T-SCOPE
The portable videoscope system
The latest portable addition to the KARL STORZ product range.

The TECHNO PORT serves as a portable, compact documentation system with integrated 7" display and offers comprehensive connection options as well as many helpful functions for efficient visual inspection.

Thanks to the dual video inputs, the user can easily switch between the VIDEOSCOPE or the T-CAM in combination with borescopes or flexoscopes. Instantaneous switching between the two systems is simply a case of pushing a button.

The combination of the videoscope digital image processing and the large format display, the T-SCOPE and TECHNO PORT provide class leading levels of detail and brightness.

For stationary inspection workstations, the TECHNO HUB is an alternative to the TECHNO PORT as a plug & play imaging system. With the TECHNO HUB and the KARL STORZ video editor, PC or laptop workstations can be very easily upgraded to stationary inspection workstations.

Due to the compatibility and versatility of the system, the T-SCOPE is suitable for a wide range of applications in any type of environment.
A universal inspection solution for any kind of application
T-SCOPE
Videoscope system

Our highlights:

TECHNO PORT
- 7" TFT monitor with excellent image quality
- Compact design with a battery runtime of about 2 hours
- Dual videoscope inputs
- SD and USB interfaces
- HDMI output
- Compatible with the entire product range via T-CAM

VIDEOSCOPE
- Ergonomically designed for the user
- Two function keys
- Extremely lightweight at 385 g
- 4.0 mm outer diameter
- Integrated 1.5 mm working channel
- Integrated LED light source
- 2x deflection up/down 140°/140° with tactile zero position control

Your benefits:

- Viewing of the smallest details
- Ideal for both mobile and stationary
- For connecting a videoscope and a T-CAM with borescope or flexoscope
- Optimal photo and video documentation options
- For connecting an external monitor to optimize viewing and working comfort
- For use with both borescope and flexoscope
- Sensitive and stable control
- For recording photos and videos as well as performing white balance
- Highly portable
- Ideal for the smallest openings
- Foreign object retrieval using grasping tools
- For excellent and bright imaging
- Precise and efficient inspection of complex components
KARL STORZ products are designed for the non-destructive visual inspection of plants and are used in numerous sectors of industry. They ensure that your plant is available for use and thereby increase productivity.

Application areas:

- Aerospace
- Quality assurance
- Power engineering and power plants
- Transport and automotive technology

- Safety
- Pipelines, chemistry, and plant construction
- Building industry and construction
- Research, development, and custom solutions

Piston head in a cogeneration unit

Casting

Testing of a car engine

Stationary work
KARL STORZ offers a comprehensive product range for the T-SCOPE videoscope system.

**Set TECHNO PORT Monitor** for CMOS endoscopes, screen size 7", with 1280 x 800 pixel resolution, two camera inputs, a USB and a HDMI port, optimized user interface, video and image capturing in real time on SD card, playback of recorded video clips and still images, data transfer from SD card to USB flash drive possible, splash-proof according to IP54, shock-resistant ABS plastic housing, intelligent power management with rechargeable Li-Ion batteries, VESA 75 mounting option, power adaptor for EU, UK, USA and Australia, power supply 110 – 240 VAC, 50/60 Hz including:

- **TECHNO PORT Monitor**
- **VESA 75 Quick Clip**
- **Power Supply Set**

**T-CAM Camera Head**, 8-pin, one-chip CMOS camera head, resolution 640 x 480 pixels, focal length f = 20 mm, compatible with TECHNO HUB 80408 K and 80408 as well as TECHNO PORT 80407 K and 80407
Set TECHNO HUB,
CMOS Camera Control Unit, for use with T-CAM Camera Head 80407 CA or compatible KARL STORZ CMOS video endoscopes,
Interfaces: USB 2.0, S-Video output (NTSC), HDMI output, power socket
including:
TECHNO HUB
Power Supply
S-Video (Y/C) Connecting Cable
USB Connecting Cable

Flexible Video Endoscope Set 4.0 x 65,
CMOS technology, 2x deflection: up/down 140°/140°, direction of view 0°, field of view 100°,
working length 65 cm, total length 93 cm, working channel inner diameter 1.5 mm, distal tip outer diameter 4 mm, for use with TECHNO PORT Monitor 80407 K and TECHNO HUB 80408 K.
The following accessories are included in delivery:
Flexible Video Endoscope 4.0 x 65,
Plug, black, package of 10
KARL STORZ offers a comprehensive product range for the T-SCOPE videoscope system.

**Accessories**

- **8402 YD**
  
  **Protective Bag, blue, for TECHNO PORT system**, made of water-resistant and sturdy material, washable, separate compartments for the monitor and accessories, for use with TECHNO PORT Monitor 80407.

- **81 3010 10**
  
  **Set Variable LED Light Source**
  
  including:
  
  - **Variable LED Light Source**
  - **4x RCR123A Rechargeable Battery**, 3.0 V/3.7 V
  - **Charger Unit**, for RCR123A rechargeable batteries
  - **User Manual**

- **11301 D4**
  
  **Battery Light Source LED for Endoscopes**, with fast screw thread, boost mode for temporary increase in brightness, burning time > 120 min, brightness > 110 lm / > 150 klx, weight approx. 150 g ready for use.
Techno LED Nova 150,
High-Performance LED Cold Light Fountain
with one KARL STORZ light outlet,
power supply 100-240 VAC, 50/60 Hz,
color temperature approx. 6400 K
including:
Mains Cord
Mains Cord (US)

Fiber Optic Light Guide, length 180 cm, outer
diameter 6.5 mm, active diameter 3.5 mm, light
guide is watertight, mineral oil resistant and
 crushproof. Fiber bundle is housed in a flexible
stainless steel sheath, a layer of fiber glass mesh
and an outer silicone sheath.

Multipurpose Stand, for stable mounting
of endoscopes and cameras, consisting of:
Articulated stand with a joint in the center and ball
joints at both ends, equipped with a mounting
plate for holding a camera or endoscope grip, total
length approx. 50 cm. The stand can be moved
in any direction and can be locked in any position
required using a central fixation screw.
KARL STORZ offers a comprehensive product range for the T-SCOPE videoscope system.

**Accessories**

- **80600 H**  
  Tension Rod with Vee Guide,  
  for fixation to a tabletop, tube, etc. or alternatively a videoscope or flexoscope in combination with Multipurpose Stands 80600 and 80603

- **8401 YB**  
  Clamp, VESA 75 standard,  
  for fixation of TECHNO PORT monitor to round profile with diameter 20-43 mm and square profile with diameter 16-27 mm

- **ET 43-302 703**  
  Round Pipe,  
  stainless steel, length 250 mm, diameter 25 mm, for use with 8401 YB IV Stand for TECHNO PORT monitor
11003 MB

Grasping Forceps, flexible, double action jaws, diameter 1 mm, length 110 cm

11003 MA

Grasping Forceps, oval, flexible, double action jaws, diameter 1 mm, length 110 cm
## T-SCOPE
### Technical information

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>230 x 155 x 54 mm (length x width x height)</td>
</tr>
<tr>
<td>Weight</td>
<td>1,250 g</td>
</tr>
<tr>
<td>Monitor</td>
<td>7&quot; TFT wide angle view (160°)</td>
</tr>
<tr>
<td>Monitor width</td>
<td>150 mm</td>
</tr>
<tr>
<td>Monitor height</td>
<td>94 mm</td>
</tr>
<tr>
<td>Display resolution</td>
<td>1280 x 800</td>
</tr>
<tr>
<td>Image documentation</td>
<td>Yes, video and still image</td>
</tr>
<tr>
<td>User interface</td>
<td>Interactive soft keys with dynamic menu navigation; symbol-based interface for international use</td>
</tr>
<tr>
<td>Video codec</td>
<td>MPEG-4</td>
</tr>
<tr>
<td>Image codec</td>
<td>JPEG</td>
</tr>
<tr>
<td>Storage interfaces</td>
<td>USB 2.0, SD card, up to 32 GB</td>
</tr>
<tr>
<td>Video interface output</td>
<td>HDMI out (the connected monitor must support 720p)</td>
</tr>
<tr>
<td>Dual video input</td>
<td>2 x 8 pin (KARL STORZ video systems)</td>
</tr>
<tr>
<td>Quick video source selection</td>
<td>Yes</td>
</tr>
<tr>
<td>Mounting interface</td>
<td>VESA 75</td>
</tr>
<tr>
<td>Input voltage</td>
<td>12 VDC</td>
</tr>
<tr>
<td>Current consumption</td>
<td>1.5 A max.</td>
</tr>
<tr>
<td>Battery</td>
<td>Lithium ion, 3.7 V, 7800 mAh</td>
</tr>
<tr>
<td>Battery runtime</td>
<td>approx. 2 hours</td>
</tr>
<tr>
<td>Battery charging time</td>
<td>approx. 5 hours</td>
</tr>
<tr>
<td>Protection rating</td>
<td>IP54</td>
</tr>
<tr>
<td>Operating conditions</td>
<td>0 °C to +40 °C, 30% to 70% RH, air pressure 700 to 1080 hPA</td>
</tr>
<tr>
<td>Storage conditions</td>
<td>-10 °C to +60 °C, 5% to 95% RH, air pressure 700 to 1080 hPA</td>
</tr>
</tbody>
</table>

**TECHNO PORT**
- Portable and very robust
- Intuitive handling and interface
- Comprehensive functions and interfaces
Techno Hub

- Plug & play installation
- Turns PCs into inspection units
- Comprehensive functions and interfaces

### Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>140 x 111 x 44 mm (length x width x height)</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 420 g</td>
</tr>
<tr>
<td>Moisture protection rating</td>
<td>IP 20</td>
</tr>
<tr>
<td>Input voltage</td>
<td>5 VDC</td>
</tr>
<tr>
<td>Current consumption</td>
<td>1.0 A max.</td>
</tr>
<tr>
<td>Video input</td>
<td>8 pin (KARL STORZ video systems)</td>
</tr>
<tr>
<td>Video output</td>
<td>HDMI and S video interface</td>
</tr>
<tr>
<td>USB video interface</td>
<td>USB 2.0 compatible</td>
</tr>
<tr>
<td>Classification / device protection rating</td>
<td>II</td>
</tr>
<tr>
<td>Operating conditions</td>
<td>+10 °C to 40 °C, 30 % to 70 % RH</td>
</tr>
<tr>
<td>Storage/transport conditions</td>
<td>0 °C to 60 °C, 15% to 80% RH, 700 to 1080 hPA</td>
</tr>
</tbody>
</table>

**Power supply (20290120-PS)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>100 – 240 VAC, 50/60 Hz</td>
</tr>
<tr>
<td>Current output</td>
<td>2.0 A max.</td>
</tr>
<tr>
<td>Voltage output</td>
<td>5 VDC</td>
</tr>
<tr>
<td>Power connection</td>
<td>Power connection adaptor for EU/UK/US/AUS</td>
</tr>
<tr>
<td>Cable length</td>
<td>1.5 m</td>
</tr>
<tr>
<td>Power supply dimensions</td>
<td>approx. 72 x 45 x 30 mm (length x width x depth) (without power adaptor)</td>
</tr>
<tr>
<td>Weight</td>
<td>128 g</td>
</tr>
</tbody>
</table>

**KARL STORZ Video Editor Software**

System requirements:
- Operating system: Windows XP SP2 (or later versions), MAC OS X Snow Leopard or above (Version 10.6);
- Processor: Pentium II, 2.4 GHz;
- RAM: 1 GB, USB connectors: USB 2.0 HighSpeed (480 Mbps)
T-SCOPE
Technical information

T-CAM
- Compact and extremely lightweight
- Brilliant imaging
- Universal interface for borescopes and flexoscopes

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<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor</td>
<td>(1/3&quot;), CMOS technology</td>
</tr>
<tr>
<td>Image format</td>
<td>4:3</td>
</tr>
<tr>
<td>Sensor resolution</td>
<td>640 x 480</td>
</tr>
<tr>
<td>Focal length</td>
<td>20 mm, fixed</td>
</tr>
<tr>
<td>Dimensions</td>
<td>81.5 x 28.0 x 28.0 mm (length x height x width)</td>
</tr>
<tr>
<td>Weight</td>
<td>118 g</td>
</tr>
<tr>
<td>Water ingress rating</td>
<td>IPX8</td>
</tr>
<tr>
<td>Electrical power consumption</td>
<td>1W</td>
</tr>
<tr>
<td>Operating conditions</td>
<td>0 °C to +40 °C, 30% to 70% RH, air pressure 700 to 1080 hPA</td>
</tr>
<tr>
<td>Storage conditions</td>
<td>-10 °C to +60 °C, 5 % to 95 % RH, air pressure 700 to 1060 hPA</td>
</tr>
</tbody>
</table>
Direction of view 0°
Opening angle 120°
Deflection 2x, up/down 140°/140°
Working length 65 cm
Outer diameter 4.0 mm
Working channel 1.5 mm
Illumination Integrated LED light source
Electrical power consumption 1W
Color camera sensor CMOS technology
Weight 385 g
Water ingress rating IPX8
Fluid resistance of the distal end Stability in the presence of common machine oils, light oil, or 5% saline solution; excluded are particularly SKYDROL and Jet Oil 2
Impermeability of the distal end Inserted part, waterproof design of distal end.
Operating conditions 10 °C to 40 °C, 15% to 80% RH
Storage conditions 0°C to +60°C, 15% to 80% RH, 700 to 1080 hPA
At KARL STORZ, we are constantly advancing all of our products. For that reason, please understand that changes may be made to the scope of supply, design, equipment, and technology. Therefore, the information, illustrations, and descriptions contained herein cannot be made the basis for any claims whatsoever.

* For an up-to-date overview of the individual product groups, please refer to the product brochures of the KARL STORZ Industrial Group.
Your Focus – Our Scope

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