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Precise, Durable, Affordable



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## Extendable Endoscopes with Lamp Illumination



### Description

#### The basic system comprises the following:

- Ocular tube with monocular attachment
- Objective tube, as required
- Connecting cable
- Power supply (transformator/rechargeable battery)
- Objective head, as required

Depending on the nature of inspection, extension tubes can be added to the basic system to produce an endoscope of the required length. These are connected by means of a positive square-section screw thread. It is possible to use the instrument suspended in vertical position. The power is supplied by variable output transformer operating from the mains or from a sealed rechargeable battery pack.

#### Technical features:

- Diameter 9, 14, 18 or 24 mm
- Working lengths 500 mm to 30,000 mm, depending on the diameter of the endoscope

- Interchangeable objective heads with directions of view 0°, 0° wide angle, 45°, 90° and 110°, universal objective head with adjustable prism, special objective heads according to inspection requirement
- Extension tubes 500 mm to 1500 mm, depending on the diameter of the endoscope
- Interchangeable ocular attachments: Monocular, zoomocular, binocular
- Stainless steel outer tubes, temperature resistant up to 120° C
- Instruments with a diameter of 14 mm and above are available water-proof and gas-tight
- Radiation resistant versions are available

### Typical Applications for the TEW-range

- Pressure vessels • Tubes
- Boiler and condensor tubes
- Large diesel engines • Helicopter blades
- Structural inspection • Chemical plants
- Weapon systems

Extendable endoscopes with lamp illumination are mainly used for inspections where the instrument must be very long and high levels of illumination are required. Their modular design allows easy transportation of the endoscope as well as easy and fast assembly on site according to the particular inspection requirements.

By using extension tubes, using lengths up to 30,000 mm (TEW-24) are possible.

The interchangeable objective heads carry compact and powerful low voltage halogen lamps, because the illumination source is integral with the objective head. This ensures the most efficient illumination of the inspection area.

Having selected a given diameter, you have the ability to modify the instrument for length, field of view, direction of view and eyepiece pattern to suit an almost infinite range of inspection tasks.



### Extendable Endoscopes with Lamp Illumination 9 mm ø

#### Ordering No. Basic Equipment, working length 500 mm

723 381 0180	Ocular tube with monocular attachment
723 381 0150	Objective tube, angle of field 60°, working length 500 mm
702 372 0004	Connecting cable, 5 m
826 200 0050	Carrying case for complete set

#### Ordering No. Objective Heads with Halogen Lamps

723 381 0300	Objective head, 0° with halogen lamp 6 V / 4.5 W
723 381 0305	Objective head, 0° with halogen lamp 6 V / 13 W
723 381 0340	Objective head, 0° wide angle with halogen lamp 6 V / 4.5 W
723 381 0345	Objective head, 0° wide angle with halogen lamp 6 V / 13 W
723 381 0310	Objective head, 45° with halogen lamp 6 V / 4.5 W
723 381 0315	Objective head, 45° with halogen lamp 6 V / 13 W
723 381 0320	Objective head, 90° with halogen lamp 6 V / 4.5 W
723 381 0325	Objective head, 90° with halogen lamp 6 V / 13 W
723 381 0350	Objective head, 110° with halogen lamp 6 V / 4.5 W
723 381 0355	Objective head, 110° with halogen lamp 6 V / 13 W

The standard objective heads are supplied with halogen lamps 6 V / 4.5 W. For applications where a very long endoscope is required or where the objective distance is large, and also for photographic and video documentation, we recommend the alternative high intensity objective heads with halogen lamps 6 V / 13 W. Please note the considerably higher working temperature on these objective heads.

#### Ordering No. Accessories

723 381 0160	Extension tube, working length 500 mm
723 382 0190	Binocular attachment, totatable
723 382 0195	Monocular attachment with zoom ocular
726 090 0300	Angled attachment, angulated 90°, working length 350 mm
726 090 0100	Angled attachment, angulated 90°, working length 100 mm
726 045 0300	Angled attachment, angulated 45°, working length 350 mm
726 045 0100	Angled attachment, angulated 45°, working length 100 mm
823 372 0010	Spare lamp, 6 V / 4,5 W
702 322 0075	Spare lamp, 6 V / 13 W
826 862 0020	Transformer 220 V / 1-15 V adjustable
826 862 0010	Transformer 110 V / 1-15 V adjustable
821 012 0030	Rechargeable battery 6 V / 10 Ah cpl. in leather carrying case
821 012 0040	Charger 6 V complete
On request	Centering devices

### Extendable Endoscopes with Lamp Illumination 14 mm ø

#### Ordering No. Basic Equipment, working length 1000 mm

723 382 0181	Ocular tube with monocular attachment, working length 100 mm
723 382 0141	Objective tube, angle of field 60°, working length 900 mm
702 372 0004	Connecting cable, 5 m, with switch
826 840 0290	Carrying case for complete set

#### Ordering No. Objective Heads with Halogen Lamps

723 382 0200	Objective head, 0° with halogen lamp 12 V / 20 W
723 382 0240	Objective head, 0° wide angle with halogen lamp 12 V / 20 W
723 382 0210	Objective head, 45° with halogen lamp 12 V / 20 W
723 382 0220	Objective head, 90° with halogen lamp 12 V / 20 W
723 382 0250	Objective head, 110° with halogen lamp 12 V / 20 W
723 382 0260	Universal objective head with adjustable prism

#### Ordering No. Accessories and Spare Parts

723 382 0110	Objective tube, angle of field 60°, working length 400 mm
723 382 0161	Extension tube, working length 1000 mm
723 382 0176	Extension tube, working length 500 mm
726 090 0300	Angled attachment, angulated 90°, working length 350 mm
726 090 0100	Angled attachment, angulated 90°, working length 100 mm
726 045 0100	Angled attachment, angulated 45°, working length 100 mm
726 045 0300	Binocular attachment, rotatable
723 382 0195	Monocular attachment with zoom ocular
702 322 0025	Halogen lamp 12 V / 20 W, with fitting
823 371 0240	Special type halogen lamp 12 V / 55 W, with fitting
826 862 0020	Transformer 220 V / 1-15 V adjustable
826 862 0010	Transformer 110 V / 1-15 V adjustable
826 022 0120	Rechargeable battery 12 V / 10 Ah cpl. in leather carrying case
826 022 0130	Charger 12 V complete
On request	Centering devices

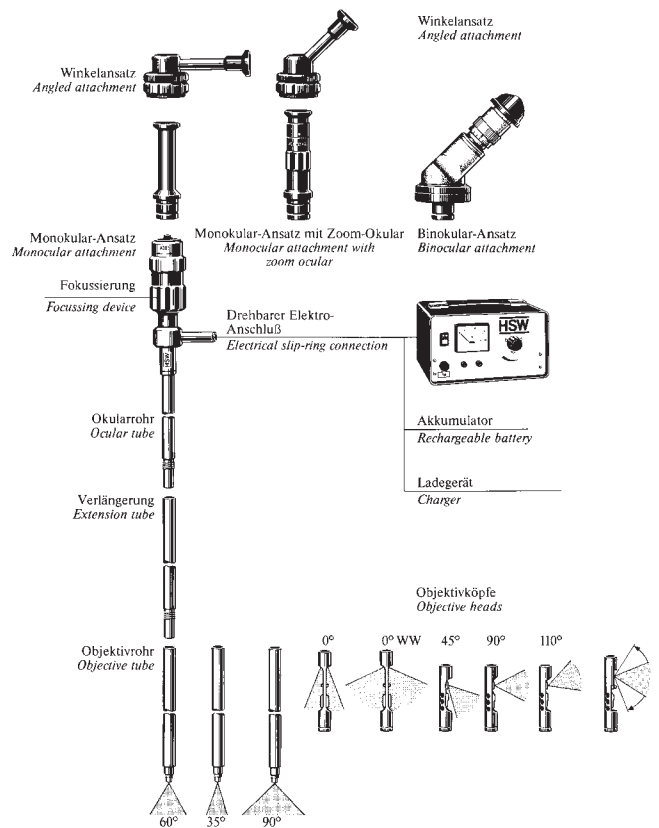


### Extendable Endoscopes with Lamp Illumination 18 mm

Ordering No.	Basic Equipment, working length 1000 mm
723 383 0180	Ocular tube with monocular attachment, working length 100 mm
723 383 0140	Objective tube, angle of field 60°, working length 900 mm
702 372 0004	Connecting cable, 5 m, with switch
826 840 0290	Carrying case for complete Set

Ordering No.	Objective Heads with Halogen Lamps
723 383 0200	Objective head, 0° with halogen lamp 12 V / 20 W
723 383 0240	Objective head, 0° wide angle with halogen lamp 12 V / 20 W
723 383 0210	Objective head, 45° with halogen lamp 12 V / 20 W
723 383 0220	Objective head, 90° with halogen lamp 12 V / 20 W
723 383 0250	Objective head, 110° with halogen lamp 12 V / 20 W
723 383 0260	Universal objective head with adjustable prism

Ordering No.	Accessories and Spare Parts
723 383 0110	Objective tube, angle of field 60°, working length 400 mm
723 383 0161	Extension tube, working length 1000 mm
723 383 0176	Extension tube, working length 500 mm
726 090 0300	Angled attachment, angulated 90°, working length 350 mm
726 090 0100	Angled attachment, angulated 90°, working length 100 mm
726 045 0100	Angled attachment, angulated 45°, working length 100 mm
723 382 0190	Binocular attachment, rotatable
723 382 0195	Monocular attachment with zoom ocular
723 322 0025	Halogen lamp 12 V / 20 W, with fitting
816 753 0010	Halogen lamp 12 V / 100 W
719 111 0901	Special type halogen lamp 15 V / 150 W
826 862 0020	Transformer 220 V / 1-15 V adjustable
826 862 0010	Transformer 110 V / 1-15 V adjustable
826 022 0120	Rechargeable battery 12 V / 10 Ah cpl. In leather carrying case
826 022 0130	Charger 12 V complete
On request	Centering devices



### Extendable Endoscopes with Lamp Illumination 24 mm

Ordering No.	Basic Equipment, working length 1600 mm
723 394 0180	Ocular tube with monocular attachment, working length 300 mm
723 394 0140	Objective tube, angle of field 60°, working length 1300 mm
702 394 0004	Connecting cable, 5 m, with switch
826 840 0284	Carrying case for complete set

Ordering No.	Objective Heads with Halogen Lamps
723 394 0200	Objective head, 0° with halogen lamp 12 V / 100 W
723 394 0240	Objective head, 0° wide angle with halogen lamp 12 V / 100 W
723 394 0210	Objective head, 45° with halogen lamp 12 V / 100 W
723 394 0220	Objective head, 90° with halogen lamp 12 V / 100 W
723 394 0250	Objective head, 110° with halogen lamp 12 V / 100 W
723 394 0260	Universal objective head with adjustable prism

Ordering No.	Accessories and Spare Parts
723 394 0110	Objective tube, angle of field 60°, working length 550 mm
723 394 0160	Extension tube, working length 1500 mm
723 394 0170	Extension tube, working length 750 mm
726 090 0300	Angled attachment, angulated 90°, working length 350 mm
726 090 0100	Angled attachment, angulated 90°, working length 100 mm
726 045 0300	Angled attachment, angulated 45°, working length 350 mm
726 045 0100	Angled attachment, angulated 45°, working length 100 mm
723 382 0190	Binocular attachment, rotatable
723 382 0195	Monocular attachment with zoom ocular
816 753 0010	Halogen lamp 12 V / 100 W
702 111 0901	Special type halogen lamp 15 V / 150 W
826 862 0020	Transformer 220 V / 1-15 V adjustable
826 862 0010	Transformer 110 V / 1-15 V adjustable
On request	Centering devices
On request	High intensity objective heads