

CAMERAS AND DOCUMENTATION SYSTEMS

Excellent image quality and intuitive documentation



TELECAM SL

Parfocal Zoom

Our cameras offer more than excellent imaging properties. The ergonomic handpiece as well as the embedded function keys and functional control elements for optical zoom and focus ensure fatigue-free and efficient work. With the easy-to-operate universal coupling, all standard endoscope eyepieces can be safely and securely connected.



Special Features:

- High horizontal resolution of more than 450 lines
- Digital image processing through the integrated image processor module that includes a title generator
- Optional manual or automatic exposure control (patented)
- Automatic white balance with memory function for two white balance values
- Compatible with Composite, S-Video, and RGB
- Function keys at the camera head for controlling the camera functions
- Includes Parfocal Zoom lens

Specifications

TELECAM SL

Image sensor	1/2" CCD chip
Pixels	752 (H) x 582 (V) pixels per chip (PAL) 768 (H) x 494 (V) pixels per chip (NTSC)
Resolution	> 450 lines (horizontal)
Lens	Parfocal Zoom lens (optical zoom)
Instrument coupling	For all rigid and flexible endoscopes with standard eyepieces
Video output	Composite signal to BNC connector, Y/C signal to S-Video connector (2x), RGB signal to BNC connector

Camera Head

Dimensions	Diameter 28-43 mm, length 51 mm (without lens), weight 0.08 kg
Camera Cable	Length 300 cm

Control Unit (CCU)

Dimensions	305 x 89 x 335 mm (w x h x d)
Weight	2.95 kg

Design corresponds to IEC 6011, 601218, CSA 22.2 No. 601, UL 2601 and CE according to MDD, protection class 1

In industrial endoscopy, the virtually unparalleled optical zoom of TELECAM SL II offers unprecedented optical possibilities.



20 2120 30

TELECAM One-Chip Camera Head, color system **PAL**, soakable, gas-sterilizable, with integrated Parfocal Zoom Lens, f = 25-50 mm (2x), 2 freely programmable camera head buttons

20 2121 30

Same, color system **NTSC**

Compatible with all camera control units of the KARL STORZ product lines TELECAM DX II, TELECAM SL II and TECHNO PACK® T LED



20 2130 11U*

TELECAM SL II Camera Control Unit, color systems PAL/NTSC, with integrated digital Image Processing Module, power supply 100-240 VAC, 50/60 Hz

including:

Mains Cord

BNC Video Cable

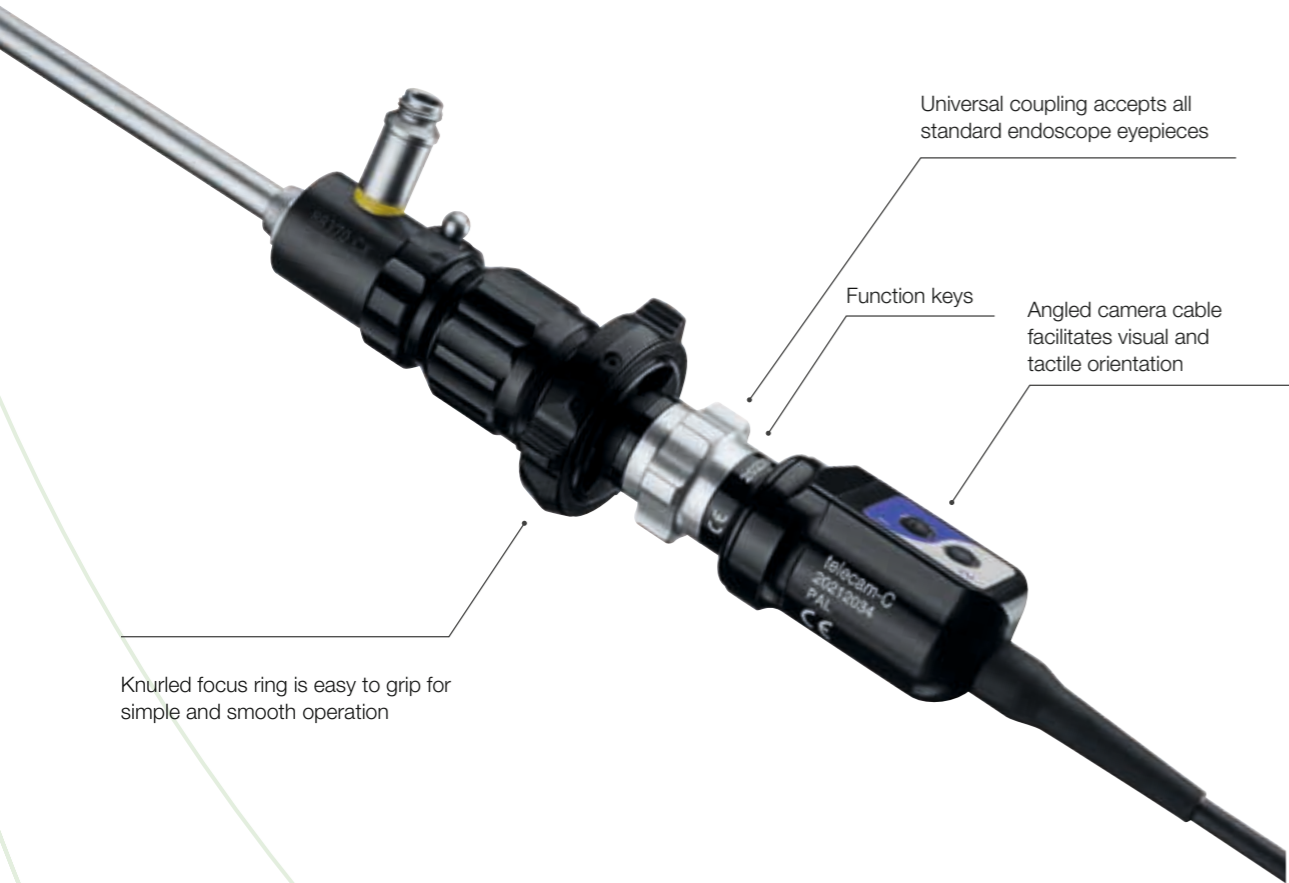
S-Video (Y/C) Connecting Cable

Keyboard, with US English character set

* Country-specific mains cords upon request.

TELECAM DX

C-MOUNT connection



Universal coupling accepts all standard endoscope eyepieces

Function keys

Angled camera cable facilitates visual and tactile orientation

Knurled focus ring is easy to grip for simple and smooth operation

Special Features:

- High horizontal resolution of more than 450 lines
- Automatic exposure control (patented)
- Automatic white balance with memory function for 20 white balance values
- Compatible with Composite and S-Video
- Can be directly adapted to a microscope
- Function keys at the camera head for controlling the camera functions
- Large zone of sharp focus, very bright image and low weight
- Compatible with all camera control units in the KARL STORZ product lines TELECAM DX II, TELECAM SL II and TECHNO PACK® T LED

Specifications

TELECAM DX

Image sensor	1/2" CCD chip
Pixels	752 (H) x 582 (V) per chip (PAL) 768 (H) x 494 (V) per chip (NTSC)
Resolution	> 450 lines (horizontal)

Lens

C-MOUNT	Diameter 28-43 mm, length 51 mm (without lens), weight 0.08 kg
Video output	Length 300 cm
Control output	3.5 mm stereo jack (ACC 1, ACC 2)

All camera types are perfectly suited for rugged industrial use that poses challenges such as water splashes and dust. Solid workmanship guarantees a long useful life.



20 2120 34

TELECAM C-MOUNT One-Chip Camera Head,
color system **PAL**

20 2121 34

Same, color system **NTSC**

Compatible with all camera control units of the KARL STORZ product lines TELECAM DX II, TELECAM SL II and TECHNO PACK® T LED



20 2330 11*

TELECAM DX II Camera Control Unit,
color systems **PAL/NTSC**, with integrated digital fiberscope filters, power supply 100-240 VAC, 50/60 Hz

including:

Mains Cord

2x **Connecting Cables**, for controlling peripheral units

BNC/BNC Video Cable

S-Video (Y/C) Connecting Cable



20 2000 42

C-MOUNT Lens,
focal length f = 30 mm, soakable

20 2000 43

C-MOUNT Lens,
focal length f = 38 mm, soakable

20 2301 41

C-MOUNT Lens,
focal length f = 25 mm, soakable

20 2301 45

C-MOUNT Lens,
focal length f = 12 mm, soakable



80591 C

KARL STORZ Special Lens,
with rapid coupling to endoscope eyepiece and C-MOUNT connection, focal length f = 35 mm

* Country-specific mains cords upon request.

COLOR VIDEO CAMERA

1/3" CCD



Specifications Color Video Camera

Image sensor	Super HAD II 1/3 type IT CCD
Pixels	752 (H) x 582 (V) per chip
Resolution	> 460 lines (horizontal)

Lens

Coupling	NF-Mount
Adaptor	NF-C-MOUNT
Video output	S-Video (Y/C)



88 0030 18 **1/3" CCD Color Video Camera, PAL,**
size: 22 x 22 x 64, weight: 50 g,
white balance, Y/C output signal

including:
Power Supply and Mains Cord
C-MOUNT Adaptor

Note: Only in conjunction with lenses for video cameras.



88 0030 18 A **Power Supply and Mains Cord**



88 0030 18 B **C-MOUNT Adaptor**

Special Features:

- Excellent for heavy-duty industrial use thanks to its robust, compact construction and design
- This color video camera can be used for a large variety of applications since it generates images of outstanding quality, even in poor lighting or outdoor conditions
- The color video camera features a combined signal and power cable

LCD COLOR MONITOR

Digital imaging processing at the PC, LCD monitor



80406

TFT/LCD SX-15E Color Monitor,
15" monitor, black metal,
screen resolution 1024 x 768 pixels,
available with the following connectors:
Composite, Y/C, DVI-D, HDMI, DP

Special Features:

- High image quality: The new LCD monitors are equipped with VGA LCD panels with 1024 x 768 pixels resolution that enable precise image display of numerous video signals, including Composite and Y/C. Furthermore, they offer a wide viewing angle that ensures high image brightness and superb contrast.
- Wide viewing angle: LCD panel offers a horizontal and vertical viewing angle of 170° with only minimally reduced contrast so that images can be viewed from various positions and angles.
- Selection between several inputs: Color monitors are equipped with three selectable video inputs – analog Composite, Y/C (S-Video) and RGB/Component – and therefore accept signals from multiple cameras and recorders.

TECHNO PACK® T LED

Compact documentation system



The TECHNO PACK® T LED features a powerful LED light source that, in conjunction with the telescope, camera, or videoscope, ensures homogeneous, bright images. On the large 15" monitor, even the smallest details can be viewed by several people simultaneously. The patented MULTIPOINT measuring system for depth, height, length, area, and line-to-point measurements as well as 3D surface, tip curl and blade clearance depth measurements guarantees measuring accuracy in any starting position of the videoscope as well as on any type of surface.

Special Features:

- Large 15" LCD monitor for greater detail
- Powerful LED light source
- New, user-friendly MULTIPOINT 3.0 software with measuring function
- Excellent price/performance ratio
- Storage of images or videos on USB flash drive or SD memory card

Specifications TECHNO PACK® T LED

Power supply	100-240 VAC
Line frequency	50-60 Hz
Power consumption	120 W
Dimensions in mm	450 x 320 x 150 (length x width x height)
Weight	7 kg
Operating conditions	+10 °C to + 40 °C, humidity: 5-95% rel. humidity, atm. pressure: 500 hPa – 1080 hPa
Storage temperature	-10 °C to + 60 °C, humidity: 5-95% rel. humidity, atm. pressure: 500 hPa – 1080 hPa
Sound power level	< 50 dB(A)
Protection rating	IP 20
Max. altitude	3000 m

Light Source

Lamp	LED
Color temperature	6500 K
Average lamp life	approx. 20,000 hours

TFT Monitor

Screen size	15"
Resolution	1024 x 768 pixels (XGA)
Contrast	700:1

Loudspeaker

Power	2 Watt
--------------	--------

Memory Unit

Memory interface	USB 2.0, SD memory card (SDHC-compatible)
Image format	JPG
Video codec	MPEG-4
Video format	PAL/NTSC

Interfaces

Video interfaces	DVI-D (out)
Audio	3.5 mm jack, 1 x microphone (1 x rear), line-in, line-out (inactive)

The completely new software interface ensures simple and user-friendly use. Furthermore, the TECHNO PACK® T LED offers users optimal documentation options via image and video storage. The high resolution inspection images can be stored on a USB flash drive or SD memory card and transferred to your PC or onto an additional external monitor, as desired. KARL STORZ units are designed and manufactured in accordance with the highest quality standards to withstand rugged industrial use.



SP 100-S1

TECHNO PACK® T LED, endoscopic video unit for use with all KARL STORZ one-chip camera heads and videoscopes, incl. LED light source, 15" LCD monitor, USB/SD memory module, with integrated digital Image Processing Module, color systems PAL/NTSC, power supply 100-240 VAC, 50/60 Hz, 450 x 320 x 150 (length x width x height)

including:

USB Flash Drive, 32 GB

AIR Wireless Mouse, with USB port

Storage Case

TECHNO PACK® T LED Accessories



20 2120 30

TELECAM One-Chip Camera Head, color system PAL, soakable, gas-sterilizable, with integrated Parfocal Zoom Lens, f = 25-50 mm (2x), 2 freely programmable camera head buttons



20 0402 82

USB Flash Drive, 32 GB



80603

Multipurpose Stand, for stable mounting of endoscopes and cameras



80600 H

Tension Rod with Vee Guide



81048042 A

IR Wireless Mouse, with USB port TRUST TK 4300P



81048041 B

Logitech Wireless Touch Keyboard K400 Plus

T-SCOPE

The portable videoscope system



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 endoscope interface, users can connect the T-CAM in combination with borescopes or flexoscopes. Instantaneous switching between the two systems is simply a case of pushing a button.

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.

Special Features:

- Ideal for both mobile and stationary work
- Optimal image and video documentation options
- Compact design with a battery runtime of approx. 2 hours
- SD and USB interfaces
- Compatible with the entire KARL STORZ NDTec™ product range via T-CAM



80407 K

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



80407 CA

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



80408 K

Set TECHNO HUB CMOS Camera Control Unit, for use with T-CAM Camera Head 80407 CA, 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
KARL STORZ Video Editor V.2.0.2

Specifications

TECHNO PORT

Dimensions	230 x 155 x 54 mm (length x width x height)
Weight	1.250 g
Monitor	7" TFT wide angle view (160°)
Monitor width	150 mm
Monitor height	94 mm
Display resolution	1280 x 800 pixels
Image documentation	yes, video and still image
User interface	Interactive soft keys with dynamic menu navigation; symbol-based interface for international use
Video codec	MPEG-4
Image codec	JPEG
Storage interfaces	USB 2.0, SD card, up to 32 GB
Video interface output	HDMI out (the connected monitor must support 720p)
Dual video input	HDMI out (the connected monitor must support 720p)
Quick video source selection	yes
Mounting interface	VESA 75
Input voltage	12 VDC
Power consumption	1.5 A max.
Battery	Lithium ion, 3.7 V, 7800 mAh
Battery runtime	approx. 2 hours
Battery charging time	approx. 5 hours
Protection rating	IP 54
Operating conditions	0 °C to +40 °C, 30-70% rel. humidity, atm. pressure 700 to 1080 hPA
Storage conditions	-10 °C to +60 °C, 5-95% rel. humidity, atm. pressure 700 to 1080 hPA

Specifications

T-CAM

Sensor	1/3", CMOS technology
Image format	4:3
Sensor resolution	640 x 480 pixels
Focal length	20 mm, fixed
Dimensions	81.5 x 28 x 28 mm (length x width x height)
Weight	118 g
Water ingress rating	IPX8
Electrical power consumption	1 W
Operating conditions	0 °C to +40 °C, 30-70% rel. humidity, atm. pressure 700 to 1080 hPA
Storage conditions	-10 °C to +60 °C, 5-95% rel. humidity, atm. pressure 700 to 1060 hPA

Specifications

TECHNO HUB

Dimensions	140 x 111 x 44 mm (length x width x height)
Weight	approx. 420 g
Moisture protection rating	IP 20
Input voltage	5 VDC
Current consumption	1.0 A max.
Video input	8-pin (KARL STORZ video systems)
Video output	HDMI and S-Video interfaces
USB video interface	USB 2.0 compatible
Classification/unit protection class	III
Operating conditions	+10 °C to +40 °C, 30-70% rel. humidity, atm. pressure 700 to 1080 hPA
Storage/transport conditions	0 °C to +60 °C, 15-80% rel. humidity, atm. pressure 700 to 1080 hPA

Power Supply (20290120-PS)

Supply voltage	100-240 VAC, 50/60 Hz
Current output	2.0 A max.
Voltage output	5 VDC
Power connection	Power connection adaptor for EU/UK/USA/AUS
Cable length	1.5 m
Power supply dimensions	approx. 72 x 45 x 30 mm (length x width x height) (without power adaptor)
Weight	128 g
KARL STORZ Video Editor Software	System requirements Operating system: Windows XP SP2 (or later versions), MAC OS X Snow Leopard or higher (version 10.6), processor: Pentium II, 2.4 GHz RAM: 1 GB, USB connectors: USB 2.0 High-Speed (480 Mbps)

The USB-HD camera for universal use



VCam HD is a modern and versatile camera system that can be connected to both rigid and flexible endoscopes. Small dimensions, a weight of approx. 200 g as well as straightforward and intuitive control elements ensure optimal handling. Thanks to HD technology and an integrated powerful LED light source, VCam HD delivers excellent imaging and video quality for precise and informative diagnosis. In conjunction with either rigid or flexible endoscopes, the VCam HD offers a high-performance inspection unit for industrial use.

Special Features:

- Integrated, powerful LED light source
- Can be simply connected to a notebook, PC or tablet via a USB 3.0 port
- Images and videos in HD quality
- No special software required; suitable for immediate use
- C-MOUNT connector allows the use of all endoscopes, independent of the manufacturer

Specifications

VCam HD

Image sensor	CMOS-HD
Resolution	1920 x 1080 pixels, 30 fps
Interface	USB 3.0
USB cable length	3 m
Dimensions	45 mm x 45 mm x 80 mm
Weight	200 g ±10 g
Lens connector	C-MOUNT connector
Protection class	IPX 8
Power supply	DC 5V / 0.7A from USB 3.0 port
Operating conditions	0 °C to +40 °C, rel. humidity 20-80%, atmospheric pressure 86 kPa to 106 kPa
Storage conditions	-10 °C to +60 °C, rel. humidity 5-95%, atmospheric pressure 86 kPa to 106 kPa
Minimum requirements for PC/notebook	CPU: Dual Core 2.6 GHz Memory: 4 GB RAM System: MS Windows 10/8/7 (64 Bit or 32 Bit) Mac OS X memory: 4 GB RAM Monitor: 1920 x 1080 pixels Electronic protection class: II Voltage: DC 5V/0.7A via USB interface 3.0

Specifications

LED Light Source

Illumination	> 200,000 Lux
Power consumption	5 Watts
Color temperature	5,700 Kelvin
Service life	20,000 hours
Connecting Cable	500 mm long



66 000 00

USB HD Cam 3.0 - Image sensor: CMOS
Video resolution: 1920 x 1080 pixels, 30 fps
Interface: USB 3.0
Lens connector: C-MOUNT connector
Includes exchangeable LED light source
Illuminance: 200,000 Lux
Color temperature: 5,700 K
Power supply:
DC 5 V/0.7 A from USB 3.0 port
Dimensions: 45 mm x 45 mm x 80 mm
Weight: 200 ±10 g
Minimum requirements for PC/notebook:
CPU: Dual core 2.6 GHz
System: Microsoft Windows 10/8/7
(64 Bits or 32 Bits)
Memory: 4 GB RAM
Monitor: 1920 x 1080 pixels
USB port: USB 3.0
USB flash drive with VCam HD software
Storage case

SMART SCOPE

The endoscope adaptor for smartphones



The mobile and flexible use of endoscopic equipment is a distinguishing feature of KARL STORZ NDTec. In addition to the existing range of mobile documentation and measuring systems, our company now offers an endoscope to smartphone adaptor that is suitable for rapid and spontaneous inspection and documentation in non-destructive visual inspections.

Special Features:

- Plug & Play
- Ready for use anywhere and anytime
- Recording and transmission
- Compatible with standard eyepieces and various smartphones

SMART SCOPE Accessories

Sets: SMART SCOPE with Holder

- 20288001-S6 SMART SCOPE with Galaxy S6 Holder**, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces. The set comprises a SMART SCOPE and a Galaxy S6 holder.
- 20288001-S7 SMART SCOPE with Galaxy S7 Holder**, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces. The set comprises a SMART SCOPE and a Galaxy S7 holder.
- 20288001-S8 SMART SCOPE with Galaxy S8 Holder**, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces. The set comprises a SMART SCOPE and a Galaxy S8 holder.
- 20288001-I6 SMART SCOPE with iPhone 6/6s Holder**, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces. The set comprises a SMART SCOPE and an iPhone 6/6s holder.
- 20288001-I7 SMART SCOPE with iPhone 7/8 Holder**, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces. The set comprises a SMART SCOPE and an iPhone 7/8 holder.
- 20288001-IX SMART SCOPE with iPhone X Holder**, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces. The set comprises a SMART SCOPE and an iPhone X holder.

Individual Components

- 20288001 SMART SCOPE**, smartphone adaptor, for coupling a smartphone camera to an endoscope, for straightforward documentation of endoscopic images or videos on a smartphone, compatible with all endoscopes with standard eyepieces and smartphone covers
- 20288100-S6 Galaxy S6 Holder for SMART SCOPE**, for holding a customer-owned Galaxy S6 and fixation to the SMART SCOPE
- 20288100-S7 Galaxy S7 Holder for SMART SCOPE**, for holding a customer-owned Galaxy S7 and fixation to the SMART SCOPE
- 20288100-S8 Galaxy S8 Holder for SMART SCOPE**, for holding a customer-owned Galaxy S8 and fixation to the SMART SCOPE
- 20288100-I6 iPhone 6/6s Holder for SMART SCOPE**, for holding a customer-owned iPhone 6/6s and fixation to the SMART SCOPE
- 20288100-I7 iPhone 7/8 Holder for SMART SCOPE**, for holding a customer-owned iPhone 7/8 and fixation to the SMART SCOPE
- 20288100-IX iPhone X Holder for SMART SCOPE**, for holding a customer-owned iPhone X and fixation to the SMART SCOPE

Other Recommended Products

- 96220082 Microfiber Bag**, for SMART SCOPE
- 11301 D4 Battery Light Source LED for Endoscopes**, with fast screw thread, boost mode for temporary increase in brightness, brightness > 110 lm/> 150 klx, burning time > 120 min, weight approx. 150 g ready for use, suitable for wipe disinfection, for use with KARL STORZ endoscopes

PORTABLE SYSTEMS

VTec product family

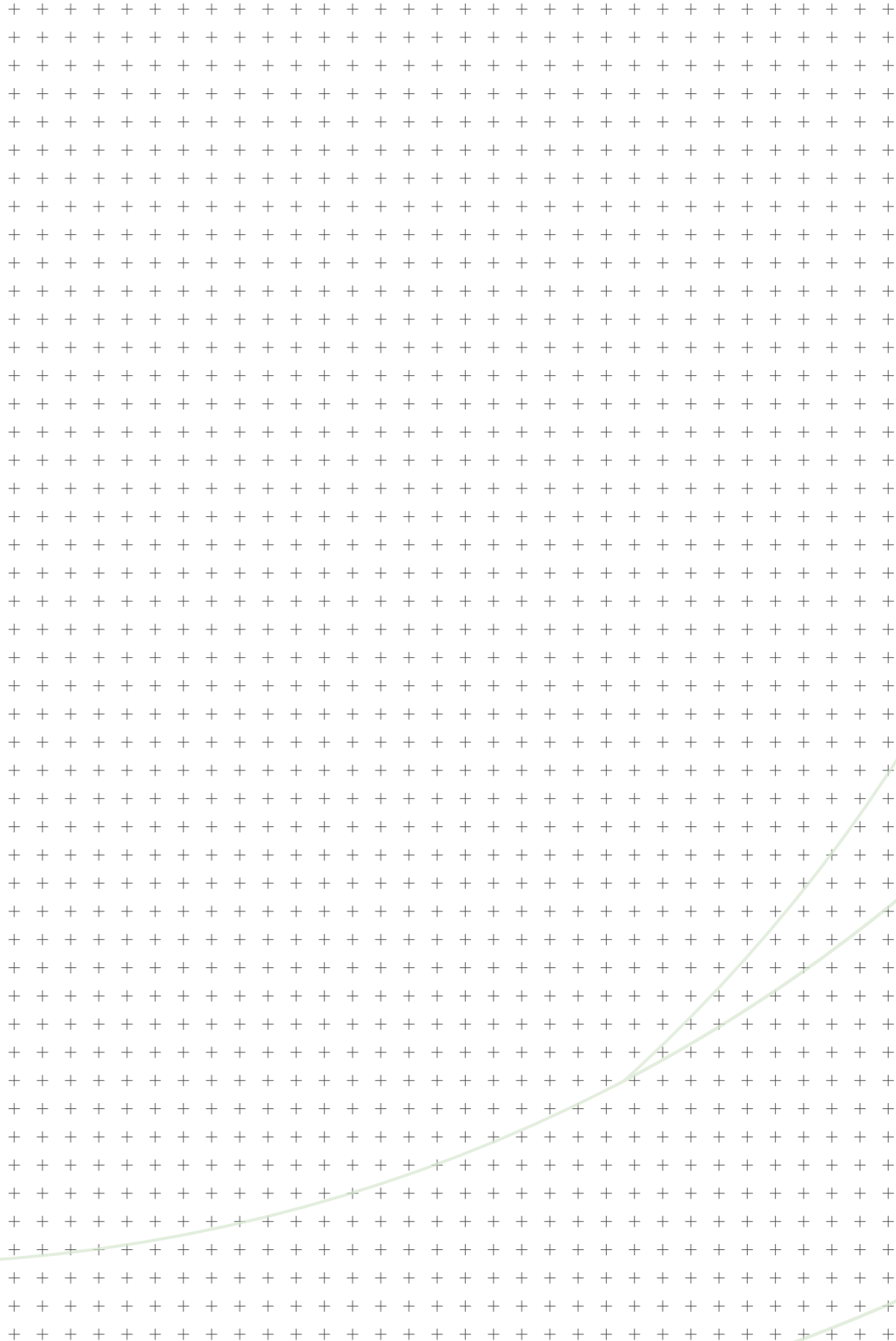


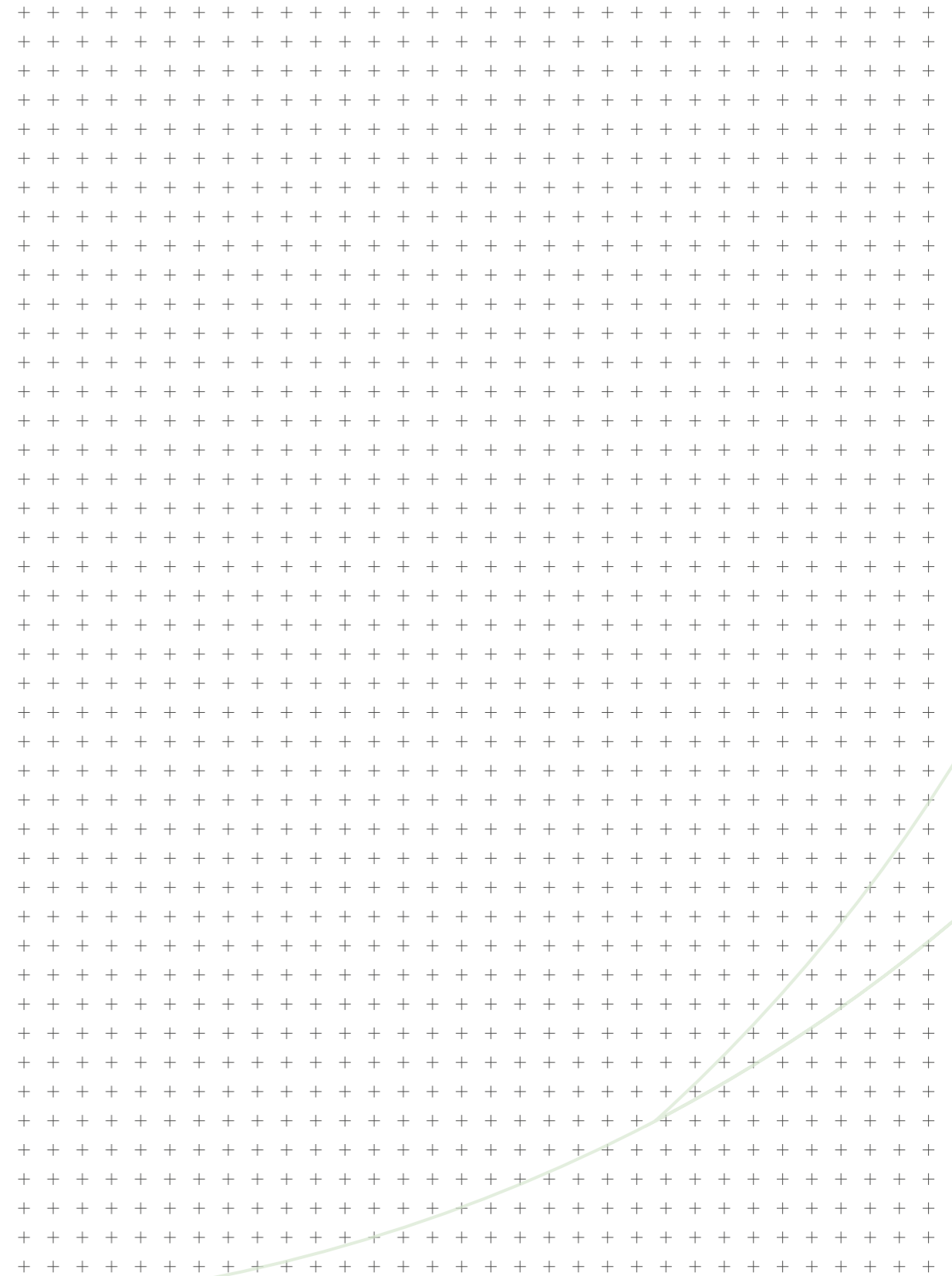
VTec compact systems provide the optimal choice for your needs. The VTec product family was specially designed for applications where portability, compactness, and one-hand operability are important. Available in various working lengths and diameters, these compact units can be used for a wide range of applications. Furthermore, VTec M covers special applications such as UV and infrared.

Special Features:

- High-contrast images
- Intuitive menu navigation
- Latest CMOS camera technology
- Intuitive lag-free probe control with 4-way articulation
- 4-ply, wear-resistant tungsten braiding

* Further information and specifications can be found in our Videoscopes product brochure or relevant data sheets and on our homepage www.karlstorzndtec.com.





At KARL STORZ NDTec™ GmbH, 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 KARL STORZ NDTec™ GmbH.



DRIVING NDT SOLUTIONS

KARL STORZ NDTec™ GmbH Tel.: +49 (0)9549 9895 44-0
Blumenstraße 8 Fax: +49 (0)9549 9895 44-9
96194 Walsdorf/Germany E-Mail: info@ksndtec.com
www.karlstorzndtec.com