

# HEINE K180 LED F.O. otoscope.



## DATA

Description	HEINE K180 LED F.O. otoscope
Catalogue number	see catalogue or price list
Document release date	June, 2024

## MECHANICAL

Weight	41 g
Weight packaging (including product)	95 g
Dimensions product	62 x 37 x 47 mm (height x width x depth)
Dimensions packaging	108 x 42 x 68 mm (length x height x depth)
Connections	AV for rechargeable handle, bayonet for tip, fitting for insufflation tube
Imprints	K180 LED HEINE made in Germany, symbol (application part BF), CE, data matrix code, SN, www.heine.com
Enclosure rating	IP40

## GENERAL

Product variants	HEINE K180 LED F.O. otoscopes 2,5 V   3,5 V
Material	plastic, metal, glass
REACH   RoHS	conform
Biocompatibility	conform
Surface	plastic, metal, glass
Environmental conditions operation	temperature: +10 °C to +35 °C, relative humidity: 30 % to 75 %, air pressure: 700 hPa to 1060 hPa
Environmental conditions storage	temperature: +5 °C to +45 °C, relative humidity: 45 % to 80 %, air pressure: 500 hPa to 1060 hPa
Environmental conditions transport	temperature: -20 °C to +50 °C, relative humidity: 45 % to 80 %, air pressure: 500 hPa to 1060 hPa
Durability	5 years warranty
Instructions for use***	Deutsch, English, Français, Español, Italiano, Svenska, Nederlands, Dansk, Norsk, Suomi, Português
Operating elements	swivelling viewing window
Power supply	HEINE rechargeable handles (3,5 V), HEINE battery handles (2,5 V), HEINE EN 200 wall transformer
Accessories	HEINE AllSpec disposable tips, reusable tips, insufflation bulb

**ELECTRICAL - RECHARGEABLE HANDLE**

Input voltage	3.0-3.7 V DC
Current consumption	max. 350 mA
Operation time	ca. 7 h using fully loaded Li-ion L rechargeable battery (X-007.99.383)
Protection class	charging: II, operating: internally powered

**ELECTRICAL - BATTERY HANDLE**

Input voltage	1,8 V - 3,2 V
Current consumption	typ. 373 mA at full brightness and 3,2 V
Operation time	n/a
Protection class	internally powered

**OPTICAL**

Type	LED illumination (HQ) 3,5 V   2,5V
Luminous flux* (without   with 5 mm tip)	typ. 17.5 lm   typ. 7.5 lm
Illuminance** (with 5 mm tip)	typ. 380.000 lx
Color temperature	3500 K +/- 500 K
Color rendering index	typ. CRI 92
Lifetime	typ. 100.000 h
Classification according to IEC 62471	Exempt
Magnification	3x

**HYGIENIC REPROCESSING**

Procedure	Please see detailed description for the reprocessing procedure online at <a href="http://www.heine.com">www.heine.com</a>
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**CODES**

Customs code	90189084
GTIN	4053755114696 (K180 LED 2,5 V); 4053755202133 (K180 LED 3,5 V)
Traceability	UDI-Code
Country of origin	Germany (DE)

**REGULATORY**

Product classification (EU)	Class I
Product classification (USA)	Class I, 510(k) exempt
Product classification (Canada)	Class I
UMDNS code	12-849
GMDNS code	12849
Regulation number (FDA)	874.4770
Product code (FDA)	ERA

#### FULFILLS THE REQUIREMENTS OF DIRECTIVES & STANDARDS

ISO 13485	Medical devices - quality management systems - requirements for regulatory purposes
Regulation (EU) 2017/745	European regulation for medical devices (MDR)
IEC 60601-1	Medical electrical equipment: general requirements for basic safety and essential performance
IEC 60601-2-18	Medical electrical equipment - part 2-18: particular requirements for the basic safety and essential performance of endoscopic equipment
IEC 60601-1-2	Medical electrical equipment - part 1-2: general requirements for basic safety and essential performance - collateral standard: electromagnetic disturbances - requirements and tests
ISO 14971	Medical devices - application of risk management to medical devices
IEC 60601-1-6	Medical electrical equipment - part 1-6: general requirements for basic safety and essential performance - collateral standard: usability
IEC 62366-1	Medical devices - part 1: application of usability engineering to medical devices
IEC 62471	Photobiological safety of lamps and lamp systems
IEC 60601-1-9	Medical electrical equipment - part 1-9: general requirements for basic safety and essential performance - collateral standard: requirements for environmentally conscious design
ISO 10993-1	Biological evaluation of medical devices - part 1: evaluation and testing within a risk management process
ISO 17664	Processing of health care products - information to be provided by the medical device manufacturer for the processing of medical devices
ISO 2248	Packaging; complete, filled transport packages; vertical impact test by dropping
Directive (2011/65/EU) ROHS	On the restriction of the use of certain hazardous substances in electrical and electronic equipment
Directive (2012/19/EU) WEEE	On waste electrical and electronic equipment
Regulation (1907/2006) REACH	Registration, evaluation, authorization and restriction of chemicals
Directive (94/62/EC) packaging   packaging waste	Packaging and packaging waste, German registration no. DE 5329703000126

\*) at 3,7 V supply voltage

\*\*) calculated

\*\*\*) further languages on request