

## Lighting for binocular and trinocular microscopes.



MSA	Kg
14.150-G	0.325

LED transmitted lighting with dimmer.  
External Ø 98 mm.



MSA	Size	Kg
14.150-T	115 x 115 x 15 mm Ø 95 mm	0.440

Black aluminium table support for transmitted lighting MSA14.150-G.  
*Delivered without lighting.*



MSA	Voltage	Kg
14.313	220 V	0.700
14.313-110	110 V	0.700

Neon incident lighting fluorescent ring.  
- 85 kHz  
- Power 8 W  
- Colour temperature 6000 K.  
*Maximum internal Ø 62 mm. External Ø 98 mm.  
Delivered with additional neon.*



MSA	LED	Voltage	Kg
14.312	60	90 - 260 V	0.360

Incident illumination ring of white LED.

- Dimmable from 0 to 100%
- Working distance 80...130 mm
- Colour temperature 6000 K
- Brightness 1400 lux at 100 mm
- LED lifetime up to 20'000 hours.

*Maximum internal Ø 44.50 mm. External Ø 85 mm.*



MSA	LED	Voltage	Kg
14.311	144	90 - 250 V	0.445

Incident illumination LED ring divided in 4 segments.

- Dimmable from 0 to 100 %
- Colour temperature 6500 K
- Emits 20000 lux at 100 mm
- Usable for working distances from 50 to 200 mm
- LED lifetime up to 10'000 hours.

Maximum internal Ø 61 mm. External Ø 98 mm.



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MSA	LED	Voltage	Kg
14.317	164	90 - 240 V	0.463
14.317-5000K	164	90 - 240 V	0.463

Incident illumination LED ring divided in 3 segments.

- Dimmable from 0 to 100 %
- Colour temperature 5000 K (MSA14.317-5000K)
- Emits 33'500 lux at 50 mm
- Double diffuser.

Maximum internal Ø 63 mm. External Ø 105 mm.



MSA	LED	Voltage	Kg
14.315	8	95 - 265 V	0.850

Polarizing incident illumination ring of white LED with high brightness.

- 1 W per LED
- Dimmable from 0 to 100%
- Colour temperature 6000 to 7000 K
- Brightness 1800 lux.

Maximum internal Ø 62 mm. External Ø 90 mm.



MSA	Voltage	Kg
14.349	110 - 240 V	2.300

Multifunctional dual LED light source equipped with :

- 2 flexible Gooseneck arms with a 1 W LED mounted at each end
- 1 condenser lens
- 1 dimmer switch.

Each LED color temperature is 6500 K and emits 6500 lux at 100 mm.  
Network auto switching 110/240 V.  
Size : 120 x 160 x 75 mm.  
Length of Gooseneck arms : 440 mm (LED included).



MSA	Voltage	Kg
14.354	90 - 240 V	1.500

Multifunctional dual LED light source equipped with :  
- 2 flexible Gooseneck arms with a 3 W LED mounted at each end  
- 1 dimmer switch.  
Each LED colour temperature is 6500 K and emits 12'000 lux at 100 mm.



MSA	LED	Voltage	Kg
14.150-E	120	110 - 240 V	1.205

Dome lighting with LED.  
- Dimmable from 0 to 100 %  
- Colour temperature 6500 K  
- Brightness 2000 lux.  
*Maximum internal Ø 66 mm. External Ø 160 mm. Height 86 mm.*



MSA	Voltage
14.423	220 V

System of incident illumination ring LED over three rings.  
- Diffuser and intensity dimmer of 120'000 lux at 40 mm without heat release  
- Mobile and adjustable thanks to its support, fits the stands MSA14.400, MSA14.471 and MSA14.473 of the inspection systems SMV.  
*Maximum internal Ø 143 mm. External Ø 165 mm.  
(Illumination available without mobile support).*

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LESS



MSA	Voltage
14.319	220 V

Fibre optic lighting kit, incident BF and grazing DF. 2 lighting systems in 1 (bright field and dark field). Easy to set up and assemble, this lighting system fits all our types of microscopes of the PREMIUM and SILVER ranges, as well as all our video inspection systems SMV-1, SMV-2, SMV-3, etc.

The "ShadowLESS" concept combines high uniformity and high directional light in a unique way. These properties allow an unprecedented inspection comfort with high contrast images, a negligible presence of stray light reflections, therefore a lower eye fatigue and no heat dissipation.

The colour temperature is 5400 K. It remains constant throughout the system longevity, independently of the number of hours the product is used. This consistency enables the users to maintain a stable quality standard over time.

Working distance : BF = 50...150 mm / DF = 0...15 mm.  
Lifetime : 20'000 hours.



**BF**  
Incident lighting



**DF**  
Grazing lighting



**BF + DF**  
Incident and grazing lighting