

BO26

EN

OPERATING MANUAL
VIDEOSCOPE



Table of contents

Notes regarding the operating manual	1
Information about the device	2
Technical data	3
Safety	4
Transport and storage	5
Operation	5
Maintenance and repair	12
Disposal	12
Declaration of conformity	12

Notes regarding the operating manual

Symbols

**Danger!**

Warns of a hazard which can lead to injuries.

**Caution!**

Warns of a hazard which can lead to damage to property.

The current version of the operating manual can be found at:
www.trotec.de

Legal notice

This release replaces all previous versions. No part of this publication may be reproduced without written permission from Trotec. The same applies for electronically processing, duplicating or spreading the publication. Subject to technical changes. All rights reserved. Trademarks are used without guarantee that they may be used freely and primarily following the spelling of the manufacturer. Product names are registered. Changes to construction in the interests of constant improvements to the product, as well as changes to the shape and colour are reserved.

The scope of delivery may vary from product images. This document was created with all due care. Trotec accepts no liability whatsoever for possible mistakes or omissions.

The only party responsible for determining measured results to be valid, drawing conclusions and deriving actions is the user! Trotec accepts no claims of warranty for the correctness of the determined measured values or measured results. Further, Trotec accepts no liability whatsoever for possible mistakes or damage which have been caused by utilising the determined measured results. © Trotec

Information about the device

Device description

The videoscope serves f. i. for inspecting concealed machine components or poorly or inaccessible hollows.

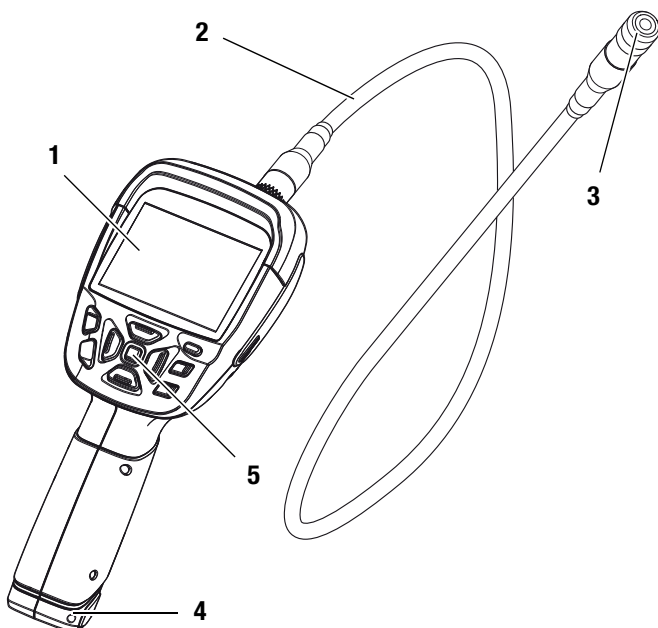
The camera is connected to the device via a flexible gooseneck probe.

The probe is water-proof and can be immersed in water along with the camera head, e.g. to check whether there are any objects underneath the surface (e.g. for leak detection or drainage or sanitary work).

The device has the following features:

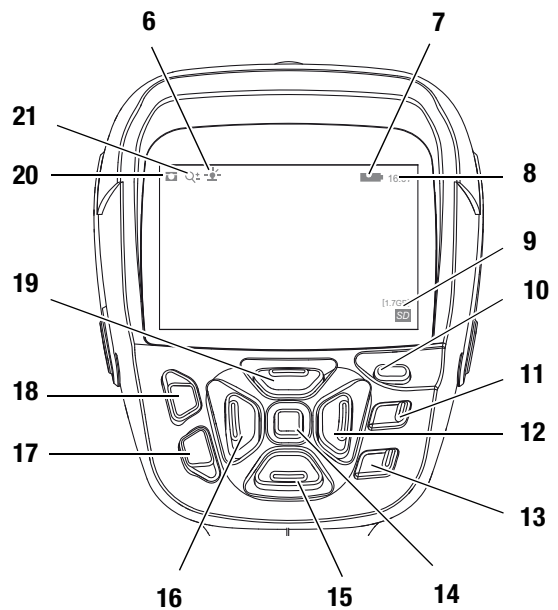
- high-resolution camera,
- operator software for control of functions,
- illuminated and moveable camera head,
- recording function for pictures and videos, storage on an SD card,
- USB interface for data transmission

Device depiction

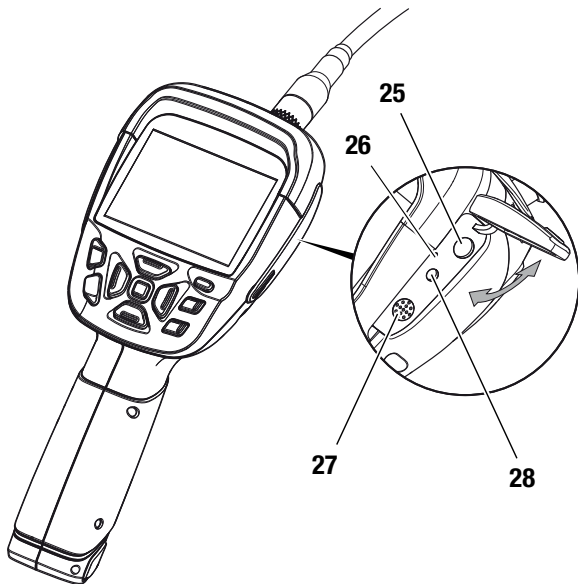
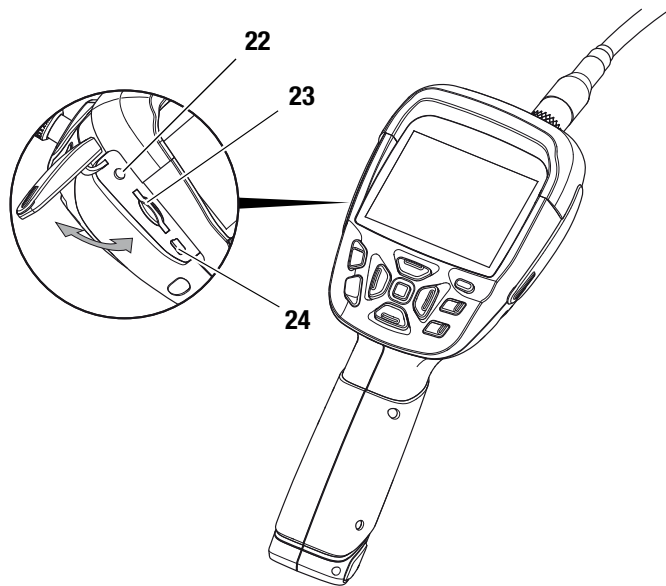


No.	Operating element
1	Display
2	Gooseneck probe
3	Camera
4	Battery compartment
5	Operating elements

Operating elements



No.	Operating/display element
6	Brightness indication
7	Battery status indication
8	Time indication
9	SD card indication
10	Power button
11	Image rotation button
12	Right button
13	Back button
14	Menu button
15	Down button
16	Left button
17	Video button
18	Photo button
19	Up button
20	Photo / video indication
21	Zoom indication



Technical data

Model:	B026
Weight:	584g
Dimensions (H x W x D):	260 mm x 160 mm x 100 mm
Display:	3.5 in digital LC colour display resolution 320*240 pixels frame rate 30 fps
Diameter of the standard camera head:	17 mm
Length of the standard gooseneck probe:	1 m
Focus:	5 to 15 cm
Image rotation:	0 to 360° (5°, 15°, 45°, 90° adjustable)
Zoom:	3-fold (digital)
TV output:	PAL, NTSC
Photo (format, resolution):	JPG (640*480)
Video (format, resolution):	MP4/AVI (640*480)
SD card:	max. 16 GB
Operating temperature:	-10°C to 50°C
Storage temperature:	-10°C to 50°C
Type of protection of probe:	IP 67
Type of protection of control unit:	IP 54
Power supply:	1 x Li battery 3.7 V 2000 mA Charger DC 5 V/2 A

Scope of delivery

- 1 x Videoscope B026
- 1 x Li-battery, 3.7 V
- 1 x Case
- 1 x Charger DC 5 V/2 A
- 1 x Accessory kit with mirror, hook and magnet attachment
- 1 x USB cable
- 1 x Video cable
- 1 x Getting started guide
- 1 x SD card

No.	Operating element
22	TV out
23	SD card slot
24	USB interface
25	Charger connection
26	Reset opening
27	Speaker
28	Headphone connection

Safety

Carefully read the operating manual before using the device and keep it within reach!

- Do not use the device in atmospheres containing oil, sulphur, chlorine or salt.
- Protect the device from permanent direct sunlight.
- Do not remove any safety signs, stickers or labels from the device. Keep all safety signs, stickers and labels in legible condition.
- Do not open the device with a tool.
- Observe the storage and operating conditions (see chapter Technical data).

Intended use

Only use the device for the visualization of objects. To use the device for its intended use, only use accessories and spare parts which have been approved by Trotec.

Improper use

Do not use the device in potentially explosive areas. Never use the device on persons or animals. Trotec accepts no liability for damages resulting from improper use. In such a case, entitlements to a warranty are forfeited. Any unauthorised modifications, alterations or structural changes to the device are forbidden.

Personnel qualifications

People who use this device must:

- have read and understood the operating manual, especially the Safety chapter.

Residual risks



Danger!

Keep a sufficient distance away from sources of heat.



Danger!

Do not leave the packaging lying around. Children may use it as a dangerous toy.



Danger!

The device is not a toy and does not belong in the hands of children.



Danger!

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way. Observe the personnel qualifications.



Caution!

To prevent damages to the device, do not expose it to extreme temperatures, extreme humidity or moisture.



Caution!

To avoid damages to the battery, only use the charger included in the scope of delivery for charging the battery.



Caution!

Do not use abrasive cleaners or solvents to clean the device.

Transport and storage

Transport

Use the supplied case to transport the device.

Storage

When the device is not being used, observe the following storage conditions:

- dry,
- protected from dust and direct sunlight,
- with a plastic cover to protect it from invasive dust, if necessary.
- The storage temperature is the same as the range given in the chapter Technical data.
- When storing the device for a long time, remove the batteries.
- Preferably use the supplied case to store the device.

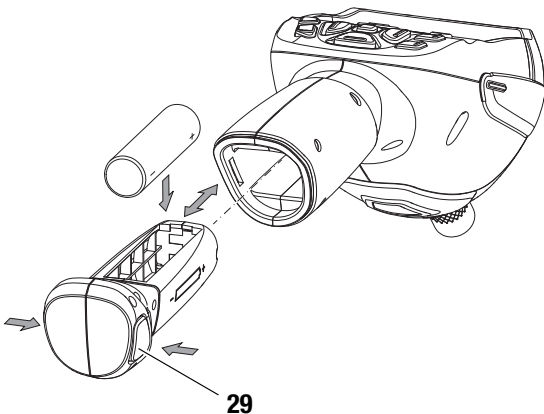
Operation

Inserting the battery



Caution!

Make certain that the surface of the device is dry and the device is switched off.



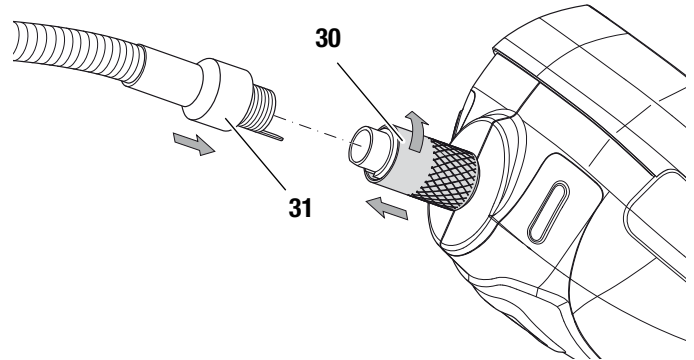
1. Press the two buttons (29) on the left and right side of the handle and pull the holder out of the device.
 - Remove any used batteries.
2. Insert the battery in the holder with correct polarity.
3. Push the holder into the battery compartment until it engages completely.

Connecting the gooseneck probe



Caution!

Make certain that the surface of the device is dry and the device is switched off.



1. Connect the gooseneck probe (31) to the device (30). In doing so, make sure that you first insert the *pin* on the probe carefully into the corresponding *recess* on the device side to prevent accidental turning of the contacts.
2. The device port (30) comes with a screw joint. Connect it to the gooseneck probe.

Inserting an SD card

1. Open the rubber tab on the left side of the device.
2. Insert the SD card in the SD card slot (23).
3. Slightly press down the SD card until it engages.
4. Close the rubber tab.

Switching on and off

- Press the Power button (10) for approx. 3 seconds until the logo appears.
 - The device starts. It takes a few seconds until the display is switched on and the device ready for operation.
- Press the Power button (10).
 - The device switches off.

Aligning/moving the camera

- Move the gooseneck probe into the desired position.
- If required, you can rotate the camera image on the display by 360° (See Setting the rotation on page 11.).
 - Press the Image rotation button (11) until the image is oriented as desired.
- For underwater photos the gooseneck probe can be immersed.
 - Make sure that the device itself does not make contact with water, otherwise it might be damaged.

Speaker

The device is equipped with an integrated speaker (27). The device can thus play a video file with sound.

Note:

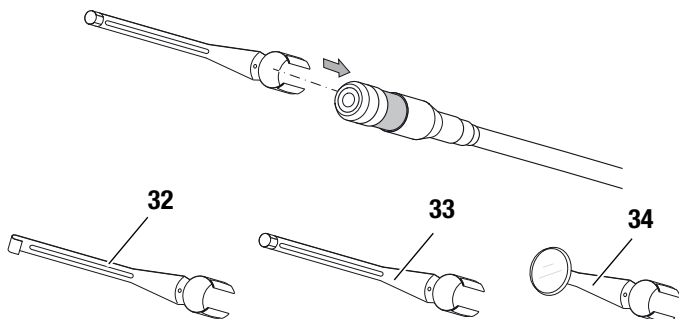
You must first record a video with sound. To record a video with sound, a headset with microphone must be plugged into the headphone connection (28).

Using accessories

The accessories include 3 attachments for the camera head:

- hook (32) (for recovery or taking samples)
- magnet (33) (for withdrawing ferrous metal parts)
- mirror (34) (bent, expands the lateral field of vision)

If required, these attachments can be fastened to the camera head.



Set language

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Language* menu is displayed.

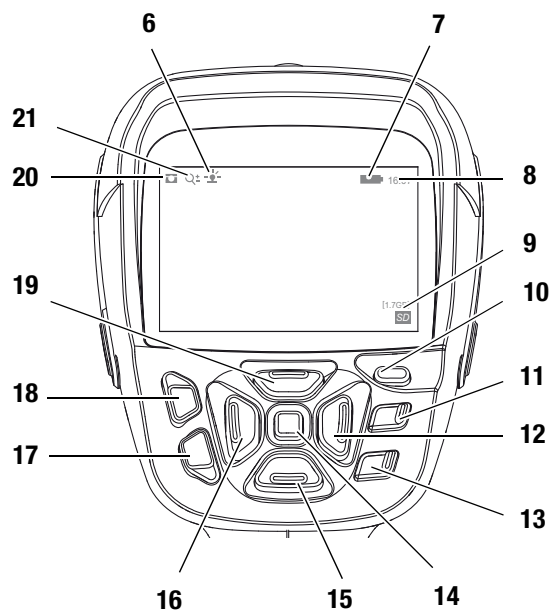


3. Use the Down button (15) to select the desired language.

Designation	Meaning
<i>English</i>	English
<i>Chinese</i>	Chinese
<i>German</i>	German
<i>français</i>	French
<i>Italia</i>	Italian
<i>Nederland</i>	Dutch
<i>türkiye</i>	Turkish
<i>Danmark</i>	Danish
<i>Suomi</i>	Finnish
<i>España</i>	Spanish
<i>Polska</i>	Polish

4. Confirm your selection by pressing the Menu button (14).

Taking a picture



- Press the Photo button (18).
 - The picture is taken.



Recording a video

1. Press the Video button (17).
 - The videoscope switches to video mode.
 - The photo/video indication (20) switches to video.
 - The recording is started.



2. Press the Video button (17) again.
 - The recording is stopped.

Note:

If you want to record a video with sound, plug a headset with microphone into the headphone connection (28) before starting the recording.

Setting the zoom

- Press the Up (19) or Down button (15) until the desired zoom is set.
 - A scale on the screen indicates the current zoom level.



Setting the LED brightness

- Press the Left (16) or Right (12) button until the desired brightness is set.
 - A scale on the screen indicates the current brightness level.



Viewing recordings

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Mode* menu is displayed.



3. Use the Down button (15) to select *Picture Viewer* (for pictures) or *Video Viewer* (for videos) and confirm your selecting with the Menu button (14).
 - The different recordings will be displayed on the screen.



4. Select a recording and press the Menu button (14) to view a picture or play a video and, if required, to pause.
5. Press the Back button (13) to leave the screen.
 - The selection list will be displayed.
6. Press the Back button (13) again to return to the main menu.

Advanced picture settings

These settings are available while you are in the following photo view:



1. Press the Menu button (14).
– The submenu Photo Menu will be displayed.



2. Select the desired menu option:

Designation	Meaning
<i>Photo Information</i>	Display extended information about the picture
<i>Disable Information</i>	Disable the information display
<i>Photomode Select</i>	Switch between <i>Move Mode</i> and <i>Zoom Mode</i> <i>Zoom Mode</i> : Digital zoom using Up (19) or Down button (15) in picture view <i>Move Mode</i> : The photo is shifted using the direction buttons. Particularly suited for viewing all parts of a photo while the zoom is activated.
<i>Delete Photo</i>	Delete the photo
<i>Exit</i>	Exit the submenu

Deleting pictures or videos

1. Call up the recordings overview as described in Viewing recordings, step 1. to 3.
2. Press the Menu button (14).
– The following submenu will be displayed.



3. Select the desired menu option.

Designation	Meaning
<i>Select</i>	Select the recording
<i>Select all</i>	Select all recordings
<i>Unselect all</i>	Clear the selection
<i>Delete selected</i>	Delete all selected recordings

4. Press the Menu button (14).
– The selected setting is executed.
5. Press the Back button (13) to return to the main menu.

Enabling/disabling the video output

For playback on a screen, the videoscope must be connected with the video output (22) and the screen via a video cable.

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *TV Out* menu is displayed.



3. Use the Down button (15) to select the desired setting. The following options are available:

Designation	Meaning
<i>Disable</i>	TV output is disabled
<i>PAL</i>	TV output is enabled for output on PAL devices.
<i>NTSC</i>	TV output is enabled for output on NTSC devices.

4. Confirm your selection by pressing the Menu button (14).

Setting the date

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Time & Date* menu is displayed.



3. Use the Down button (15) to select *Set Date* and confirm your selecting with the Menu button (14).
 - The submenu *Set Date* will be displayed.



4. Select the desired option using the Left (16) or Right (12) button. The following options are available:

Designation	Meaning
<i>year</i>	year
<i>month</i>	month
<i>day</i>	day

5. Select the desired value by use of the Up (19) or Down (15) button.
6. Repeat steps 4. and 5. until the date is set.
7. Confirm your selection by pressing the Menu button (14).
 - The date is set.
 - The *Time & Date* menu is displayed.

Setting the time

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Time & Date* menu is displayed.



3. Use the Down button (15) to select *Set Time* and confirm your selecting with the Menu button (14).
 - The submenu *Set Time* will be displayed.



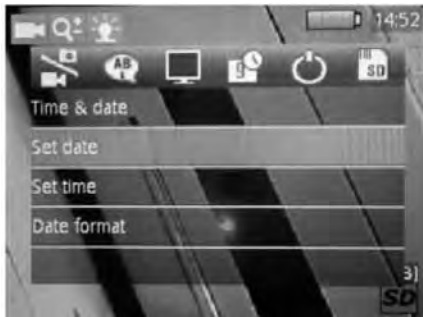
4. Select the desired option using the Left (16) or Right (12) button. The following options are available:

Designation	Meaning
<i>hour</i>	hour
<i>minute</i>	minute

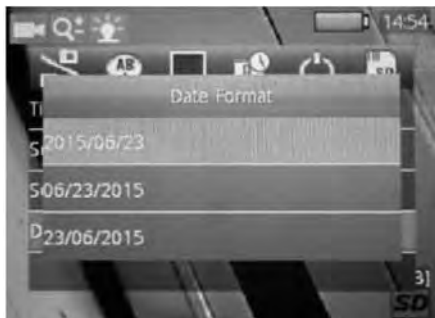
5. Select the desired value by use of the Up (19) or Down (15) button.
6. Repeat steps 4. and 5. until the time is set.
7. Confirm your selection by pressing the Menu button (14).
 - The time is set.
 - The *Time & Date* menu is displayed.

Setting the date format

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Time & Date* menu is displayed.



3. Use the Down button (15) to select *Date Format* and confirm your selecting with the Menu button (14).
 - The submenu *Date Format* will be displayed.



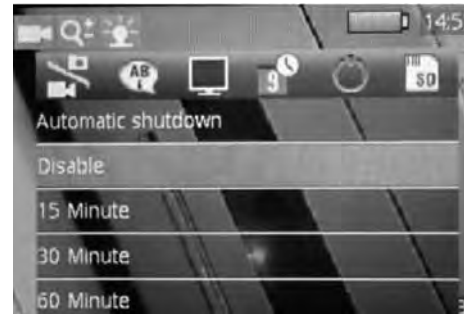
4. Select the desired option using the Left (16) or Right (12) button. The following options are available:

Designation	Meaning
yyyy/dd/mm	year/day/month
mm/dd/yyyy	month/day/year
dd/mm/yyyy	day/month/year

5. Select the desired value by use of the Up (19) or Down (15) button.
6. Confirm your selection by pressing the Back button (13).
 - The date format is set.
 - The *Time & Date* menu is displayed.

Setting the automatic shutdown

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Automatic shutdown* menu is displayed.



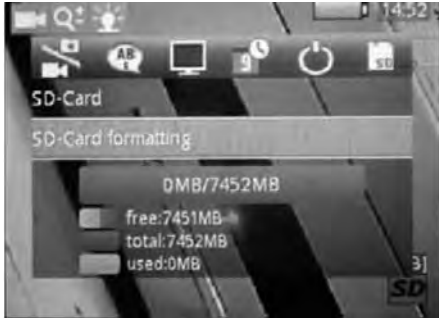
3. Select the desired value by use of the Up (19) or Down (15) button.

Designation	Meaning
Disable	Automatic shutdown is disabled.
15 Minute	Automatic shutdown after 15 minutes.
30 Minute	Automatic shutdown after 30 minutes.
60 Minute	Automatic shutdown after 60 minutes.

4. Confirm your selection by pressing the Menu button (14).

Formatting an SD card

1. Check whether an SD card is located in the SD card slot (23). If necessary, insert an SD card to be formatted.
2. Press the Menu button (14).
3. Press the Left (16) or Right (12) button until the *SD Card* menu is displayed.



– Information on the SD card will be displayed.

4. Press the Menu button (14).

– The submenu *Format* will be displayed.



5. Select the desired option using the Left (16) or Right (12) button.

Designation	Meaning
<i>OK</i>	Confirm formatting
<i>Cancel</i>	Cancel formatting

6. Confirm your selection by pressing the Menu button (14).
– The *SD Card* menu is displayed.

Setting the rotation

1. Press the Menu button (14).
2. Press the Left (16) or Right (12) button until the *Rotation* menu is displayed.



3. Select the desired value by use of the Up (19) or Down (15) button.

Designation	Meaning
<i>rotation 5 degrees</i>	rotation by 5°
<i>rotation 15 degrees</i>	rotation by 15°
<i>rotation 45 degrees</i>	rotation by 45°
<i>rotation 90 degrees</i>	rotation by 90°

4. Confirm your selection by pressing the Menu button (14).
5. Leave the *Rotation* menu using the Back button (13).
– The image is rotated by the selected value if you press the Image rotation button (11).

Maintenance and repair

Charging the battery

Charge the battery when the battery status indication (7) flashes red. To do so, connect the cable of the supplied charger to the corresponding connection (25).



Caution!

To avoid damages to the battery, only use the charger included in the scope of delivery for charging the battery.

Cleaning

Clean the device with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Do not use any sprays, solvents, alcohol-based cleaning agents or abrasive cleaners. Only use clean water to moisten the cloth.

Repair

Do not modify the device or install any spare parts. For repairs or device testing, contact the manufacturer.

Disposal



In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE). At the end of its life, please dispose of this instrument in a manner appropriate to the relevant legal requirements.

Declaration of conformity

in accordance with the EC Low Voltage Directive 2006/95/EC and the EC Directive 2004/108/EC about electromagnetic compatibility.

Herewith, we declare that the videoscope B026 was developed, constructed and produced in compliance with the named EC directives.

The CE marking is found on the rear of the device.

Manufacturer:

Trotec GmbH & Co. KG
Grebbener Straße 7
D-52525 Heinsberg

Phone: +49 2452 962-400

Fax: +49 2452 962-200

E-mail: info@trotec.com

Heinsberg, 03/07/2015



Managing Director: Detlef von der Lieck

Trotec GmbH & Co. KG

Grebener Str. 7
D-52525 Heinsberg

☎ +49 2452 962-400

📠 +49 2452 962-200

info@trotec.com

www.trotec.com