



FOR MORE
INFORMATION

Made
in
Germany



inVIZ[®] MATRIX

inspect series


The universal one box platform, unifying all your RVI inspection needs




Connect, Control




Visualize

**Edit, record,
communicate**

Archive

PW03-019_1-1



The INVIZ[®] MATRIX

One case, multiple benefits

STAND ALONE

Simplifying analogue to digital video conversion while unifying documentation, data processing and storage.

CONNECTING TO DIFFERENT RVI INSPECTION EQUIPMENT

Improving the operation and inspection processes, enhancing image quality and result interpretation while unifying documentation and data storage.

Reduce costs, inspection time and increase productivity!

COST REDUCTION

:: REDUCE HARDWARE

Just one visualisation, documentation and storage unit necessary.

:: SHORTEN POST PROCESSING

Avoid time consuming handling and conversation of different data storage formats and devices.

:: IMPROVE INSPECTION TIME

The smart workflow structure of the INVIZ[®] MATRIX is accelerating the inspection, minimizing set up and time needed for user training.

:: INCREASE EQUIPMENT UTILISATION

Changing and unforeseen inspection demand might be mastered utilizing existing equipment at hands or with reduced new equipment investment.

:: ENHANCE EQUIPMENT AVAILABILITY

During scope repairs, MATRIX will still be available to work with all other inspection gear.

IMPROVED INSPECTION RESULTS

:: HIGHER IMAGE QUALITY

Image presentation is digital in high resolution, independent of the image source.

:: BIG SCREEN FORMAT

The big format touch screen will improve detail recognition and immediate consultation of other experts.

:: DIGITAL IMAGE PROCESSING

A variety of modern image enhancement functions is improving detail differentiation.

ENHANCED & SIMPLIFIED USABILITY

:: DIFFERENT EQUIPMENT UTILISATION

Several different types of visual inspection systems needed to fully inspect a system connect to just one box. One storage device, diminishing the post processing effort and risks of confusion by consolidating and processing in one place and at the point of inspection.

:: SEVERAL USER KEYWORD PROTECTED

The access code secured user interface is offering multiple users to use the INVIZ[®] MATRIX offering individual set ups and maximum data security.

UNIFIED DOCUMENTATION & INSPECTION PROCESS

:: EXCELLENT DATA MANAGEMENT

INVIZ[®] MATRIX unifies existing analogue image and video data for save reference and archiving. Plant RVI inspection documentation is becoming complete and reproducible, offering easy data backup.

CONNECTING / CONTROLLING



CONTROL AND UTILIZE ANY INVIZ® INSPECTION CAMERA

INVIZ® SNK pan & tilt, INVIZ® Revolver 80 dual view and endless revolving camera, INVIZ® BIG push camera system, INVIZ® tube inspector will perfectly be controlled by the touch screen and Joystick of the unit while you get the unbeatable image and software performance known and transferred into the MATRIX from the industry leading INVIZ® VUMAN® Videoendoscope concept.



REMOTE VISUAL INSPECTION OF VESSELS, STORAGE TANKS & BIG VOLUMES

- :: INVIZ® SNK pan-tilt-zoom camera
- :: INVIZ® Revolver 80 dual view camera with endless rotation
- :: INVIZ® Pipe camera



REMOTE VISUAL INSPECTION OF BIG SIZED TUBES, VESSELS & OTHER VOLUMES

- :: INVIZ® Revolver 80 dual view camera with endless rotation
- :: INVIZ® Pipe camera



REMOTE VISUAL INSPECTION OF MEDIUM VOLUMES

- :: INVIZ® BIG push camera
- :: INVIZ® Pipe camera



REMOTE VISUAL INSPECTION OF SMALL SPACES

- :: INVIZ® DE 2.4mm
- :: VISIO probe videoendoscope range 3.7 mm, 4 mm, 6 mm, 8.5 mm
- :: VISIO BOX



COMPLETE THE FULL RANGE OF INSPECTION EQUIPMENT WORKING FROM AND SAVING INTO ONE MATRIX SYSTEM

Connect all conventional rigid and flexible fiberscopes using a video adapter. Utilize the image analysis, documentation and storage performance of your INVIZ® MATRIX.



CONNECT DIRECTLY ANY OF YOUR OTHER EXISTING VIDEO INSPECTION EQUIPMENT

Any other standard signal providing camera oder videoscope type product. Convert instant to digital and benefit of the high resolution digital image and storage capabilities. Store all data loos free at one space.

CONVERTING / EDITING / STORING



CONVERT AND EDIT EXISTING ANALOGUE INSPECTION DATA SUCH AS VIDEO RECORDS

Analogue to digital conversion any format (PAL/NTSC) to digital video in MPEG or AVI, and still images in JPEG or BMP.



EDIT YOUR DIGITAL INSPECTION DATA

Add graphic, text and audio to your digital inspection data. Sort your images and videos in smart, individual archives on just one system.



STORE YOUR INSPECTION DATA ON THE ROBUST SSD OR VIA USB SLOT

Easy to use, with smart data selection, security and back up functionality. Find plenty of space for your valuable image and video data on the internal robust solid state drive, back up to or simply save directly onto any of your external USB device simplifying your workflow, protecting and archiving your valuable inspection results.



Perfect documentation onto the robust and large SSD drive or onto any external USB drive. Stores hundreds of digital videos or millions of high resolution images offering a easy and save back up option.



Add additional audio commentary to your digital inspection pictures via headset.

Image Presentation > Analysis > Communication & Documentation > Data Storage

Use all image manipulation and editing features for your digital inspection videos and images.

Image Presentation

Benefit of the high resolution digital image presentation on the interactive INVIZ® MATRIX touch screen display which is nicely integrated in the box and tilts up easily. Releasing the “quick lock”, the display comes out of the box to become a full featured remote control. Existing data will be easy at hands utilizing a well structured file system and thumbnail content presentation.

> Analysis


A simple graphic user interface allows the activation of digital image enhancement tools. Zoom into the area of interest, center the area of interest, rotate the image, flip and mirror to improve and enhance the data you analyze. A free hand arrow will point clearly out what is important. Use position unbound reference charts or images. Free text will finally conclude the analysis turning data into valuable information.


> Communication & Documentation > Data Storage


Protected by a four digit key, nine different user profiles separate and secures your valuable data. Uploading predefined text windows will accelerate the workflow. Using your individual file names ensure clear file structures and easy storage. Thumbnail content presentation is helping for a fast data search. Digital images can be stored in different resolution and contain graphics, text and voice command. Images and video files are Windows® compatible for easy sharing and post processing with standard Windows® programs.


Data can be stored internal and external. Up to 60 hours of high resolution digital video or thousands of digital images can be saved onto the internal robust SSD drive. Connecting any USB storage device, the internal data can be moved, back ups created or live data directly be saved on the external device. Data size can be selected for maximal resolution or minimal data size if perhaps transferred via mobile phone.



 The optional protective foil ensures a clean display, protecting the LCD touch screen from dirt, moist, scratches and other potential damage.

 Control the pan & tilt INVIZ® SNK and INVIZ® Revolver 80 with precisely adjusted joystick.

 Easy to use and mobile control panel with high resolution 10.4" LCD touch screen. Perfect image quality with 1024 x 768 px touch screen, full text generation, easy digital still and video recording, file management at the touch of your finger.

 1024 x 768 High-Resolution

Digital videos and images for error analysis and processing are saved in full resolution (loss-free), 32 bit depth. Up to 60 hours full resolution recording can be quickly transferred via the USB interface. Standard digital documentation allows easy communication of results in multiple digital formats and resolution (JPG, BMP, MPEG or AVI). The filing system with the instant preview function delivers immediate access to results. Comparison with reference cases is simple, thanks to the smart picture gallery. Other equipment or older video recordings can be connected and digitally recorded onto your intuitive to use INVIZ® MATRIX.

Help on board: Never get lost with the complete and detailed user manual installed as E-Reader on your INVIZ® MATRIX documentation system. Quickly find the desired page or topic. In case of difficult situations during your inspection, your INVIZ® MATRIX keypad offers one-click direct access to the most frequently used features such as snapshot and recording. Digital image processing ensure detailed, true colour images for accurate assessment and decision making. Details can be highlighted with the zoom, rotate, flip or mirror function for accurate image presentation.

The adjustable, high resolution 10.4" trans-reflective screen (1024 x 768 px) provides detailed images for analysis both indoors and outdoors. Observation notes can be added using the touch screen keyboard and an external VGA output allows transfer of images to additional monitors or other locations.

INVIZ® MATRIX provides you with the efficient backup system of your user settings. Create individual backup files to avoid the loss of your individual user settings.

**OPTION AC POWER PACK /
OPTION BATTERY PACK**



Option AC power pack



Option battery pack



Three different docking bays allow operations with a battery or power supply or enable to connect the INVIZ® SNK and INVIZ® Revolver 80 inspection systems with the INVIZ® MATRIX.

**OPTION INVIZ® SNK /
INVIZ® REVOLVER 80 PACK**



**Option INVIZ® SNK /
INVIZ® Revolver 80 pack**

The power to drive big tank and vessel inspection systems such as INVIZ® SNK and INVIZ® Revolver 80 up to 50 m cable length (optional up to 200 m / 640 ft. on viZaar®'s patented slipping cable reel).

The INVIZ® MATRIX docking bay concept

Offering three different docking bays for battery operation when no power supply is given, a standard power supply adapter or a special INVIZ® SNK / Revolver 80 adapter for operations with both inspection systems.

The INVIZ® MATRIX enables you to connect the complete INVIZ® inspection series. Control, visualize, edit and archive using just one box, the MATRIX.

The INVIZ® SNK or INVIZ® Revolver 80 simply connect just with one cable with length up to 50 m (164 ft.). All functions such as pan & tilt are controlled via the MATRIX. Enjoy excellent image quality, add audio and text commentary,

flip or mirror, zoom, and enjoy many more useful system features.






If you have old analogue inspection recordings, previous INVIZ® inspection systems or endoscope equipment with analogue signals, the INVIZ® MATRIX will offer you the perfect solution: Connecting, recording, converting, editing, saving and archiving on the SSD or USB device

will be executed seamlessly via the graphic user interface.

All data will be stored in a one box system. Time consuming editing and switching of inspection systems is no longer required. Staying mobile with the INVIZ® docking bay concept offers multiple power options for independent operation.

| INVIZ® MATRIX | |
|------------------------------|---|
| Dimensions in mm / inch | [W] 540 / 21.26" x [H] 290 / 11.41" x [D] 400 / 15.74" |
| Weight | 9.34 kg / 20.59 lbs (weight not including LCD control panel and docking bays) |
| Environmental Specifications | Operation temperature 5°F to +118°F (-15°C to +48°C) Storage temperature -13°F to +150°F (-25° to +65°C) Relative humidity max. 95%, non condensing |
| AC input | 96 VAC – 256 VAC / 47Hz – 63Hz / max. 100 Watt (max. 220 Watt with optional INVIZ® SNK and INVIZ® Revolver 80 pack) |
| Housing | Impact resistant HDPE/HWU plastic, aluminium profile with plastic edge protection |
| Video input | PAL or NTSC composite and S-Video, auto detecting |
| Video output | Analog VGA PC to monitor connector (Resolution 1024 x 768), worldwide standard |
| Connectors and outlets | USB 2.0, recording remote control, 12VDC / 500mA Aux-Out, optional Composite and S-Video output (PAL and NTSC), headset connector |
| System memory | Up to 60 hours of high resolution MPEG4 video-recording or several thousand BMP and JPG high quality images |
| Features | Saving pictures and movies in low, medium and high resolution. Unlimited video recording. Full version file manager (create, copy, delete, rename files and folders). Includes all image processing features (flip, mirror, rotate, 8x zoom, text editing, image filtering, contrast enhancement, brightness, full screen mode and point marker feature). Full version text generator (additional 99 spaces for standard configurations, full color management for text and background). Customizable color reference charts. Enables free positioning of picture settings. Up to 9 password-protected user accounts with individual configurations. Multi-lingual user interface. Multi-lingual on-board manual. |

| LCD control panel | |
|-------------------------|--|
| Dimensions in mm / inch | [W] 320 / 12.6" x [H] 30 / 1.18" x [D] 230 / 9.06" |
| Weight | 1.3 kg / 2.85 lbs |
| Mounting | Base Unit: integrated tilting display bracket Portable: shoulder harness |
| LCD monitor | 10,4" LCD, contrast 1200:1, 400 cd, transreflective LED illumination, 262.144 colors, viewing angle all directions +/- 90° |
| Operation | Resistive touch screen incl. five direct access buttons and joystick |
| Housing | Carbon fibre design with all around elastomer bumper; power cable 2.5 meter (8.2 ft) |

| Accessories | | |
|--------------------------------------|--|---|
| Option docking bay case | 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, transport case for optional docking bays. |  |
| Option LCD display protective foil | Highly transparent, easy to mount display cover with antireflective coating fits perfectly and protects the touch screen from any dirt and scratching, chemical substances, corrosion, destruction, or deterioration. |  |
| Option AC power pack | Your INVIZ® MATRIX can be operated from any main power supply utilizing this docking device. Multi AC voltage input 96 VAC - 256 VAC. Dimensions in mm / inch: [W] 342 / 13.46" x [H] 100 / 3.93" x [D] 133 / 5.23" Weight: 2.28 kg / 5.02 lbs |  |
| Option INVIZ® SNK / Revolver 80 pack | INVIZ® MATRIX docking bay for connecting, controlling, recording with the INVIZ® SNK pan & tilt camera head and the INVIZ® Revolver 80 camera head. The camera connections are compatible with your existing INVIZ® camera cables up to 50 m working length (optional up to 200 m / 640 ft. on viZaar®'s patented slipping cable reel). Dimensions in mm / inch: [W] 342 / 13.46" x [H] 100 / 3.93" x [D] 133 / 5.23" Weight: 2.92 kg / 6.45 lbs |  |
| Option battery pack | Capacity of coldness resistant NiMh: 9 Ah, 24 Volt. Operation time: approx. 1.5 to 2 hours. Operation environment: -25°C to +45°C (-13.0°F to +113.0°F). Charging unit included. Dimensions in mm / inch: [W] 342 / 13.46" x [H] 100 / 3.93" x [D] 133 / 5.23" Weight: 4.73 kg / 10.42 lbs |  |

All specifications are subject to change without notice due to technical progress.



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