



LOUPES, VISION & ENDOSCOPY



micr**line**

Material médico e científico Lda

XION FLEXIBLE VIDEO NOSEPHARYNGOSCOPE

• **71606 XION FLEXIBLE VIDEO NOSEPHARYNGOSCOPE** without cable
Video nosepharyngoscope ideal for endoscopic examination of the nasopharynx, nasal and oral cavities, as well as the trachea. The high precision multi-lens optics creates an optimal image. The thin insertion tubes are exceptionally maneuverable and have a special wide angle lens whereby a precise tip control and a remarkable depth of focus are reached. High quality materials guarantee excellent and homogeneous illumination. The handpiece is ergonomically formed and the insertion tube is especially comfortable for the patient.

- wide angle, multi-lens objectives for excellent image quality
- excellent ergonomics allows one hand operation
- suitable for mechanical cleaning and disinfection.

See cables and connectors at page 239.



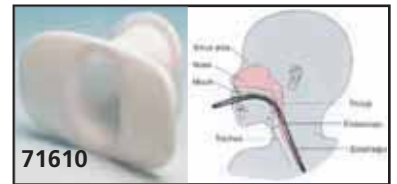
Supplied in lightweight aluminium rigid case with leakage tester and user manual (GB, IT) FR, DE manual available on www.gimaitaly.com



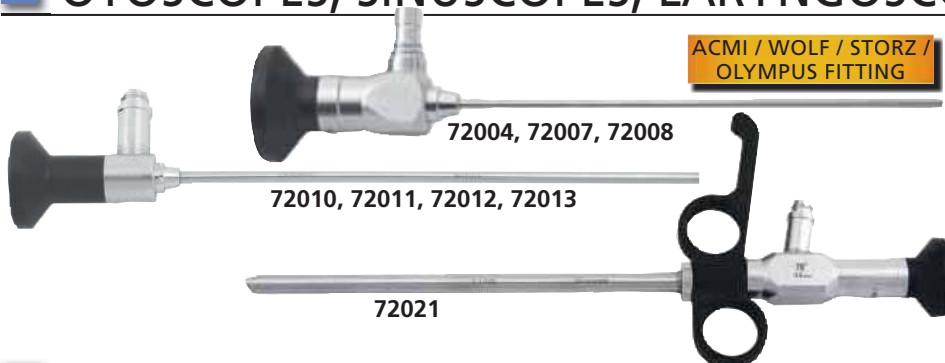
TECHNICAL SPECIFICATIONS 71606

Resolution: 18,000 pixels	Working length: 320 mm
Working Ø: 3.4 mm	Total length: mm
Length of tip deflection: mm	Tip deflection: up 130°, down 130°
Direction of view: 0°	Depth of focus: 1-50 mm
Weight: 230 g	Field of view: 80°

• **71610 ENDOSCOPY MOUTHPIECE** - bag of 20 pcs
Disposable bite blocks



OTOSCOPES, SINUSCOPES, LARYNGOSCOPE - NON AUTOCLAVABLE



ACMI / WOLF / STORZ / OLYMPUS FITTING

GIMA code	ENT ENDOSCOPY - non autoclav.
72004	Otoscope Ø 4x45 mm - 0°
72007	Otoscope Ø 2.7x107.5 mm - 0°
72008	Otoscope Ø 2.7x107.5 mm - 30°
72010	Sinuscope Ø 4x175 mm - 0°
72011	Sinuscope Ø 4x175 mm - 30°
72012	Sinuscope Ø 4x175 mm - 70°
72013	Sinuscope Ø 4x175 mm - 45°
72021	Laryngoscope Ø 8x170 mm - 70°

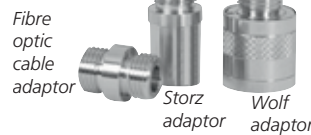
PORTABLE LED LIGHT SOURCE - 200,000 LUX

• **30796 PORTABLE LED LIGHT SOURCE - 200,000 LUX**
Powerful portable LED light source mainly used in endoscopic examinations, such as ENT. Its button switch can adjust the light on 3 levels. 5W LED with condenser system. Supplied with 3 adaptors that can fit various endoscopes and fiber optic cable, built-in lithium battery, charger and case.

Size: 136x24x24 mm



TECHNICAL SPECIFICATIONS		
Illumination: > 200,000 lux	Charging time: 3 hours	
Colour temperature: 5,700/6,500 k	Power supply: AC 100-240 V	
Bulb power: 5 W LED	Weight: 90 g	
Rechargeable battery: li-ion, 2,600mA	CRI: 75-92	



Wi-Fi/USB CAMERA FOR ENDOSCOPES AND MICROSCOPES

- **32185 MICFIEYE - Wi-Fi/USB CAMERA (C-mount)**
- **32186 C-MOUNT F18 ADAPTER FOR ENDOSCOPES**
- **32187 MICROSCOPE ADAPTER Ø 23 mm**

MICFIEYE is a Wi-Fi camera with C-mount and allows to digitalize the image on tablets, smartphones and PC using dedicated Apps and Softwares. MICFIEYE needs an adapter



Each camera is supplied with USB cable (1.2 m), USB AC adapter, user manual (GB, IT, FR, ES, DE), software can be downloaded free of charge from web

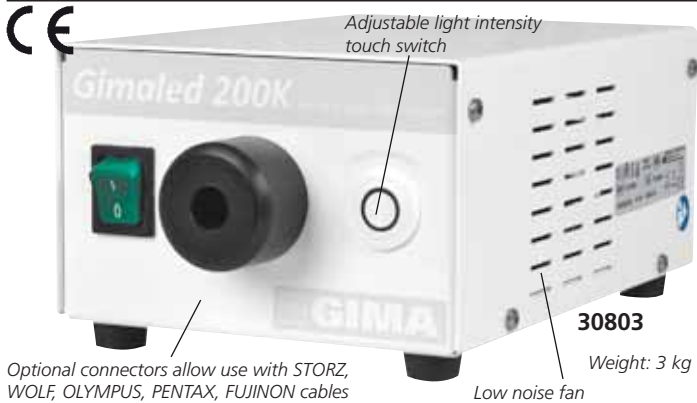
to be compatible with all optical devices such as microscopes, endoscopes, boroscopes, fiberscopes, C-mount lenses etc.

TECHNICAL SPECIFICATIONS

Camera Type:	Colour CMOS camera, 1.3 MP resolution
Sensor:	¼ Imax CMOS
Image pixel:	320x240, 640x480, 1280x1024
Lens standard:	C-CS mount CCTV lens
Automatic optical features:	Gamma correction, exposure, white balance, black reference, flicker avoidance, defect identification, colour saturation
Button snapshot:	yes for Wi-Fi and USB mode
Dimension:	Ø 36x75 mm
Wi-Fi transmission distance:	≤5 m
Video resolution:	1.3 MP, 320x240, 640x480, 1280x1024
Frequency range:	2,400-24,835 GHz
Li-Ion battery:	Continuous working time - approx 2.5 hours
Power source:	5 V / 1A or USB
OS support:	iOS / Android / Windows / Mac
Software features:	USB and Wi-Fi MIC-fi: snapshot*, video recording, calibration and measurement. Take time lapsed picture, (only USB Micfieye)

*Only available with Wi-Fi mode

GIMALED LIGHT SOURCE



Optional connectors allow use with STORZ, WOLF, OLYMPUS, PENTAX, FUJINON cables

• **30803 GIMALED 200 K LIGHT SOURCE - 16 LED**
Compact, lightweight, powerful light source for endoscopic use. A low noise fan provides the necessary cooling inside the metallic structure of the light source. Touch switch enables a variable light intensity. User manual in GB, ES, FR, IT, PT.

GIMA code	CONNECTORS FOR GIMALED LIGHT SOURCE TO DIFFERENT CABLES
30810	STORZ cable connector
30811	WOLF cable connector
30812	OLYMPUS cable connector
30815	PENTAX cable connector
30816	FUJINON cable connector

MADE IN ITALY

TECHNICAL SPECIFICATIONS

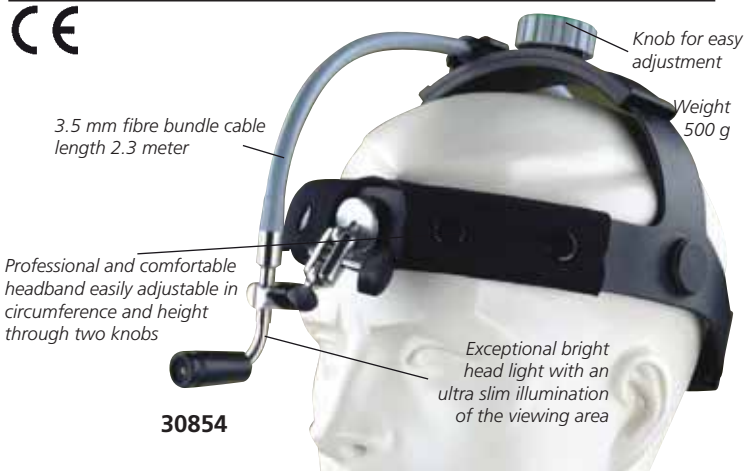
Input for: GIMA, SCHOLLY and LUT cables Power supply: 100-240V, 50/60 Hz
Illumination at 2.5 cm: 147,000 Lux ± 10 % LED life: 60,000 hours
Colour temperature: 5000 K ± 5% Dimension: 27x17x h 11 cm
CRI (Colour Rendering Index): 89 Ra Norms: IEC 60601-1, IEC 60601-2-18 Class II
Max power absorption: 34 VA

LED LIGHT SOURCE

• **27544 LED LIGHT SOURCE** 27544 Size: 30x25x12 cm
Cold white light (5,500 °K, 200 lumen) for endoscopy use. It can be connected to endoscopes without need of F.O. cable. Handle connect directly to rigid endoscopes (Storz connection). 3 Watt power LED.



F. O. HEAD LIGHTS



• **30853 WIDA FIBRE OPTIC HEAD LIGHT with F.O. cable**
• **30854 WIDA PLUS FIBRE OPTIC HEAD LIGHT with F.O. cable**
WIDA illumination systems are available in two versions: with professional and ergonomic headband but different focus. Both include F.O. cable with adaptor (30830) for connection to GIMALED light source (30803). Find below connectors to other light sources. Light beam can be focused through a focusing ring. Easy headband cleaning by removable and washable padding
Multilingual manual: GB, FR, IT, ES

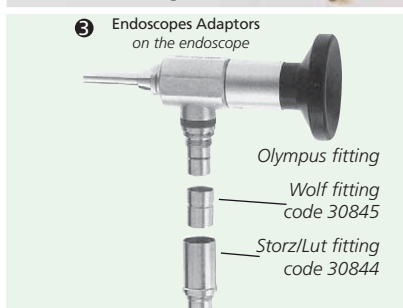
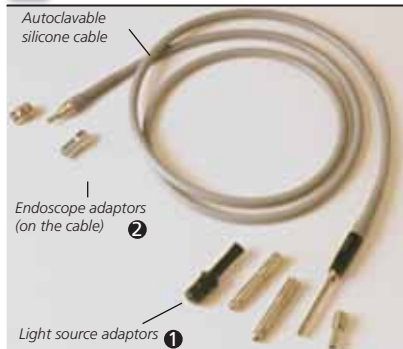
• **30852 FOCUS DEVICE for 30850 (since lot 14 - May 2012), 30853**
It reduces light in a very luminous spot Ø 10 mm.

DISTANCE	30853	30854
20 cm	7-14 cm	5-8 cm
30 cm	10-19 cm	7-12 cm
50 cm	11.5-25 cm	12-20 cm

An exceptionally bright headlight with an illumination head for coaxial, shadow-free illumination of the viewing area.



SURGICAL FIBRE OPTIC LIGHT CABLES AND ADAPTORS



1 LIGHT SOURCE ADAPTORS to connect GIMA F.O. cables to light sources

- 30830 GIMA light source adaptor
- 30831 STORZ - AESCULAP-MARTIN light source adaptor
- 30832 WOLF - HENKE SASS - DYONICS - MEDICON - COMEG light source adaptor
- 30833 OLYMPUS light source ad.
- 30834 ACMI light source adaptor
- 30835 HEINE light source adaptor
- 30836 FUJINON light source adaptor
- 30837 PENTAX light source adaptor

2 ENDOSCOPE ADAPTORS - on the cables to connect endoscopes to GIMA F.O. cables

- 30840 ENDO STORZ adaptor
- 30841 ENDO WOLF adaptor
- 30842 ENDO ACMI, OLYMPUS-STRYKER adaptor

- 30817 FIBRE OPTIC CABLE 3.5 x 1,800 mm
- 30818 FIBRE OPTIC CABLE 4.8 x 1,800 mm
- 30822 FIBRE OPTIC CABLE 3.5 x 2,300 mm
- 30823 FIBRE OPTIC CABLE 4.8 x 2,300 mm
- 30826 FIBRE OPTIC CABLE 4.8 x 3,000 mm

High transmission surgical light cables, armoured but highly flexible with unique features:

- no burn outs
- strain relieved and protected by **silicone hose**
- **steam autoclavable** with warranty (12 months)
- light source end temperature resistant up to 134°C
- no electrical interferences with endoscopic surgery units
- kink resistant
- surgical stainless steel end fittings resist wear and corrosion
- stainless steel adaptors enables our cables to be used with other manufacturers light sources/instruments

3 29975 FIBRE OPTIC CLAMP

- ENDOSCOPE ADAPTOR - on the endoscope to connect endoscopes to GIMA F.O. cables
- 30844 STORZ/LUT ENDOSCOPE ADAPTOR
 - 30845 WOLF ENDOSCOPE ADAPTOR



GIMA ENT HEAD MIRRORS - BATTERY OR AC/DC TRANSFORMER USE

Simple adjustment of the band using rotating knob to fit any head size



31110

Comfortable, padded headband easy to remove for cleaning



31111

Head mirror Lux-100 with plug in transformer

HEAD MIRRORS WITH TRANSFORMER

Supplied with plug-in transformer for direct power

Storz type head mirror

Silver coated mirror produces extremely bright light

Simple adjustment of the band using rotating knob



31108

Comfortable, padded head band easy to remove for cleaning



31109

On/off switch on battery

Supplied with headband mounted CR-123A battery box for 2x3 V batteries (not included)

Silver coated mirror produces extremely bright light

HEAD MIRRORS WITH BATTERY

Extension cable

Clar type head mirror

LUX-100 AVAILABLE WITH LED LIGHT

Quality head mirrors Ø 55 or 100 mm to perfectly illuminate the examination area in every situation. Long life 6 V lamp provides bright and natural light, quality silver coated mirror allows optimum light reflection. Mirror and light beam can be easily and precisely adjusted. Supplied with multilingual manual: GB, FR, IT, ES, PT, DE, GR, Arabic.

GIMA code	LUX ENT MIRRORS
31108	LUX-55 battery*** head mirror - Ø 55 mm - 6 V
31109	LUX-100 battery*** head mirror - Ø 100 mm - 6 V
31107	LUX-100 battery*** LED head mirror - Ø 100 mm - 6 V
31110	LUX-55 AC/DC transformer head mirror - Ø 55 mm - 6 V
31111	LUX-100 AC/DC transformer head mirror - Ø 100 mm - 6 V
31114	Mirror for LUX-55 - spare
31115	Mirror for LUX-100 - spare
31116	Bulb for LUX mirrors 6V Vacuum type - spare
31119	Carrying bag for LUX mirrors - black
31117	Battery case for LUX mirror 31112/3 - spare
31124	Connecting cable 30 cm for 31107-9 - spare
31118	Plug in transformer* 100-220 V - 50/60 Hz with cable - spare for 31110-1 - optional for 31108-31109

STANDARD ACCESSORIES	LUX AC/DC TRANSFORMER	LUX BATTERY*
	31110-31111	31107-31109
Mirror with head band	•	•
Long life bulb	•	•
Head band mounted battery case** for 2 x 3V CR-123A	•	•
Plug in transformer* 100/240 V - 50/60 Hz with cable	•	•
Cordura bag	•	•

*Supplied with interchangeable UK, US, EU plugs

**Battery not included

***Battery mounted on head mirror band

2 LED HEADBAND MAGNIFIER

• 31168 2LED TWO-WAY REGULATION HEAD-WEARING MAGNIFIER with 5 lenses
Two-way regulation to adjust magnifier. Provided with 5 lenses 1.0x, 1.5x, 2.0x, 2.5x, 3.5x, which combined in group of two, ensure 11 different bigger magnifications and wider applications. For example, with lenses 1.0X and 2.5X magnification is 3.5X. Headband is made of PVC leather. It works with batteries, not included. Multilingual manual: GB, FR, IT, ES, PT, DE, SE, GR.



31168

MAGNIFYING GLASSES

• 30848 SMART MAGNIFYING GLASSES 2.5X
Spectacle frame with magnifying glasses allows the physician to have a magnified view of the visual field. Lightweight, it folds up and can be worn over spectacles. 2.5X zoom lens can be tilted to achieve optimum focus.



30848

4 W LED HEADLIGHT

• 30849 H2O PRO LED HEADLIGHT
Compact and lightweight headlight with super bright Samsung 4W cool white LED.
Features:
Luminous intensity: high 350 lumen / low 30 lumen.
Range: 100 m high / 33 m low.
3 meters drop test, MCU control push switch (High/Low/Off).
PC material body with over-mould rubber head for maximum durability, 115° pivoting head.
Eye Risk Group 2, IP67 Dust proof and water proof, pass IK08 Impact.
10,000 switch cycle life, passed extreme temperature shock test.
Run time: high 3 hours, low 23 hours. 3xAAA battery included
• 32200 "AAA" ALKALINE BATTERIES - blister of 4 pcs - spare



30849

Size: 68x47x36.5 mm
Weight: 75 g

GIMA LED HEADLIGHT



- 30939 GIMA LED HEADLIGHT
- 30941 BATTERY PACK for 30939, 30940 and 30890* - spare
**Old Gima Led light need adaptor 30942 - light blue*
- 30943 CORD BATTERY - HEADLIGHT - spare
- 30942 ADAPTOR FOR BATTERY PACK**

**Only for use of battery pack (30941) with old Gima head light (30890)
Led lamp without the heat of traditional halogen headlight. With a colour temperature of 5,000 °Kelvin, it provides bright, white, shadow-free light allowing the doctor to see tissue characteristics without distortion. Flexibility of operation using the rechargeable lithium battery, instead of direct power source. Comfortable lightweight headlight suitable for all kinds of surgery, ENT or dental applications. It can also be used while charging. Low-battery indicator light. Adapts to GIMA binocular loupes (codes 30892-8, 30910-5). Smart design, convenient for mobile diagnosis. Supplied in aluminium case with rechargeable 7.4 V / 4,400 mAh lithium battery and charger. Manual: GB, FR, IT, ES, DE, PT, GR, Arabic.



Adjustable light spot at 420 mm with iris diaphragm: 20-80 mm

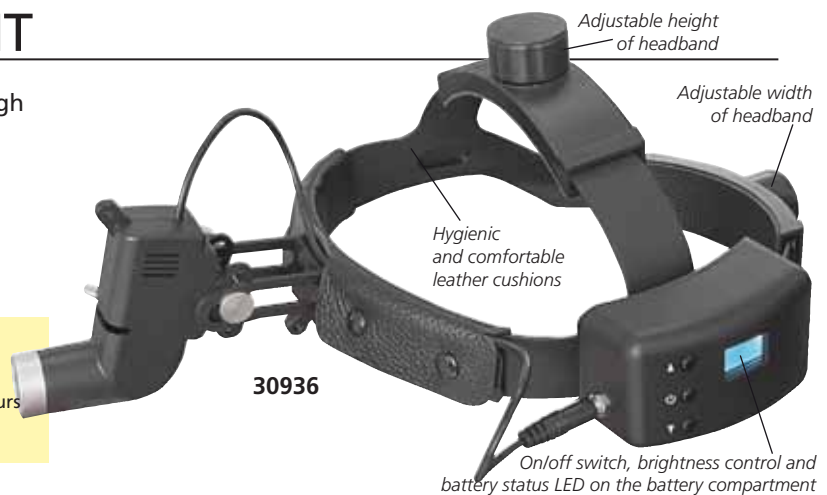
75,000 LUX at 200 mm
5,000° KELVIN

TECHNICAL SPECIFICATIONS

Adjustable illumination light spot at 420 mm: 20-80 mm
Illumination at 200 mm working distance: ≥ 75,000 lux
Fluctuation distance: 12.5 mm
Angle range: vertical ± 25° adjustable
Weight of headlight (excluding head band): 69 g
Illumination source: extremely bright light, 5 W LED, life 20,000 hours
Battery: 7.4 V/4,400mAh lithium battery
Battery run-time: 7 hours continuous if fully charged battery (charging time: 5 h)
Voltage: 100-240 VAC, 50-60 Hz
Maximum input power: ≤30 VA
Power adapter output: DC 12 ±0.5 V, 1.5 A
Electrical safety standard: EN60601-1, EN60601-2, Class II type BF

SURGICAL LED HEADLIGHT

- 30936 GIMA 40 KL SURGICAL LED HEADLIGHT
- Latest generation of portable headlight system offering high quality performance. Features:
- spot size adjustable by inner mini light grating
 - precise light imaging by multi optical lens
 - integrated cordless design
- Supplied with battery and battery charger.
Multilingual manual: GB, FR, IT, ES, PT, DE, PL, GR.
- 30937 LITHIUM BATTERY 5W - spare



TECHNICAL SPECIFICATIONS

Illumination source: 5W LED
Illumination intensity: 10-40,000 lux
Colour temperature: 6,000K
Spot size: Max 70 mm, Min 50 mm at 32 cm
Lamp working life: 50,000 hours

Battery: 3.7V Lithium Battery
Battery run time: 5-12 hours
Battery charging time: 3.6 hours
Input voltage: 100-240VAC
Weight: 200 g

GIMA BINOCULAR LOUPES

BINOCULAR LOUPES:
Lightweight, ergonomically superior Galilean-style flip-up loupes. Can be used independently or mounted on 30939, 30940. Multi-coated and high grade glass lenses provide clean and sharp image. Eyepiece with wide field of view. Deep focus to see object stereoscopically. Loupes angles can be easily adjusted between 0° and 40° to minimize fatigue even after prolonged use. 6 mm up and down displacement. Adjustable pupil distance to fit different face types.

STYLE BINOCULAR LOUPES:
Line of binocular loupes with same features of traditional line but mounted on a extra light, fashionable frame.



Weight: 103 g

30898



All binocular loupes have multilingual manual: GB, FR, IT, ES, PT, GR.

All binocular loupes are supplied in a case

30910

Weight: 111 g

GIMA code	BINOCULAR LOUPES	Magnification	Working distance	Field of view Ø
30892	Binocular Loupe	2.5X	340 mm	80 mm
30894	Binocular Loupe	2.5X	420 mm	90 mm
30897	Binocular Loupe	3.5X	340 mm	50 mm
30898	Binocular Loupe	3.5X	420 mm	60 mm

GIMA code	STYLE BINOCULAR LOUPES	Magnification	Working distance	Field of view Ø
30910	Style binocular Loupe	2.5X	340 mm	80 mm
30911	Style binocular Loupe	2.5X	420 mm	90 mm
30914	Style binocular Loupe	3.5X	340 mm	50 mm
30915	Style binocular Loupe	3.5X	420 mm	60 mm

HEINE LED HEADLIGHT

POWERFUL LED LIGHT

5 YEARS WARRANTY



30885
Unplugged mPack® and transformer



30884
Rechargeable battery pack and direct mains transformer included.

90,000 LUX at 180 mm

• **30884 HEINE ML4 LED^{HQ} HEADLIGHT PLUG IN TRANSFORMER- J.008.31.413**

• **30885 HEINE ML4 LED^{HQ} HEADLIGHT UNPLUGGED- J.008.31.415**

- LED in HQ; defining optimal light intensity, brightness and homogeneity from edge to edge, and colour rendering (4,500 k, CRI >90, R9 >75).

This ensures true colour tissue for the most accurate diagnosis.

- **Coaxial illumination:** ensures a completely shadow-free image and allows for excellent illumination of difficult to see areas

- **Lithium Battery:** for up to 8.5 hours of continuous working

- **LED Thermal Management:** guarantees consistent quality and performance throughout the LED's lifetime (50,000 hours)

- **Adjustable illumination spot size:** 30 to 80 mm spot size range (at 420 mm working distance) to fit any examination situation

- **Comfortable and secure fit:** multiple adjustment points and soft padding for comfort and stability even during long procedures

- **Illumination Intensity Control:** for precise brightness setting

• **30886 HEINE BINOCULAR LOUPE 2.5X-340 mm - J.000.31.370**

• **30887 HEINE BINOCULAR LOUPE 2.5X-420 mm - J.000.31.371**

• **30888 P2 POLARIZATION FILTER FOR ML4 AND 2.5X LOUPES - J.000.31.326**

MADE IN GERMANY

TECHNICAL SPECIFICATIONS

Power supply:	mPack® Rechargeable Battery Pack with Li-ion battery and direct mains transformer (30884) or mPack® unplugged (30885)
Illumination:	90,000 lux at a working distance of 180 mm
LED operating life:	50,000 hours
Spot adjustment:	30 mm to 80 mm illuminated field diameter (at 420 mm)
Colour temperature:	5,500°K

HEINE BINOCULAR LOUPES



Only 42 g

30930, 30931

Eyepieces individually adjustable



2.5 X loupes

HEINE® S-FRAME® WITH BINOCULAR LOUPES

- **Achromatic optics:** crisp, bright image with colour-correction

- **Multi-coated, scratch-resistant silica glass lenses** - produce crisp, clear images. **High magnification with a large field of view and excellent depth of field**

- **Water resistant**

- **Flexibility for precise adjustment:** independently adjustable Pupillary Distance controls ensure precise alignment of the optics, for a stereoscopy view

- **i-View loupe mount;** provides any angle of view and the possibility flips up and down the optics to exclude or re-include the magnification during any procedure

- **Different magnification and working distance.**

Set content: optics, S-frame with i-View loupe mount, detachable protective lenses, 2 sterilizable swivel levers, retaining cord and carrying case.



GIMA code	HEINE BINOCULAR LOUPES	Magnif.	Working distance	HEINE code
30930	Binocular loupes	2.5X	340 mm	C-000.32.355
30931	Binocular loupes	2.5X	420 mm	C-000.32.356
30932	Binocular loupes	4X	340 mm	C-000.32.431
30888	P2 polarization filter for ML4 and 2.5X loupes			J.000.31.326

RIESTER RI-FOCUS LED HEADLIGHT

• **30881 RI-FOCUS 6091 LED HEADLIGHT - with rechargeable batteries**

High performance LED headlight with battery compartment for fast and easy change of battery. Flexible hinge for a comfortable one-hand use of the LED illumination body.

- more efficient diagnosis due to white and high performance LED with up to 100,000 LUX and 50,000 hours lifetime

- wireless headband with built-in battery compartment

- particularly comfortable with balanced headband and one-hand operation

- focusable LED lamp at a distance of 40 cm approx Ø 40 mm to 200 mm infinitely focusable

- white LED with 6,000 °Kelvin, 140 lumen

- battery operation: approx 90 min when fully charged

Rechargeable AAA batteries and plug in 100-240 V charger included.



On/off switch on the battery compartment

Removable and washable inner padding

Weight 210 g without batteries

MADE IN GERMANY

30881

TECHNICAL SPECIFICATIONS

Distance:	400 mm	200 mm
Lux max:	10,000	23,000
Circle of light max Ø:	200 mm	120 mm
Circle of light min Ø:	40 mm	30 mm

GIMA LED MEDICAL HEADLIGHT

• **30879 GIMA 38 KL LED MEDICAL HEADLIGHT 3W**

- **with rechargeable batteries**

Advanced LED technology headlight with white and homogeneous light, ideal for all surgical and dental applications

- brilliant LED micro 3W provides free range of movement and wide field of view

- **coaxial illumination,** shadow-free illumination of cavities, ideal for ENT and dental applications.

- compact, lightweight, ensures perfect comfort

- compact and long lasting aluminium housing, reduces heat build-up. Easy to clean.

- individual adjustment of the angle of view.

• **30878 LITHIUM BATTERY 3W - spare**

Multilingual manual: GB, FR, IT, ES, PT, DE, PL, GR.

On/off switch, brightness control and battery status LED on the battery compartment



Supplied with battery and battery charger

30879

TECHNICAL SPECIFICATIONS

Illumination:	38,000 lux	Brightness intensity: 0-100% adjustable
Light spot:	80 mm at 50 cm	Battery duration: 5-12 hours
	50 mm at 32 cm	Battery charging time: 3.6 hours
LED operating life:	up to 50,000 hours	Battery charger: 100-240 V, 50/60 Hz

microline

Material médico e científico Lda

Av. da República, 3000,
Estoril - Escritório, Bloco B, 2º. Nº 15
2649 - 517 Alcabideche
Portugal

Phone: +351 214 533 795

Fax: +351 214 535 681

geral@microline.pt

www.microline.pt

