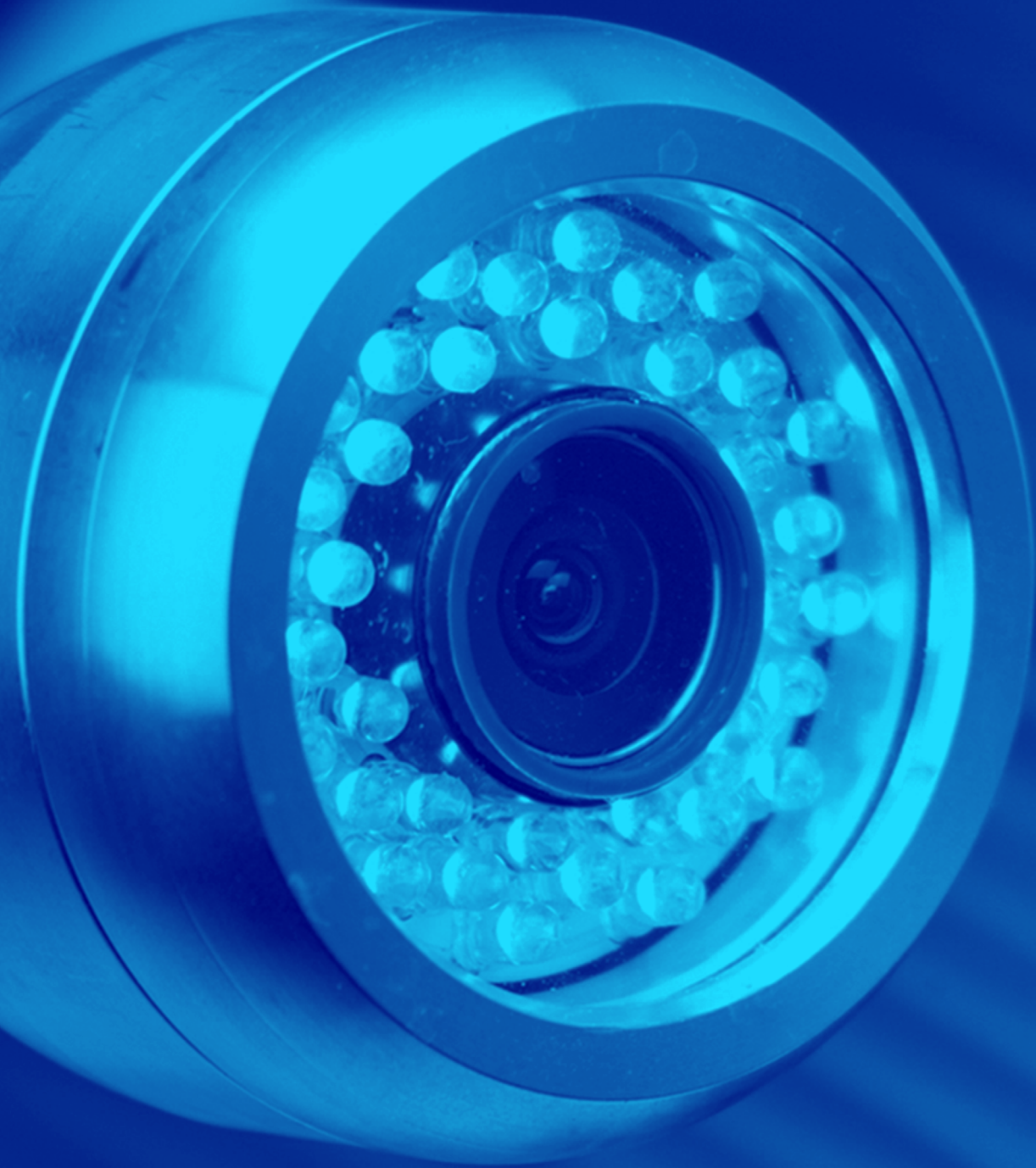


R.



Sewer Inspection & Detection

Keeping your business flowing

Rioned.

SEWER CAMERAS

SANICAM+

ULTRA COMPACT BUT SEES EVERYTHING

The SaniCam+ is a professional camera system suitable for navigating at least 2 perpendicular bends in pipes from 32 mm diameter. It is a handy, reliable and extremely functional system. In spite of its modest dimensions, the SaniCam+ delivers excellent format performance and misses nothing.

MINISCULE CAMERA HEAD

The SaniCam+ is extremely user friendly and comes complete with mains adapter, battery and video connection.. The camera is made from stainless steel and has a wide-angled lens with fixed focus and auto iris for automatic brightness control. The colour camera is waterproof to 2 bar and has a head with a length of 20 mm.

There is a SaniCam+ for every type of pipe, from diameter 32 to 150 mm. Type 1 has a camera head of just 13 mm diameter for the smallest of pipes, while type 2 is suitable for pipes starting at 40 mm and type 3 is suitable for pipes with a diameter of 50 to 150 mm.

A USER-FRIENDLY CAMERA

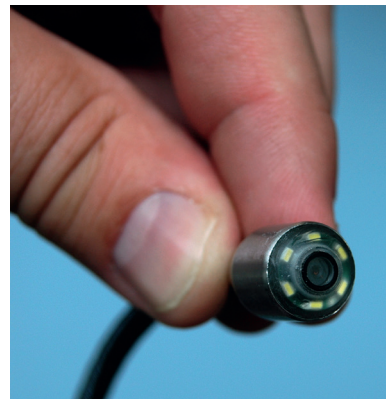
The SaniCam+ is easy to use, straightforward to connect and requires little by way of maintenance. The push cable on types 1 and 2 has a length of 20 metres; the cable is 3 or 5.5 mm thick depending on the diameter of the camera head (13 or 20 mm). Type 3 has a push cable of 25 metres with a thickness of 6.5 mm.

An optional plug-in mini transmitter can be obtained for SaniCam+ versions with exchangeable head.

DESIGN

The SaniCam+ standard version comes with the following:

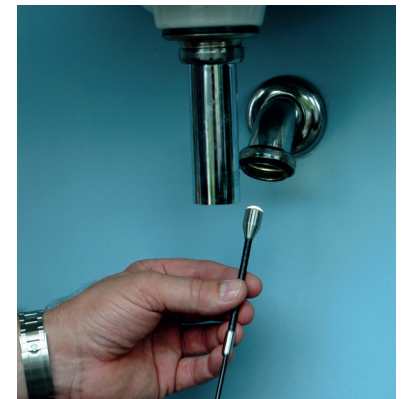
- Colour camera module with high resolution, electronic shutter/auto iris, fixed focus from 3 cm, wide-angled lens and sapphire protective glass
- 20/25 metre push cable
- High-quality TFT screen (14 cm/5.6") with digital recording and playback device with SD card slot incl. 2 GB SD card
- Electronic metre counter with reset button
- In-built rechargeable battery with battery level indicator
- Video output with BNC connection
- Robust plastic transport case



Camera head equipped with optional screw-on mini transmitter



TECHNICAL DETAILS			
	Type 1	Type 2	Type 3
Area of use	Pipes with a diameter of 16 to 50 mm, perpendicular bends of 32 mm	Pipes with a diameter of 25 to 75 mm, perpendicular bends of 40 mm	Pipes with a diameter of 50 to 150 mm, perpendicular bends of 50 mm
Cable length	20 metres	20 metres	25 metres
Camera head	20 mm long, diameter 13 mm, fixed	20 mm long, diameter 20 mm, exchangeable	20 mm long, diameter 25 mm, exchangeable
Via BNC connection	Monitors, PCs and laptops with video input		
Optional			
Aluminium conductor	Diameter 20 mm	Diameter 25 and 35 mm	Diameter 40 mm/70 mm (with brushes)
Plug-in mini transmitter	Not possible	512 Hz	512 Hz



Suitable for even the smallest of drains



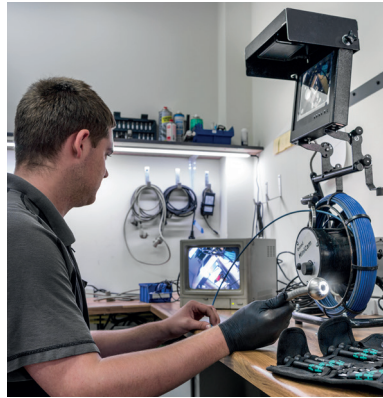
Extremely mobile

- Suitable for pipes from 32 mm
- Complete, user-friendly camera system
- 5.6" colour screen with digital recording and playback device
- Mains or battery powered (in-built battery)
- Optional easy-to-attach plug-in transmitter available

SEWER CAMERAS

FIBERCAM+

THE PERFECT CAMERA INSPECTION SYSTEM



Rioned camera service centre

The FiberCam+ is a push cable camera system with the option of either an MSE-100 type or MSE-300 type control box. It's the ideal system for users such as professional drain cleaners and those in the relining industry.

SELF-LEVELLING CAMERA HEAD

- Pipe diameter: 70 - 300 mm, 90° bends from 100 mm
- Plug-in stainless steel camera head (ø 45 mm, length 70 mm)
- With self-levelling function for a permanently horizontal image
- Waterproof to 3 bar
- High-quality LED cold light (36 ultra illumination LEDs)
- High image quality with sharp colours

SWIVELLING CAMERA HEAD

- Pipe diameter: 100 - 300 mm, 90° bends from 100 mm
- Plug-in aluminium/stainless steel camera head (diameter 78 mm, length 110 mm)
- High image quality with sharp colours
- Automatic horizon compensation
- Automatic 0-position
- Automatic 90° left/right swivel function
- Automatic 360° rotating inspection function
- Swivel range +/- 110°
- Dimmable LED cold light (18 high-power LEDs)
- Waterproof to 1.5 bar
- Professional version with slip coupling

DESIGN

The FiberCam+ standard version comes with the following:

- Stable stainless steel frame
- Waterproof shaft with ball-bearing mounting
- 60 m push cable, diameter 9 mm
- Compatible with plug-in camera heads
- Optionally activated recoil brake (prevents unwanted unwinding of the push cable)
- Transport wheels for easy transport
- Fault-free slip ring
- Incl. BNC and mains cable

OPTIONALLY AVAILABLE INCL.
self-levelling or swivelling camera head, various options, conductors and transmitter set 512 Hz/33 kHz



Self-levelling camera head for a permanently horizontal image



Swivelling camera head

- Professional camera system
- Extremely robust with modular assembly
- State-of-the-art control box
- 60 m push cable, diameter 9 mm
- For pipes with diameter 70 to 300 mm
- Multiple 90° bends from 100 mm

TECHNICAL DETAILS		
	FiberCam+ MSE-100	FiberCam+ MSE-300
TFT screen with high-resolution image	5.6"	8"
Integrated MPEG-4 digital video recorder (AVI) with snapshot function (BMP)	✓	✓
Control for swivel-head cameras	X(*)	✓
Integrated digital metre counter	✓	✓
Text processing: > Configurable status bar with date, time, metre counter value > Save and retrieve 64 words and 8 pages > Membrane keyboard for outdoor work	X	✓
RS232 PC connection for data transfer to sewer inspection software	X	✓ Optional
Display of sensor values in conjunction with swivelling camera head (rotation and swivel angle in degrees, internal pressure in bar)	✓	✓
Lithium-ion battery with in-built charger and status display	✓	✓✓
12 V connection	✓	✓
BNC video input/output	✓	✓
(*) Can be expanded with optional cable remote control for swivel-head camera		



MSE-100 control box



MSE-300 control box with keyboard

SEWER CAMERAS

FLEXCAM

FLEXIBLE, ROBUST, UNIVERSAL

The Rioned FlexCam is extremely flexible for use anywhere. This lightweight camera can be used in pipes from 40 mm. The self-levelling camera head with in-built mini transmitter (512 Hz) ensures an upright image at all times. The reel has 40 metres of sturdy yet flexible push cable for inspecting even the narrowest of pipes with resistance. A metre counter and keyboard are provided as standard. Images are stored in the internal memory, on a USB stick or SD card. The lithium-ion battery provides 9 hours of uninterrupted use. The camera is operated by the same control unit as its bigger brother, the Rioned MaxCam. With an easy-to-remove box and two reels, you can inspect pipes ranging from 40 to around 300 mm with ease.

A SINGLE CONTROL UNIT

If you already use a Rioned MaxCam, you can easily connect the control unit to the FlexCam. The camera features a self-levelling camera head with integrated mini transmitter. The 30 mm diameter camera head is capable of tackling bends of 45° in pipes of 40 mm. In pipes of 50 mm or more, 90° bends are possible.

DESIGN

The FlexCam is very well equipped and is supplied with:

- Camera head with self-levelling image and integrated mini transmitter
- 40 metre push cable with metre counter
- Mina reporting software
- 10.4" super-sharp screen
- Rechargeable lithium-ion battery
- HDD (32 GB), 2 USB ports and 1 SD slot
- Ethernet and WiFi/4G data transfer
- Weather-resistant (IP64) keyboard
- Freeze-frame photo capability
- Robust open reel construction with cable brake
- Free Mina app for second remote screen and report generation



The transmitter is integrated into the camera head for optimal protection from external influences.

SEWER CAMERAS

MAXCAM

COMPLETE CAMERA FOR PIPES UP TO 300 MM

The robust Rioned MaxCam is a complete camera system at an attractive price. It has been designed for inspecting pipes with diameters between 70 and 300 mm. It comes with a self-levelling camera head with mini transmitter, WinCan reporting software, a waterproof keyboard and a 60 metre push cable with metre counter as standard. Images are stored in the internal memory, on a USB stick or SD card. The lithium-ion battery provides at least 9 hours of use before it needs to be charged. The control unit can also be used with the Rioned FlexCam camera for inspecting smaller pipes.

CAMERA HEAD

The self-levelling camera head keeps the image horizontal at all times. The camera head with integrated transmitter (512 Hz) has a diameter of 44 mm allowing you to inspect straight pipes with a diameter over 70 mm. From pipe diameters of 90 mm, the camera head can also navigate perpendicular bends.

DESIGN

The MaxCam is very well equipped and is supplied with the following as standard:

- Camera head with self-levelling image and integrated mini transmitter
- 60 metre push cable with metre counter
- WinCan software
- 10.4" super-sharp screen
- Rechargeable lithium-ion battery
- HDD (32 GB), 2 USB ports and 1 SD slot
- Ethernet and WiFi/4G data transfer
- Weather-resistant (IP64) keyboard
- Freeze-frame photo capability for photographs
- Robust open reel construction with cable brake
- Free Mina app for second remote screen and report generation



Bright LED lighting



USB, SD and internal storage of recordings



Exchangeable monitor (suitable for MaxCam and FlexCam)



TECHNICAL DETAILS		
	FLEXCAM	MAXCAM
Pipe diameter, area of use Perpendicular bends	From 40 to 125 mm From 50 mm	From 70 to 300 mm From 90 mm
Cable (length, diameter)	40 metres/8.6 mm	60 metres/12 mm
Camera head	Diameter 30 mm, stainless steel Self-levelling	Diameter 40 mm, stainless steel Self-levelling
Transmitter (in camera head)	512 Hz	512 Hz
Screen	10.4"	10.4"
Resolution	720 x 576	800 x 600
Software	Mina reporting WinCan embedded	Mina reporting WinCan embedded
Data storage	32 GB HDD	32 GB HDD
Data transmission	USB (2x), SD, Ethernet, WiFi 4G, VGA output	USB (2x), SD, Ethernet, WiFi 4G, VGA output
Battery	Rechargeable lithium-ion battery (max. 9 hours)	Rechargeable lithium-ion battery (max. 9 hours)
Video/photo file format	MPEG4/JPEG	MPEG4/JPEG
IP score, reel/box	Reel: IP 54 Camera: IP 68	Reel: IP 54 Camera: IP 68
Dimensions		
Reel	520 x 445 x 310 mm	1010 x 415 x 625 mm
Box	360 x 190 x 160 mm	360 x 190 x 160 mm
Weight		
Reel	11.8 kg	23.5 kg
Box	5.5 kg	5.5 kg



- Complete cameras with software and mini transmitter
- Exchangeable control unit with 10.4" screen and keyboard
- Self-levelling camera head for horizontal image
- Super-sharp adjustable LED lights for ultra-sharp image
- Use the cameras with the Mina app. Turn your smartphone into a second screen and monitor remotely.

DETECTION SYSTEMS

RIOTRACK AND RIOTRACK PRO

TRACING PROBES HAS NEVER BEEN SO EASY

TRACING TRANSMITTERS AND CABLES

The RioTrack and RioTrack Pro are detection devices for tracing mini transmitters fitted to the ends of high-pressure hoses or inside the heads of (sewer) cameras. They turn locating the high-pressure hose or camera head in a concrete or PVC sewer pipe into mere child's play. The detectors are also suitable for tracing power cables and radio cables, helping to prevent problems that might occur during excavation work. All 512 Hz, 640 Hz and 33 kHz frequency transmitters can be traced. The different frequencies can be set with ease on the device.

DEPTH MEASUREMENT ON SCREEN AND COMPASS FUNCTION

In addition to indicating the signal strength, the depth at which the cable or transmitter is located is also indicated. The Pro version comes with an 11 cm TFT LCD colour screen on which the (indicative) depth can be read off continuously. Equipped with 6 antennae, the new RioTrack Pro takes the user directly to the probe, with no detours. A clear arrow indicates the movement direction - tracing transmitters has never been so easy! If a ghost signal is received, a blue coloured symbol is displayed as an indication. A selection menu can be used to set other frequencies, background lighting and the sound level of the trace signal.

The RioTrack basic version has a small screen that indicates battery status, signal sound level, frequency, signal level and sensitivity. Graphic and audio indication of the signal strength helps to determine the movement direction.

LIGHTWEIGHT

With durable and impact-resistant plastics, the RioTrack and RioTrack Pro are extremely shock resistant and lightweight. The Pro version weighs approx. 2.5 kg. The basic version weighs just 0.62 kg.



Transmitter set for high-pressure machine



- Trace transmitters and cables
- Depth measurements
- 6 internal antennae for direct direction indication from any position
- Easy to use
- Lightweight and strong
- Rapid, accurate signal

RECHARGEABLE BATTERY PACK AND MAINS ADAPTER

The RioTrack Pro is equipped with a battery holder and 6 alkaline AA batteries as standard, providing no fewer than 8 hours of use. An optional rechargeable battery pack and mains adapter are optionally available. The battery level is indicated on the screen. The RioTrack basic version is powered by 2 AA batteries.

STANDARD VERSION

Both detectors are supplied with batteries.

OPTIONAL

- 512 Hz or 33 kHz transmitter set for high-pressure machine or push reel incl. drive head and corresponding battery
- Integrating 512 Hz or 33 kHz mini transmitter in combination with a camera system
- Rechargeable battery pack and mains adapter (RioTrack Pro)
- Bluetooth module for connection of a GPS receiver

TECHNICAL DETAILS	
Frequencies	512 Hz, 640 Hz and 33 kHz and power
Receiving type	Peak or probe is automatically selected by the device itself
Transmitter set range	To approx. 5 metres depth maximum, depending on local conditions.
Mini transmitter integrated into camera system	To approx. 3.5 metres depth.
Temperature	-20°C to 50°C
Watertightness	IP 53 and Nema 4
Dimensions (LxWxH)	67 x 32 x 12.5 cm
Weight	Approx. 0.62/2.5 kg including batteries
Approval	This device is supplied in accordance with the applicable European directives



Bright LED screen with direct direction indication

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