

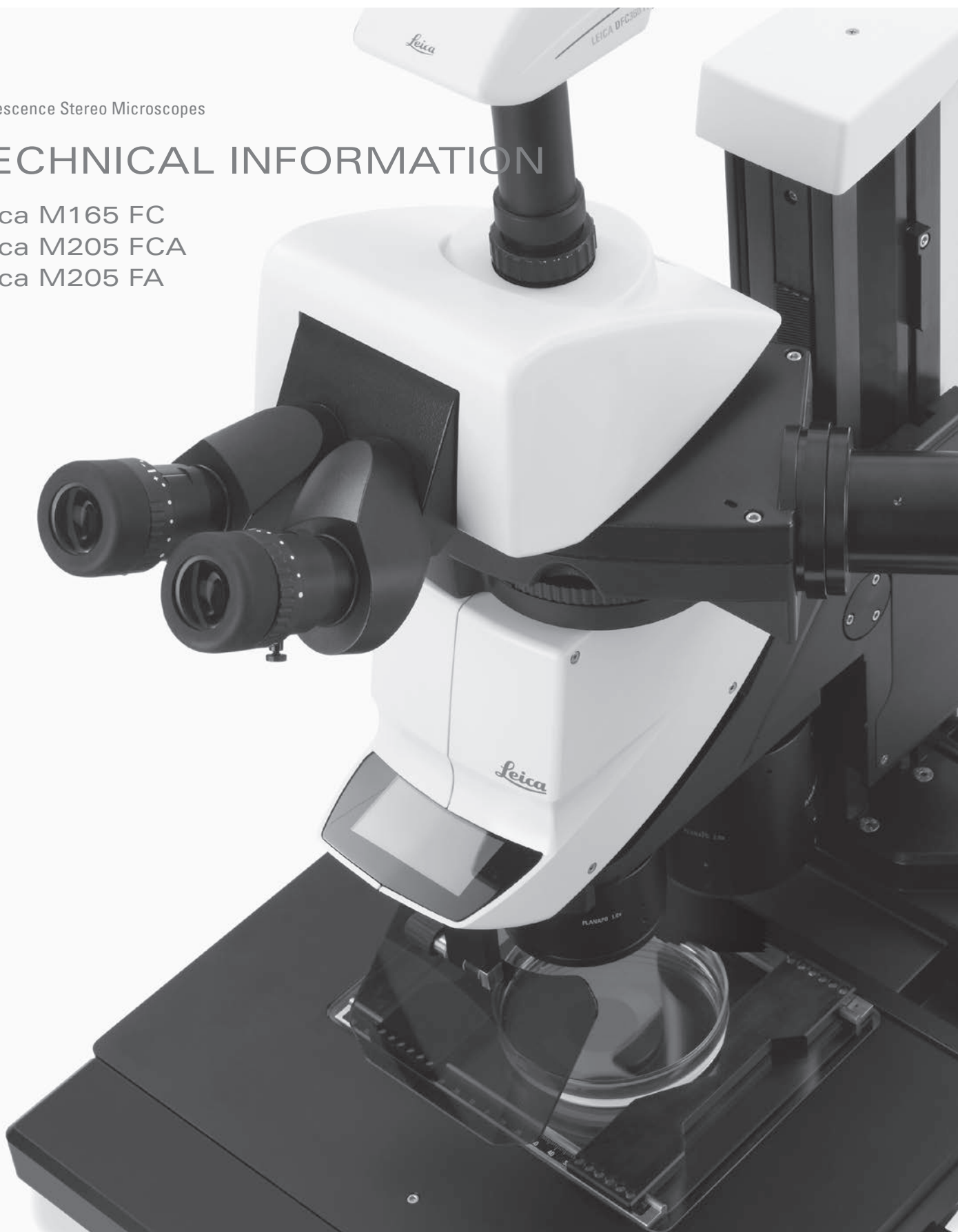
From Eye to Insight



Fluorescence Stereo Microscopes

## TECHNICAL INFORMATION

Leica M165 FC  
Leica M205 FCA  
Leica M205 FA



# PERFORMANCE CHARACTERISTICS

## SPECIFICATIONS



Leica M165 FC



Leica M205 FA



Leica M205 FCA

|                                                                                                                                                            | Leica M165 FC                                                                                                                                                                                       | Leica M205 FA                                                                  | Leica M205 FCA                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Optical Data</b>                                                                                                                                        |                                                                                                                                                                                                     |                                                                                |                                                                                |
| Zoom                                                                                                                                                       | 16.5:1 manual, coded                                                                                                                                                                                | 20.5:1 automated with FusionOptics                                             | 20.5:1 manual, coded with FusionOptics                                         |
| Data with standard optics<br>(1× objective/10× eyepieces)<br>– Zoom range<br>– Resolution<br>– Working distance<br>– Object field                          | 7.3×–120×<br>max. 453 lp/mm<br>61.5 mm (planapochromatic)<br>Ø 31.5 mm–1.92 mm                                                                                                                      | 7.8×–160×<br>max. 525 lp/mm<br>61.5 mm (planapochromatic)<br>Ø 29.5 mm–1.44 mm | 7.8×–160×<br>max. 525 lp/mm<br>61.5 mm (planapochromatic)<br>Ø 29.5 mm–1.44 mm |
| Maximum values<br>(based on optics combination)<br>– Magnification<br>– Resolution<br>– Visible structural width<br>– Numerical aperture<br>– Object field | 960×<br>906 lp/mm<br>551 nm<br>0.302<br>Ø 63 mm                                                                                                                                                     | 1,280×<br>1,050 lp/mm<br>476 nm<br>0.35<br>Ø 59 mm                             | 1,280×<br>1,050 lp/mm<br>476 nm<br>0.35<br>Ø 59 mm                             |
| Working distances                                                                                                                                          | 135 mm (0.5× planachromatic)<br>112 mm (0.8× planachromatic)<br>67 mm (0.63× planapochromatic)<br>61.5 mm (1× planapochromatic)<br>30.5 mm (1.6× planapochromatic)<br>20.1 mm (2× planapochromatic) |                                                                                |                                                                                |
| <b>Optics carrier</b>                                                                                                                                      |                                                                                                                                                                                                     |                                                                                |                                                                                |
| 100 % apochromatic optical system                                                                                                                          | CMO (Common Main Objective) lead-free                                                                                                                                                               |                                                                                |                                                                                |
| Specific surface resistivity (housing)                                                                                                                     | $2 \times 10^{11} \Omega/\text{mm}^2$ discharge time <2 seconds from 1,000 V to 100 V                                                                                                               |                                                                                |                                                                                |
| Encoded/automated (M205 FA)                                                                                                                                | Zoom, iris diaphragm, objective nosepiece, filter                                                                                                                                                   | Zoom, iris diaphragm, objective nosepiece, FIM, filter                         | Zoom, iris diaphragm, objective nosepiece, filter                              |
| Engageable zoom notches                                                                                                                                    | 13 for repetitive tasks                                                                                                                                                                             | 14 for repetitive tasks                                                        | 14 for repetitive tasks                                                        |
| Double-iris diaphragm for depth of field control                                                                                                           | Built-in and coded                                                                                                                                                                                  | Built-in and motorized                                                         | Built-in and coded                                                             |
| FIM (Fluorescence Intensity Control)                                                                                                                       | –                                                                                                                                                                                                   | Built-in and motorized                                                         | –                                                                              |

|                                                                         | Leica M165 FC                                                                               | Leica M205 FA | Leica M205 FCA |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------|----------------|
| <b>Accessories</b>                                                      |                                                                                             |               |                |
| Standard objective<br>(parfocal in the objective nosepiece)             | 1× planapochromatic                                                                         |               |                |
| Additional objectives<br>(parfocal in the objective nosepiece)          | 5× planachromat (FluoCombIII), 2× planapochromat, 1.6× planapochromat, 0.63× planapochromat |               |                |
| Additional objectives (non-parfocal)                                    | 1× planachromat, 0.8× planapochromat, 0.63× planapochromat, 0.5× planapochromat             |               |                |
| Interpupillary distance                                                 | 50 mm – 105 mm                                                                              |               |                |
| Wide-field eyepieces for eyeglass wearers                               | 10×, 16×, 25×, 40×, with replaceable eyecups & click stop                                   |               |                |
| Manual coarse/fine focussing drive with profile column 420 mm or 620 mm | Max. sample height 130 mm or 330 mm; adjustable ease of movement                            |               |                |
| Motorized focus with profile column 420 mm or 620 mm                    | Max. sample height 130 mm or 330 mm; resolution 1 µm                                        |               |                |
| Computer interface                                                      | USB                                                                                         |               |                |

## MODULAR SYSTEM

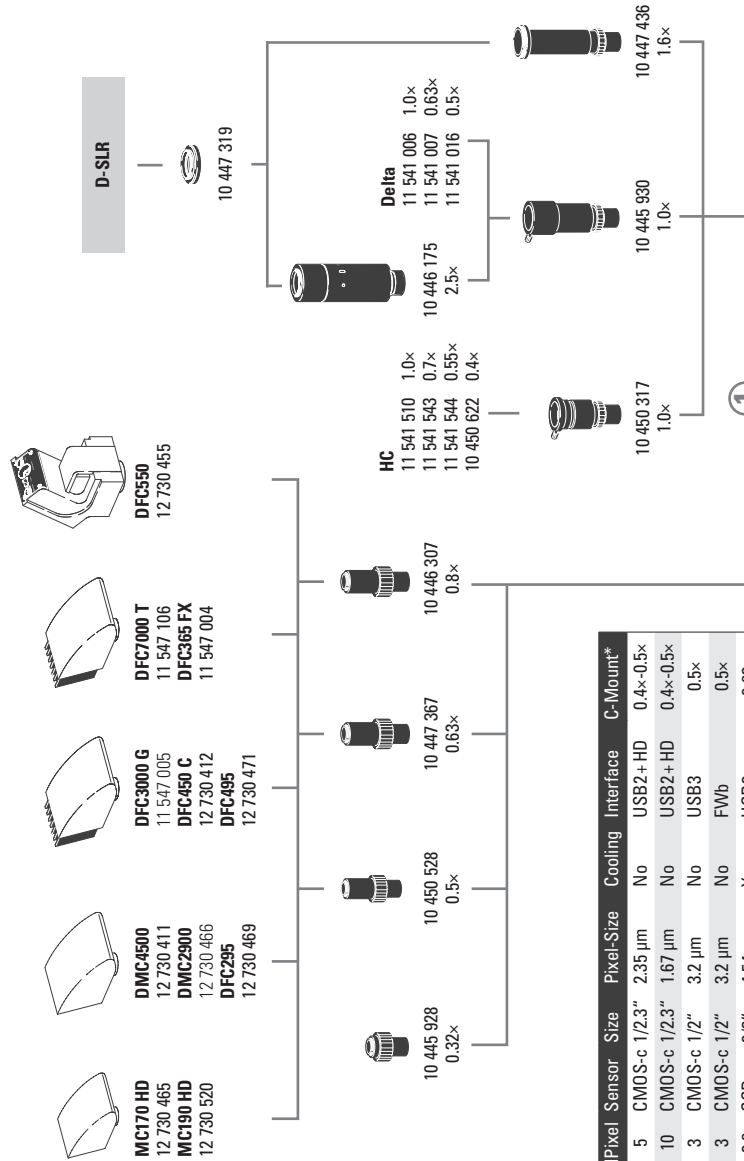
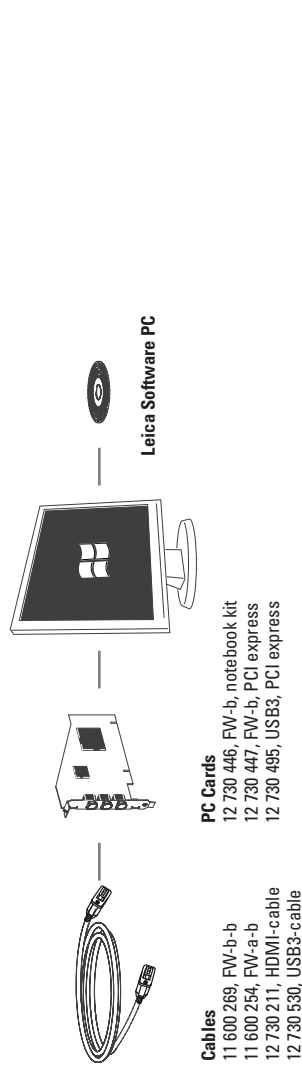
|                                   | Leica M165 FC, Leica M205 FA, and Leica M205 FCA                                                                                                                                                                                                           |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | <b>Stands, illuminators</b>                                                                                                                                                                                                                                |
| Transmitted light bases           | Leica TL3000 ST: Bright field and dark field on one side - TL4000 BFDF: Bright and circular dark field – TL4000 RC / RCI: Bright field, single-sided dark field, Rottermann Contrast - TL5000 Ergo: Bright field two-sided dark field, Rottermann Contrast |
| Incident light bases              | Large incident-light base with black-and-white stage insert and Antishock feet                                                                                                                                                                             |
| Stages                            | Gliding stage, MATS heating stage, cup stage, rotatable polarization stage, Leica IsoPro Cross-stage (manual and motorized)                                                                                                                                |
| Illuminators                      | LED5000 SLI, LED5000 MCI and LED5000 RL, fluorescence, oblique, coaxial, cold light sources                                                                                                                                                                |
|                                   | <b>Misc. accessories</b>                                                                                                                                                                                                                                   |
| Photography, video                | – Leica DFC digital image capture system, various camera variants<br>– Various adapters for commercially available CCD cameras                                                                                                                             |
| Image archiving, image processing | Leica LAS X: Software for all fluorescence tasks<br>Leica Application Suite (LAS): Basic version with measuring tool and many other applications, other versatile modules available                                                                        |
| Measurement reticules             | For length measurement and counting                                                                                                                                                                                                                        |
| Vertical and oblique observation  | 45° side view around the complete object                                                                                                                                                                                                                   |
| Drawing tube                      | For left and right-handed users                                                                                                                                                                                                                            |

## LEICA M165 FC OPTICAL DATA

| Objectives        |              | 0.5× planachromatic |                | 0.63× planapochromatic |                | 0.8× planachromatic |                | 1× planachromatic | 1× planapochromatic | 1.6× planapochromatic |                | 2× planapochromatic |                | 5× planapochromatic (in FluoCombi III) |                |
|-------------------|--------------|---------------------|----------------|------------------------|----------------|---------------------|----------------|-------------------|---------------------|-----------------------|----------------|---------------------|----------------|----------------------------------------|----------------|
| Working distances |              | 135 mm              |                | 97 mm                  | 67 mm          | 112 mm              |                | 59 mm             | 61.5 mm             | 30.5 mm               |                | 20.1 mm             |                | 19 mm                                  |                |
| Eyepieces         | Zoom setting | Total magn.         | Object-field Ø | Total magn.            | Object-field Ø | Total magn.         | Object-field Ø | Total magn.       | Object-field Ø      | Total magn.           | Object-field Ø | Total magn.         | Object-field Ø | Total magn.                            | Object-field Ø |
|                   |              | ×                   | mm             | ×                      | mm             | ×                   | mm             | ×                 | mm                  | ×                     | mm             | ×                   | mm             | ×                                      | mm             |
| 10×/23B           | 0.73         | 3.65                | 63             | 4.67                   | 49.2           | 5.84                | 39.4           | 7.3               | 31.5                | 11.7                  | 19.7           | 14.6                | 15.8           | 29.2                                   | 1.6            |
|                   | 1            | 5                   | 46             | 6.4                    | 35.9           | 8                   | 28.8           | 10                | 23                  | 16                    | 14.4           | 20                  | 11.5           | 40                                     | 1.6            |
|                   | 1.6          | 8                   | 28.8           | 10.2                   | 22.5           | 12.8                | 18             | 16                | 14.4                | 25.6                  | 8.98           | 32                  | 7.19           | 64                                     | 1.6            |
|                   | 2            | 10                  | 23             | 12.8                   | 18             | 16                  | 14.4           | 20                | 11.5                | 32                    | 7.19           | 40                  | 5.75           | 80                                     | 1.6            |
|                   | 2.5          | 12.5                | 18.4           | 16                     | 14.4           | 20                  | 11.5           | 25                | 9.2                 | 40                    | 5.75           | 50                  | 4.6            | 100                                    | 1.6            |
|                   | 3.2          | 16                  | 14.4           | 20.5                   | 11.2           | 25.6                | 8.98           | 32                | 7.19                | 51.2                  | 4.49           | 64                  | 3.59           | 128                                    | 1.6            |
|                   | 4            | 20                  | 11.5           | 25.6                   | 8.98           | 32                  | 7.19           | 40                | 5.75                | 64                    | 3.59           | 80                  | 2.88           | 160                                    | 1.44           |
|                   | 5            | 25                  | 9.2            | 32                     | 7.19           | 40                  | 5.75           | 50                | 4.6                 | 80                    | 2.88           | 100                 | 2.3            | 200                                    | 1.15           |
|                   | 6.3          | 31.5                | 7.3            | 40.3                   | 5.7            | 50.4                | 4.56           | 63                | 3.65                | 101                   | 2.28           | 126                 | 1.83           | 252                                    | 0.913          |
|                   | 8            | 40                  | 5.75           | 51.2                   | 4.49           | 64                  | 3.59           | 80                | 2.88                | 128                   | 1.8            | 160                 | 1.44           | 320                                    | 0.719          |
|                   | 10           | 50                  | 4.6            | 64                     | 3.59           | 80                  | 2.88           | 100               | 2.3                 | 160                   | 1.44           | 200                 | 1.15           | 400                                    | 0.575          |
|                   | 12           | 60                  | 3.83           | 76.8                   | 2.99           | 96                  | 2.4            | 120               | 1.92                | 192                   | 1.2            | 240                 | 0.96           | 480                                    | 0.479          |
| 16×/15B           | 0.73         | 5.84                | 41.1           | 7.48                   | 32.1           | 9.34                | 25.7           | 11.7              | 20.5                | 18.7                  | 12.8           | 23.4                | 10.3           | 46.7                                   | 1.6            |
|                   | 1            | 8                   | 30             | 10.2                   | 23.4           | 12.8                | 18.8           | 16                | 15                  | 25.6                  | 9.38           | 32                  | 7.5            | 64                                     | 1.6            |
|                   | 1.6          | 12.8                | 18.8           | 16.4                   | 14.6           | 20.5                | 11.7           | 25.6              | 9.38                | 41                    | 5.86           | 51.2                | 4.69           | 102                                    | 1.6            |
|                   | 2            | 16                  | 15             | 20.5                   | 11.7           | 25.6                | 9.38           | 32                | 7.5                 | 51.2                  | 4.69           | 64                  | 3.75           | 128                                    | 1.6            |
|                   | 2.5          | 20                  | 12             | 25.6                   | 9.38           | 32                  | 7.5            | 40                | 6                   | 64                    | 3.75           | 80                  | 3              | 160                                    | 1.5            |
|                   | 3.2          | 25.6                | 9.38           | 32.8                   | 7.32           | 41                  | 5.86           | 51.2              | 4.69                | 81.9                  | 2.93           | 102                 | 2.34           | 205                                    | 1.17           |
|                   | 4            | 32                  | 7.5            | 41                     | 5.86           | 51.2                | 4.69           | 64                | 3.75                | 102                   | 2.34           | 128                 | 1.88           | 256                                    | 0.938          |
|                   | 5            | 40                  | 6              | 51.2                   | 4.69           | 64                  | 3.75           | 80                | 3                   | 128                   | 1.88           | 160                 | 1.5            | 320                                    | 0.75           |
|                   | 6.3          | 50.4                | 4.76           | 64.5                   | 3.72           | 80.6                | 2.98           | 101               | 2.38                | 161                   | 1.49           | 202                 | 1.19           | 403                                    | 0.595          |
|                   | 8            | 64                  | 3.75           | 81.9                   | 2.93           | 102                 | 2.34           | 128               | 1.88                | 205                   | 1.17           | 256                 | 0.94           | 512                                    | 0.469          |
|                   | 10           | 80                  | 3              | 102                    | 2.34           | 128                 | 1.88           | 160               | 1.5                 | 256                   | 0.94           | 320                 | 0.75           | 640                                    | 0.375          |
|                   | 12           | 96                  | 2.5            | 123                    | 1.95           | 154                 | 1.56           | 192               | 1.25                | 307                   | 0.78           | 384                 | 0.63           | 768                                    | 0.313          |
| 25×/9.5B          | 0.73         | 9.13                | 27.4           | 11.7                   | 21.4           | 14.6                | 17.1           | 18.3              | 13.7                | 29.2                  | 8.56           | 36.5                | 6.85           | 73                                     | 1.6            |
|                   | 1            | 12.5                | 20             | 16                     | 15.6           | 20                  | 12.5           | 25                | 10                  | 40                    | 6.25           | 50                  | 5              | 100                                    | 1.6            |
|                   | 1.6          | 20                  | 12.5           | 25.6                   | 9.77           | 32                  | 7.81           | 40                | 6.25                | 64                    | 3.91           | 80                  | 3.13           | 160                                    | 1.56           |
|                   | 2            | 25                  | 10             | 32                     | 7.81           | 40                  | 6.25           | 50                | 5                   | 80                    | 3.13           | 100                 | 2.5            | 200                                    | 1.25           |
|                   | 2.5          | 31.3                | 8              | 40                     | 6.25           | 50                  | 5              | 62.5              | 4                   | 100                   | 2.5            | 125                 | 2              | 250                                    | 1              |
|                   | 3.2          | 40                  | 6.25           | 51.2                   | 4.88           | 64                  | 3.91           | 80                | 3.13                | 128                   | 1.95           | 160                 | 1.56           | 320                                    | 0.781          |
|                   | 4            | 50                  | 5              | 64                     | 3.91           | 80                  | 3.13           | 100               | 2.5                 | 160                   | 1.56           | 200                 | 1.25           | 400                                    | 0.625          |
|                   | 5            | 62.5                | 4              | 80                     | 3.13           | 100                 | 2.5            | 125               | 2                   | 200                   | 1.25           | 250                 | 1              | 500                                    | 0.5            |
|                   | 6.3          | 78.8                | 3.17           | 101                    | 2.48           | 126                 | 1.98           | 158               | 1.59                | 252                   | 0.99           | 315                 | 0.79           | 630                                    | 0.397          |
|                   | 8            | 100                 | 2.5            | 128                    | 1.95           | 160                 | 1.56           | 200               | 1.25                | 320                   | 0.78           | 400                 | 0.63           | 800                                    | 0.313          |
|                   | 10           | 125                 | 2              | 160                    | 1.56           | 200                 | 1.25           | 250               | 1                   | 400                   | 0.63           | 500                 | 0.5            | 1000                                   | 0.25           |
|                   | 12           | 150                 | 1.67           | 192                    | 1.3            | 240                 | 1.04           | 300               | 0.83                | 480                   | 0.52           | 600                 | 0.42           | 1200                                   | 0.208          |
| 40×/6B            | 0.73         | 14.6                | 16.4           | 18.7                   | 12.8           | 23.4                | 10.3           | 29.2              | 8.22                | 46.7                  | 5.14           | 58.4                | 4.11           | 117                                    | 1.6            |
|                   | 1            | 20                  | 12             | 25.6                   | 9.38           | 32                  | 7.5            | 40                | 6                   | 64                    | 3.75           | 80                  | 3              | 160                                    | 1.5            |
|                   | 1.6          | 32                  | 7.5            | 41                     | 5.86           | 51.2                | 4.69           | 64                | 3.75                | 102                   | 2.34           | 128                 | 1.88           | 256                                    | 0.938          |
|                   | 2            | 40                  | 6              | 51.2                   | 4.69           | 64                  | 3.75           | 80                | 3                   | 128                   | 1.88           | 160                 | 1.5            | 320                                    | 0.75           |
|                   | 2.5          | 50                  | 4.8            | 64                     | 3.75           | 80                  | 3              | 100               | 2.4                 | 160                   | 1.5            | 200                 | 1.2            | 400                                    | 0.6            |
|                   | 3.2          | 64                  | 3.75           | 81.9                   | 2.93           | 102                 | 2.34           | 128               | 1.88                | 205                   | 1.17           | 256                 | 0.94           | 512                                    | 0.469          |
|                   | 4            | 80                  | 3              | 102                    | 2.34           | 128                 | 1.88           | 160               | 1.5                 | 256                   | 0.94           | 320                 | 0.75           | 640                                    | 0.375          |
|                   | 5            | 100                 | 2.4            | 128                    | 1.88           | 160                 | 1.5            | 200               | 1.2                 | 320                   | 0.75           | 400                 | 0.6            | 800                                    | 0.3            |
|                   | 6.3          | 126                 | 1.9            | 161                    | 1.49           | 202                 | 1.19           | 252               | 0.95                | 403                   | 0.60           | 504                 | 0.48           | 1008                                   | 0.238          |
|                   | 8            | 160                 | 1.5            | 205                    | 1.17           | 256                 | 0.94           | 320               | 0.75                | 512                   | 0.47           | 640                 | 0.38           | 1280                                   | 0.188          |
|                   | 10           | 200                 | 1.2            | 256                    | 0.94           | 320                 | 0.75           | 400               | 0.6                 | 640                   | 0.38           | 800                 | 0.3            | 1600                                   | 0.15           |
|                   | 12           | 240                 | 1              | 307                    | 0.78           | 384                 | 0.63           | 480               | 0.5                 | 768                   | 0.31           | 960                 | 0.25           | 1920                                   | 0.125          |

## LEICA M205 FA AND LEICA M205 FCA OPTICAL DATA

| Objectives        |              | 0.5× planachromatic |                | 0.63× planapochromatic |                | 0.8× planachromatic |                | 1× planachromatic | 1× planapochromatic | 1.6× planapochromatic |                | 2× planapochromatic |                |
|-------------------|--------------|---------------------|----------------|------------------------|----------------|---------------------|----------------|-------------------|---------------------|-----------------------|----------------|---------------------|----------------|
| Working Distances |              | 135 mm              |                | 97 mm                  | 67 mm          | 112 mm              |                | 59 mm             | 615 mm              | 305 mm                |                | 20.1 mm             |                |
| Eyepieces         | Zoom setting | Total mag.          | Object-field Ø | Total mag.             | Object-field Ø | Total mag.          | Object-field Ø | Total mag.        | Object-field Ø      | Total mag.            | Object-field Ø | Total mag.          | Object-field Ø |
|                   |              | ×                   | mm             | ×                      | mm             | ×                   | mm             | ×                 | mm                  | ×                     | mm             | ×                   | mm             |
| 10×/23B           | 0.78         | 3.9                 | 59             | 4.99                   | 46.1           | 6.24                | 36.9           | 7.8               | 29.5                | 12.5                  | 18.4           | 15.6                | 14.7           |
|                   | 1            | 5                   | 46             | 6.4                    | 35.9           | 8                   | 28.8           | 10                | 23                  | 16                    | 14.4           | 20                  | 11.5           |
|                   | 1.6          | 8                   | 28.8           | 10.2                   | 22.5           | 12.8                | 18             | 16                | 14.4                | 25.6                  | 8.98           | 32                  | 7.19           |
|                   | 2            | 10                  | 23             | 12.8                   | 18             | 16                  | 14.4           | 20                | 11.5                | 32                    | 7.19           | 40                  | 5.75           |
|                   | 2.5          | 12.5                | 18.4           | 16                     | 14.4           | 20                  | 11.5           | 25                | 9.2                 | 40                    | 5.75           | 50                  | 4.6            |
|                   | 4            | 20                  | 11.5           | 25.6                   | 8.98           | 32                  | 7.19           | 40                | 5.75                | 64                    | 3.59           | 80                  | 2.88           |
|                   | 5            | 25                  | 9.2            | 32                     | 7.19           | 40                  | 5.75           | 50                | 4.6                 | 80                    | 2.88           | 100                 | 2.3            |
|                   | 6.3          | 31.5                | 7.3            | 40.3                   | 5.7            | 50.4                | 4.56           | 63                | 3.65                | 101                   | 2.28           | 126                 | 1.83           |
|                   | 8            | 40                  | 5.75           | 51.2                   | 4.49           | 64                  | 3.59           | 80                | 2.88                | 128                   | 1.8            | 160                 | 1.44           |
|                   | 10           | 50                  | 4.6            | 64                     | 3.59           | 80                  | 2.88           | 100               | 2.3                 | 160                   | 1.44           | 200                 | 1.15           |
|                   | 12.5         | 62.5                | 3.68           | 80                     | 2.88           | 100                 | 2.3            | 125               | 1.84                | 200                   | 1.15           | 250                 | 0.92           |
|                   | 16           | 80                  | 2.88           | 102                    | 2.25           | 128                 | 1.8            | 160               | 1.44                | 256                   | 0.90           | 320                 | 0.72           |
| 16×/15B           | 0.78         | 6.24                | 38.5           | 11.4                   | 19.6           | 9.98                | 24             | 12.5              | 19.2                | 20                    | 12             | 25                  | 9.62           |
|                   | 1            | 8                   | 30             | 16                     | 14.0           | 12.8                | 18.8           | 16                | 15                  | 25.6                  | 9.38           | 32                  | 7.5            |
|                   | 1.6          | 12.8                | 18.8           | 20                     | 11.2           | 20.5                | 11.7           | 25.6              | 9.38                | 41                    | 5.86           | 51.2                | 4.69           |
|                   | 2            | 16                  | 15             | 25                     | 9              | 25.6                | 9.38           | 32                | 7.5                 | 51.2                  | 4.69           | 64                  | 3.75           |
|                   | 2.5          | 20                  | 12             | 32                     | 7              | 32                  | 7.5            | 40                | 6                   | 64                    | 3.75           | 80                  | 3              |
|                   | 4            | 32                  | 7.5            | 40                     | 5.6            | 51.2                | 4.69           | 64                | 3.75                | 102                   | 2.34           | 128                 | 1.88           |
|                   | 5            | 40                  | 6              | 50                     | 4.5            | 64                  | 3.75           | 80                | 3                   | 128                   | 1.88           | 160                 | 1.5            |
|                   | 6.3          | 50.4                | 4.76           | 64                     | 3.5            | 80.6                | 2.98           | 101               | 2.38                | 161                   | 1.49           | 202                 | 1.19           |
|                   | 8            | 64                  | 3.75           | 72                     | 3.1            | 102                 | 2.34           | 128               | 1.88                | 205                   | 1.17           | 256                 | 0.94           |
|                   | 10           | 80                  | 3              | 80                     | 2.8            | 128                 | 1.88           | 160               | 1.5                 | 256                   | 0.94           | 320                 | 0.75           |
|                   | 12.5         | 100                 | 2.4            | 100                    | 2.2            | 160                 | 1.5            | 200               | 1.2                 | 320                   | 0.75           | 400                 | 0.6            |
|                   | 16           | 128                 | 1.88           | 126                    | 1.8            | 205                 | 1.17           | 256               | 0.94                | 410                   | 0.59           | 512                 | 0.47           |
| 25×/9.5B          | 0.78         | 9.75                | 25.6           | 12.5                   | 20             | 15.6                | 16             | 19.5              | 12.8                | 31.2                  | 8.01           | 39                  | 6.41           |
|                   | 1            | 12.5                | 20             | 16                     | 15.6           | 20                  | 12.5           | 25                | 10                  | 40                    | 6.25           | 50                  | 5              |
|                   | 1.6          | 20                  | 12.5           | 25.6                   | 9.77           | 32                  | 7.81           | 40                | 6.25                | 64                    | 3.91           | 80                  | 3.13           |
|                   | 2            | 25                  | 10             | 32                     | 7.81           | 40                  | 6.25           | 50                | 5                   | 80                    | 3.13           | 100                 | 2.5            |
|                   | 2.5          | 31.3                | 8              | 40                     | 6.25           | 50                  | 5              | 62.5              | 4                   | 100                   | 2.5            | 125                 | 2              |
|                   | 4            | 50                  | 5              | 64                     | 3.91           | 80                  | 3.13           | 100               | 2.5                 | 160                   | 1.56           | 200                 | 1.25           |
|                   | 5            | 62.5                | 4              | 80                     | 3.13           | 100                 | 2.5            | 125               | 2                   | 200                   | 1.25           | 250                 | 1              |
|                   | 6.3          | 78.8                | 3.17           | 101                    | 2.48           | 126                 | 1.98           | 158               | 1.59                | 252                   | 0.99           | 315                 | 0.79           |
|                   | 8            | 100                 | 2.5            | 128                    | 1.95           | 160                 | 1.56           | 200               | 1.25                | 320                   | 0.78           | 400                 | 0.63           |
|                   | 10           | 125                 | 2              | 160                    | 1.56           | 200                 | 1.25           | 250               | 1                   | 400                   | 0.63           | 500                 | 0.5            |
|                   | 12.5         | 156                 | 1.6            | 200                    | 1.25           | 250                 | 1              | 313               | 0.8                 | 500                   | 0.5            | 625                 | 0.4            |
|                   | 16           | 200                 | 1.25           | 256                    | 0.98           | 25                  | 9.62           | 400               | 0.63                | 640                   | 0.39           | 800                 | 0.31           |
| 40×/6B            | 0.78         | 15.6                | 15.4           | 20                     | 12             | 25                  | 9.62           | 31.2              | 7.69                | 49.9                  | 4.81           | 62.4                | 3.85           |
|                   | 1            | 20                  | 12             | 25.6                   | 9.38           | 32                  | 7.5            | 40                | 6                   | 64                    | 3.75           | 80                  | 3              |
|                   | 1.6          | 32                  | 7.5            | 41                     | 5.86           | 51.2                | 4.69           | 64                | 3.75                | 102                   | 2.34           | 128                 | 1.88           |
|                   | 2            | 40                  | 6              | 51.2                   | 4.69           | 64                  | 3.75           | 80                | 3                   | 128                   | 1.88           | 160                 | 1.5            |
|                   | 2.5          | 50                  | 4.8            | 64                     | 3.75           | 80                  | 3              | 100               | 2.4                 | 160                   | 1.5            | 200                 | 1.2            |
|                   | 4            | 80                  | 3              | 102                    | 2.34           | 128                 | 1.88           | 160               | 1.5                 | 256                   | 0.94           | 320                 | 0.75           |
|                   | 5            | 100                 | 2.4            | 128                    | 1.88           | 160                 | 1.5            | 200               | 1.2                 | 320                   | 0.75           | 400                 | 0.6            |
|                   | 6.3          | 126                 | 1.9            | 161                    | 1.49           | 202                 | 1.19           | 252               | 0.95                | 403                   | 0.60           | 504                 | 0.48           |
|                   | 8            | 160                 | 1.5            | 205                    | 1.17           | 256                 | 0.94           | 320               | 0.75                | 512                   | 0.47           | 640                 | 0.38           |
|                   | 10           | 200                 | 1.2            | 256                    | 0.94           | 320                 | 0.75           | 400               | 0.6                 | 640                   | 0.38           | 800                 | 0.3            |
|                   | 12.5         | 250                 | 0.96           | 320                    | 0.75           | 400                 | 0.6            | 500               | 0.48                | 800                   | 0.3            | 1000                | 0.24           |
|                   | 16           | 320                 | 0.75           | 410                    | 0.59           | 512                 | 0.47           | 640               | 0.38                | 1024                  | 0.23           | 1280                | 0.19           |



| Name      | MPixel | Sensor | Size   | Pixel-Size | Cooling | Interface  | C-Mount*   |
|-----------|--------|--------|--------|------------|---------|------------|------------|
| MC170 HD  | 5      | CMOS-c | 1/2.3" | 2.35 µm    | No      | USB2+ HD   | 0.4x-0.5x  |
| MC190 HD  | 10     | CMOS-c | 1/2.3" | 1.67 µm    | No      | USB2+ HD   | 0.4x-0.5x  |
| DMC2900   | 3      | CMOS-c | 1/2"   | 3.2 µm     | No      | USB3       | 0.5x       |
| DFC295    | 3      | CMOS-c | 1/2"   | 3.2 µm     | No      | FWb        | 0.5x       |
| DFC7000T  | 2.8    | CCD-c  | 2/3"   | 4.54 µm    | Yes     | USB3       | 0.63x      |
| DMC4500   | 5      | CCD-c  | 2/3"   | 3.4 µm     | No      | USB3       | 0.63x      |
| DFC450 C  | 5      | CCD-c  | 2/3"   | 3.4 µm     | Yes     | FWb + Sync | 0.5x       |
| DFC495    | 8      | CCD-c  | 2/3"   | 2.7 µm     | Yes     | FWb + Sync | 0.63x      |
| DFC550    | 12.5   | CCD-c  | 2/3"   | 6.45 µm    | Yes     | FWb + Sync | 0.63x      |
| DFC3000 G | 1.3    | CCD-m  | 1/3"   | 3.75 µm    | No      | USB3+ Sync | 0.35x-0.4x |
| DFC365 FX | 1.4    | CCD-m  | 2/3"   | 6.45 µm    | Yes     | FWb + Sync | 0.7x       |

-c: color / -m: monochrome / \* recommended

Stereo 2016/V.1

## Digital camera systems

- 12 730 465 Leica MC170 HD camera kit
- 12 730 520 Leica MC190 HD camera kit
- 12 730 517 Leica DMC4500 camera kit
- 12 730 466 Leica DMC2900 camera kit
- 12 730 469 Leica DFC295 camera kit
- 12 730 412 Leica DFC450 C camera kit
- 12 730 471 Leica DFC495 camera kit
- 12 730 455 Leica DFC550 camera kit

- 11 547 005 Leica DFC3000 G camera kit
- 11 547 004 Leica DFC365 FX camera kit
- 11 547 106 Leica DFC7000T camera kit

- 12 730 521 Leica IC90 E camera (incl. USB-cable and Leica software) not recommended for MZ10 F / M165 FC / M205 FA
- 12 730 528 Leica stand alone kit (HDMI cable, SD card, USB power supply, remote control RC3, ethernet cable) for IC90 E
- 12 730 229 Hand or foot switch with 2 m cable for IC90 E

## Digital camera system accessories

- 11 600 269 FireWire cable, FW-b-b, 2.5 m, 9-pin to 9-pin
- 11 600 254 FireWire cable, FW-a-b, 2.5 m, 6-pin to 9-pin
- 12 730 211 HDMI-cable, 3 m, HDMI 2x standard-A
- 12 730 530 USB3-cable, 3 m standard-A to micro-B
- 12 730 446 FW-b, notebook kit (includes PCcard express, power supply: 100-240 V, 24 W, adapter FW-b-a)
- 12 730 447 FW-b, PCI express card
- 12 730 495 USB3, PCI express card

## Phototubes and C-mounts

- 10 447 319 Adapter T2, Canon EOS
- 10 447 436 1.6x DSLR tube with T2 thread (APS-C sensor)
- 10 446 175 2.5x DSLR tube with T2 thread (24x36 mm sensor)
- 10 445 928 0.32x video objective with C-mount for 1/3" digital cameras
- 10 450 528 0.5x video objective with C-mount for 1/2" digital cameras
- 10 447 367 0.63x video objective with C-mount for 2/3" digital cameras
- 10 446 307 0.8x video objective with C-mount for 2/3" digital cameras
- 10 445 930 1.0x video-/photo objective
- 10 450 317 1.0x C-mount adapter for HC

## Eyepieces and tubes

- 10 450 630 Wide-field eyepieces for eyeglass wearers 10x/23, distortion-free, dioptic correction, with eyecups\*
- 10 450 631 Wide-field eyepieces for eyeglass wearers 16x/15, distortion-free, dioptic correction, with eyecups\*
- 10 450 632 Wide-field eyepieces for eyeglass wearers 25x/9.5, distortion-free, dioptic correction, with eyecups\*
- 10 450 633 Wide-field eyepieces for eyeglass wearers 40x/6, distortion-free, dioptic correction, with eyecups\*

\* replaceable

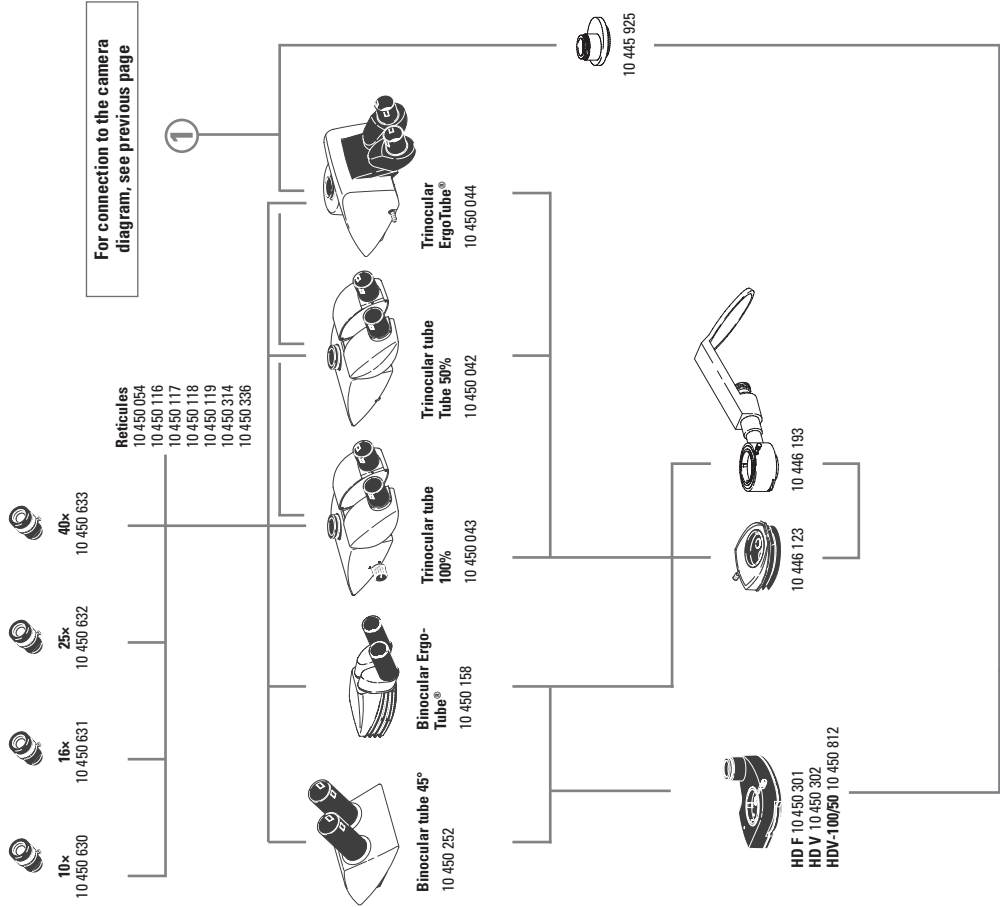
- 10 450 054 Reticule for M-series with encoding
- 10 450 116 Reticule, 5 mm/ 0.05 mm
- 10 450 117 Reticule 10 mm/0.1 mm
- 10 450 118 Graticule, 100 scale intervals/0.001"
- 10 450 119 Reticule, crosshair
- 10 450 314 Plain glass plate with mount, with holder
- 10 450 336 Reticule 12 mm
- 10 450 252 Inclined binocular tube, 45° viewing angle
- 10 450 158 Binocular ErgoTube® with variable 10°–50° viewing angle
- 10 450 042 Trinocular video / phototube 50 %, 30° viewing angle
- 10 450 043 Trinocular video / phototube 100 %, 30° viewing angle
- 10 450 044 Trinocular video / phototube 100 %, 5°–45° viewing angle
- 10 446 123 ErgoWedge® 5° – 25°
- 10 450 301 Video/photo tube HD-F, 50 %, 50 %
- 10 450 302 Video/photo tube HD-V, 100 %, 50 %, 50 %, 100 %
- 10 445 925 Video/photo tube A
- 10 446 193 Drawing tube

### Zoom systems and accessories

- 10 450 567 Leica M165 FC, 16.5:1 zoom, apochromatically corrected, TripleBeam, elect. encoded, integrated filter system, man. fluorescent light shutter, UV protection screen, man. double-iris diaphragm (coded)
- 10 450 040 Leica M205 FA, 20.5:1 zoom, apochromatically corrected, motorized, with FusionOptics and TripleBeam, motorized and electric encoded filter system, auto fluorescent light shutter, UV protection screen, motorized and electric double-iris diaphragm and FIM
- 10 450 207 Objective nosepiece for quickly changing between two objectives
- 10 450 201 Ergo-Intermediate adapter
- 10 450 046 FluoCombi III, parfocal, parcentric objective nosepiece for parallax-free documentation
- 10 450 104 Microscope carrier for MZ series optics carriers

### Objectives and optical accessories

- 10 450 027 Planapochromatic objective 0.63x, working dist. 67 mm, Ø 80 mm
- 10 450 028 Planapochromatic objective 1.0x, working dist. 61.5 mm, Ø 80 mm
- 10 450 029 Planapochromatic objective 1.6x, working dist. 30.5 mm, Ø 80 mm
- 10 450 030 Planapochromatic objective 2x, working dist. 20.1 mm, Ø 85 mm
- 10 450 683 Planapochromatic objective 2.0x CORR, working dist. 20.1 mm, Ø 85 mm
- 10 447 243 5x planapochromatic objective, working dist. 19 mm
- Use only with FluoCombi III with factor 0.8 = 4x
- 10 446 157 Planachromatic objective 0.5x, working dist. 135 mm, Ø 66 mm
- 10 446 236 Planapochromatic objective 0.63x, working dist. 97 mm, Ø 66 mm
- 10 447 075 Planachromatic objective 0.8x, working dist. 112 mm, Ø 80 mm
- 10 445 819 Planachromatic objective 1x, working dist. 59 mm, Ø 66 mm
- 10 450 065 Analyzer in revolving mount, for planachromatic and planapochromatic Ø 80 mm
- 10 367 929 Analyzer in revolving mount for planachromatic and planapochromatic Ø 66 mm



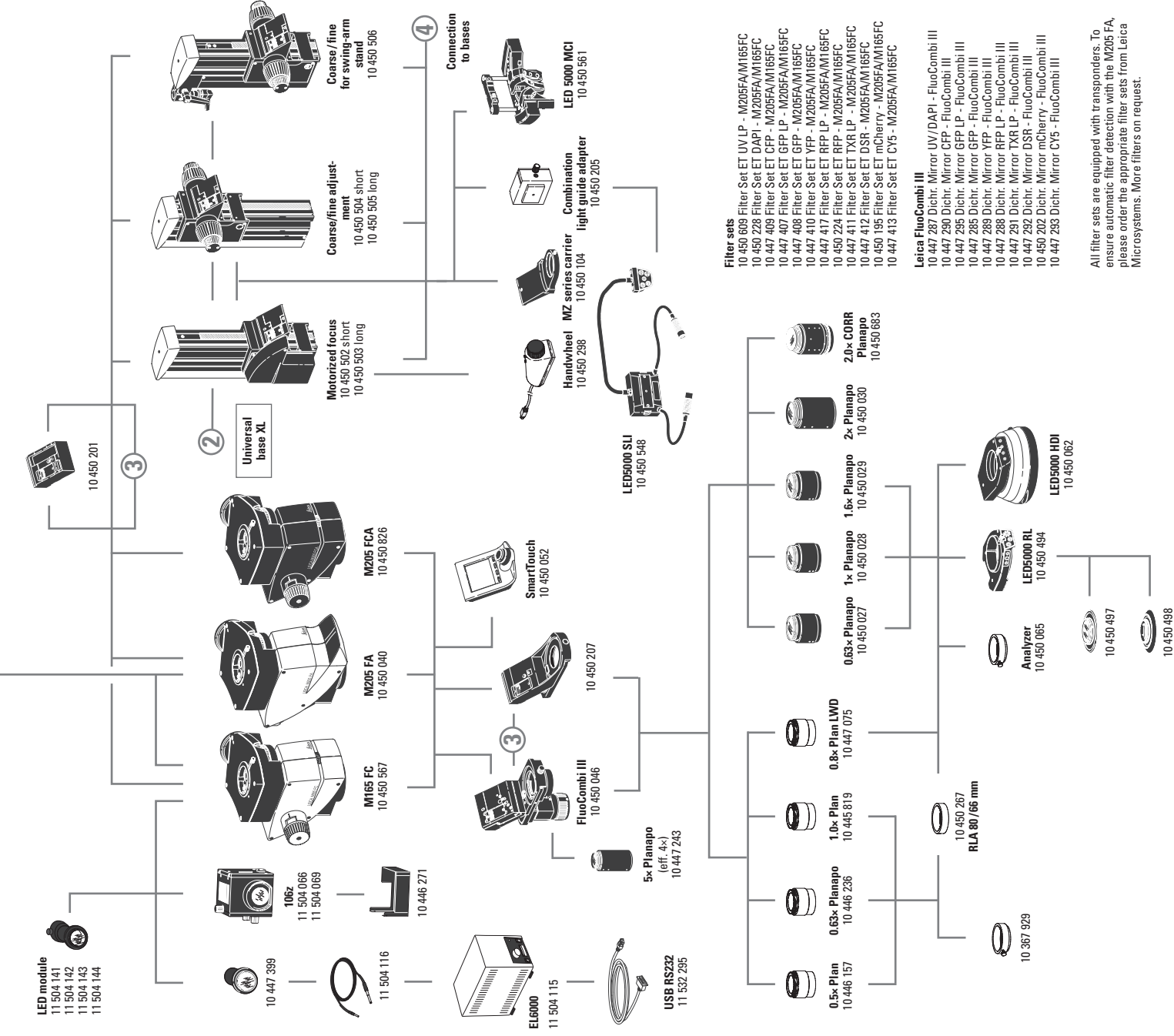


|                                                   |                                                                                                                            |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Illumination</b>                               |                                                                                                                            |
| 11 504 066                                        | Lamp housing 106 z, Hg 50 W                                                                                                |
| 11 504 069                                        | Lamp housing 106 z, Hg 100 W                                                                                               |
| 10 446 271                                        | Stray-light protection for lamp housing 105 z and 106 z                                                                    |
| 11 504 115                                        | Light source for EL6000                                                                                                    |
| 11 504 116                                        | Light guide for EL6000                                                                                                     |
| 10 447 399                                        | Light guide coupling 11 504 116 for EL6000                                                                                 |
| 11 532 295                                        | RS232 USB interface cable                                                                                                  |
| 11 504 141                                        | LED module 365 nm                                                                                                          |
| 11 504 142                                        | LED module 470 nm                                                                                                          |
| 11 504 143                                        | LED module 530 nm                                                                                                          |
| 11 504 144                                        | LED module 590 nm                                                                                                          |
| 10 450 494                                        | LED5000 RL-80/40 – ring illuminator, for Ø 80 mm objectives, 40 LEDs                                                       |
| 10 450 497                                        | Polarization set for Leica LED5000 RL-80/40                                                                                |
| 10 450 498                                        | Diffuser for Leica LED5000 RL-80/40                                                                                        |
| 10 450 267                                        | RLA 80/66 Ring illuminator adapter for LED5000 RL for objectives with Ø 66 mm                                              |
| 10 450 548                                        | LED5000 SLI, spotlight illumination, double-armed gooseneck 500 mm long, 2 power LEDs, 5,600 K color temperature,          |
| 10 450 561                                        | LED5000 MCI, multi contrast illumination with 9 power LEDs                                                                 |
| 10 450 062                                        | LED5000 HDI, diffuse illumination, FlexiDome, for highly reflective specimens                                              |
| 10 450 205                                        | Combination light guide-adapter to focusing columns for LED5000 SLI                                                        |
| 10 450 266                                        | Power supply for LED3000/LED5000                                                                                           |
| <b>Focusing drive</b>                             |                                                                                                                            |
| 10 450 504                                        | Coarse/fine focusing drive with profile column 420 mm                                                                      |
| 10 450 505                                        | Coarse/fine focusing drive with profile column 620 mm                                                                      |
| 10 450 502                                        | Motorized focus with profile column 420 mm                                                                                 |
| 10 450 503                                        | Motorized focus with profile column 620 mm                                                                                 |
| 10 450 506                                        | Focusing drive coarse/fine for swing-arm stand                                                                             |
| <b>Controls</b>                                   |                                                                                                                            |
| 11 505 180                                        | Leica Smart Move control unit for                                                                                          |
|                                                   | Leica IsoPro motorized cross-stage                                                                                         |
| 10 447 444                                        | Leica PSC control unit for                                                                                                 |
|                                                   | Leica IsoPro motorized mechanical stage                                                                                    |
| 10 450 052                                        | SmartTouch, external control unit with integrated touchscreen for status control and control of all settings and functions |
| 10 450 298                                        | Manual controller for motorized focus                                                                                      |
| 10 447 398                                        | Footswitch for motorized stereomicroscopes                                                                                 |
| <b>Incident-light and transmitted-light bases</b> |                                                                                                                            |
| 10 450 049                                        | Incident-light base                                                                                                        |
| 10 450 123                                        | Transmitted light base TL3000 ST with bright field (HF) and single-sided dark field (DF)                                   |
| 10 447 400                                        | Daylight filter for TL3000 ST base                                                                                         |
| 10 450 124                                        | Transmitted light base TL4000 BFDF for external cold-light sources with HF and circular DF                                 |
| 10 450 125                                        | Transmitted light base TL4000 RC for external cold-light sources with HF, single-sided DF and Rottermann Contrast (RC)     |
| 10 450 126                                        | Transmitted light base TL4000 RCI with HF, DF, RC                                                                          |

| Focusing drive |                                                       |
|----------------|-------------------------------------------------------|
| 10 450 504     | Coarse/fine focusing drive with profile column 420 mm |
| 10 450 505     | Coarse/fine focusing drive with profile column 620 mm |
| 10 450 502     | Motorized focus with profile column 420 mm            |
| 10 450 503     | Motorized focus with profile column 620 mm            |
| 10 450 506     | Focusing drive coarse/fine for swing-arm stand        |

|            | Controls                                                                                                                         |
|------------|----------------------------------------------------------------------------------------------------------------------------------|
| 11 505 180 | Leica Smart Move control unit for                                                                                                |
|            | Leica IsoPro motorized cross-stage                                                                                               |
| 10 447 444 | Leica PSC control unit for                                                                                                       |
|            | Leica IsoPro motorized mechanical stage                                                                                          |
| 10 450 052 | SmartTouch, external control unit with integrated touchscreen<br>for status control and control of all settings and<br>functions |

|            | Incident-light and transmitted-light bases                                                                           |
|------------|----------------------------------------------------------------------------------------------------------------------|
| 10 450 049 | Incident-light base                                                                                                  |
| 10 450 123 | Transmitted light base TL3000 ST with bright field (HF) and single-sided dark field (DF)                             |
| 10 447 400 | Daylight filter for TL3000 ST base                                                                                   |
| 10 450 124 | Transmitted light base TL4000 BDF for external cold-light sources with HF and circular DF                            |
| 10 450 125 | Transmitted light base TL4000 RC for external cold-light sources with HF, single-sided DF and Rottmann Contrast (RC) |
| 10 450 126 | Transmitted light base TL4000 RC1 with HF, DF, RC                                                                    |

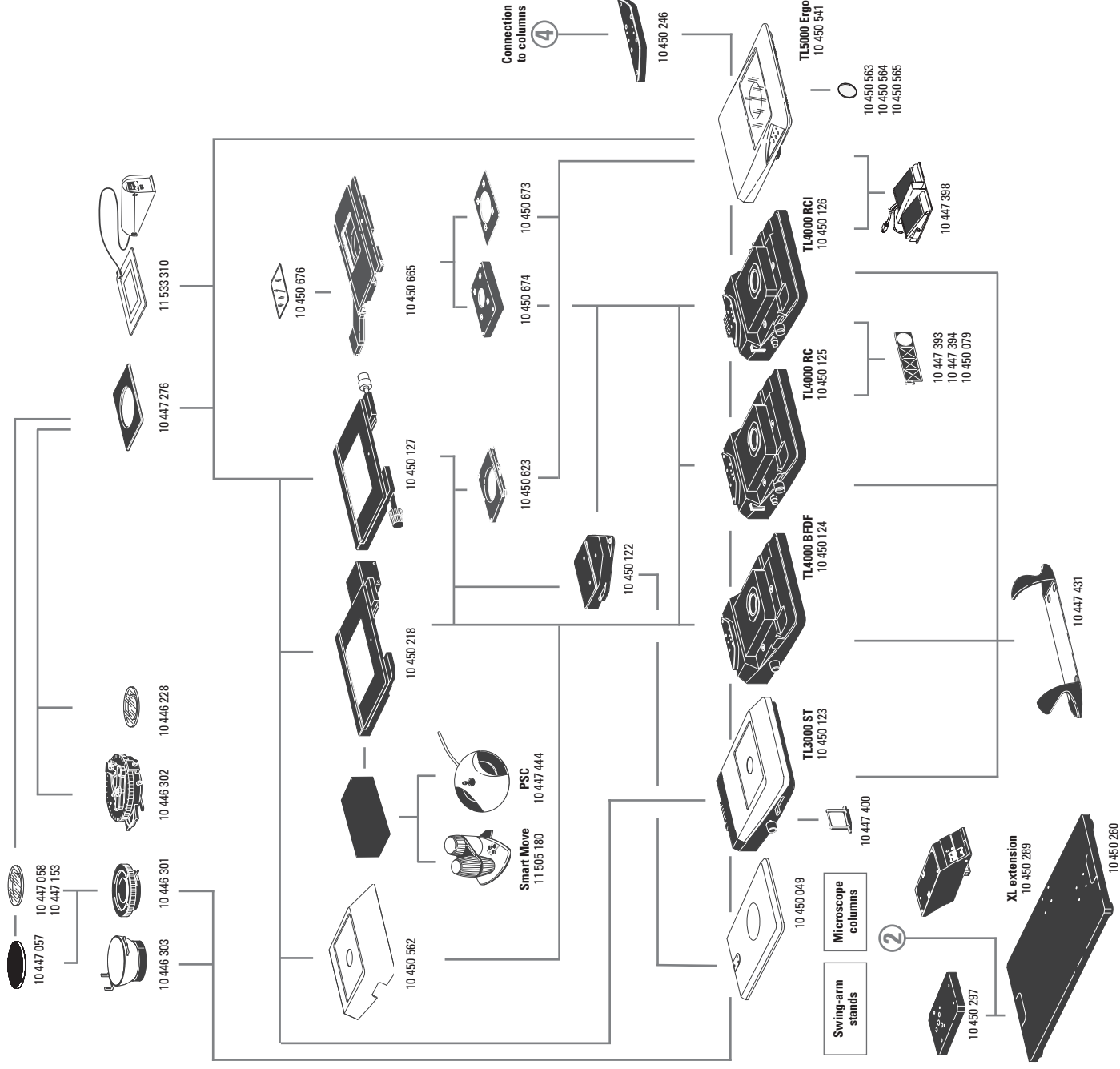




- 10 447 393 Filter ND (gray filter) for base TL4000 RC/RCI
- 10 447 394 BG38 filter for base TL4000 RC/RCI
- 10 450 079 Daylight filter for base TL4000 RCI
- 10 450 541 Transmitted light base TL5000 Ergo with integrated LED illumination, automatic contrasting, HF, double-sided DF and RC
- 10 450 563 Milk-glass filter for base TL5000 Ergo
- 10 450 564 Green filter for base TL5000 Ergo
- 10 450 565 Polarization filter for base TL5000 Ergo
- 10 450 246 Fluo adapter plate between column and transmitted light base
- 10 450 260 Universal base XL for specimens up to 300 × 300 mm
- 10 450 297 Adapter for base 10 450 260 for all swinging-arm columns
- 10 450 289 XL extension – for positioning Leica stereomicroscopes on universal base 10 450 260
- 10 447 431 Leica ErgoRest handrest for fatigue-free working

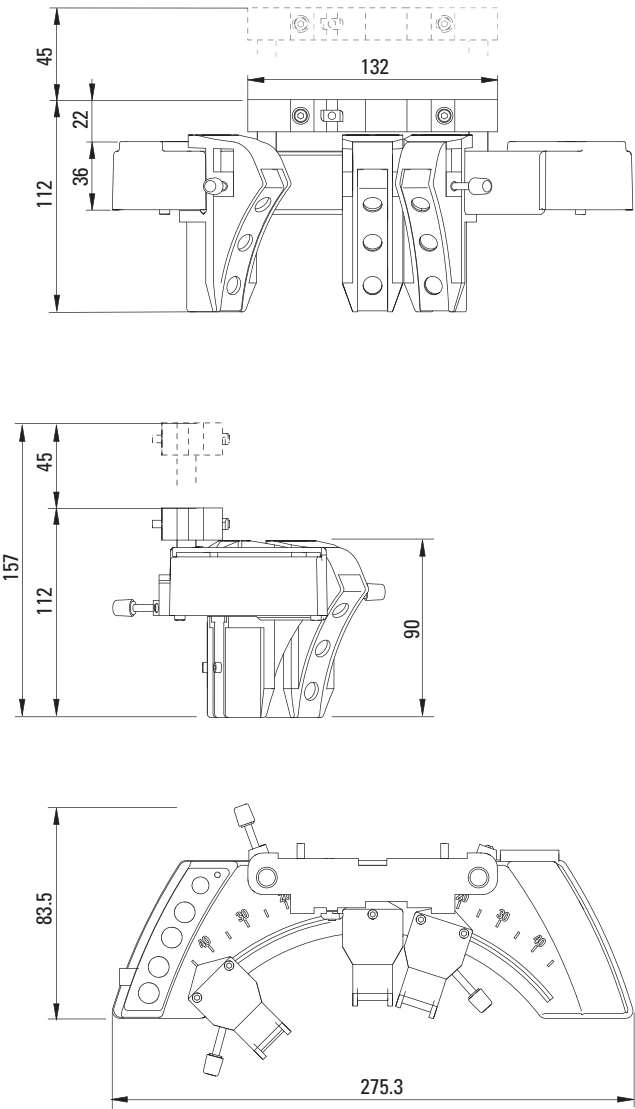
## Stages

- 10 450 562 Standard stage for transmitted light bases TL4000 BFDF, TL4000 RC and TL4000 RCI
- 10 450 665 Scanning stage with linear motors and absolute measuring system
- 10 450 673 Stage Adapter for TL5000 Ergo
- 10 450 674 Stage Adapter for TL4000 Series
- 10 450 676 glas insert for scanning stage 10 450 665
- 10 450 127 Leica IsoPro Manual Cross Stage for transmitted light bases TL4000 BFDF, TL4000 RC, TL4000 RCI and incident light base (with adapter 10 450 122)
- 10 450 218 Leica IsoPro Motorized Cross-stage for transmitted light bases TL4000 BFDF, TL4000 RC, TL4000 RCI and incident light base (with adapter 10 450 122)
- 10 450 122 Adapter between cross-stage and incident-light base 10 450 049
- 10 450 623 Adapter between cross-stages 10 450 218 / 10 450 127 and TL5000 Ergo
- 11 533 310 Leica TPX TL heating stage insert with control unit for TL bases
- 10 447 276 Adapter for stages with Ø 120 mm
- 10 446 301 Gliding stage, Ø 120 mm
- 10 447 153 Glass plate matte, Ø 120 mm
- 10 450 057 Stage plate black/white, Ø 120 mm
- 10 450 058 Stage plate b/w for TL bases, Ø 120 mm
- 10 446 302 Polarization stage, Ø 120 mm
- 10 382 130 Attachable mechanical stage for polarization stage
- 10 361 719 Red compensator 1 for Pol rotating stage
- 10 446 303 Cup stage, Ø 120 mm
- 33 000 600 Cup stage, Ø 120 mm, surface Ø 150 mm, revolving
- 10 446 228 Glass insert with Pol, Ø 120 mm
- 10 450 059 Additional buttons for IsoPro Manual Cross-stage

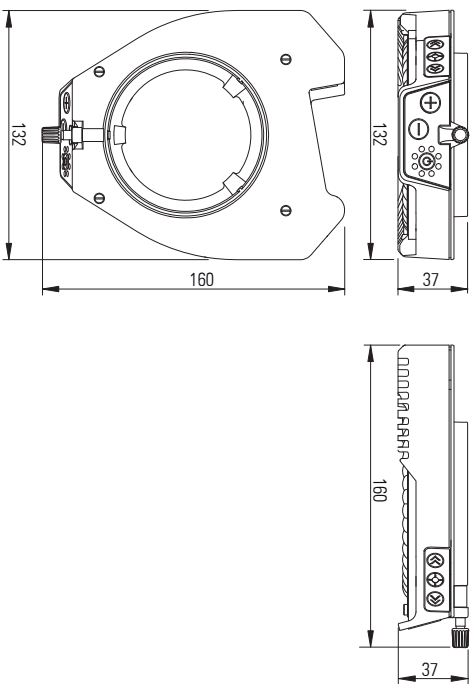


LED5000 MCI

Dimensions in mm



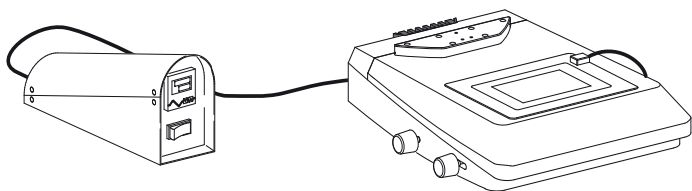
LED5000 RL



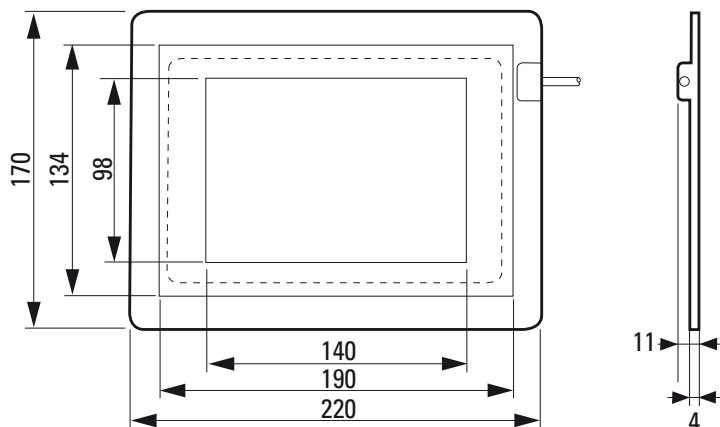
## LEICA TPX TL HEATING STAGE

### Dimensions and article numbers

Dimensions in mm

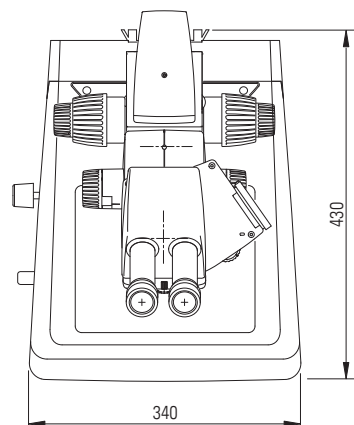
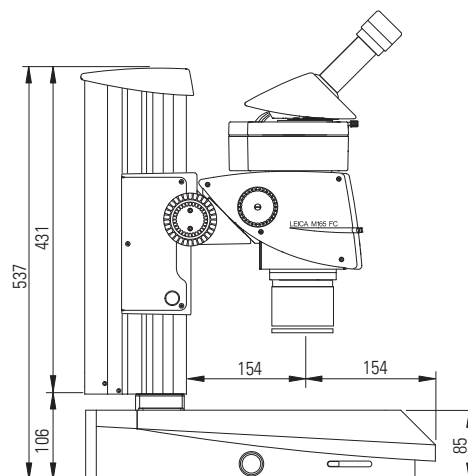
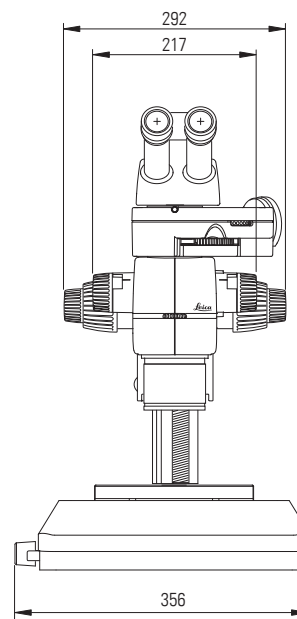


11 533 310 Heating stage for stereomicroscopes of the Leica M series with transmitted light bases TL3000 ST, TL4000 BDFD, TL4000 RC/RCI and TL5000 Ergo



## LEICA M165 FC DIMENSIONS

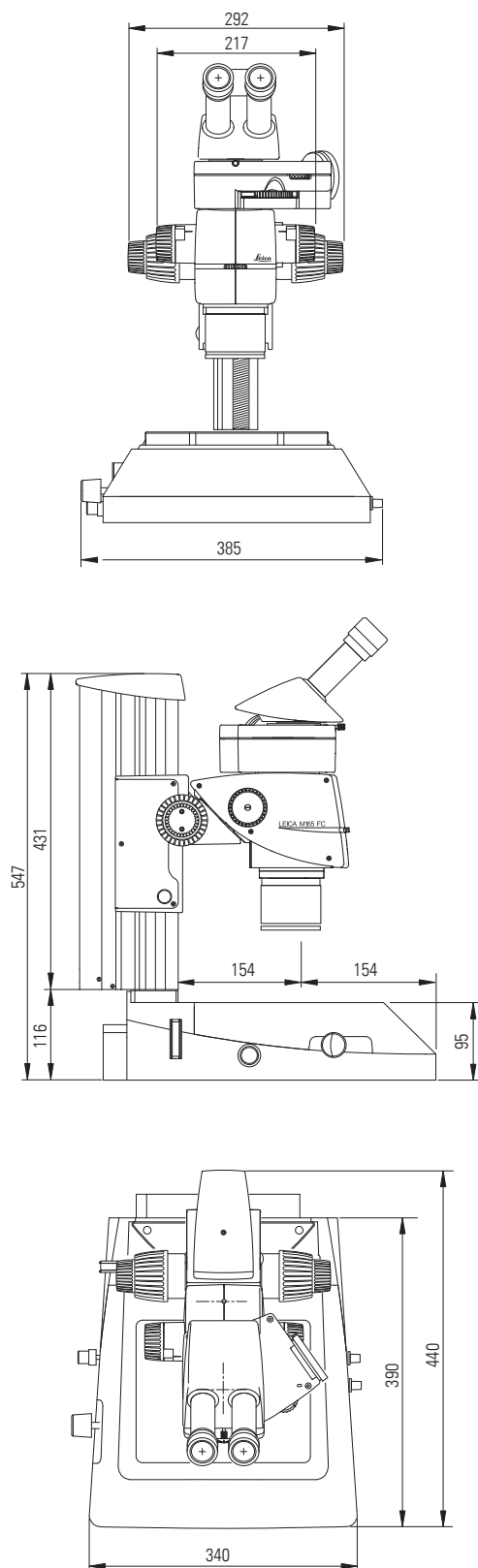
with TL3000 ST transmitted-light base and manual focus



## LEICA M165 FC DIMENSIONS

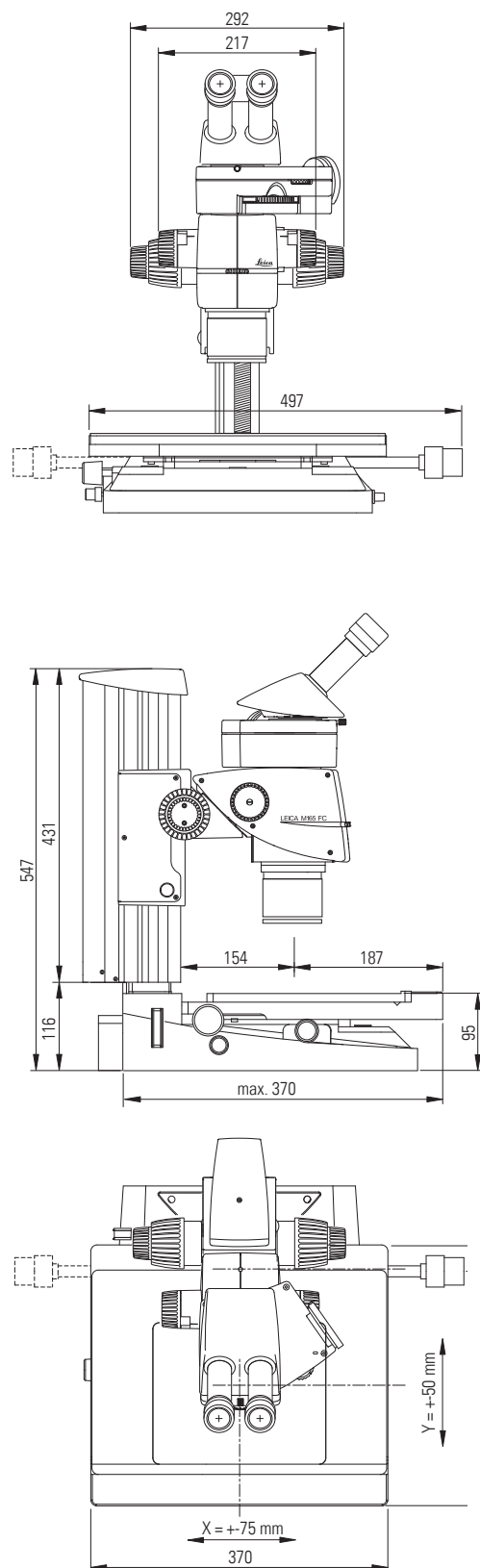
with transmitted light stand TL4000 RCI and manual focus

Dimensions in mm



## LEICA M165 FC DIMENSIONS

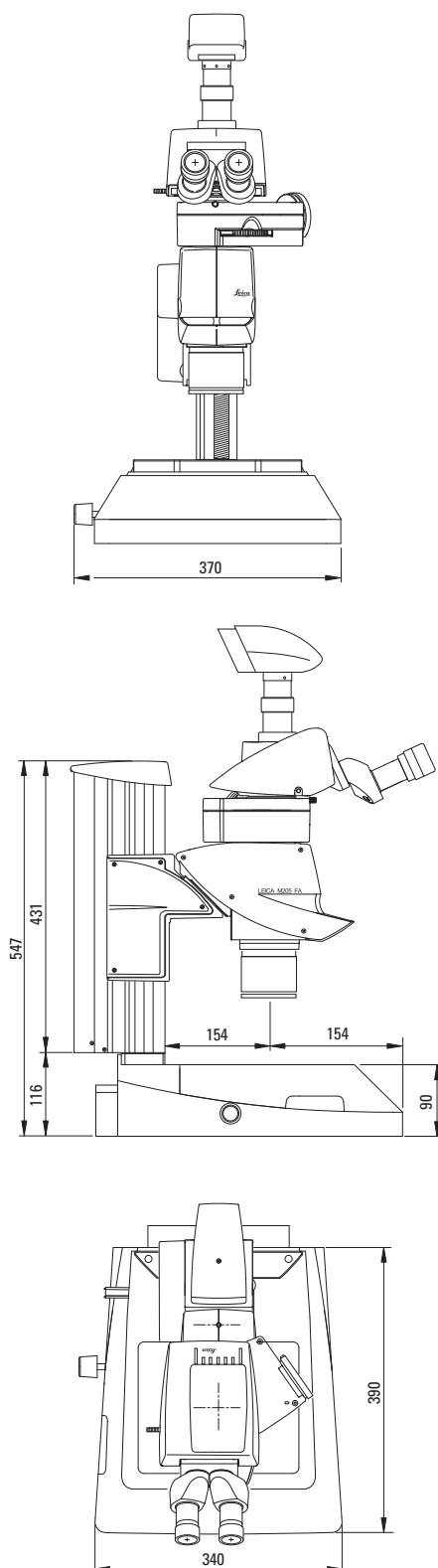
with TL RCI transmitted light stand, manual  
Leica IsoPro cross-stage and manual focusing drive



## LEICA M205 FA DIMENSIONS

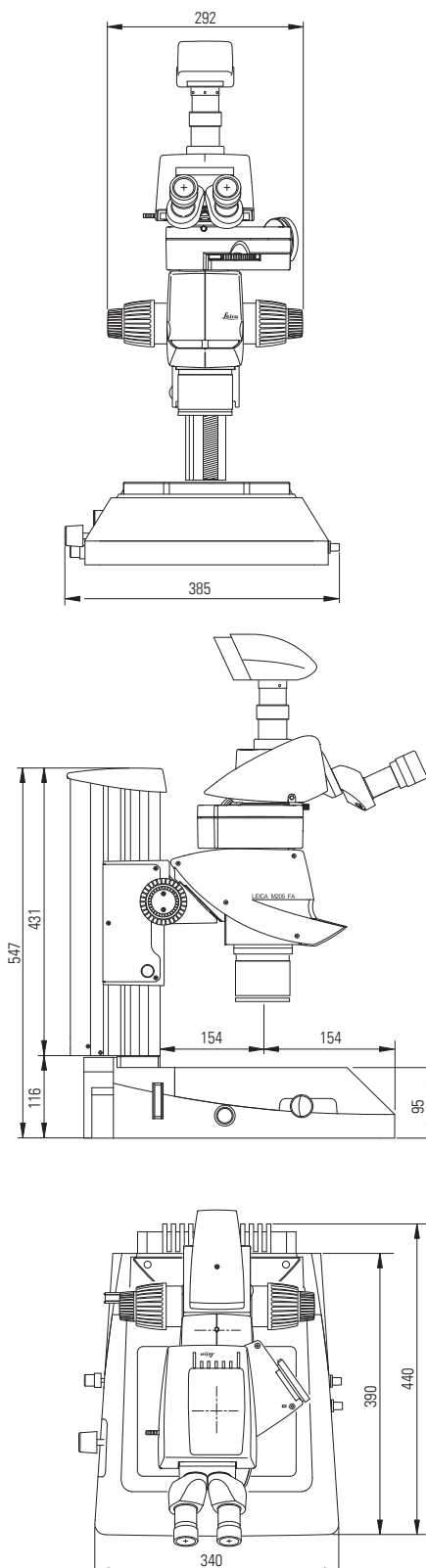
**with transmitted light stand TL4000 BFDf, trinocular ErgoTube,  
DFC camera and motorized focusing drive**

Dimensions in mm



## LEICA M205 FA DIMENSIONS

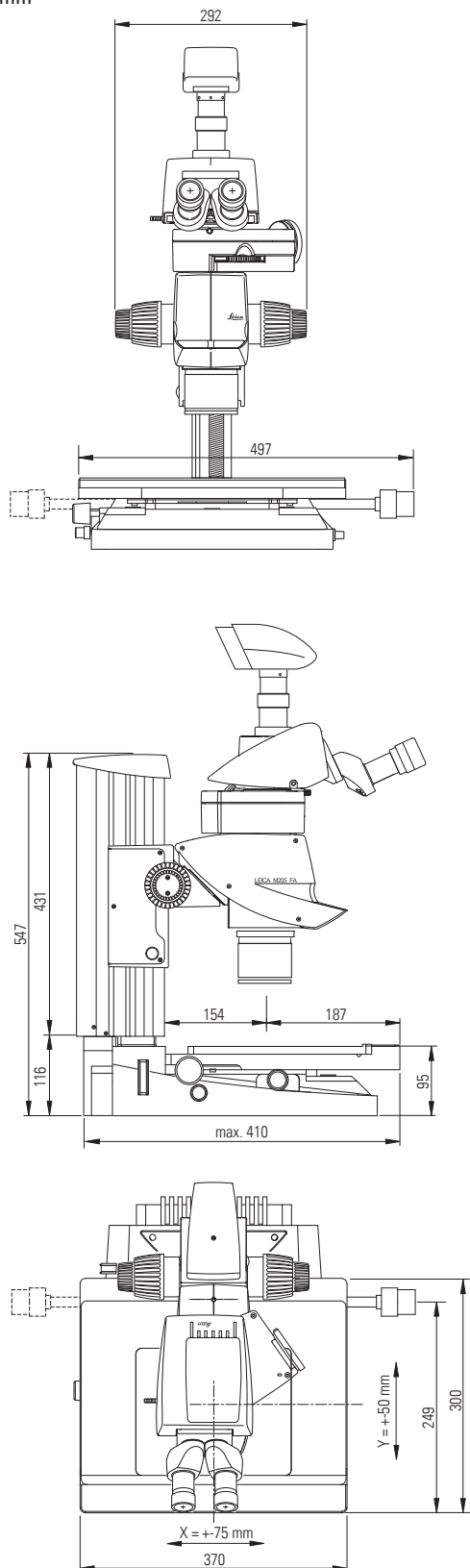
**with transmitted light stand TL4000 RCI, trinocular ErgoTube,  
DFC camera and motorized focusing drive**



## LEICA M205 FA DIMENSIONS

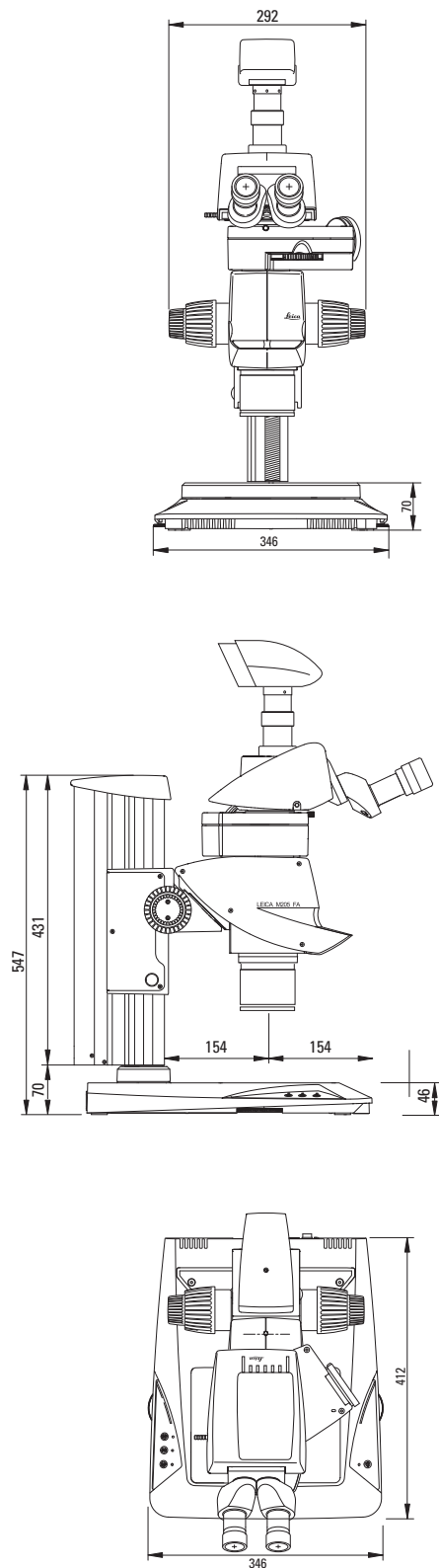
with transmitted light stand TL4000 RCI, IsoPro cross-stage, trinocular ErgoTube, DFC camera and mot. focusing drive

Dimensions in mm



## LEICA M205 FA DIMENSIONS

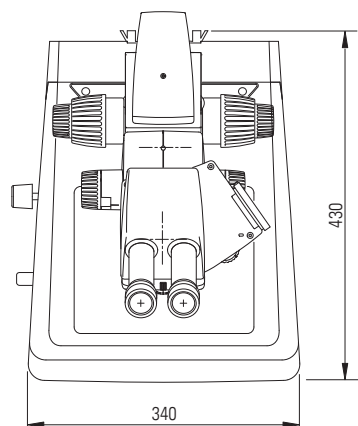
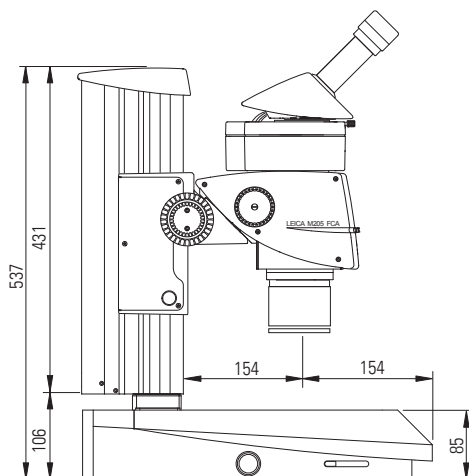
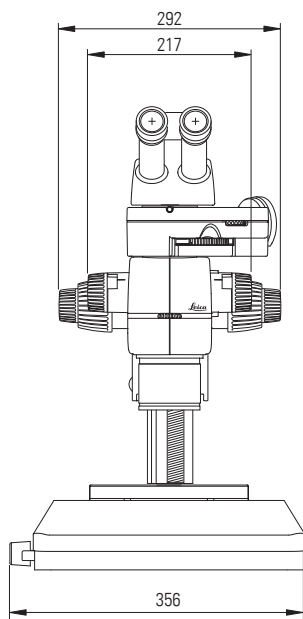
with transmitted light stand TL5000 Ergo, trinocular ErgoTube, DFC camera and man. focusing drive



## LEICA M205 FCA DIMENSIONS

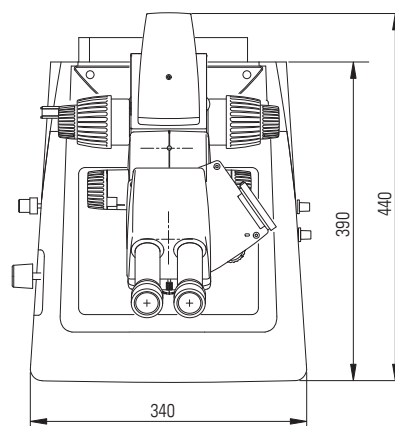
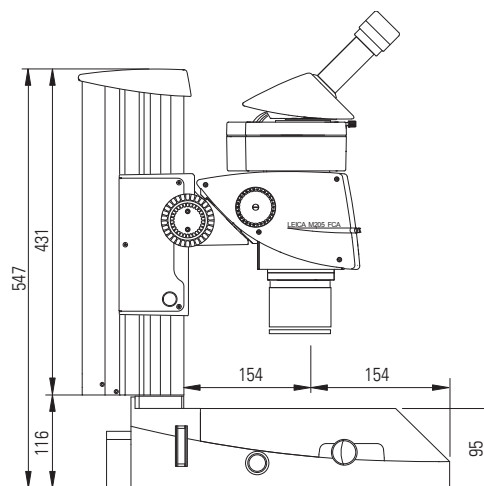
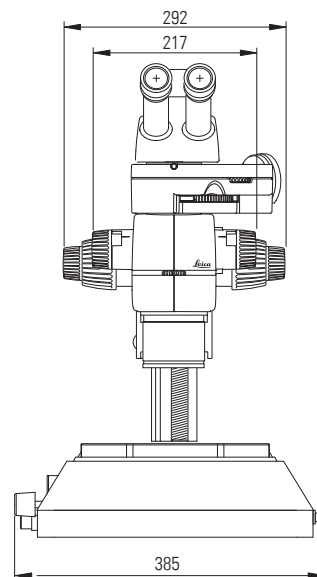
with TL3000 ST transmitted-light base and manual focus

Dimensions in mm



## LEICA M205 FCA DIMENSIONS

with transmitted light stand TL4000 RCI and manual focus

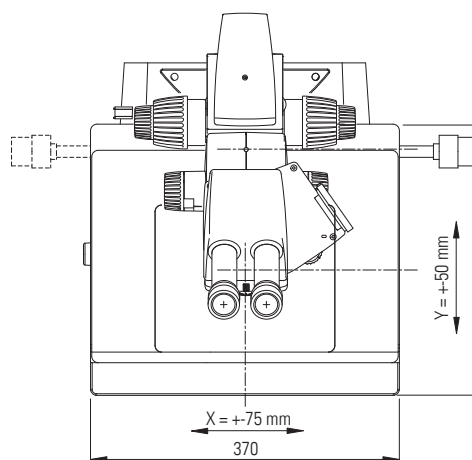
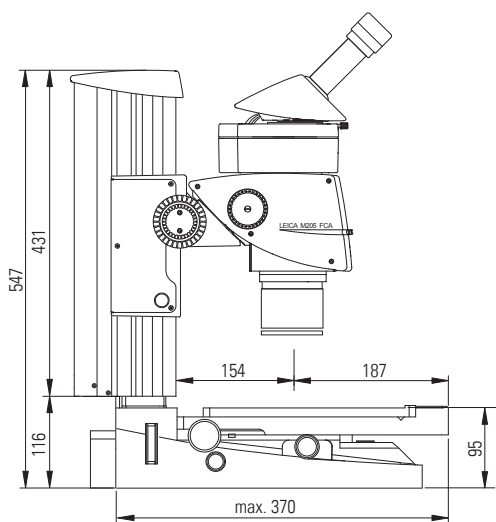
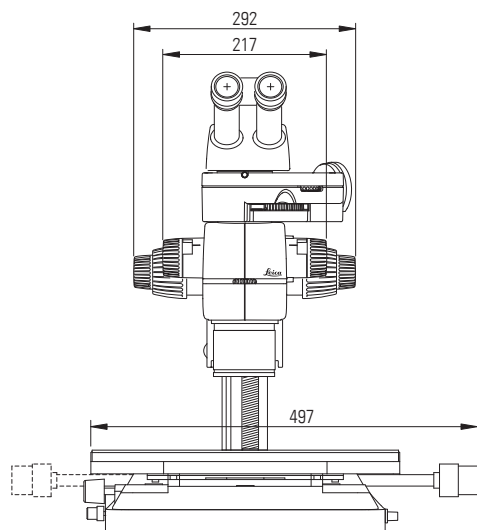




## LEICA M205 FCA DIMENSIONS

with TL RCI transmitted light stand, manual  
Leica IsoPro cross-stage and manual focusing drive

Dimensions in mm



CONNECT  
WITH US!



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