

## Celldiscoverer 7 – automated widefield system

### Technical Specifications

- Zeiss Celldiscoverer 7 automated widefield microscope with environmental control, automated lens correction, autofocussing and active focus stabilization.
- Suitable for plate, dish, slide scanning and long term imaging.
- Novel phase gradient contrast adapts to vessel characteristics and uses Transmitted light IR LED.
- Autocorrect lenses adapt for vessel thickness and additional magnifiers (0.5x, 1x, 2x) extend range of magnifications to 2.5-100x.
- LED modules and multi-band filter cubes for 385, 420, 470, 520, 567, 590 and 625nm excitation.
- Scanning stage for multi-position acquisition and tiled imaging.
- Automated water dispenser for 50x immersion objective.
- Holders for multi-well plates, 6x 35mm dishes, 60mm dish, 2 standard slides or 2xLabTek chamber slides
- Motorised Z-drive for stack acquisition suitable for deconvolution.

### Filters for visual inspection

	Excitation lines	Dichroic mirror	Emission filter
90HE	385/470/555/625	RQBS 405/493/575/653	QBP 425/30, 514/30, 592/25, 709/100
91HE	420/520/590nm	RTBS 450/538/610nm	TBP 467/24, 555/25, 687/145nm
92HE	385/470/590nm	RTBS 405/493/610nm	TBP 425/30, 524/50, 687/145nm
93HE	470/555nm	RDBS 493/575nm	TBP 514/32, 605/50, 730/60nm (3 <sup>rd</sup> NIR EM for transmitted light)

### Lenses

Lens	Numerical aperture at 1x	Other mags with mag changer	Dry/imm	Phase gradient contrast	Working distance in water (mm)	Features (all objectives except 5x)
5x	0.25	2.5x (0.12NA) 10x (0.35NA)	Dry	Yes	~ 5mm	
20x	0.7	10x (0.35 NA) 40x (0.7 NA)	Dry	Yes	1.33 (0.17mm base) 0.4 (1mm base)	Autocorrected for coverslip/vessel base thickness
20x	0.8	10x (0.5 NA) 40x (0.95 NA)	Dry	Yes	0.4 (0.17mm base)	
50x	1.2	25x (1.2 NA) 100x (1.2 NA)	Water	Yes	0.4 (0.17mm base)	