

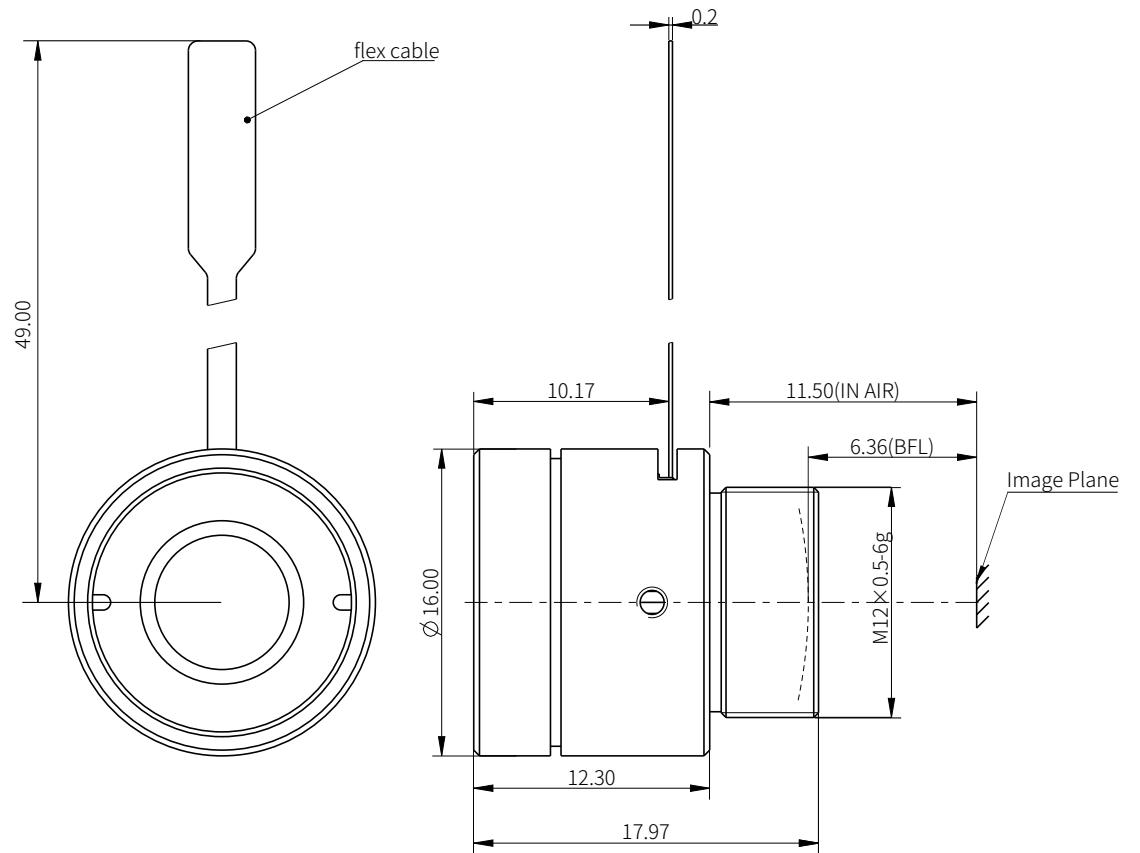
M12 Series Liquid Lenses

#OPT-S1656-LQL E.F.L.= 16mm F5.6

● Specifications

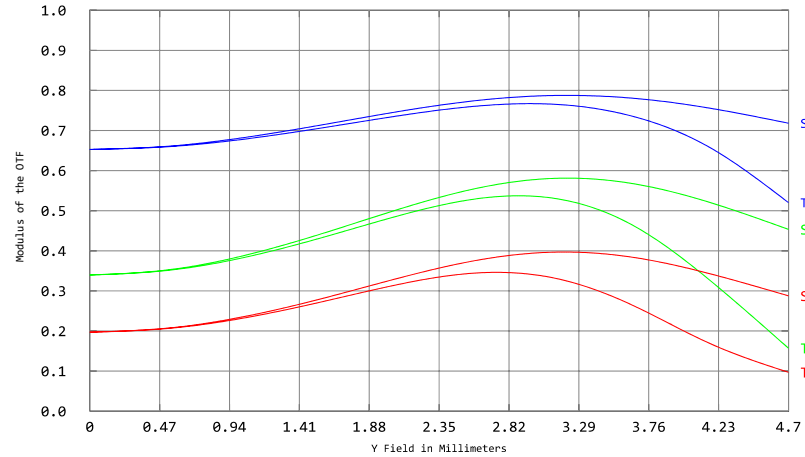
Effective focal length (mm)		16
Sensor ø(mm)		9.4(1/1.7")
F NO.		F5.6
FOV Angle	Diagonal (9.25 mm)	31.78°
	Horizontal (7.4 mm)	25.54°
	Vertical (5.5 mm)	19.06°
Wavelength range (nm)		435~656
Relative illumination		>83%
Working distance (mm)		150~∞
Working distance without current (mm)		300
Distortion (at WD 300)		<1.21%
Max chief ray angle		<5.5°
Flange focal distance (mm)		11.50
Back focal length (mm)		6.36
Mount		M12×0.5-6g
Connector type		FPC(2-pin)
Size (mm)		L12.30×W16.00×H49.00
Total track length (Liquid Lens included) (mm)		23.8
Focus tunable lens specifications		EL-3-10-VIS-26D-FPC
Focal power range at 20°C (dpt)		-13~+13
Wavefront error at 525 nm (vertical/horizontal) (λRMS)		<0.2 / <0.2
Working temperature		-20°C~+65°C
Storage temperature		-50°C~+85°C
Temperature compensation		No

● Mechanical drawings



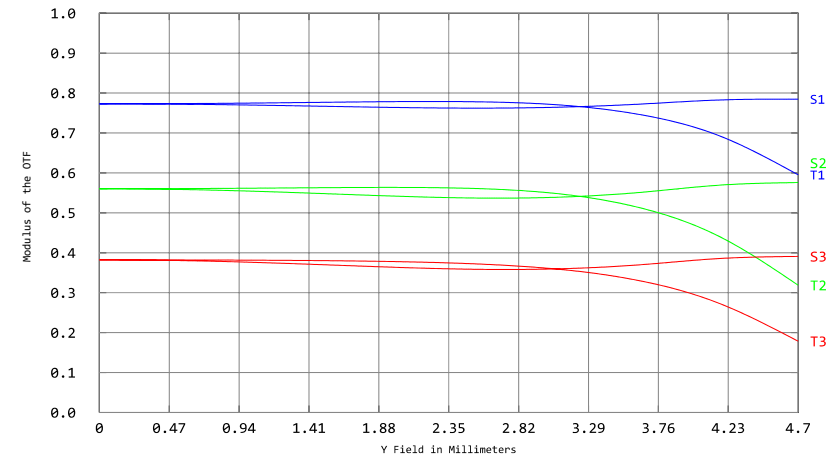
● Modulation Transfer Function(MTF)

W.D. = 180 mm



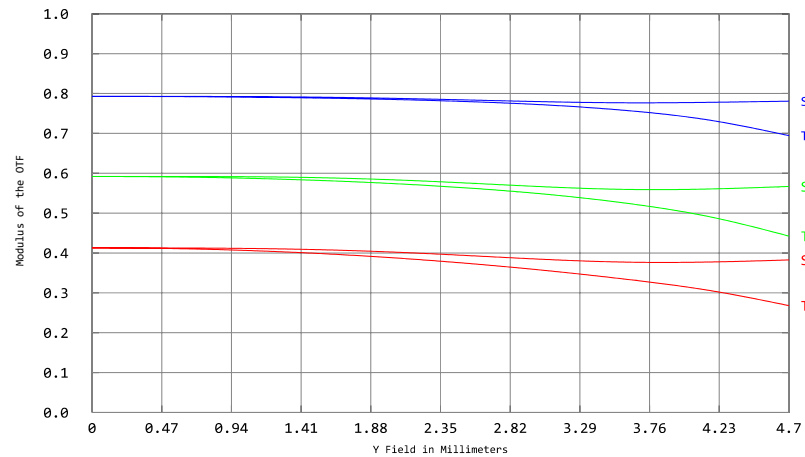
☒ S1 — Sagittal: 50 lp/mm ☒ S2 — Sagittal: 100 lp/mm ☒ S3 — Sagittal: 150 lp/mm
☒ T1 — Tangential: 50 lp/mm ☒ T2 — Tangential: 100 lp/mm ☒ T3 — Tangential: 150 lp/mm

W.D. = 400 mm



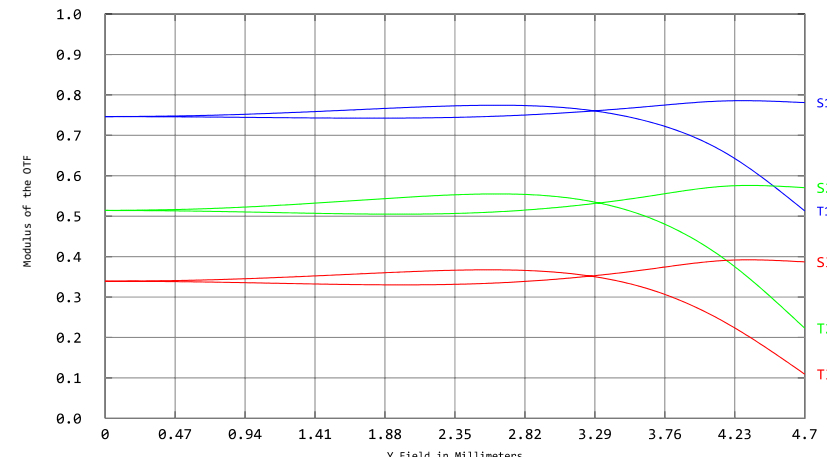
☒ S1 — Sagittal: 50 lp/mm ☒ S2 — Sagittal: 100 lp/mm ☒ S3 — Sagittal: 150 lp/mm
☒ T1 — Tangential: 50 lp/mm ☒ T2 — Tangential: 100 lp/mm ☒ T3 — Tangential: 150 lp/mm

W.D. = 300 mm



☒ S1 — Sagittal: 50 lp/mm ☒ S2 — Sagittal: 100 lp/mm ☒ S3 — Sagittal: 150 lp/mm
☒ T1 — Tangential: 50 lp/mm ☒ T2 — Tangential: 100 lp/mm ☒ T3 — Tangential: 150 lp/mm

W.D. = 500 mm



☒ S1 — Sagittal: 50 lp/mm ☒ S2 — Sagittal: 100 lp/mm ☒ S3 — Sagittal: 150 lp/mm
☒ T1 — Tangential: 50 lp/mm ☒ T2 — Tangential: 100 lp/mm ☒ T3 — Tangential: 150 lp/mm