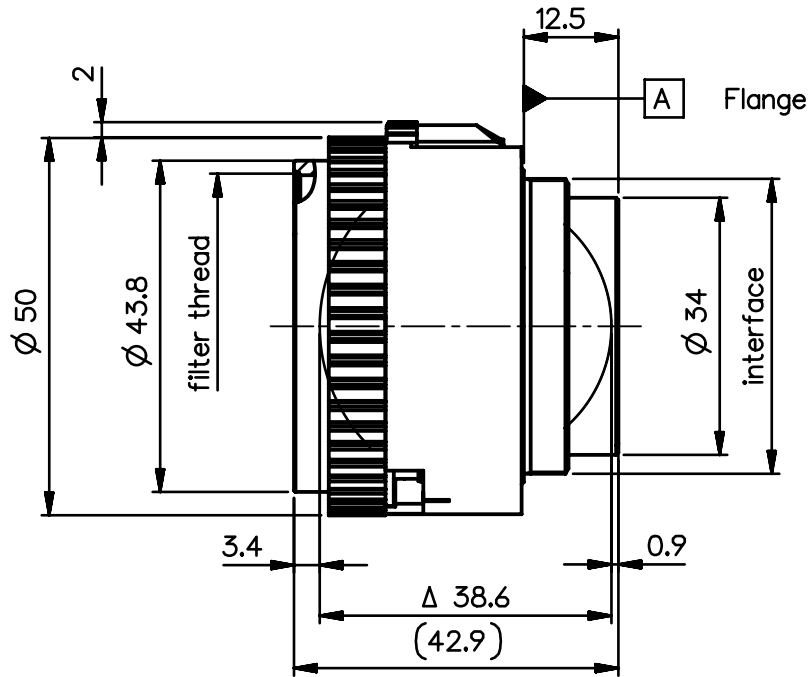
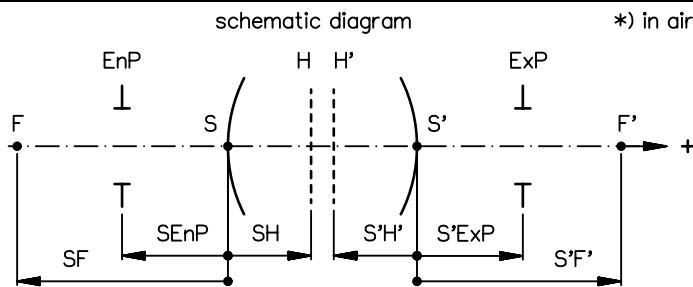


order number	lens name	azimuth	*** spectral range $\lambda$ (nm)
0703-028-000-21	Apo-Rodagon-D 2x 4.5/75	-	400 - 750
0703-028-000-23	Apo-Rodagon-D 2x 4.5/75	marked	400 - 750
0703-028-000-24	Apo-Rodagon-D 2x 4.5/75 NIR	-	900 - 1400



<b>Specification</b>		ON	7604-9083
image circle max. (mm)	86.2	working distance (mm)	138 - 232
focal length $f'$ (mm) *	74.8	interface	M39 x1/26" (Leica)
magnification $\beta'$ [range]	-0.5 [-0.8 ... -0.4]	filter thread	M40.5 x0.5
spectral range $\lambda$ (nm)	***	weight (g)	120

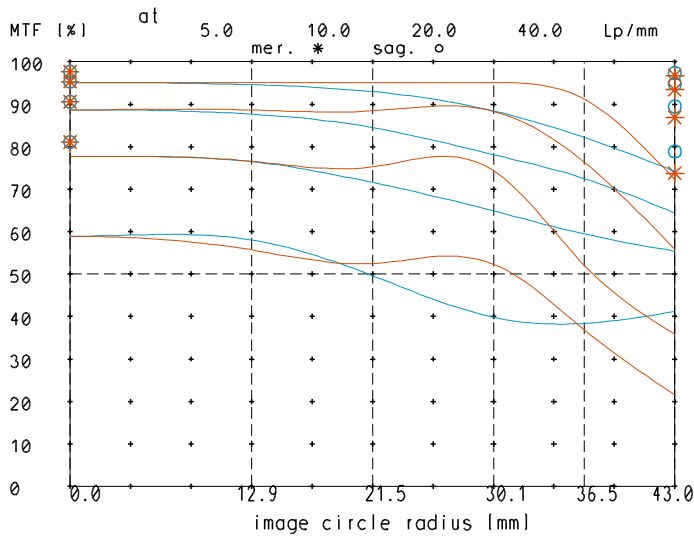


design includes CCD cover glass:		no		
SF (mm)	-48.4	f-stop	$\varnothing$ EnP	$\varnothing$ ExP
S'F' (mm) *	60.5	4.5	16.6	17.5
HH' (mm) *	-2.2	5.6	13.1	13.8
SH (mm)	26.4	8	9.2	9.7
S'H' (mm) *	-14.3	11	6.7	7.0
SEnP (mm)	22.6	16	4.6	4.8
S'ExP (mm) *	-18.4	22	3.3	3.5

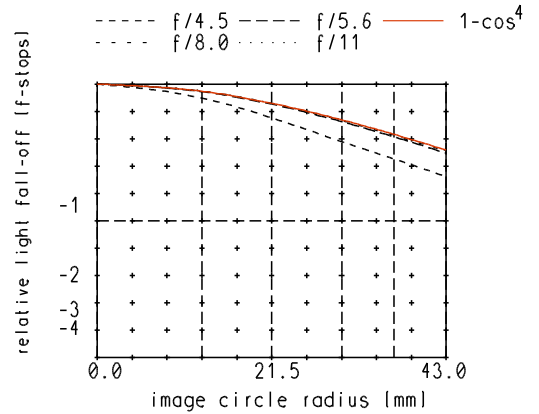
PROTECTIVE NOTE "DIN ISO 16016" TO BE OBSERVED	EU-D	AL-T1A	US-D	US-ML	not export controlled
	REV	ECC	DATE	APPROVED	PDM Status Freigabe
	a	Neuausg	22.07.14	Schiffe	-
	d	14-0184	12.08.14	Schiffe	
			GENERAL TOLERANCE OF DIMENSION, FORM, POS.	SCALE 1:1	
			BASIC TOLERANCING PRINCIPLE	MATERIAL	
			FIRST ISSUE	DATE	NAME
			22.07.14	22.07.14	Schifferer
			CHKD	22.07.14	Stauder
			TITLE		
			Apo-Rodagon-D 2x 4.5/75		
			DRAWING NO.		SHEET 1
			0703-028-100-00-0001d		OF 1
			REPLACES		

# Apo-Rodagon-D2x\_4.5/75

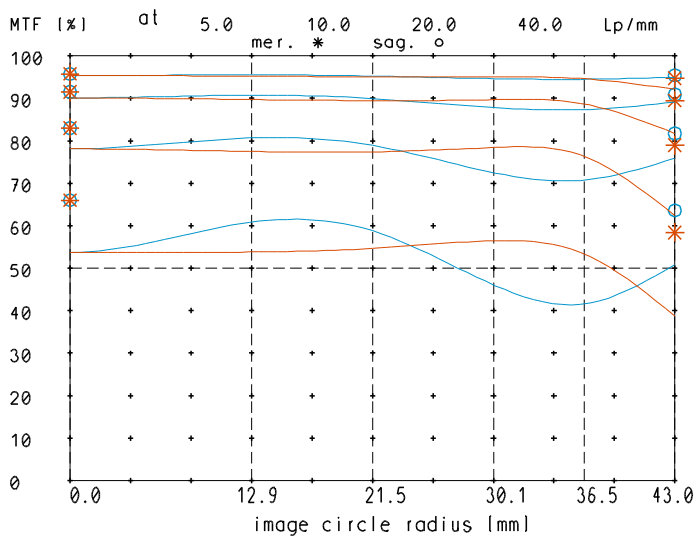
MTF at ratio -0.5 f/ 4.5



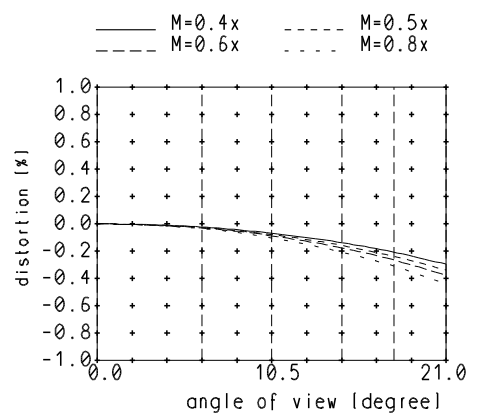
relative light fall-off at ratio -0.5



MTF at ratio -0.5 f/ 8.0

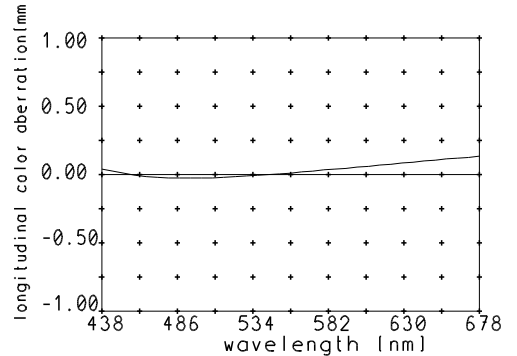


Distortion at ratio 0.4x to 0.8x



— sagittal, o Diffraction limited value  
— meridional \* Diffraction limited value

Longitudinal color aberration at ratio -0.5



Named frequencies (line pairs/mm) in modular transfer function (MTF) as well as diagrams of relative light fall-off, distortion and longitudinal color aberration refer to film plane.