

Video inspection system HD SMV-1.

SWISSMETROLOGIE



MSA		Stand and screen
14.160	(1)	Stand with geared column MSA14.471 Screen 10"
14.161	(2)	Stand with detached arm MSA14.472 Screen 10"
14.162		Stand with extension arm MSA14.399 Screen 10"

The SMV-1 HD video inspection system combines the latest high-definition video technology with the best macro lens providing an exceptionally fluid image quality.

- The integrated 10" flat screen improves image quality and operator comfort
- The dome lighting technique by reverberation enables an optimised surface inspection even on polished and glazed parts
- The macro zoom 10x (13-130 mm) ensures intuitive and fast ease of use.

Key features :

- HD Camera 720P with an integrated 10" flat screen
- Image is captured directly onto the SD memory card
- Remote screen control with a pointing sight
- Indirect LED lighting dimmer by reverberation
- Optical zoom Computar 10x (13-130 mm) providing excellent quality and a working distance from 152 mm to 450 mm
- Zoom magnification from 3x up to 55x, with a wide field of view.

Technical characteristics :

- Digital sensor CMOS 1/2.5"
- Resolution 1280 x 800 @ 60 fps (24 bits), 16.10 aspect ratio
- 2 megapixels
- Individual adjustment of the screen colours : Red, Green and Blue
- Automatic or manual white balance
- Automatic or manual image contrast.

Items included in the delivery, in addition to the following compositions :

- MSA14.150-E : Dome lighting with LED + lighting intensity dimmer
- MSA14.151-P : Protection cover in semi-transparent PVC-Foil
- MSA14.150-SD : - SD memory card 8 GB.

SMV-1	Stand		Camera (with screen)		Optical zoom
MSA14.160 (1) =	MSA14.471	+	MSA14.150-C (10")	+	MSA14.151-Z : 3x ... 55x
MSA14.161 (2) =	MSA14.472	+	MSA14.150-C (10")	+	MSA14.151-Z : 3x ... 55x
MSA14.162 =	MSA14.399	+	MSA14.150-C (10")	+	MSA14.151-Z : 3x ... 55x

Video inspection system FULL HD SMV-2.

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MSA	Stand and screen
14.163 (1)	Stand with geared column MSA14.471 Screen 13.3"
14.164 (2)	Stand with detached arm MSA14.472 Screen 13.3"
14.165	Stand with extension arm MSA14.399 Screen 13.3"
14.168	Stand with geared column MSA14.471 Free-standing screen 23.8"

The SMV-2 FULL HD video inspection system is an intuitive inspection device, capable of filming with an exceptional image quality and fluidity on any HDMI-linked screen.

- New Full HD 13.3" flat screen for unrivalled image quality and operator comfort
- Recording of films and pictures to SD card or USB stick.

Key features :

- Full HD camera 1080P-HDMI controlled by a wireless mouse
- LED incident lighting with an intensity dimmer
- Optical zoom Computar 10x (13-130 mm) provides excellent quality and a working distance from 152 mm to 450 mm
- Zoom magnification from 3x up to 55x, with a wide field of view.

Technical characteristics :

- Digital sensor CMOS 1/3" colour
- Full HD resolution 1920 x 1080 @ 30 fps (12 bit), 16.10 aspect ratio
- 2 megapixels
- Individual adjustment of the screen colours : Red, Green and Blue
- Automatic or manual white balance
- Automatic or manual image contrast
- HDMI connection.

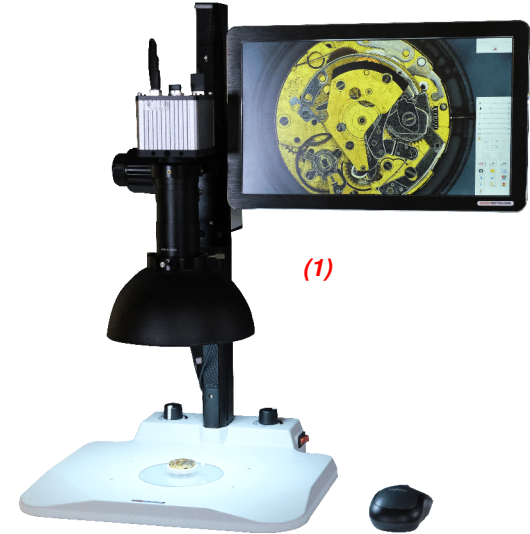
Items included in the delivery, in addition to the following compositions :

- MSA14.150-E : Dome lighting with LED + lighting intensity dimmer
- MSA14.151-P : Protection cover in semi-transparent PVC-Foil
- DOCPUB.USBKEY : USB key 4 Gb with lanyard 80 cm
- MSA14.150-S : Wireless mouse.

SMV-2	Stand	Screen	Camera	Optical zoom
MSA14.163 (1) =	MSA14.471 +	MSA14.151-M (13.3") +	MSA14.151-D +	MSA14.151-Z : 3x ... 55x
MSA14.164 (2) =	MSA14.472 +	MSA14.151-M (13.3") +	MSA14.151-D +	MSA14.151-Z : 3x ... 55x
MSA14.165 =	MSA14.399 +	MSA14.151-M (13.3") +	MSA14.151-D +	MSA14.151-Z : 3x ... 55x
MSA14.168 =	MSA14.471 +	MSA14.153-M (23.8") +	MSA14.151-D +	MSA14.151-Z : 3x ... 55x

Video inspection system HD SMV-3 "Focus Stacking".

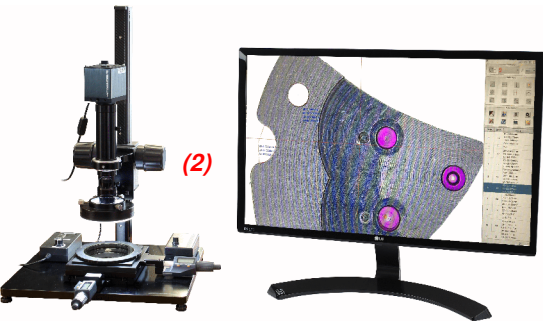
SWISS METROLOGIE



With "Focus Stacking" function



Without "Focus Stacking" function



MSA		Stand and screen
14.170	(1)	Stand with geared column MSA14.473 Screen 13.3"
14.171		Stand with geared column MSA14.473 Screen 23.8"
14.180	(2)**	Stand with geared column MSA14.400 (black base) Screen 23.8"

The SMV-3 video inspection system "Focus Stacking" is the latest intuitive solution from HOROTEC SA.

The "Focus Stacking" is a process in which several photos with different focus are merged to obtain an image with a large depth of field.

Main features :

- "Focus Stacking" function operational without a PC
- Full HD-5 MP camera, 1920 x 1080P @60 fps
- Full HD 13.3" flat screen
- Image storage on Ethernet network or USB stick
- New ergonomic stand with integrated wiring
- Transmitted and incident lighting as standard equipment
- Connection type : HDMI
- Zoom magnification from 3x up to 55x, with a wide field of view (from 30x up to 200x for MSA14.180).

\*\* Graphic measurement software, PC-free, with automatic edge detection function

MSA14.170 : Without measuring functions / Without measuring table

MSA14.171 : With measuring functions / Without measuring table

MSA14.180 : With measuring functions / With measuring table

Main measurement functions of the camera MSA14.153-C :

- Calibration according to the type of measurement : linear or diameter.
- Measurement types :
  - Distance between 2 points, 1 line/1 point and 2 lines
  - Angular between 2 lines - Circle, arc of circle
  - Distance between 1 point/1 circle, 1 line/1 circle and 2 circle centers
  - Concentricity - Rectangle, polygon.
- Capture point :
  - Automatic or manual edge detection function.

Items included in the delivery, in addition to the following compositions :

\*\* - MSA15.614 : Measuring table "X-Y" with rotating circular plate in glass (delivered without stops)

- MSA14.150-E : Dome lighting with LED + lighting intensity dimmer
- MSA14.151-P : Protection cover in semi-transparent PVC-Foil
- DOCPUB.USBKEY : USB key 4 Gb with lanyard 80 cm
- MSA14.150-S : Wireless mouse.

SMV-3	Statif	Screen	Camera	Optical zoom
MSA14.170 (1) =	MSA14.473	+ MSA14.151-M (13.3")	+ MSA14.153-CSM	+ MSA14.151-Z : 3x ... 55x
MSA14.171 =	MSA14.473	+ MSA14.153-M (23.8")	+ MSA14.153-C	+ MSA14.151-Z : 3x ... 55x
MSA14.180 (2) =	MSA14.471	+ MSA14.153-M (23.8")	+ MSA14.153-C	+ MSA14.153-Z : 30x ... 200x (*)
Optical zoom :	(*) 6-position indexable 6000 optical zoom with zoom position memory in software			

Video inspection system FULL HD SMV-B.

SWISSMETROLOGIE



MSA

14.154

The video inspection system SMV-B FULL HD is an intuitive and compact inspection device, capable of filming a meticulous operation live, thanks to a large field depth and an exceptional image fluidity on any screen with an HDMI connection.

- Live viewing in FULL HD quality on any screen with an HDMI connection ; video projector, TV, PC monitor, etc.
- Possibility of streaming via an optional PC converter
- Recording of films and photos on SD card or USB key
- Viewing captured photos directly on the screen.

Key features :

- Full HD 1080P-HDMI camera controlled by wireless mouse
- Optical Zoom Macro 10x (13-130mm) providing an excellent quality and a working distance from 160 mm to 500 mm.

Technical characteristics :

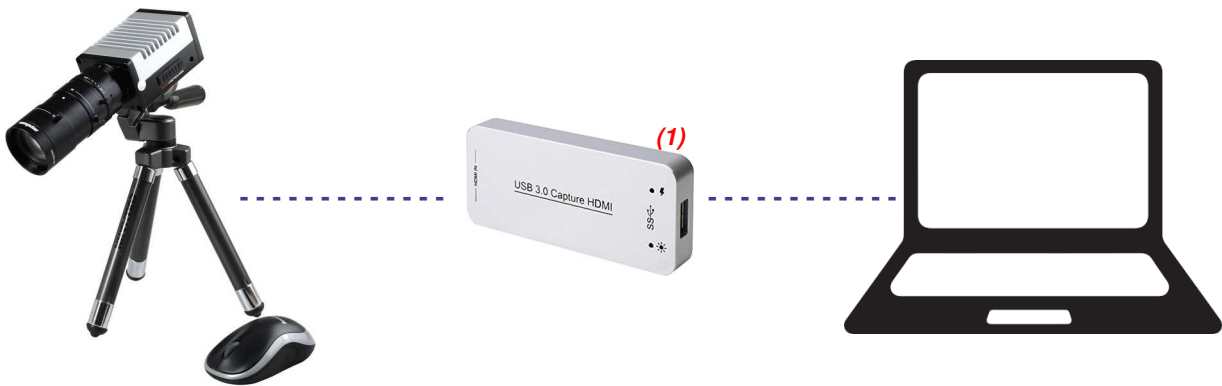
- Digital sensor CMOS 1/3" colour
- Full HD resolution 1920 x 1080 @ 30 fps (12bits), 16.10 aspect ratio
- 2 Megapixels
- Adjustment of the screen colours : Blue - Red - Green
- Automatic or manual white balance
- Automatic or manual image contrast
- Backup : 8 GB SD card or USB stick (not included)
- Connection type : HDMI.

Items included in the delivery :

- 1 FULL HD camera
- 1 HDMI cable 70 cm
- 1 wireless mouse
- 1 Optical zoom Macro 10x (13-130 mm)
- 1 SD memory card
- 1 Z-tripod 200 mm.

Optional :

MSA	Item
14.151-U	(1) HDMI-USB signal converter for PC connection



Connect your HOROTEC inspection system (SMV-B / SMV-2 / SMV-3) with the HDMI/USB 3.0 signal converter (MSA14.151-U) and share your video inspection system camera live using the following video conferencing applications :

