

The 50 mm focal length SWIRON is a high-performance lens corrected for SWIR wavelength range. With either C- or V48-Mount this lens is extremely robust and insensitive to rough ambient conditions, with the result that the lens retains its high optical imaging performance in industrial environments.

The secure locking of the iris and focus settings and the SWIR coating of 900 - 1700 nm is standard for this lens. A special lacquer for stray light reduction guarantees best imaging performance in all applications. Suitable for 25.6 mm sensor with 12.4 μ pixel pitch, featured low distortion needed for solar inspection, while the little focal shift is an advantage in hyperspectral imaging as in material testing tasks. More SWIRON lenses: 40 mm focal length for large format with C-Mount or V-Mount and a 25 mm C-Mount 2/3".



SWIRON 2.8/50

Key features

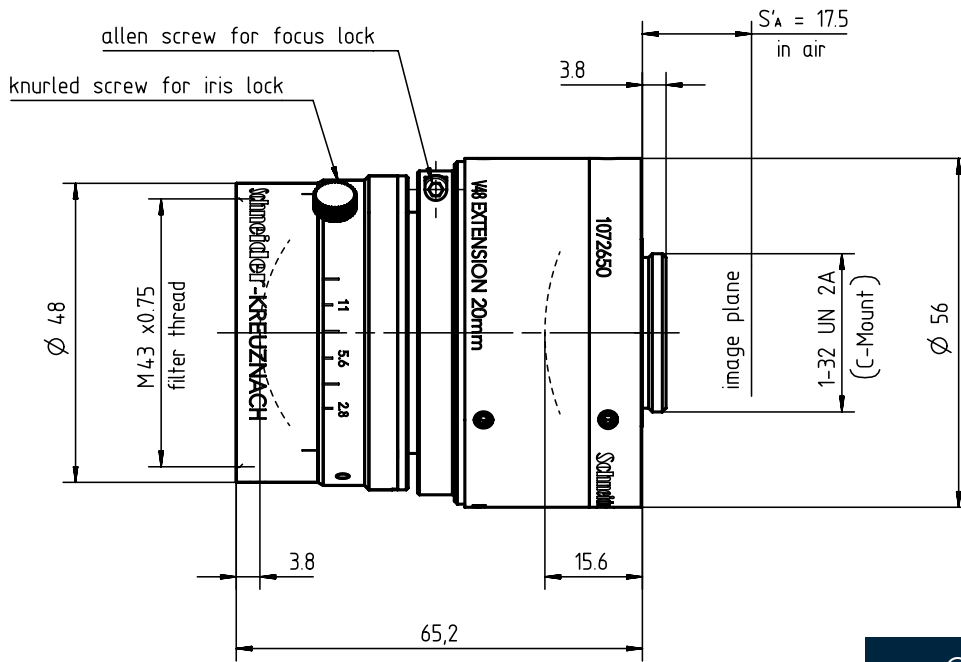
- Suitable for 2048 Pixel sensor with 12.4 μ Pixel pitch
- Minimized focal shift
- Distortion less than 1%
- Designed for 900 nm - 1700 nm
- Usage of highly transparent glass for SWIR range

Applications

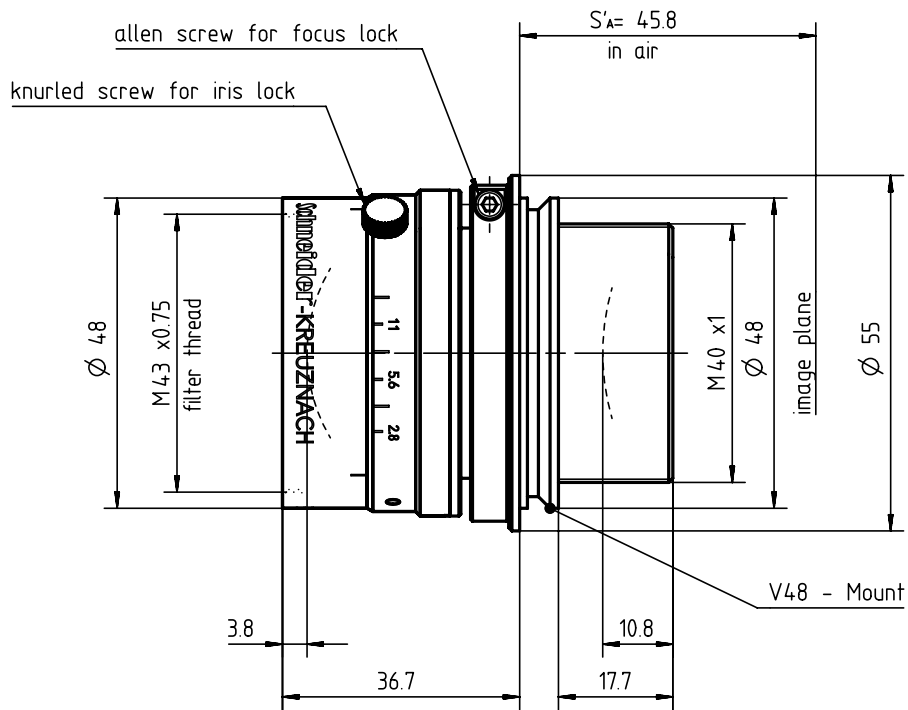
- Bio-pharmaceuticals / medical
- Fluid inspection
- Food control / agriculture
- Plastic waste sorting
- Solar inspection
- LIDAR
- Hyperspectral imaging / material testing

Name	SWIRON 2.8/50
Type	-0006 -0005
Focal Length [mm]	50
Magnification	-0.2
Image circle [mm]	25.4
Resolution [μ m]	6.45
F/# range	2.8 ... 16
NA	0.18
Interface	C-Mount V48-Mount
Working distance [mm]	∞ - 268
AoV [°]	28
Focus control	manual
Transmission [nm]	900 - 1700
Filter thread [mm]	M37 x 0.75
Dimensions L x D [mm]	71.4 x 56.0

Name	SWIRON 2.8/50
Weight [g]	418
Storage temperature [°C]	-25 ... +70
f'_{eff} [mm]	50.74
S_F [mm]	-11.82
$S'_{F'}$ [mm]	33.97
HH' [mm]	-9.94
β'_p	1.252
S_{EP} [mm]	28.71
$S'A_p$ [mm]	-29.56
Σd [mm]	45.75
ID C-Mount	1088501
ID V48-Mount	1087723

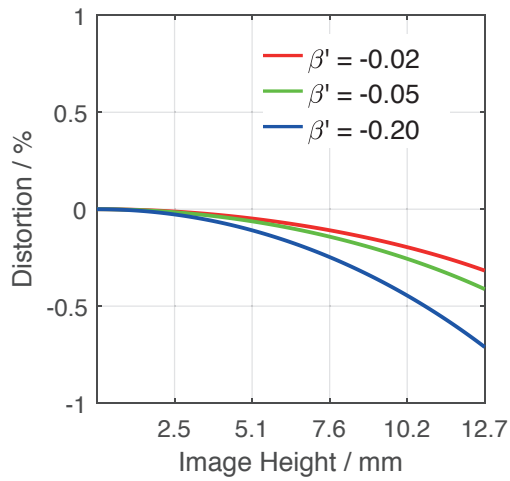


C-Mount

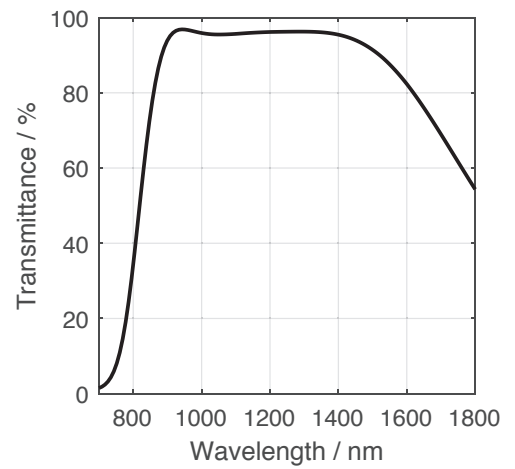


V48-Mount

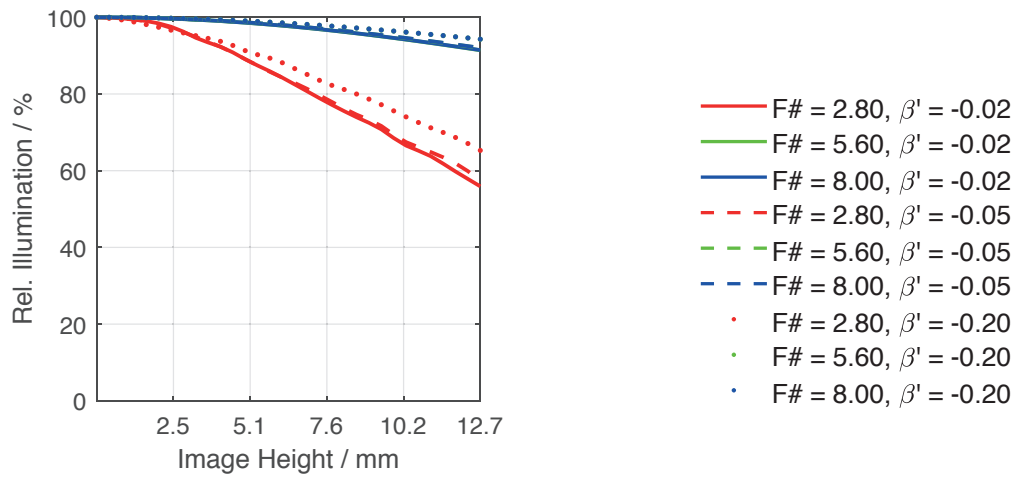
Distortion vs. Image Height



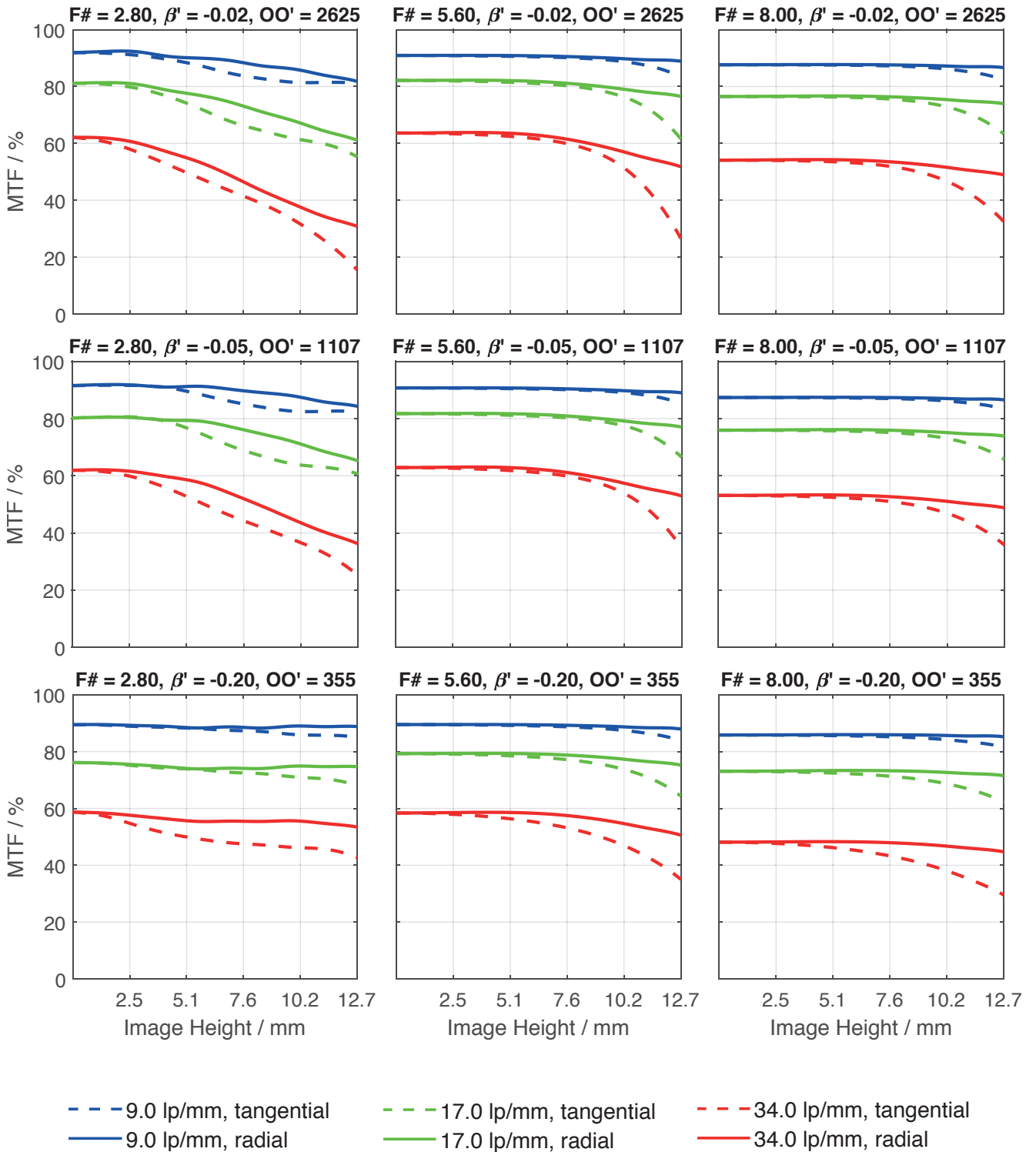
Transmittance vs. Wavelength



Relative Illumination vs. Image Height



Spectrum Name	SWIR					
Wavelengths [nm]	920	1070	1220	1370	1520	1670
Weights	16.9	18.2	17.7	17.1	15.9	14.2



Accessories	Mount	Length	ID
Adapter	CS-Mount Adapter	5 mm	25081
	C-Mount / M42 x 1 Adapter	-	1075817
	M72 x 0.75 / M95 x 1	4 mm	1077013
	M72 x 0.75 / M58 x 0.75	6 mm	1075556
	M72 x 0.75 / M42 x 1	6 mm	1079515
	M72 x 0.75 / M90 x 1	-	1084879
	M58 x 0.75 / M90 x 1	-	1084880
	M95 x 1 / M90 x 1	-	1084889
	M95 x 1 / M72 x 0.75	6.6 mm	1077295
	V48 / C-Mount	-	25081
	V48 / M42 x 1	-	1075817
	V48 / M42 x 0.75	-	1077013
	V48 / M58 x 0.75	-	1075556
	Ext. Tube	C-Mount	5 mm
C-Mount		8 mm	39315
C-Mount		10 mm	39312
V48		10 mm	1072661
V48		25 mm	1072651
V48		50 mm	1072662

Get more information

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