



INSPECTION SYSTEM FLEXIVISION® 100

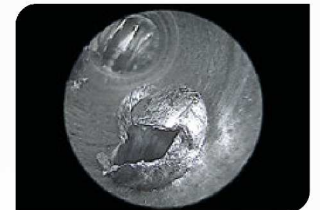
The FlexiVision 100 is a visual inspection system for visual inspection. It is excellently suited for complex as well as frequently changing inspection tasks.

PREMIUM FULL HD IMAGE QUALITY

With high resolution (1920 x 1080 pixel) image rendering, every surface inspected with a borescope is sharp, high in contrast and true to its color on the monitor.



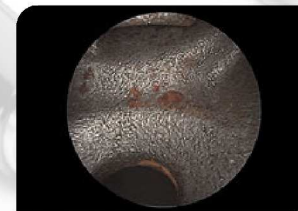
High resolution images show every detail



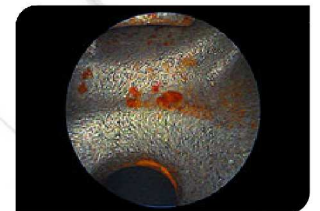
Reliably identify defects thanks to first-class inspection images

VIDEO ALGORITHMS SHOW EVEN MORE

Video algorithms are software functions of the FlexiVision 100 with which the user can change the appearance of the inspection image. Video algorithms can be used to emphasize traits that indicate defects for example, allowing defects to be detected faster. These software functions can be activated as required.



Inspection image without video algorithm



Inspection image with "Selective Color Enhancement" video algorithm

FlexiVision 100 Inspection System



- Visual inspection in Full HD quality
- Image optimization through video algorithms
- Covers many applications through connection possibility of camera head or camera handpiece
- For borescopes starting at 0.35 mm working diameter



Images, videos, brochures and much more at www.schoelly.de/fv100

Technical Data

Control elements on front panel	ON/OFF switch, menu, menu navigation, brightness +/-, image, white balance
Front connections	Socket for FlexiScope 3 camera handpiece and HD camera head, socket for USB
Outputs	2 x DVI, 2 x HD-SDI, 2 x 3.5 mm jack sockets for foot switch
Mains supply	100 - 240 V AC, 50/60 Hz
Dimensions	225 x 92 x 282 mm (W x H x D)
Weight	4 kg
Configuration	Pre-defined settings for different inspection applications Two freely configurable inspection applications Numerous software settings possible (algorithms, basic settings, file names, etc.)
Standard software functions	Contrast, brightness, color saturation, window, digital zoom, edge enhancement, Noise reduction, grid removal, image rotation, flip image
Extended software functions	Selective color enhancement, smoke reduction, split screen
Connecting devices	FlexiScope 3 camera handpiece (p. 12) HD camera head for FlexiVision 100 (p. 17)

Item no.	Description
96.0040	FlexiVision 100 camera base unit with FlexiScope 3 camera handpiece, including DVI cable, 16 GB USB stick, power supply unit and cleaning material, set supplied in transport case
96.0040.XT	FlexiVision 100 camera base unit with extended software functions, with FlexiScope 3 camera handpiece, including DVI cable, 16 GB USB stick, power supply unit and cleaning material, set supplied in transport case
95.4110	FlexiVision 100 camera base unit with HD camera head, including DVI cable, 16 GB USB stick, power supply unit and cleaning material, set supplied in transport case
95.4110.XT	FlexiVision 100 camera base unit with extended software functions, with HD camera head, including DVI cable, 16 GB USB stick, power supply unit and cleaning material, set supplied in transport case

FlexiVision 100 Inspection System

Related components

FlexiVision 100 with camera handpiece

The following components are required for FlexiVision 100 to be ready for operation.

Item	Description	Page
	Camera handpiece	12-13
	Probes Ø 0.7 - 4.0 mm	14-16
	Monitor	43

FlexiVision 100 with camera head

The following components are required for FlexiVision 100 to be ready for operation.

Item	Description	Page
	Camera head	17-18
	HD optics Ø 2.7 - 10.0 mm	19
	Micro borescopes Ø 0.35 - 4.0 mm	from 22
	Universal borescopes Ø 4.0 - 8.0 mm	
	Fiberscopes Ø 3.4 mm	
	Light sources and light guides	from 36
	Monitor	43

Further accessories for the FlexiVision 100 can be found on page 20.

Camera Handpiece

The camera handpiece for the FlexiVision 100

The camera handpiece of the FlexiVision 100 is a versatile connection device. It has a lightweight, ergonomic design, supports a quick and easy probe change, and is compatible with a wide range of probes. The available probes have different working diameters, working lengths, and directions of view (see p. 14). The versatile range of probes means that the system can be quickly adjusted for new inspection tasks.



Plug & Play

Probes are easily connected thanks to the quick coupling mechanism on the camera handpiece.



System integration

The extremely compact handpiece includes both an integrated camera and LED, meaning that no external light source is required and, as a result, no light guide. This saves space and ensures freedom of movement during inspections.



Focusing

For ease of operation, the focusing ring of the camera handpiece features a lever. This allows precise adjustment of the focusing ring and makes it easy to perform an inspection when wearing work gloves, for example.

Camera Handpiece



- Full HD image quality
- Ergonomic and lightweight
- Quick interchangeable probes
- Perfect for 100 % controls
- Ideal for frequently changing inspection tasks
- No external light source required



Many application videos at www.schoelly.de/fv100

Technical Data

Image sensor	1/3" CMOS
Image resolution	1920 x 1080 pixels, full HD
Image format	16:9
Lighting	Integrated LED lighting in the handpiece
Camera cable	2.5 m
Weight	125 g (excl. cable)
Dimensions	155 x 19 x 29 mm (L x W x H)

Item no.	Description
96.0024	FlexiScope 3 camera handpiece with 2.5 m cable length

The camera handpiece is part of the modular inspection system FlexiVision 100. For the basic equipment of an operational system you also need a probe, the FlexiVision 100 and a monitor.

Probes and Protection Tubes



- 0.7 mm to 4 mm working diameter
- Ergonomic and lightweight
- Quick interchangeable
- Perfect for 100 % controls
- Idea for frequently changing inspection tasks
- Fits to the camera handpiece of the FlexiVision 100 and the FlexiScope 2 System



Many application videos at
www.schoelly.de/tv100



WORKING Ø 0.7 MM

Item no.	Working length	Direction of view	Field of view	Description	Protection tube	Working Ø with protection tube
96.0103s	150 mm	0°	70°	6,000 pixel / synthetic tube	MSP.10150	1.0 mm

WORKING Ø 1.0 MM

Item no.	Working length	Direction of view	Field of view	Description	Protection tube	Working Ø with protection tube
96.0124s	150 mm	0°	60°	17,000 pixel / nickel-titanium tube	MSP.12150	1.2 mm

Probes and Protection Tubes

WORKING Ø 1.6 MM

Item no.	Working length	Direction of view	Field of view	Description	Protection tube	Working Ø with protection tube
96.0142s	100 mm	0°	85°	30,000 pixel / nickel-titanium tube	MSP.18100	1.8 mm
96.0132s	135 mm	0°	85°	30,000 pixel / nickel-titanium tube	MSP.18135	1.8 mm
96.0123s	150 mm	0°	70°	17,000 pixel / synthetic tube	MSP.19150	1.9 mm
96.0165s	135 mm	0°	30°	17,000 pixel / stainless steel tube	MSP.18135	1.8 mm
96.0166s	150 mm	30°	75°	17,000 pixel / synthetic tube	MSP.18151*	1.8 mm
96.0167s	150 mm	70°	75°	17,000 pixel / synthetic tube	MSP.18151*	1.8 mm
96.0168s	150 mm	90°	75°	17,000 pixel / synthetic tube	MSP.18151*	1.8 mm

WORKING Ø 2.0 MM

Item no.	Working length	Direction of view	Field of view	Description	Protection tube	Working Ø with protection tube
96.0158s	135 mm	0°	90°	50,000 pixel / stainless steel tube	MSP.24135	2.4 mm
96.0152s	135 mm	30°	90°	50,000 pixel / stainless steel tube	MSP.24132*	2.4 mm
96.0172s	135 mm	70°	75°	30,000 pixel / stainless steel tube	MSP.24132*	2.4 mm
96.0173s	135 mm	90°	75°	30,000 pixel / stainless steel tube	MSP.24132*	2.4 mm

WORKING Ø 2.7 MM

Item no.	Working length	Direction of view	Field of view	Description	Protection tube	Working Ø with protection tube
96.0274s	110 mm	0°	75°	Rod lenses / stainless steel tube	MSP.30111	3.0 mm
96.0273s	110 mm	30°	75°	Rod lenses / stainless steel tube	MSP.30118**	3.0 mm
96.0275s	110 mm	70°	75°	Rod lenses / stainless steel tube	MSP.30119**	3.0 mm
96.0288s	179 mm	0°	85°	Rod lenses / stainless steel tube	MSP.30174	3.0 mm
96.0297s	179 mm	30°	85°	Rod lenses / stainless steel tube	MSP.30175**	3.0 mm
96.0299s	179 mm	70°	75°	Rod lenses / stainless steel tube	MSP.30176**	3.0 mm
96.0293s	290 mm	0°	75°	Rod lenses / stainless steel tube	MSP.30180	3.0 mm
96.0294s	290 mm	30°	75°	Rod lenses / stainless steel tube	MSP.30181**	3.0 mm
96.0298s	290 mm	70°	75°	Rod lenses / stainless steel tube	MSP.30182**	3.0 mm

* Protection tube with exposed probe tip

** Protection tube with protrusion and fixing screw

Probes and Protection Tubes

WORKING Ø 4.0 MM

Item no.	Working length	Direction of view	Field of view	Description	Protection tube	Working Ø with protection tube
96.0405s	170 mm	0°	85°	Rod lenses / stainless steel tube	MSP.44170	4.4 mm
96.0403s	170 mm	30°	85°	Rod lenses / stainless steel tube	MSP.44171**	4.4 mm
96.0404s	170 mm	45°	85°	Rod lenses / stainless steel tube	MSP.44172**	4.4 mm
96.0406s	170 mm	70°	85°	Rod lenses / stainless steel tube	MSP.44173**	4.4 mm
96.0407s	298 mm	0°	70°	Rod lenses / stainless steel tube	MSP.44300	4.4 mm
96.0408s	298 mm	27°	70°	Rod lenses / stainless steel tube	MSP.44301**	4.4 mm
96.0409s	300 mm	65°	70°	Rod lenses / stainless steel tube	MSP.44302**	4.4 mm
96.0410s	425 mm	45°	65°	Rod lenses / stainless steel tube	MSP.44420**	4.4 mm
96.0411s	425 mm	0°	65°	Rod lenses / stainless steel tube	MSP.44421	4.4 mm
96.0412s	425 mm	30°	65°	Rod lenses / stainless steel tube	MSP.44422**	4.4 mm
96.0413s	425 mm	65°	65°	Rod lenses / stainless steel tube	MSP.44423**	4.4 mm

** Protection tube with protrusion and fixing screw

Camera Head

The camera head for the FlexiVision 100

The Full HD camera head is a connection device for the FlexiVision 100. It is compatible with all borescopes and fiberscopes with a DIN eyepiece. When combined with Full HD-compatible borescopes, it produces brilliant inspection images. Borescopes and fiberscopes that were previously used for direct visual inspection can also be connected to the FlexiVision 100 via the camera head.



Zoom and focusing

The inspection image can be focused using the gray focusing ring. Once set, you can then zoom in using the black ring without re-focusing (parfocal zoom).



Individually assignable function keys

The camera head has three function keys that can be assigned individually, for example to control the image display, to capture photos, or to navigate the configuration menu of the FlexiVision 100.



High resolution HD optics

The Full HD-compatible borescopes with working diameters of 2.7 - 10 mm are designed for use with the FlexiVision 100 with camera head.

Camera Head



- Full HD image quality
- All borescopes with DIN ocular can be connected
- Optical zoom
- Functional keys for menu navigation of the FlexiVision 100



Learn more at
www.schoelly.de/fv100

Technical Data

Image sensor	1/3" CMOS
Image resolution	1920 x 1080 pixels, full HD
Image format	16:9
Control elements	3 individually programmable, illuminated buttons
Endocoupler	Integrated parfocal zoom for standard DIN ocular
Focal length	f = 14.25 - 28 mm
Camera cable	3.5 m
Weight	220 g (excl. cable)
Dimensions	135 mm (length), 50 mm (diameter)

Item no.	Description
95.4100	HD camera head for FlexiVision 100

The camera head is part of the modular inspection system FlexiVision 100. For the basic equipment of an operational system you also need a borescope with DIN ocular, a light source with light guide, the FlexiVision 100 and a monitor.

HD Optics



- High resolution HD optics specially designed for the FlexiVision 100 with camera head
- Rod lens system for excellent images
- Different viewing angles and wide angles, as well as different working lengths

Item no.	Working Ø	Working length	Direction of view	Field of view
ME.27120.0085	2.7 mm	110 mm	0°	95°
ME.27120.3085	2.7 mm	110 mm	30°	85°
ME.27120.7085	2.7 mm	110 mm	70°	80°
ME.27210.0085	2.7 mm	187 mm	0°	95°
ME.27210.3085	2.7 mm	187 mm	30°	85°
ME.27210.7085	2.7 mm	187 mm	70°	80°
ME.40175.00100	4.0 mm	175 mm	0°	100°
ME.40175.30100	4.0 mm	175 mm	30°	100°
ME.40175.70100	4.0 mm	175 mm	70°	100°
ME.500312.0070	5.0 mm	312 mm	0°	70°
ME.500312.3070	5.0 mm	312 mm	30°	70°
ME.100344.0070	10.0 mm	344 mm	0°	70°
ME.100344.3070	10.0 mm	344 mm	30°	70°

Accessories

Foot switch



95.4051

The foot switch for the FlexiVision 100 can be assigned various functions. This is useful, for example, if images of the inspection need to be captured and the person performing the inspection is holding the object in one hand and the inspection instrument in the other.

Holder for camera handpiece



95.4058

The camera handpiece of the FlexiVision 100 can be safely stowed away using the handpiece holder, which is firmly mounted on the wall.



The SCHÖLLY Newsletter for industrial endoscopy.

Register for our newsletter.
Under www.schoelly.de/news



What's expecting you?

Approx. 4 times a year you will receive a newsletter from us.

- Things to know about visual inspection
- Application videos
- Trade fair and lecture dates
- Product news
- Stories from the daily practice of our customers