Video inspection system HD SMV-1.

SWISS METROLOGIE

(1)

(2)

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.

SWISS METROLOGIE

(1)

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
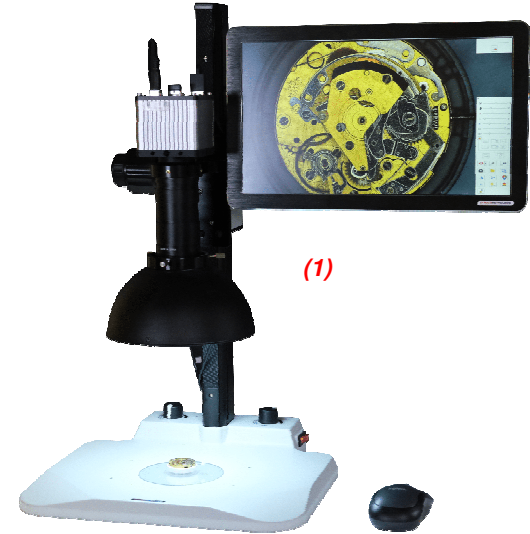- HDMI connection.

(2)

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-C	+	MSA14.151-Z : 3x ... 55x
MSA14.164 (2) =	MSA14.472	+	MSA14.151-M (13.3")	+	MSA14.151-C	+	MSA14.151-Z : 3x ... 55x
MSA14.165 =	MSA14.399	+	MSA14.151-M (13.3")	+	MSA14.151-C	+	MSA14.151-Z : 3x ... 55x
MSA14.168 =	MSA14.471	+	MSA14.153-M (23.8")	+	MSA14.151-C	+	MSA14.151-Z : 3x ... 55x

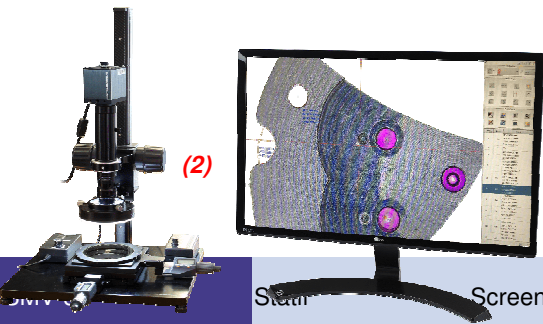**Video inspection system HD SMV-3 "Focus Stacking".**

(1)

With "Focus Stacking" function

Without "Focus Stacking" function

(2)

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, 60 fps
- Full HD 13.5" 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	Stand		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.

SWISS+METROLOGIE

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.
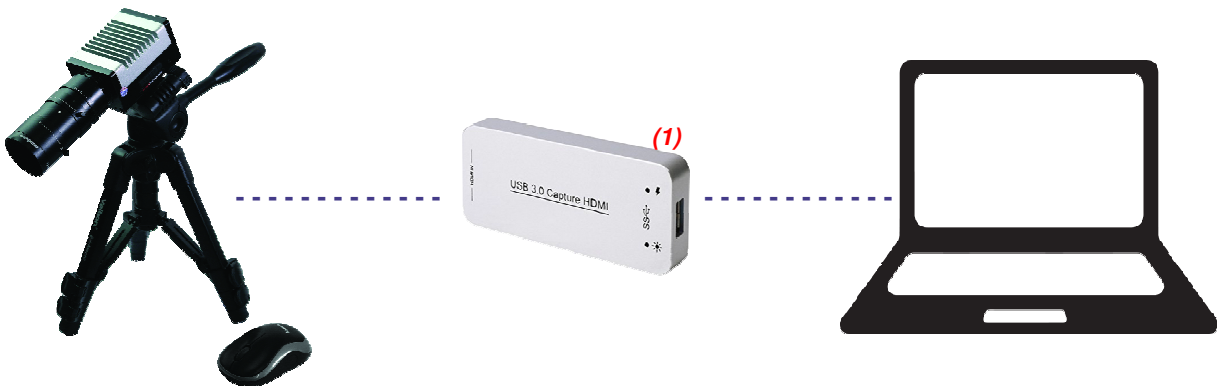
Technical characteristics :
- Digital sensor CMOS 1/3" colour
- Full HD resolution 1920 x 1080 @ 30 fps (12bits), 16.10 aspect ratio
- 2 Megapixels
- Adjustment of the screen colours : Blue - Red - Green
- Automatic or manual white balance
- Automatic or manual image contrast
- Backup : 8 GB SD card 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 :

Skype   TeamViewer   zoom   , etc.