specifications

Resolution	Grating pitch from 1/100 to 1/1000 (This depends on the grating's number of imaging pixels.)
Measurement Frame Rate	1 to 500 fps (This depends on the number of processing areas, area size, and exposure time.)
■ Camera Specifications	
Image Sensor	1-inch, 4-megapixel monochrome CMOS image sensor
Effective Number of Pixels	2048 W × 2048 H
Gain Adjustment	1.0, 1.2, 1.4, 1.6, 2.0, 2.4, 2.8, 3.2
Lens Mount	F mount
Interfaces	USB 3.0
Power Supply	100 VAC (12 VDC supplied by the AC adapter for camera DSMC-CP)
Dimensions	76 W × 63 H × 121 D mm (Excluding protrusions)
Operating Environment	Temperature: 0 to 40°C Humidity: 20 to 80% (Non-condensing)
Weight	Approx. 850 g
■ Image Processor Specifications	
Output Data	Measured image (6 bits/pixel) Phase XY data (16 bits/pixel)
Sampling Pitch	3 to 31 pixels
Processing-area Size	64 pixels × 64 pixels to 2048 pixels × 2048 pixels
Number of Processable Areas	Up to 16 areas
Measurement Settings	The measurement parameters are specified by using the measurement control PC while it is connected using a USB 3.0 cable.
■ XYZ Displacement Image Measuring Software Specifications	
Main Function	• Acquiring reference images • Saving measurement data • Ongoing measurement displacement monitor (up to 9 simultaneous channels) • Measurement-result displacement monitor (up to 9 simultaneous channels)
Setting	• Measurement parameters • Area (number of processing areas, size) • Measurement mode (normal measurement mode, periodic measurement mode) • Measurement time • Synchronized measurement by using a local controller (optional accessory)

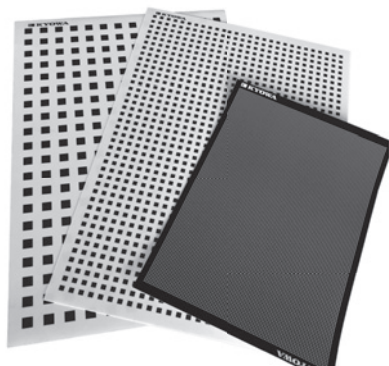
Standard Accessories USB connection cable DSMC-3U
AC adapter for camera DSMC-CP
CD (Instruction manual, measuring software)
Measurement control PC

Optional Accessories Grating sheet DSMC-TG (Page 6-6)
Lens
Tripod camera fixing jig
Local controller



Test Systems

■ Grating sheet DSMC-TG

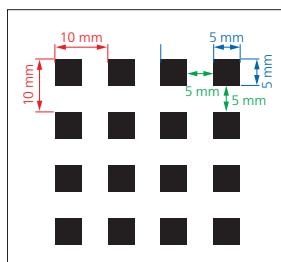


Type	Size	Grating Pitch	Model	Remarks
Sticker	A3	10 mm	DSMC-TG-11	10 sheets/set
		20 mm	DSMC-TG-12	
	A2	20 mm	DSMC-TG-13	
		40 mm	DSMC-TG-14	
		10/20 mm	DSMC-TG-15	
Magnet	A3	10 mm	DSMC-TG-21	
		20 mm	DSMC-TG-22	
Reflective sticker	A3	10 mm	DSMC-TG-41	
		20 mm	DSMC-TG-42	
Heat-resistant sticker up to 600°C	A8	2 mm	DSMC-TG-51	Black, 10 sheets/set
High-temperature sticker up to 150°C	A4	2 mm	DSMC-TG-52	

*Grating sheet selection: Please contact us.

[About grating pitch]

(Example)



- For example, if the 5 × 5 mm corners are lined up at 5 mm intervals as shown in the figure to the left, the grating pitch will be 10 mm.



Test Systems

■ Application Example

