

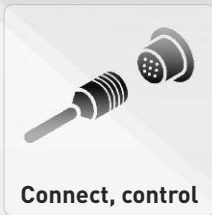


FOR MORE INFORMATION

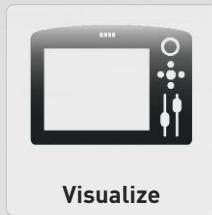


## The reliable pan-tilt-zoom camera for remote visual inspections of tanks & vessels

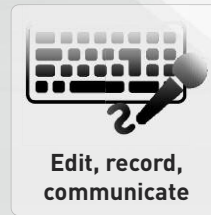
Increase the productivity and availability of your vessels, tanks, and pipeline infrastructure by using the INVIZ® SNK remote visual inspection technology.



Connect, control



Visualize

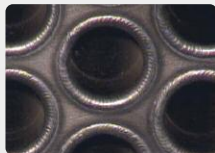


Edit, record, communicate



Archive

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## SHORTEN YOUR PLANT REVISION TIME

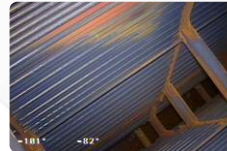
The use of INVIZ® SNK equipment will reduce the work load and time needed to return back to production.

## REDUCE INSPECTION COSTS

Remotely positioned and maneuvered from the outside, this system reduces the need for inspectors to enter potential hostile, hazardous environment. This inspection method diminishes increasing costs for scaffolding, avoids potential contamination & damage on sensitive vessel surfaces.

## INCREASE SAFETY OF YOUR INSPECTION PERSONAL & ASSET

Big vessels, huge volume tanks & other storage containments can be inspected by just entering the INVIZ® SNK through a small manhole. The Run & Scan function ensures systematic outright containment wall inspections, camera coordinates are displayed and registered to prove and document the process. Zoom in the smallest detail from the remotest area with the impressive 40x optical and additional digital zoom.



## UTILIZE THE ADVANTAGES OF THE INVIZ® SNK TANK AND VESSEL INSPECTION SYSTEM

- The excellent pan and tilt capabilities offer all round inspection.
- With the wide viewing angle optic position you quickly achieve a good orientation and overview.
- No detail is missed. On the tip of your finger you zoom in the smallest detail from the remotest area with the impressive 40x optical and additional electronically zoom. The image will be presented and analysed in high resolution outside allowing ergonomic work and consultation of other experts.
- One robust Kevlar strengthened single system cable with the robust, compact stainless steel connector ensures long lifetime.
- Specific camera positions can be saved for later to easy recall positions of interest. The auto Run & Scan function ensuring for instance the systematic outright containment wall inspection. Camera coordinates are displayed and registered to prove and document the process.
- Two independent controllable and field replaceable head lights offer best possible independent illumination and failure detection.
- Up to 50 meter working length, the INVIZ® SNK camera head cable connects simply to the INVIZ® MATRIX multi functional control unit utilizing the SNK camera docking bay interface. With longer, optional cable lengths up to 200 m the system cable can be stored and operated while winding or unwinding from the patented viZaar® cable reel system.
- Watertight up to 50 m.
- X/Y position information guarantees detailed orientation and documentation.
- Digital image manipulation provides image presentation in upright position, even when the camera is operated upside down.

## BENEFIT WITH THE INVIZ® SNK FROM THE INVIZ® MATRIX INSPECTION & DOCUMENTATION PLATFORM

Simply connect the single camera head cable to The INVIZ® MATRIX SNK / INVIZ® Revolver 80 docking bay interface. The MATRIX software will recognize your SNK automatically and offer a fantastic portfolio of features and capabilities that are setting new standards in the industry. The camera image is shown in unique quality and high resolution and operation is controlled by the integrated joy stick and easy touch screen interface. The image and video documentation quality of the INVIZ® MATRIX system will elevate your work to the highest industry standard. Other or alternative remote visual equipment perhaps needed to complete the full inspection will also connect to the same system. The INVIZ® MATRIX platform is offering many additional usefull capabilities and time advantages while just using one remote visual inspection solution. Find more details and all about those additional benefits by visiting our webpage or contact simply our representative for a product presentation.

## UTILIZE OUR CUSTOM-MADE SOLUTIONS

For years, viZaar® is working closely with their customers and replying to their desires and requirements. We provide our SNK technology for custom-made products and minor series production. Benefit from viZaar®'s year long experience and wide range of possibilities and qualities. Contact our experts today! Work with optional stainless steel camera housings, variations in construction dimensions and the pan-tilt range, alternative optical configurations and different illuminations with LED front rings, infrared and UV illumination or laser line measurement. Develop your own pan-tilt-OEM camera solution with us, fitting exactly for your application. Please find our contact details and examples in custom-made projects on our website, referring to the section "Custom made systems".

PAN-TILT RANGE

ZOOM

238° Tilt range

+60°

-178°

+173.5°

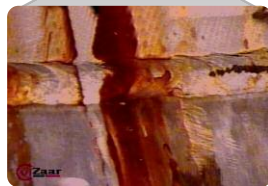
-173.5°

347° Pan range

TELE (1.6°)

WIDE ANGLE (60°)

Overview



Detail with 40x optical zoom

INVIZ® MATRIX RVI AND DOCUMENTATION PLATFORM













CAMERA HEAD	
Type	Sony® ¼" Super HAD CCD.
Resolution	670 horizontal TV lines PAL, 570.000 pixel.
Zoom	40x optical / 12x digital   FOV range optical: 1.6° to 60° in air, 1.2° to 45° in water
Focal range	1.5 cm (0.59")- ∞, manual & automatic adjustment.
Light sensitivity	0.6 lx min. at 1/50 sec. shutter ← 0.04 lx min. at 1 sec. shutter (50IRE).
Iris & shutter	Manual and automatic, 1/10.000 sec. to 1 sec.
Overheat protection at 75°C / 165°F	Yes
Display of camera temperature	Yes
Working cable length	3 m / 9.8 ft. to 50 m / 164 ft. (optional up to 200 m / 640 ft. on viZaar®'s patented slipping cable reel).
Features*	Wide Dynamic Range, enhanced noise reduction, high resolution mode.

ILLUMINATION	
Head lights	2 x 35 Watt / 35 Watt each**, 32 steps 0 to 100%   Compatible with all types of 12V GU4 Halogen lamps (approx. 650 lumen). 25° (77°F) less heat with original viZaar® lamp.

OPERATING ENVIRONMENT	
Temperature	-15°C (5°F) to +55°C (131°F).
Pressure	50 m / 160 ft. depth of water.
Inner CO <sub>2</sub> pressure	Max. 0.7 bar / 10.15 psi

AXIS RANGE	
Pan range	347° (+/- 173.5°)
Tilt range	-178° to +60°
Speed	Aluminium: 0 to 14°/Sek.
Torque (clutch protected)	Yes.

DIMENSIONS	
Weight	Aluminum anodized: 2.9 kg / 6.4 lbs
Dimensions in mm / inch	Opening diameter: 162 mm (6.4") height / Standard: 280 mm (11.02") total height.
Mounting	Four M6 mounting points.
Position feedback	Resolution: 0.1°   Accuracy: 1.0°.

ACCESSORIES		
Option camera head case	Transport case for inspection cameras INVIZ® SNK / INVIZ® Revolver 80. Dimensions in mm / inch: (W) 415 / 16.34" x (H) 465 / 18.31" x (D) 190 / 7.48". Weight: 3.25 kg / 7.16 lbs.	
Option accessory soft pack	Accessory soft pack including standard main cable soft bag (up to 50 meter / 164 ft.).	
Option slipping cable reel	Allows to wind and unwind cable during operation up to 200 m (640 ft.) cable.	
Option camera lift	Allows camera transport into vessels from the bottom. Max. height: 5 m (16.4 ft.).	
Option pushing trolley	Pushing trolley as guidance in tubes for long distances (longer than 3 m / 9.84 ft.)	
Option manhole swivel tripod	Supporting the inspection of vessels / cavities with precisely guidance of the INVIZ® SNK, mounted to the push poles.	
Option push poles and push pole transportation and storage soft bag	For mounting and guiding of the camera head in the application. Push poles available in 1 m / 3.28 ft. and 2 m / 6.56 ft. length. The Soft bag allows easy transportation of over 10 push poles.	
Option INVIZ® SNK camera to push poles adapter	Connecting the push poles with the INVIZ® SNK camera head. Stainless steel.	
Option L-piece	Extends the inspection capabilities in complex geometry by positioning the camera head 90° horizontal.	
Option pressurization kit	Check camera before inspection to be waterproof. Increase your water depth inspection range by pre pressurisation. Incl. CO <sub>2</sub> one-way cartridges.	
Spare parts	Spare parts available upon request. Camera modules and lamps can be replaced by the operator / user.	

\* Only when operated with INVIZ® MATRIX control unit. \*\* Using 35 Watts may heat up the lamp housing at constant 100% operation. All specifications are subject to change without notice due to technical progress.





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