

Endoscopy is now recognised as an essential and economical examination technique in industrial applications. Endoscopic examination reveals damage at an early stage and is invaluable in quality management of industrial process.

HEINE Optotechnik's focus is on top-quality hand-held, direct-view endoscopes. These include rigid endoscopes which provide the clearest images for reliable diagnosis. All HEINE endoscopes are available with a portable power supply for complete mobility.

When choosing an endoscope it is important to know what will be examined and at what distance. The size of the opening and the access to the examination site must also be considered. There are two main kinds of endoscope: Rigid and flexible.

**Rigid Endoscopes:**

These incorporate high-performance lens systems which are arranged together to deliver high-resolution, high-contrast images of exceptional clarity.

**Flexible Endoscopes:**

The image is transmitted by a fiber-optic bundle. This is made up of a huge number of fine glass or plastic fibers. Image pixels are transmitted by the individual fibers in the flexible probe and are then re-aligned at the eyepiece to form the high-resolution image.

HEINE Optotechnik offers flexible endoscopes of exceptional quality at highly-competitive prices. HEINE's key to success lies in the newest production technology now operating in its factories in Germany and HEINE's traditional commitment to quality. From the raw-material to the finished instrument, every production step is carried out at HEINE's facilities south-west of Munich.

The wide range of endoscopes offers exactly the right instrument, whether in the automotive, manufacturing or construction area.





## RC4 Endoscopes Ø 4.5 mm

### Rigid Fiber Optic Endoscopes with lens optics



#### Specification

∴ Diameter:	4.5 mm
∴ Working lengths:	170 mm, 310 mm, 450 mm
∴ Direction of view:	0°, 70°, 90°, 120°
∴ Field of view:	40°
∴ Focal range:	from 3 mm to infinity

#### RC4 F.O. Endoscopes

RC4-170 incl. protective tube dia. 4.5 mm, Working length 170 mm without light and power sources	T-000.26.409
RC4-310 incl. protective tube dia. 4.5 mm, Working length 310 mm without light and power sources	T-000.26.419
RC4-450 incl. protective tube dia. 4.5 mm, Working length 450 mm without light and power sources	T-000.26.429



#### RC4 Endoscope-Sets with LED ScopeLight 3.5V

Set RC4-310 A incl. Protective tube, LED ScopeLight, Mirror tubes 70° and 120°, Angled Attachment 120°/120mm, Rubber Eyepiece, BETA Battery handle, Extension Cord Automatic Plug, Transport and Storage case	T-554.28.123
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Set RC4-450 A incl. Protective tube, LED ScopeLight, Mirror tubes 70° and 120°, Angled attachment 120°/120mm, Rubber Eyepiece, BETA Battery handle, Extension Cord Automatic Plug, Transport and Storage case	T-555.28.123
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Set T-554.28.123

#### RC4 Endoscope-Sets 12V

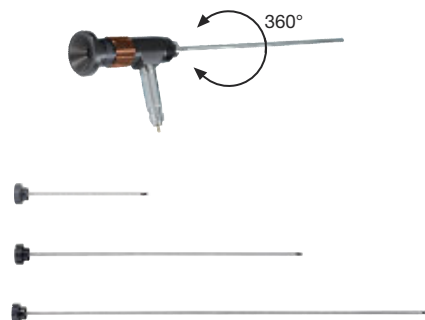
Set RC4-310 A, contents: Endoscope including protective tube, AV-Adaptor incl. 12V XHL Xenon Halogen spare bulb. Mirror tubes 70° and 120°, Angled Attachment 120°/120mm, Connecting Cable for Cigarette Light Socket, Rubber Eyepiece. 12V XHL Xenon Halogen spare bulb, Transport and Storage case	T-546.50.246
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Set RC4-450 A, contents as T-546.50.246, however with Endoscope dia. 4.5/450mm working length, with Protective tube and 450mm Mirror tubes 70° und 120°	T-547.50.246
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Set T-546.50.246

## RC4 Endoscopes Ø 4.5 mm Accessories



### RC4 Mirror tubes

View. direction	70°	90°	120°
Working length			
170mm	T-000.26.414	T-000.26.415	T-000.26.416
310mm	T-000.26.424	T-000.26.425	T-000.26.426
450mm	T-000.26.434	T-000.26.435	T-000.26.436



### Additional Accessories for RC4 F.O. Endoscopes

3.5V/12V

LED ScopeLight Endoscope illumination 3.5V	T-008.26.075
AV-Adaptor incl. 3.5V XHL Xenon Halogen bulb	T-002.26.402
XHL Xenon Halogen spare bulb, 3.5V	T-002.88.078
AV-Adaptor incl. 12V XHL Xenon Halogen bulb	T-005.26.402
XHL Xenon Halogen spare bulb, 12V	T-005.88.103
Extension Cord Automatic Plug	T-000.99.230
BETA Belt Clip for BETA handles	T-000.99.008
Transport and storage case for RC4 Endoscopes	T-546.00.000

Additional accessories see page 12.

### Power and light sources

<ul style="list-style-type: none"> <li>❖ BETA Battery handle for 3 LR14 dry batteries</li> <li>❖ Rechargeable handles NiMH or Li-ion</li> <li>❖ AV-Adaptor with 3.5V XHL bulb</li> <li>❖ LED ScopeLight</li> </ul>	<b>3.5V</b>
<ul style="list-style-type: none"> <li>❖ Connecting Cable for Cigarette Lighter Socket (5m)</li> <li>❖ Accubox I with brightness control</li> <li>❖ Accubox II with on/off switch</li> <li>❖ AV-Adaptor with 12V XHL bulb</li> </ul>	<b>12V</b>
<ul style="list-style-type: none"> <li>❖ F.O. Projector HK 7000</li> <li>❖ F.O. Light Guide</li> </ul>	<b>220V</b>



## RW6 Endoscopes Ø 6 mm

### Rigid Fiber Optic Endoscopes

#### Specification

∴ Diameter:	6mm
∴ Working lengths:	138mm, 240mm, 320mm
∴ Direction of view:	70°
∴ Field of view:	90°
∴ Focal range:	from 5 mm to infinity

#### RW6 Endoscope

12V

RW6-140 Working length 138mm

T-005.26.301

RW6-240 Working length 240mm

T-005.26.302

RW6-320 Working length 320mm

T-005.26.303

#### RW6 Endoscope-Sets

12V

Set RW6-240 A, including:

Endoscope, Angled Attachment 120°/120mm, Connecting Cord for Cigarette Lighter Socket, 12V XHL Xenon Halogen spare bulb for 6mm Endoscopes, Rubber Eyepiece, Transport and Storage case

T-542.50.246

Set RW6-240, contents as above, however without Angled Attachment

T-543.50.246

Set RW6-320 A, contents as T-542.50.246, however with RW6-320 Endoscope instead of RW6-240 Endoscope

T-544.50.246

Set RW6-320, contents as T-542.50.246

T-545.50.246

#### Accessories for RW6 Endoscopes

XHL Xenon Halogen Spare Bulb 12V

T-005.88.095

Transport and Storage case for RW6 Endoscopes

T-542.00.000

Additional accessories see page 12.

#### Power and light sources

∴ Connecting Cable for Cigarette Lighter Socket (5 m)

12V

∴ Accubox I with brightness control



Set T-545.50.246

## RW8 Endoscopes Ø 8mm

### Rigid conventional Endoscopes with lens optics

#### Specification



∴ Diameter:	8mm
∴ Working lengths:	230mm, 385 mm
∴ Direction of view:	90°
∴ Field of view:	35°
∴ Focal range:	from 5 mm to infinity

RW8 Endoscopes	3.5V	12V
RW8-230 Working length 230 mm	<b>T-002.26.103</b>	<b>T-005.26.103</b>
RW8-385 Working length 385 mm	<b>T-002.26.102</b>	<b>T-005.26.102</b>



Set T-557.20.123

RW8 Endoscope-Set	3,5V	
Set RW8-230, including: Endoscope, BETA Battery handle, 3.5V XHL Xenon Halogen bulb, Transport and Storage case	<b>T-557.20.123</b>	

Accessories for RW8 Endoscopes	3.5V	12V
XHL Xenon Halogen Spare Bulb	<b>T-002.88.075</b>	
XHL Xenon Halogen Spare Bulb		<b>T-005.88.079</b>

Additional accessories see page 12.

#### Power and light sources

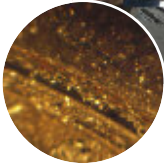
∴ BETA Battery handle for 3 LR14 dry batteries	<b>3.5V</b>
∴ Rechargeable handles NiMH or Li-ion	
∴ Accubox I with brightness control	<b>12V</b>



## RWX8 Endoscopes Ø 8 mm

### Rigid conventional Endoscopes with lens optics

#### Specification



∴ Diameter:	8mm
∴ Working lengths:	165mm, 230mm, 385mm
∴ Direction of view:	70°
∴ Field of view:	85°
∴ Focal range:	from 5 mm to infinity

RWX8 Endoscopes	3.5V	12V
RWX8-165 Working length 165mm	<b>T-002.26.123</b>	<b>T-005.26.123</b>
RWX8-230 Working length 230mm	<b>T-002.26.124</b>	<b>T-005.26.124</b>
RWX8-385 Working length 385mm	<b>T-002.26.125</b>	<b>T-005.26.125</b>



Set T-532.50.246

#### RWX8 Endoscope-Sets

Set RWX8-230 A including: Endoscope, 12 V XHL Xenon Halogen bulb, Angled Attachment 120°/120 mm, Connecting Cord for Cigarette Lighter Socket, spare bulb, Transport and Storage case		<b>T-532.50.246</b>
Set RWX8-230 including: as above, without Angled Attachment		<b>T-533.50.246</b>

Accessories for RWX8 Endoscopes	3.5V	12V
XHL Xenon Halogen Spare Bulb	<b>T-002.88.075</b>	<b>T-005.88.079</b>
Transport and Storage case for short and medium-length Endoscopes		<b>T-522.00.000</b>
Transport and Storage case for long Endoscopes		<b>T-541.00.000</b>

Additional Accessories see page 012.

#### Power and light sources

∴ BETA Battery handle for 3 LR14 dry batteries ∴ Rechargeable handles NiMH or Li-ion		<b>3.5V</b>
∴ Connecting Cable for Cigarette Lighter Socket (5 m) ∴ Accubox I with brightness control		<b>12V</b>

## RWD8-320 Endoscope Ø 8 mm

### Rigid conventional Endoscopes with lens optics

#### Specification



∴ Diameter:	8mm
∴ Working length:	320mm
∴ Direction of view:	90°
∴ Field of view:	56°
∴ Focal range:	from 5 mm to infinity

<b>RWD8-320 Endoscope</b>	12V
RWD8-320, Working length 320mm	<b>T-005.26.112</b>

#### RWD8-320 Endoscope-Set

Set RWD 8-320, including:  
Endoscope, 12V XHL Xenon Halogen Bulb,  
Angled Attachment 120°/250mm, Accubox II,  
Connecting Cord, Spare Bulb, Rubber Eyepiece,  
Transport and Storage case

**T-558.50.634**



Set T-558.50.634

<b>Accessories for RWD8-320 Endoscopes</b>	12V
XHL Xenon Halogen Spare Bulb 12V	<b>T-005.88.092</b>
Transport and Storage case	<b>T-542.00.000</b>

**Additional Accessories see page 012.**

#### Power and light sources

∴ Accubox II with on/off switch	<b>12V</b>
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Accessories for all rigid HEINE Endoscopes



Angled Attachments



Rubber Eyepiece



Camera Adaptor



CCD Camera-Adaptor



∴ **Angled Attachments**

The angled attachment allows comfortable viewing even in confined spaces. The endoscope may be rotated when fitted to the angled attachment by 360°, the image remains upright and non-inverted.

∴ **Rubber Eyepiece for Spectacle Wearers**

Soft rubber eyepiece avoids stray light. Recommended for spectacle-wearers. Fits all HEINE Endoscopes.

∴ **Camera Adaptor**

Fits between camera and the endoscope eyepiece. Fits all rigid HEINE Endoscopes.

∴ **CCD Camera-Adaptor**

For standard 1/2 inch CCD cameras with C-mount connector. Focal length 35mm.

Angled Attachment, 120°/120mm	T-000.26.090
Angled Attachment, 120°/250mm	T-000.26.094
Angled Attachment, 120°/360mm	T-000.26.093
Rubber Eyepiece for Spectacle Wearers	T-000.26.175
Camera Adaptor 28mm	T-000.26.186
Camera Adaptor 49mm	T-000.26.176
Camera Adaptor 52mm	T-000.26.177
Camera Adaptor 55mm	T-000.26.178
Camera Adaptor 58mm	T-000.26.179
CCD Camera Adaptor F=35mm	T-000.26.190

A-Cam camera with processor (available systems: PAL or NTSC, please specify when ordering)

T-000.31.201

**A-Cam Video Camera**

The A-Cam video camera features a 1/2" CCD-Chip and, in conjunction with the C-Mount CCD camera adaptor, provides high-quality video images from HEINE rigid and flexible endoscopes. The A-Cam processor is included with the camera. Both S-VHS and composite signals are provided for input to the monitor.

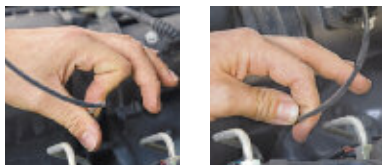
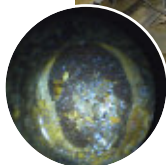
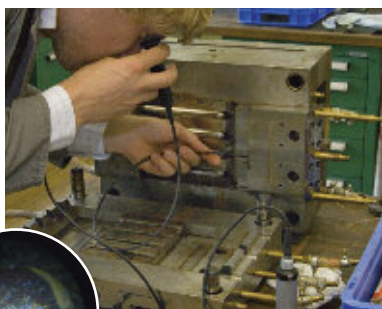


**HEINE SFT 4-720® Ø 4.2mm Endoscope**  
**Flex & Twist Fiber Optic Endoscope**

**Specification**



∴ Diameter:	4.2 mm
∴ Working length:	720 mm
∴ Radius of curvature:	30 mm
∴ Direction of view:	0°, detachable Angled Side View Adapt.: 90°, 110°
∴ Field of view:	40°
∴ Resolution:	Fiber bundle with 17 000 optical fibers
∴ Focal Range:	from 5 mm to infinity
∴ Special features:	360° view with Flex & Twist feature, waterproof, oil and petrol-resistant probe



Flex & Twist feature



Set T-556.28.123

**SFT4-720 Endoscope**

SFT4-720 Endoscope in Transport and Storage case	<b>T-000.26.741</b>
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**SFT 4 - 720 Endoscope Sets**

	3.5V	12V
SFT4-720 Endoscope-Set, 3.5V, contents: SFT4-720, BETA Battery handle 3.5V, AV-Adaptor, Spare bulb 3.5V, Rubber Eyepiece, Transport and Storage case	<b>T-556.20.123</b>	
SFT4-720 Endoscope-Set, 12V, contents: SFT4-720, Connecting Cord for Cigarette Lighter Socket, AV-Adaptor, Spare bulb 12V, Rubber Eyepiece, Transport and Storage case		<b>T-556.50.246</b>

**SFT 4 - 720 Endoscope Set with LED ScopeLight**

SFT4-720 Endoscope, LED ScopeLight, BETA Battery handle 3.5V, Extension Cord Automatic plug, Rubber Eyepiece, Transport and Storage case	<b>T-556.28.123</b>
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**HEINE SF6-1000® Ø 6 mm Endoscope**  
**Semi-flexible Fiber Optic Endoscope**



Set T-551.28.123

**Specification**

∴ Diameter:	6mm
∴ Working length:	1000mm
∴ Radius of curvature:	30mm
∴ Direction of view:	0°, detachable Angled Side View Adapt.: 90°, 110°
∴ Field of view:	50°
∴ Resolution:	Fiber bundle with 7400 optical fibers
∴ Focal Range:	10mm to infinity
∴ Special features:	Waterproof, oil and petrol-resistant probe

**SF6-1000 Endoscope**

SF6-1000 in Transport and Storage case	<b>T-000.26.721</b>
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**SF6-1000 Endoscope Sets**

	3.5V	12V
Set SF 6-1000, 3.5V, contents: SF 6-1000, AV-Adaptor, BETA Battery handle 3.5V, XHL Xenon Halogen spare bulb 3.5V, Rubber Eyepiece, Transport and Storage case	<b>T-538.20.123</b>	
Set SF 6-1000, 12 V, contents: SF 6-1000, AV-Adaptor, Connection Cable for Cig. Lighter Socket, XHL Xenon Halogen spare bulb 12 V, Rubber Eyepiece, Transport and Storage case		<b>T-538.50.246</b>

**Endoscope-Set SF 6 with LED ScopeLight**

Set SF6-1000, LED ScopeLight, BETA Battery handle 3.5V, Extension Cord Automatic, Plug, Rubber Eyepiece, Transport and Storage case	<b>T-551.28.123</b>
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HEINE SFM8-1000®/2000® Ø 8mm Endoscopes  
Flex & Stay fiber optic Endoscopes



Specification

∴ Diameter:	8mm
∴ Working lengths:	1000mm oder 2000mm
∴ Radius of curvature:	60mm
∴ Direction of view:	0°, detachable Angled Side View Adapt.: 90°, 110°
∴ Field of view:	50°
∴ Resolution:	Fiber bundle with 7400 optical fibers
∴ Focal Range:	10mm to infinity
∴ Special features:	Waterproof, oil and petrol-resistant probe

SFM8-1000/2000 Endoscope

SFM8-1000 in Transport and Storage case	T-000.26.731
SFM8-2000 in Transport and Storage case	T-000.26.733

SFM8-1000/2000 Endoscope Sets

	3.5V	12V
Set SFM8-1000, 3.5V, contents: SFM8-1000, AV Adaptor, BETA Battery handle 3.5V, XHL Xenon Halogen spare bulb 3.5V, Rubber Eyepiece, Transport and Storage case	T-539.20.123	
same, but with SFM8-2000	T-540.20.123	

Set SFM8-1000, 12V, contents: SFM8-1000, AV-Adaptor, Connecting cable cinch/AV connector, Accubox I, Rubber Eyepiece, XHL Xenon Halogen spare bulb 12V, Transport and Storage case		T-539.50.629
same, but with SFM8-2000		T-540.50.629

Endoscope-Sets SFM8 with LED ScopeLight

	3.5V	
Set SFM8-1000, LED ScopeLight, BETA Battery handle 3.5V, Extension Cord Automatic Plug, Rubber Eyepiece, Transport and Storage case	T-552.28.123	
same, but with SFM8-2000	T-553.28.123	



Set T-539.20.123



Accessories for Flexible Endoscopes SF/SFM



110° Angled Side View Adaptor

90° Angled Side View Adaptor



LED ScopeLight



AV-Adaptor with bulb



Rubber Eyepiece



Camera-Adaptor

∴ Angled Side View Adaptor:	90°	110°
∴ For SFT 4 Endoscope	T-000.26.744	T-000.26.743
∴ For SF6 Endoscope	T-000.26.724	T-000.26.723
∴ For SFM8 Endoscope	T-000.26.724	T-000.26.723

LED ScopeLight 3.5V	T-008.26.075
AV-Adaptor incl. 12V XHL Xenon Halogen bulb	T-002.26.402
AV-Adaptor incl. 3.5V XHL Xenon Halogen bulb	T-005.26.402

Rubber Eyepiece for Spectacle Wearers	T-000.26.175
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Camera Adaptor 28mm	T-000.26.186
Camera Adaptor 49mm	T-000.26.176
Camera Adaptor 52mm	T-000.26.177
Camera Adaptor 55mm	T-000.26.178
Camera Adaptor 58mm	T-000.26.179

Extension Cord Automatic Plug	T-000.99.230
BETA Belt Clip for BETA handles	T-000.99.008
Transport and Storage case SF/SFM	T-539.00.000

XHL Xenon Halogen Spare Bulb 3.5V	T-002.88.078
XHL Xenon Halogen Spare Bulb 12V	T-005.88.103

**Power and light sources**

∴ BETA Battery handle for 3 LR14 dry batteries	3.5V
∴ Rechargeable handles NiMH or Li-ion	
∴ AV-Adaptor with 3.5V XHL bulb	
∴ LED ScopeLight	

∴ Connecting Cable for Cigarette Lighter Socket (5 m)	12V
∴ Accubox I with brightness control	
∴ Accubox II with on/off switch	
∴ AV-Adaptor with 12V XHL bulb	

∴ F.O. Projector HK 7000	220V
∴ F.O. Light Guide	