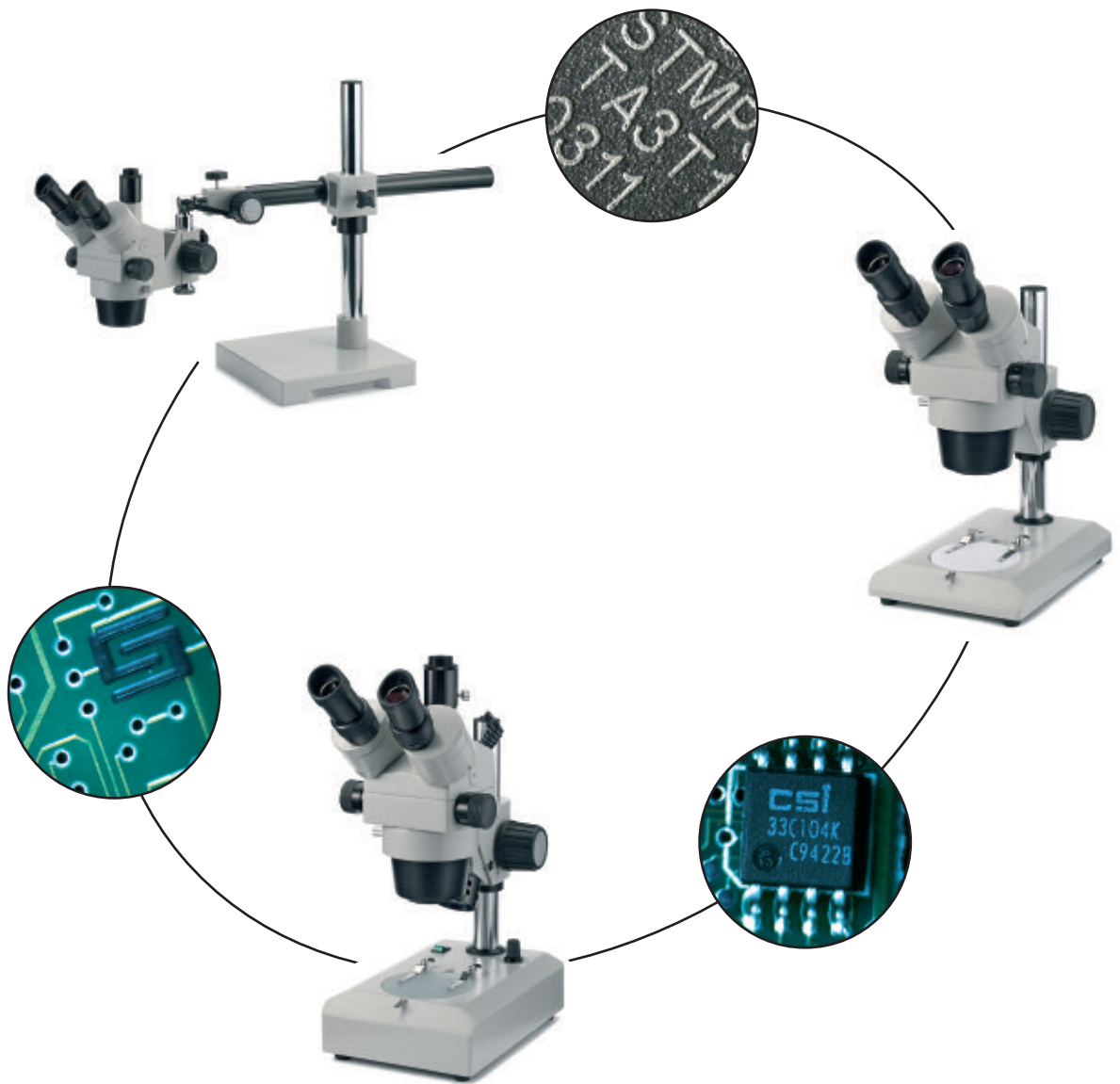


# NOVEX<sup>®</sup>



INDUSTRY

RZ-series

Stereo Zoom Microscopes

# Novex RZ Stereo Zoom Microscopes

65.700



*The Novex RZ series stereo zoom microscopes for industrial application are of exceptional quality.*

## Binocular and Trinocular Zoom Heads

The Novex RZ stereo zoom microscopes are available in both binocular and trinocular versions, 45° inclined viewing head, 360° rotatable. The eyepieces have an interpupillary distance adjustment from 52 to 80 mm and a dioptic adjustment.

## Optics

The Novex RZ is equipped with a 1:7 ratio zoom objective. In combination with the standard wide field eyepieces, WF 10x/20, magnifications of 6.5 to 45 times can be reached at a working distance of 95 mm. Different magnifications and working distances can be achieved with supplementary lenses and optional WF 15x/16, WF 20x/13 and WF 25x/12 eyepieces.

| Eyepiece           |                  |        | WF 10x (standard) |                    | WF 15x (optional) |                    | WF 20x (optional) |                    |
|--------------------|------------------|--------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| Supplementary Lens | Working distance |        | Magnification     | Field of view (mm) | Magnification     | Field of view (mm) | Magnification     | Field of view (mm) |
| 65.753             | 0,4 x            | 225 mm | 2,6 - 18 x        | 82 - 12            | 3,9 - 27,0 x      | 65 - 9,8           | 5,2 - 36 x        | 52 - 8,0           |
| 65.754             | 0,5 x            | 160 mm | 3,2 - 22 x        | 64 - 9,0           | 4,9 - 33,7 x      | 52 - 7,3           | 6,5 - 45 x        | 41 - 6,0           |
| 65.755             | 0,75 x           | 110 mm | 4,8 - 33 x        | 40 - 5,7           | 7,3 - 50,5 x      | 32 - 4,7           | 9,8 - 67 x        | 26 - 3,7           |
| Standard           |                  | 95 mm  | 6,5 - 45 x        | 31 - 4,4           | 9,7 - 67,5 x      | 25 - 3,6           | 13,0 - 90 x       | 20 - 2,9           |
| 65.757             | 1,5 x            | 40 mm  | 9,7 - 67 x        | 20 - 2,9           | 14,6 - 101 x      | 16 - 2,3           | 19,5 - 135 x      | 13 - 1,9           |
| 65.758             | 2,0 x            | 25 mm  | 13 - 90 x         | 15 - 2,2           | 19,5 - 135 x      | 12 - 1,7           | 26,0 - 180 x      | 10 - 1,4           |

*Remark: the printed values for the fields of view are typical*

## Parfocal

These microscopes are 100% parfocal, which means that the image remains in focus throughout the entire zoom range. The benefit of good parfocality is that the microscope does not require to be refocused when the magnification is changed.

The trinocular head is equipped with a vertical phototube with C-mount adapter to connect a digital camera. When the phototube is in use the image remains visible in one eyepiece. Adaptors for SLR cameras can be supplied on request.



65.710

| Article | Description               | Remarks                                                 |
|---------|---------------------------|---------------------------------------------------------|
| 65.500  | Binocular RZB microscope  | with PL stand without illumination                      |
| 65.510  | Trinocular RZT microscope | with PL stand without illumination                      |
| 65.550  | Binocular RZB microscope  | with SF stand for incident and transmitted illumination |
| 65.560  | Trinocular RZT microscope | with SF stand for incident and transmitted illumination |
| 65.700  | Binocular RZB head        | head without stand                                      |
| 65.710  | Trinocular RZT head       | head without stand                                      |

# Stands

*Four Stands are available for the RZ Stereo Heads.*

65.500



## PL-stand

This stand has an aluminium base with a chrome-plated column of 260 mm  $\varnothing$  30 mm. This particular stand does not have a built-in illuminator. PL-stands are supplied with one black-white plastic stage plate and two object clamps.

## SF-stand

This stand is identical to the PL-stand but has a built-in adjustable incident halogen illuminator, including daylight filter. The transmitted illumination is a fluorescence daylight type, 5 Watt, 6400° Kelvin. By using one or two transparent stage plates you can vary the intensity of the transmitted illumination. SF-stands are supplied with two transparent stage plates, one black-white stage plate and two object clamps.

65.560



65.725



## LV-Universal Stand

A large heavy stand for observation of larger objects up to 300 mm in height. A 500 mm,  $\varnothing$  38 mm vertical column is mounted on the heavy base, which is 255 x 255 mm. The horizontal arm can be positioned in all directions. The maximum distance from the vertical column to the optical axis is 660 mm. Weight 18 kg. With the viewing head holder 65.720, the stereo zoom heads 65.700 or 65.710 can be mounted onto the horizontal arm.

## LT-Universal Stand

Identical to the LV-universal stand but equipped with a bench clamp to allow the microscope to be fixed to a bench with a maximum thickness of 65 mm.

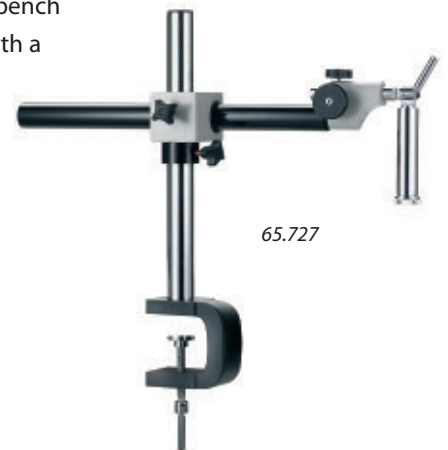
65.720



## Stereo Head Holder

With this holder a stereo zoom head (65.700 or 65.710) can be mounted onto universal stands (65.725 or 65.727).

65.727



| Article | Description             | Remarks                                                                    |
|---------|-------------------------|----------------------------------------------------------------------------|
| 65.720  | Stereo head holder      | height adjustable, for mounting of RZ binocular or trinocular stereo heads |
| 65.725  | LV-universal stand      | weight 18 kg, to be used with stereo head holder 65.720                    |
| 65.727  | LT-universal stand      | with bench clamp, to be used with stereo head holder 65.720                |
| AE.1950 | Positioning X-Y stage   | 395 x 395 mm; translation X-Y 360 x 260 mm with ball bearing               |
| AE.1960 | Round positioning table | tabletop can be positioned in all directions, $\varnothing$ 20 cm          |

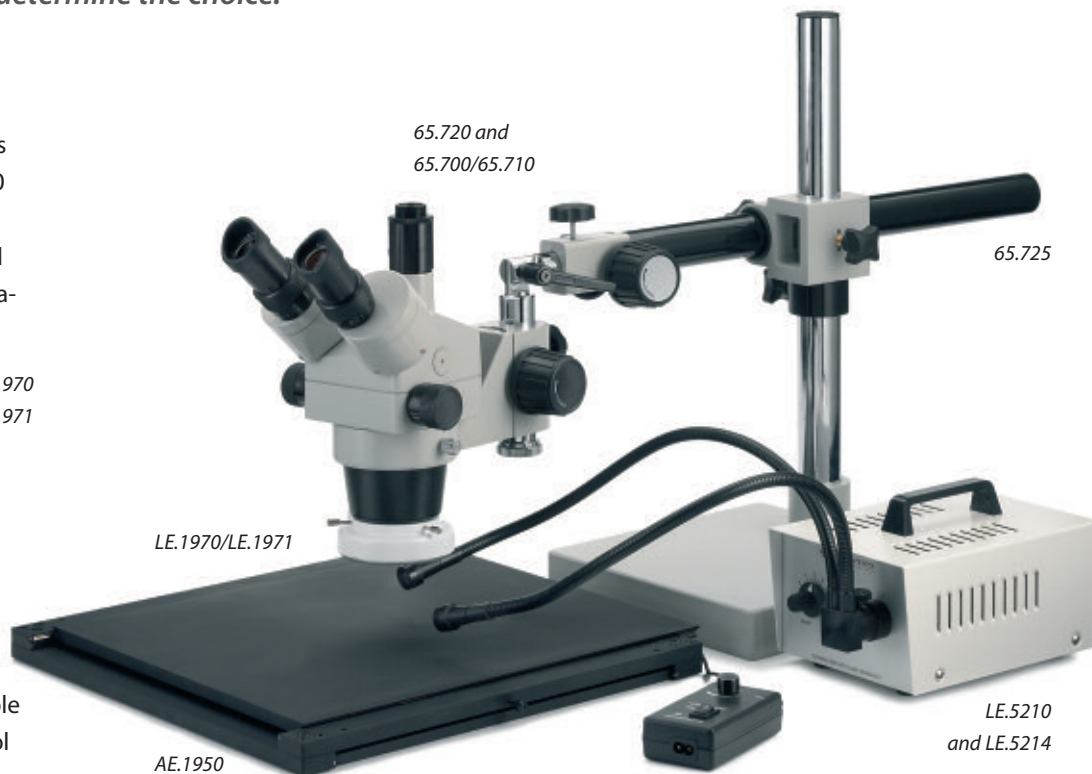
*Good illumination of an object is crucial for stereo microscopy. When the correct illumination is chosen the details of the observed object will be more distinct. Comfort and desired light intensity are the factors that determine the choice.*

## EuroLed 56 and EuroLed 40 - 4300 K

The ring light illuminators with respectively 56 or 40 white LED's can both be adjusted between 10 and 100%. The colour temperature is max. 4300 K.



The LE.1970 and LE.1971 produce a clear and intense white light suitable for lengthy quality control applications.



## Fluorescent Ring Illuminator

10 Watt fluorescent ring illuminator for incident illumination with 'long-life' lamp (>5000 hrs). For 230 Volts operation.



## Fluorescent Ring Illuminator - 5200 K

Fluorescent 40 kHz ring light for incident illumination. The colour temperature is max. 5200 K. For 230 Volts operation. The 40 kHz frequency provides the user with a comfortable light which is excellent for lengthy microscopy sessions.

| Article | Description                         | Remarks                                                                                                                                                                            |
|---------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LE.1970 | 56 LED ring illuminator             | Working distance 55 to 120 mm. Adjustable light intensity<br><i>Without supplementary lens, adapter 65.868 is required<br/>With supplementary lens, adapter 65.869 is required</i> |
| LE.1971 | 40 LED ring illuminator             | Working distance 25 to 75 mm. Adjustable light intensity<br><i>Without supplementary lens, adapter 65.868 is required<br/>With supplementary lens, adapter 65.869 is required</i>  |
| 65.865  | Fluorescent ring illuminator        | Fixed light intensity<br><i>Without supplementary lens, no adapter is required<br/>With supplementary lens, adapter 65.869 is required</i>                                         |
| LE.1863 | Fluorescent 5200 K ring illuminator | Working distance 30 to 160 mm. Fixed light intensity<br><i>Without supplementary lens, adapter 65.868 is required<br/>With supplementary lens, adapter 65.867 is required</i>      |

# Cold-light Illuminators

*Cold-light illuminators with a maximum colour temperature of 3100° K are commonly used types of illumination. They are crucial when a high light intensity is required. For 230 Volts operation.*



LE.5209

The 20 Watt cold-light source with light guide LE.5209 is compact and economical. The light intensity is factory preset and fixed. Supplied with a 'flex & stay' light guide 40 cm long, ø 6 mm.

The multi functional 100 Watt cold light source LE.5210 is a commonly used cold light illuminator with a 100 Watt halogen lamp. The light intensity is fully adjustable. Supplied without light guide.



LE.5210

The multi functional 150 Watt cold light source LE.5211 is a brand new Euromex design cold light illuminator with a 150 Watt halogen lamp. The light intensity is fully adjustable. Supplied without light guide.



LE.5211 and  
LE.5214

Depending on the application, the cold light sources LE.5210 and LE.5211 can be used with 'flex & stay' guides, fully flexible guides or fibre optic ring lights.



LE.5239/LE.5240



LE.5215

LE.5214

AE.1960



## Positioning tables

Positioning tables allow easy and precise positioning of objects when using high magnifications - e.g. in the electronic and mechanical industry - the X-Y table (AE.1950) with ball bearings is available. The size of this table is 395 x 395 x 30 mm. The round positioning table AE.1960, ø 20 cm is ideal to move objects freely around a central point smoothly and precisely.

| Article | Description             | Remarks                                               |
|---------|-------------------------|-------------------------------------------------------|
| LE.5209 | 20 W cold light source  | with 'flex & stay' single-arm fibre optic light guide |
| LE.5210 | 100 W cold light source | without light guides. Adjustable light intensity      |
| LE.5211 | 150 W cold light source | without light guides. Adjustable light intensity      |
| LE.5213 | Single-arm glass fibre  | gooseneck 'flex & stay' light guide ø 4 mm, 50 cm     |
| LE.5214 | Two-arm glass fibre     | gooseneck 'flex & stay' light guide ø 4 mm, 50 cm     |
| LE.5215 | Three-arm glass fibre   | gooseneck 'flex & stay' light guide ø 4 mm, 50 cm     |
| LE.5239 | Ring light illumination | with fibre optic light guide ø 8 mm, 60 cm (*)        |
| LE.5240 | Ring light illumination | with fibre optic light guide ø 8 mm, 100 cm (*)       |

(\*) When a supplementary lens is used with a RZ stereo head together with the ring light illuminator LE.5239 or LE.5240, a 65.869 adapter is required. If no supplementary lens is used, adapter 65.868 is required.

# Accessories

## Wide Field Eyepieces

|        |                                                                                                |
|--------|------------------------------------------------------------------------------------------------|
| 65.736 | Pair wide field eyepieces WF 10x / 20 (standard)                                               |
| 65.737 | Pair wide field eyepieces WF 15x / 16                                                          |
| 65.738 | Pair wide field eyepieces WF 20x / 13                                                          |
| 65.740 | Pair wide field eyepieces WF 25x / 12                                                          |
| 65.749 | Wide field eyepieces WF 10x / 20 with micrometer graticule<br>10 mm/100 parts. Adjustable lens |
| 65.750 | Pair eyecups for all eyepieces                                                                 |

## Supplementary Lenses and Adapters for Illuminators

|        |                                                                                                               |
|--------|---------------------------------------------------------------------------------------------------------------|
| 65.753 | Objective 0.4x, working distance 225 mm                                                                       |
| 65.754 | Objective 0.5x, working distance 160 mm                                                                       |
| 65.755 | Objective 0.75x, working distance 110 mm                                                                      |
| 65.757 | Objective 1.5x, working distance 40 mm                                                                        |
| 65.758 | Objective 2.0x, working distance 25 mm                                                                        |
| 65.867 | Adapter for LE.1863, required when using supplementary lenses                                                 |
| 65.868 | Adapter for LE.5239, LE.5240, LE.1970, LE.1971 and LE.1863,<br>required when no supplementary lenses are used |
| 65.869 | Adapter for LE.5239, LE.5240, LE.1970, LE.1971 and 65.863,<br>required when using supplementary lenses        |

## Adapter for camera

|        |                                                                                            |
|--------|--------------------------------------------------------------------------------------------|
| 65.818 | 23.2 mm phototube for RZT trinocular head                                                  |
| 65.819 | Adapter for SLR camera with 2.5x photo eyepiece and T2 thread                              |
| 65.820 | Adapter for SLR camera with adjustable eyepiece.<br>With 2.5x photo eyepiece and T2 thread |

## Accessories for Cold Light Sources

|         |                                                                                                                                      |
|---------|--------------------------------------------------------------------------------------------------------------------------------------|
| LE.5222 | Focusing head for mounting LE.5224 lens and filters. Suitable for 'flex & stay'<br>and flexible light guides                         |
| LE.5228 | Focusing head identical to LE.5222 but with iris diaphragm for light-intensity<br>adjustment without altering the colour temperature |
| LE.5223 | Colour filter set (red / blue / green) for LE.5222 and LE.5228                                                                       |
| LE.5224 | Aspherical condenser lens for LE.5222 and LE.5228                                                                                    |
| LE.5231 | Conversion filter KB12/80B for daylight film                                                                                         |
| LE.5229 | Polarisation filter for reducing reflections                                                                                         |

## Miscellaneous

|         |                                                                                                               |
|---------|---------------------------------------------------------------------------------------------------------------|
| 65.871  | Stage plate black/white ø 94 mm for PL and SF stands                                                          |
| 65.872  | Transparent glass stage plate, ø 87 mm for SF stand                                                           |
| 65.873  | Transparent glass stage plate, ø 94 mm for SF stand                                                           |
| 65.895  | Spare halogen bulb 6 Volt 10 Watt with reflector for incident illuminator<br>for SF stand (65.550 and 65.560) |
| 65.896  | Spare fluorescent bulb 5 Watt, 6400° K for transmitted illumination for SF stand<br>(65.550 en 65.560)        |
| 65.960  | Cabinet with handle, lock Suitable for models RZ with PL stands (65.500 & 65.510)                             |
| 65.961  | Cabinet with handle, lock Suitable for models RZ with SF stands (65.550 & 65.560)                             |
| SL.5208 | Spare halogen bulb with reflector, 12 V, 20 Watt for LE.5209                                                  |
| SL.5219 | Spare halogen bulb with reflector, 12 V, 100 Watt for LE.5210                                                 |
| SL.5230 | Spare halogen "long-life" bulb with reflector, 12 V, 100 Watt for LE.5210                                     |
| SL.5235 | Spare halogen bulb 15 V, 150 Watt for LE.5211                                                                 |
| SL.1864 | Spare bulb for LE.1863                                                                                        |
| AE.5227 | Glass fuses 1 Amp, 10 pieces per pack                                                                         |



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