

 **Riester**

The familiar way

NEW!
ri-magic® LED



Bright light for safe diagnosis.



LED
inside

Head mirrors, headlamps,
examination lights

Head mirrors, headlights

Riester head mirrors and headlights show their particular quality in everyday use. The high level of wearing comfort means non-fatiguing operation even after long periods of use. Innovative light techniques guarantee optimum viewing conditions.

ri-focus® LED

ri-focus® LED provides ideal illumination of the examination area with a 40 cm distant, focusable, white and cold light with 5500 Kelvin and 7100 lux. The LED lamp employed has a life of approx. 15,000 hours and can be supplied with power using standard commercial AAA batteries, long-life lithium batteries or NiMH rechargeable batteries plus plug-in charger, so that no annoying power cord need be used during the examination.

- Headband version, with built-in battery compartment and integral charge jack, can be optionally fitted with 2 lithium batteries size CR 123 A, 4 batteries size AAA (alkaline) or 4 rechargeable batteries size AAA (NiMH).
- Headband cleaning made easy by inner, removable and washable padding.
- Particularly comfortable with balanced, infinitely adjustable headband.
- On/off switch on battery compartment.
- Charge jack for plug-in charger integrated in battery compartment.
- Focusable LED lamp at a distance of 40 cm approx. Ø 40 mm - Ø 200 mm, infinitely adjustable.
- White LED, 1 Watt with 5.500° Kelvin, 6 V.
- Battery operation: approx. 30 hrs. with lithium batteries, approx. 90 min. with alkaline batteries Type AAA.
- Rechargeable battery operation: approx. 90 min. with fully charged battery.
- Weight: 210 g without batteries, 242 g with CR 123 A lithium batteries, 259 g with rechargeable AAA batteries.
- Delivery in carton.



Infinitely adjustable examination area size.

Order numbers ri-focus® LED:

ri-focus® LED

- No. 6090** with 1 set of CR 123 A lithium batteries
- No. 6091** with 1 set of NiMH rechargeable AAA batteries and plug-in charger, 230 V
- No. 6092** with 1 set of NiMH rechargeable AAA batteries and plug-in charger, 120 V

Plug-in chargers

- No. 11284** 230 V
- No. 11286** 120 V



Batteries

- No. 11287** Lithium CR 123 A 2 off
- No. 11288** AAA NiMH rechargeable batteries 4 off



Foam-rubber band

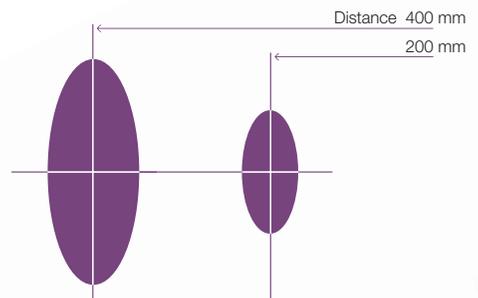
- No. 11289** 120 mm long

Battery compartment cover

- No. 11290**

Fabric points

- No. 11293** Ø 35 mm
- No. 11294** Ø 47 mm



Lux max.	7.100	17.500
Circle of light max. Ø	200 mm	120 mm
Circle of light min. Ø	40 mm	30 mm
Colour temperature = 5.500° Kelvin		

ri-focus® / ri-focus® reverse

The headlights ri-focus® and ri-focus® reverse impress with their extraordinary suitability for everyday use. The bright and non-glaring illumination makes these devices both patient and user friendly to the highest degree. The lighting position of the ri-focus® is above the forehead and between the eyes for the ri-focus® reverse, in order to be suitable for all kinds of examination requirements.

- Halogen lamp 8 V for white and even light.
- The lens at the front of the light head can be focused to allow exact adjustment of the size of the illuminated examination area.
- Integrated heat sink for patient-friendly use.
- Step switch on cable for regulating light intensity in two steps.
- Electrical cable runs along the outside of the headband to permit unhindered use.
- Practical and fast exchange of light heads using special fixture located on the side of the forehead.
- Ball joint for precise adjustment of the lamp head.
- Simple adjustment and fixation of the headband with help of the rotating aluminum knob.
- Soft, exchangeable foam protection around the forehead for comfort in wearing the headband.
- Rapid plug-in connector for attaching the headlight cable to the transformer ensures fast implementation.
- Available with 230 V or 120 V transformers.
- Supplied in a sturdy plastic case.



Light intensity and examination area size can be individually adjusted with the help of a step switch and the distance to the examination area.

Riester

The familiar way

Order numbers ri-focus® / ri-focus® reverse:

ri-focus®

No. 6120 230 V transformer in case

No. 6121 120 V transformer in case

ri-focus® reverse

No. 6130 230 V transformer in case

No. 6131 120 V transformer in case

Replacement lamps

No. 11321 8 V 1 item



Transformers

No. 11325 230 V with cable and step switch

No. 11326 120 V with cable and step switch



Headbands

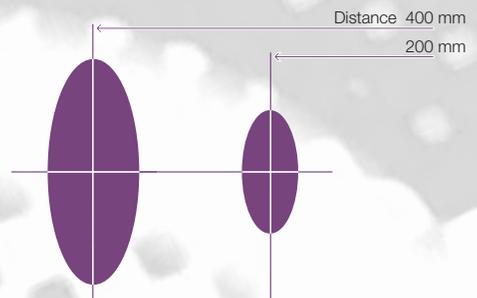
No. 11330 black with cable

Headlights only for ri-focus®

No. 11337 without headband, without cable

for ri-focus® reverse

No. 11338 without headband, without cable



Lux max.	7.000	20.500
Circle of light max. Ø	195 mm	105 mm
Circle of light min. Ø	15 mm	10 mm
Colour temperature = 3.100° Kelvin		

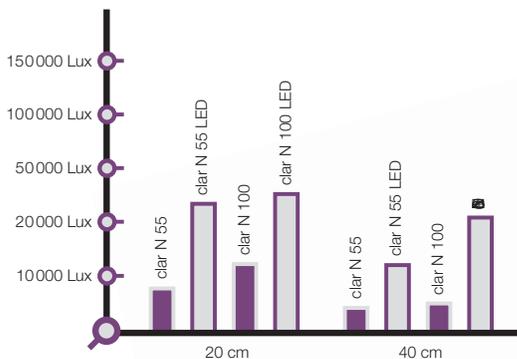
clar N

clar N is optionally available with LED illumination or 6 V vacuum lamp and, as a result of battery or rechargeable battery operation, comfortable to wear without annoying power cord. The attached mirrors produce an extremely bright and cold light, particularly in conjunction with the LED illumination. clar N is impressive on account of its being comfortable to wear and very convenient in fitting and removal.

- Headband version, with built-in battery compartment and integral charge jack, can be optionally fitted with 2 lithium batteries size CR 123 A, 4 batteries size AAA (alkaline) or 4 rechargeable batteries size AAA (NiMH).
- Headband cleaning made easy by inner, removable and washable padding.
- Particularly comfortable with balanced, infinitely adjustable headband.
- Mirror Ø 55 mm and Ø 100 mm, infinitely adjustable and fixable.
- On/off switch on the battery compartment.
- Charge jack for plug-in charger integrated in battery compartment.
- White LED, 1 Watt with 5500° Kelvin, 6 V or with 6 V vacuum lamp.
- Adjustable lamp holder on the mirror to focus the circle of light.
- Battery operation approx. 30 hrs. with lithium batteries, approx. 90 min. with alkaline batteries Type AAA.
- Rechargeable battery operation: approx. 90 min. with fully charged battery.
- Weight with mirror 55 mm: 209 g without batteries, 242 g with CR 123 A lithium batteries, 258 g with rechargeable AAA batteries.
Weight with mirror 100 mm: 267 g without batteries, 300 g with CR 123 A lithium batteries, 316 g with rechargeable AAA batteries.
- Delivery in carton.



Mirrors are optionally available with 55 or 100 mm diameter.



Color temperature LED = 5.500° Kelvin

<p>Ø 55 mm max. 7.300 Lux at 200 mm distance. max. 4.000 Lux at 400 mm distance.</p> <p>Ø 55 mm LED max. 30.000 Lux at 200 mm distance. max. 11.600 Lux at 400 mm distance.</p>	<p>Ø 100 mm max. 12.000 Lux at 200 mm distance. max. 5.000 Lux at 400 mm distance.</p> <p>Ø 100 mm LED max. 35.000 Lux at 200 mm distance. max. 21.000 Lux at 400 mm distance.</p>
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Order numbers clar N:

clar N 55

- No. 6070** with 6 V vacuum lamp and 1 set of CR 123 A lithium batteries
- No. 6071** with 6 V vacuum lamp, NiMH rechargeable AAA batteries and plug-in charger, 230 V
- No. 6074** with 6 V vacuum lamp, NiMH rechargeable AAA batteries and plug-in charger, 120 V
- No. 6072** with 6 V LED lamp and 1 set of CR 123 A lithium batteries
- No. 6073** with 6 V LED lamp, NiMH rechargeable AAA batteries and plug-in charger, 230 V
- No. 6075** with 6 V LED lamp, NiMH rechargeable AAA batteries and plug-in charger, 120 V

clar N 100

- No. 6080** with 6 V vacuum lamp and 1 set of CR 123 A lithium batteries
- No. 6081** with 6 V vacuum lamp, NiMH rechargeable AAA batteries and plug-in charger, 230 V
- No. 6084** with 6 V vacuum lamp, NiMH rechargeable AAA batteries and plug-in charger, 120 V
- No. 6082** with 6 V LED lamp and 1 set of CR 123 A lithium batteries
- No. 6083** with 6 V LED lamp, NiMH rechargeable AAA batteries and plug-in charger, 230 V
- No. 6085** with 6 V LED lamp, NiMH rechargeable AAA batteries and plug-in charger, 120 V

Replacement lamps

No. 11301	6 V Vacuum	6 off
No. 11302	LED	1 item

Plug-in chargers

No. 11284	230 V
No. 11286	120 V



Batteries

No. 11287	CR 123 A lithium batteries	2 off
No. 11288	NiMH rechargeable AAA batteries	4 off



Headband

No. 11295

Foam-rubber band

No. 11289 120 mm long

Headlights only

- No. 11280** Ø 55 mm, with 6 V vacuum lamp
- No. 11281** Ø 55 mm, with 6 V LED lamp
- No. 11282** Ø 100 mm, with 6 V vacuum lamp
- No. 11283** Ø 100 mm, with 6 V LED lamp

Battery compartment cover

No. 11290

Fabric points

- No. 11293** Ø 35 mm
- No. 11294** Ø 47 mm

The first class quality head mirror ri-clar® illuminates the examination area perfectly in every situation. The long-life halogen lamp provides for particularly bright light and the high quality ri-clar® mirror for optimum light reflection. Mirror and light beam can be adjusted easily and precisely to individual requirements with a handle. The selected materials combine highest wearing comfort with exceptional longevity.

- Models available with mirror diameter 55 mm or diameter 100 mm.
- With 7 V halogen lamp for bright, natural light.
- Switch on cable for regulating light intensity in two steps.
- Extremely strong metal ball-and-socket joint permits the mirror to be turned in all directions.
- Manual positioning of the lamp holder for individual adjustment of the reflected light.
- Special fixture located on the side of the forehead for practical and fast exchange of the light heads.
- Simple adjustment and locking of the headband using the rotating aluminum knob.
- Soft, exchangeable foam protection in the forehead area for comfortable wearing of the headband.
- Electrical cable runs along the side of the headband to permit unhindered use.
- Rapid plug-in connector for attaching the headlight cable to the transformer ensures fast implementation.
- Available with 230 V or 120 V transformers.
- Supplied in a sturdy plastic case.



ri-clar® is supplied in a sturdy plastic case.



The ball-and-socket joint permits the mirror to be turned in all directions.

Order numbers ri-clar®:

ri-clar®

No. 6100	Ø 55 mm	230 V transformer	in case
No. 6101	Ø 55 mm	120 V transformer	in case
No. 6110	Ø 100 mm	230 V transformer	in case
No. 6111	Ø 100 mm	120 V transformer	in case

Replacement lamps

No. 11320	7 V	1 item
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Transformers

No. 11325	230 V	with cable and step switch
No. 11326	120 V	with cable and step switch

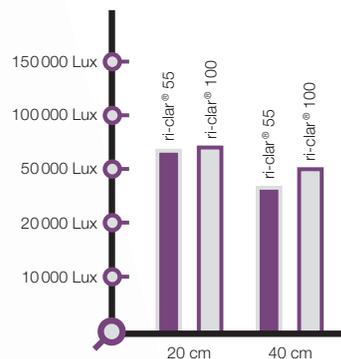


Headbands

No. 11330	black	with cable
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Head mirrors only

No. 11335	Ø 55 mm	without headband, without cable
No. 11336	Ø 100 mm	without headband, without cable



The light intensity can be adjusted in two steps with the step switch on the cable to match examination requirements:

Ø 55 mm
max. 61.500 Lux at 200 mm distance.
max. 40.000 Lux at 400 mm distance.

Ø 100 mm
max. 70.000 Lux at 200 mm distance.
max. 50.000 Lux at 400 mm distance.

Color temperature = 3.100° Kelvin

ri-focus® CL

The ri-focus® CL high-power surgical head light provides an exceptionally bright, cold light by using powerful projectors and glass fiber cable. This prevents any heating of the examination area. Its ergonomic design and infinitely variable light point provide for a particularly high level of wearing comfort and operating convenience.

- Precision optics with micro-focus and ball joint for a homogenous and precisely adjustable light point according to size and direction.
- Glass fibre cable for cold-light supply with centred cable duct for undisturbed working.
- Ergonomic headband with head bow and removable leather padding for comfortable use even over several hours, infinite height and width adjustment with central wheels adjustable with one hand.
- Optimum light output via choice of 3 different projectors:
 - HL 150 (150 W halogen)
 - XL 24 (24 W xenon)
 - XL 100 (100 W xenon).
- Fast push connector for connecting glass fibre cable and light source.
- Adapter for projectors of other quality manufacturers.
- Light exit: focusable, double lens system, ball joint.
- Glass fibre cable: length 220 cm, diameter 3.5 mm.
- Total weight 0.3 kg.
- Supplied in a carton.

Order numbers ri-focus® CL:

ri-focus® CL

No. 6303

Replacement headband with head bow, black

No. 12124 2 x fast adjustment, black leather padding with pushbuttons ball plate, cable holder

Replacement leather padding, black

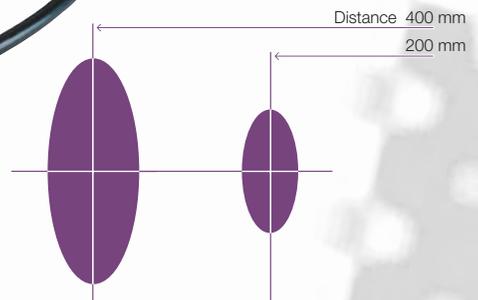
No. 12125



High fitting accuracy with adjustable wheel on the headband.



The light point can be precisely adjusted with microfocus and ball joint.



with HL 150 cold-light projector

Lux max.	9.500	23.000
Circle of light max. Ø	135 mm	90 mm
Circle of light min. Ø	105 mm	70 mm

Colour temperature = 3.600° Kelvin

with XL 24 cold-light projector

Lux max.	9.600	36.500
Circle of light max. Ø	135 mm	75 mm
Circle of light min. Ø	100 mm	55 mm

Colour temperature = 5.500° Kelvin

with XL 100 cold-light projector

Lux max.	27.600	120.000
Circle of light max. Ø	130 mm	75 mm
Circle of light min. Ø	95 mm	45 mm

Colour temperature = 5.600° Kelvin

Luminous intensity and examination area size can be individually adjusted to the examination area with dimmer and distance variation.

ri-clar® CL

ri-clar® CL, the high-power ENT head light with precision reflector, produces high luminous power with a completely cold light by means of powerful projectors and glass fiber cables. Particular attention was also given to the design of ergonomic shapes, which provide for high wearing comfort even over long periods of use.

- Precision optics with micro-focus and ball joint for a homogenous and precisely adjustable light point according to size and direction.
- Glass fibre cable for cold-light supply with centred cable duct for undisturbed working.
- Ergonomic headband with head bow and removable leather padding for comfortable use even over several hours, infinite height and width adjustment with central wheels adjustable with one hand.
- Optimum light output via choice of 3 different projectors:
 - HL 150 (150 W halogen)
 - XL 24 (24 W xenon)
 - XL 100 (100 W xenon).
- Fast push connector for connecting glass fibre cable and light source.
- Adapter for projectors of other quality manufacturers.
- Light exit: focusable, double lens system, ball joint.
- Glass fibre cable: length 220 cm, diameter 3.5 mm.
- Total weight 0.3 kg.
- Supplied in a carton.



Luminous intensity and examination area size can be individually adjusted to the examination area with dimmer and distance variation.

Riester

The familiar way

Order numbers ri-clar® CL:

ri-clar® CL

No. 6304

Replacement headband with head bow, black

No. 12124 2 x fast adjustment, black leather padding with pushbuttons ball plate, cable holder

Replacement leather padding, black

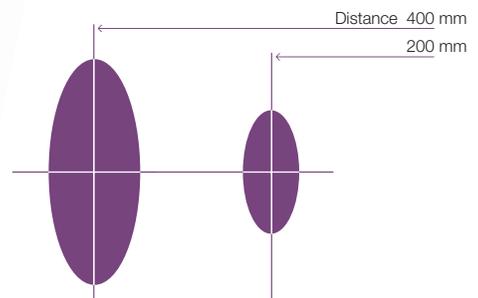
No. 12125



Precision reflector for high and homogeneous luminous power.



Rapid plug-in connector for simple and quick connection to the projector.



with HL 150 cold-light projector

Lux max.	19.750	60.000
Circle of light Ø	80 mm	45 mm

Colour temperature = 3.600° Kelvin

with XL 24 cold-light projector

Lux max.	28.500	78.000
Circle of light Ø	85 mm	50 mm

Colour temperature = 5.500° Kelvin

with XL 100 cold-light projector

Lux max.	35.000	130.000
Circle of light Ø	75 mm	40 mm

Colour temperature = 5.600° Kelvin

Cold-light Head Lights

Cold light prevents the risk of undesirable heating of patients' tissue. At the same time, however, examinations require precise illumination. Riester cold-light projectors are versatile light sources with great advantages: the high luminous power of the cold-light projectors can be smoothly dimmed or controlled by a membrane keypad, depending on the model. This never affects the color temperature.

Halogen Cold-light Projector HL 150

Powerful, universal halogen light source for all applications.

• **Technical data:**

- Dimensions: W 175 x H 82.5 x D 202 mm.
- Protective class BF.
- Weight 3.5 kg.
- Light conductor connection: Standard type Storz, interchangeable.
- Lamp: Halogen, 15 V, 150 W.
- Colour temperature: 3600° K.
- Light control: Infinitely variable via dimmer at constant colour temperature and even fibre illumination.
- Power consumption: 170 W.



Xenon Cold-light Projector XL 24

Compact cold-light source for high light output and small light conductor cross-sections.

• **Technical data:**

- Dimensions: W 175 x H 82.5 x D 202 mm.
- Protective class BF.
- Weight 2.5 kg.
- Light conductor connection: Standard type Storz, interchangeable.
- Lamp: 24 watt xenon short arc lamp with cold-light reflector (service life approx. 500 hours).
- Colour temperature: 5500° K.
- Light control: Infinitely variable via dimmer at constant colour temperature and even fibre illumination.
- Power consumption: 50 W.



Order numbers cold-light head lights:

Halogen Cold-light Projector HL 150

No. 6300	230 V
No. 6305	120 V

Xenon Cold-light Projector XL 24

No. 6301	230 V
No. 6306	120 V

Xenon Cold-light Projector XL 100

No. 6302	230 V/120 V
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Replacement lamps

No. 12132	150 W halogen	1 item
No. 12133	xenon 24 W	1 item
	for Mini-Xenon	
No. 12134	xenon 100 W	1 item

Cable

No. 12122	for ri-focus® CL, incl. optics and clamping jaws, Ø 3,5 mm, 2,20 m long
No. 12123	Replacement cable for ri-clar® CL incl. mirror unit, black, incl. clamping jaws
No. 12135	Power cord with plug, 230 V
No. 12136	Power cord with plug, 120 V

Mobile stands

No. 12120	Mobile stand with carrier plate for Projector HL 150, XL 24
No. 12121	with carrier plate for projector XL 100

Adapters

No. 12126	Adapter type Storz, for KL-cable projector side.
No. 12127	Adapter type Wolf, for KL-cable projector side.
No. 12128	Adapter type Olympus New, for KL-cable projector side.
No. 12129	Adapter type ACM British, for KL-cable projector side.
No. 12130	Adapter type Pentax, for KL-cable projector side.
No. 12131	Adapter type Fuji, for KL-cable projector side.

Replacement fuses

No. 12138	Precision fuse, slow-blow 5 x 20 mm for HL 150, 230 V, 1.6 AT
No. 12139	Precision fuse, slow-blow 5 x 20 mm for HL 150, 120 V, 3.15 AT
No. 12140	Precision fuse, slow-blow 5 x 20 mm for XL 24, 230 V, 1 AT
No. 12141	Precision fuse, slow-blow 5 x 20 mm for XL 24, 120 V, 2 AT
No. 12142	Precision fuse, slow-blow 5 x 20 mm for XL 100, 230 V, 2.5 AT
No. 12143	Precision fuse, slow-blow 5 x 20 mm for XL 100, 120 V, 5 AT

Xenon Cold-light Projector XL 100

High performance cold-light source for light output resembling daylight, low noise and heat generation, electrical light control via membrane keyboard, optimised for use with operating head lights and endoscopic instruments.

• Technical data:

- Dimensions: W 355 x H 110 x D 347 mm.
- Protective class BF.
- Weight 9.5 kg.
- Light conductor connection: Standard type Storz, interchangeable.
- Lamp: 100 watt xenon short arc lamp with elliptical cold-light reflector (service life approx. 500 hours).
- Colour temperature: 5600° K.
- Light control: Electrical, precise via membrane keyboard at constant colour temperature and even fibre illumination.
- Power connection: alterable 230 V/120 V.
- Power consumption: 185 W.



Riester

The familiar way



ziegler

The ziegler head mirror convinces with its quality at a competitive price. The reliable diagnostic aid is particularly light and therefore extremely pleasant to wear.

- Optional models available with mirror diameter 90 mm or diameter 100 mm.
- Sturdy, easy to assemble ball-and-socket joint to turn the mirror in different directions.
- Simple adjustment to the size of the head using the metal buckle on the side of the headband.
- Supplied in a practical cardboard box.



Order numbers ziegler:

ziegler

No. 6005	Ø 90 mm	in case
No. 6010	Ø 100 mm	in case

Headbands

No. 11305	black
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Headlights only

No. 11312	Ø 90 mm	with joint
No. 11313	Ø 100 mm	with joint



The ball-and-socket joint gives the mirror a high degree of movement.



Simple adjustment to the size of the head using the buckle on the side.

Examination lights

Riester examination lights originate on the basis of the most modern lighting technology and under continuous quality control. They can withstand the challenges of everyday medical practice in every way and perfectly support diagnosis and treatment.

Now in an LED version with persuasive advantages!

ri-magic® LED

The flexible examination light ri-magic® LED illuminates the examination and operation area in the best possible way. The white focusable LED illumination offers more efficient diagnosis. Clearly distinguishable color nuances, stark contrasts, as well as high-performance lighting to enable a faster and easier diagnosis. The LED offers cold light vs. the heat emission of halogen and xenon bulbs. ri-magic® LED is available as a desk, wall or floor model. The floor model is supplied with a particularly steady, heavy and anti-static stand. Two of the five casters can be locked. The wall and desk models can be quickly and easily mounted on all conventional wall rails in clinics using the universal clamp.

- The most modern LED technology, similar to daylight and high-performance; ideal for examinations and smaller procedures.
- Lifetime of the lamp up to 50,000 hours, replacements no longer necessary.
- Significantly less heating and energy loss.
- The focusing device at the front of the light head allows exact adjustment of the size of the illuminated examination area.
- Highly flexible, long special arm can be bent in all directions, the light remains fixed in the chosen position.
- Simple to use handle with rheostat for infinitely variable regulation of light intensity.
- Wide-range power cord for 230V/120V.
- Available with plugs to suit the electrical outlets in your country upon request.



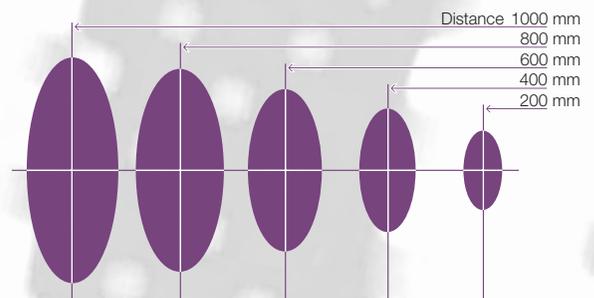
Bright and white light for an efficient diagnosis.



Handle with rheostat for infinitely variable regulation of light intensity.



The highly flexible special arm can be bent in all directions.



Luminous intensity and examination area size can be individually adjusted to the examination area with dimmer and distance variation.

Lux max.	15.000	20.000	30.000	45.000	55.000
Circle of light max. Ø	340 mm	270 mm	215 mm	155 mm	90 mm
Circle of light min. Ø	40 mm	35 mm	30 mm	25 mm	20 mm
Colour temperature = 6200° Kelvin					



Order numbers ri-magic® LED:

ri-magic® LED

No. 6230	230 V/120 V transformer	Model for examination couch and desk incl. universal clamp
No. 6240	230 V transformer	wall model
No. 6250	230 V transformer	floor model

Transformers

No. 11340	230 V/120 V
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Other accessories

No. 11343	stand with adapter incl. base with 5 casters and tube adapter
No. 11344	adapter part between stand and lamp arm
No. 11345	wall fixture
No. 11346	universal clamp



Riester

The familiar way

diplomat-presameter®



minusus® II



R1 shock-proof



exacta®



big ben®



ri-champion® N



ri-mini®/pen-scope®



ri-scope® L



ri-former®



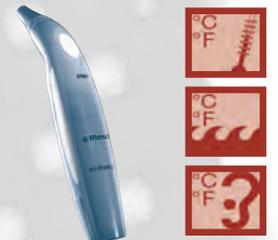
All Pupil II



E.N.T. endoscopes



ri-thermo® N



cardiophon



ri-focus® LED



ri-integral



ri-vital®



Riester offers a large selection of products for a variety of applications, including

Sphygmomanometers | Instruments for E.N.T., Ophthalmological Instruments | Dermatological Instruments | Thermometers | Stethoscopes | Headmirrors, Headlamps, Examination lamps | Laryngoscopes | Gynecological Instruments | Percussion hammers | Pulse oximeters | Tuning forks |

Blood stasis products | Pulmonary pressure measuring devices | Dynamometers | Pressure infusion instruments | Veterinary instruments |

You can find detailed descriptions of the products in our catalog (Order no. 51231-50). Or log on to our website: www.riester.de.

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