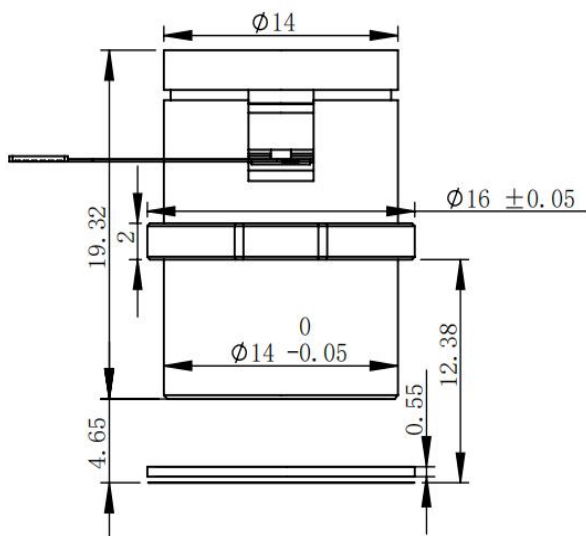


**M0834AFC-B-ZWA Autofocus**

**f8.1 F3.4 2/3" liquid lens**

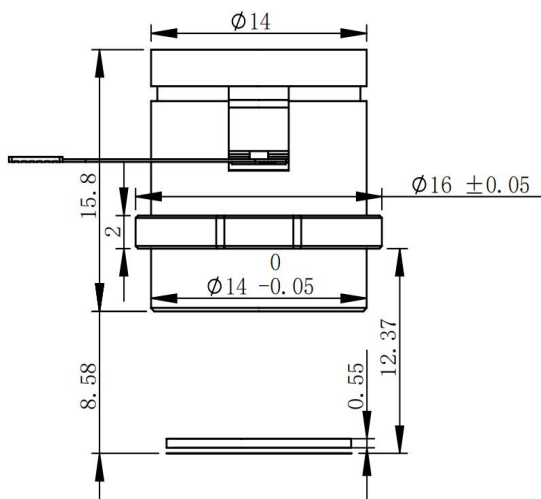
Focal length	8.1mm	570nm, without liquid lens
Focal length (WD 60mm -2m)	7.7-8.2mm	570nm, including liquid lens
FNO(WD=∞)	F3.4	without liquid lens
WFNO(WD=60mm -2m)	F3.4-F3.63	including liquid lens
Image Size	2/3"	Φ11.2mm
FOV	H	56.1°
	V	47.8°
	D	69.8°
Distortion(OPT)	3.5% max	
Working wavelength	435-680nm	
Reference wavelength	570nm	
Working Distance Range	60 mm -2m	
Reference Working Distance	302.3 mm	At this working distance, the optical power of the liquid lens is zero
CRA	18.5°max	
TTL	19.32 mm	
BFL	4.65 mm	include 0.55 mm CG
Image resolution	6MP	
Relative Illumination	70%	
Mount	Φ14	
Temperature Range	-20~ +70℃	
Storage Temperature	-40~ +85℃	



**M1238AFC-B-ZWA Autofocus**

**f12 F3.8 2/3" liquid lens**

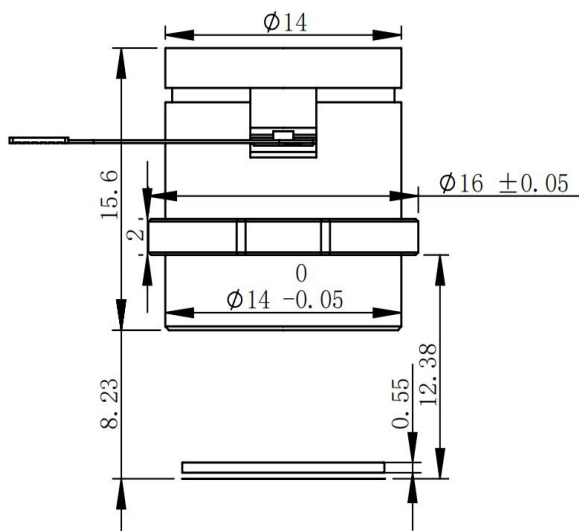
Focal length		12mm	570nm, without liquid lens
Focal length (WD 100mm -4m)		11.51-12.26 mm	570nm, including liquid lens
FNO(WD=∞)		F3.8	without liquid lens
WFNO(WD=100mm -4m)		F3.88-F3.9	including liquid lens
Image Size		2/3"	Φ11.2mm
FOV	H	38.1°	8.5*7.12*11.1, WD=300mm, excluding liquid lens
	V	32.2	
	D	48.5°	
Distortion(OPT)		1.0% max	
Working wavelength		435-680nm	
Reference wavelength		570nm	
Working Distance Range		100 mm - 4m	
Reference Working Distance		300 mm	At this working distance, the optical power of the liquid lens is zero
CRA		15°max	
TTL		15.8mm	
BFL		8.58 mm	include 0.55 mm CG
Image resolution		6MP	
Relative Illumination		70%	
Mount		Φ14	
Temperature Range		-20~ +70℃	
Storage Temperature		-40~ +85℃	



**M1643AFC-B-ZWA Autofocus**

**f16 F4.3 2/3" liquid lens**

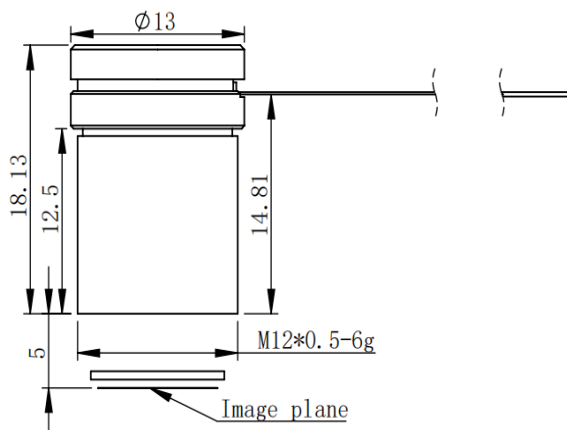
Focal length	16mm	570nm, without liquid lens
Focal length (WD 100mm -1m)	15.0-17.0 mm	570nm, including liquid lens
FNO(WD=∞)	F4.3	without liquid lens
WFNO(WD=100 mm -1m)	F4.6-F4.7	including liquid lens
Image Size	2/3"	Φ11.2mm
FOV	H	27.8°
	V	23.4°
	D	35.8°
		8.5*7.12*11.1, WD=331.8mm, excluding liquid lens
Distortion(OPT)	0.5% max	
Working wavelength	435-680nm	
Reference wavelength	570nm	
Working Distance Range	100 mm -1m	
Reference Working Distance	331.8 mm	At this working distance, the optical power of the liquid lens is zero
CRA	16°max	
TTL	15.6 mm	
BFL	8.23mm	include 0.55 mm CG
Image resolution	6MP	
Relative Illumination	84%	
Mount	Φ14	
Temperature Range	-20~ +70 °C	
Storage Temperature	-40~ +85 °C	



**H1670AFC-A-ZWA Autofocus**

**f16 F6.4 1/1.8" M12 mount liquid lens**

Focal length	16mm	570nm, without liquid lens
Focal length	13.76-17.16mm	570nm, including liquid lens, WD=60mm-8m
FNO(WD=∞)	F6.4	without liquid lens
WFNO(WD=60mm -8m)	F6.9-F7	including liquid lens
Image Size	1/1.8"	Φ9.2mm
FOV	H	25.4°
	V	19.2°
	D	31.5°
Distortion(OPT)	0.2 % max	
Working wavelength	435-680nm	
Reference wavelength	570nm	
Working Distance Range	60 mm - 8m	
Reference Working Distance	198 mm	At this working distance, the optical power of the liquid lens is zero
CRA	15°max	
TTL	18.13 mm	
BFL	5mm	include 0.55 mm CG
Image resolution	6MP	
Relative Illumination	78%	
Mount	M12x0.5	M12*0.5-6g
Temperature Range	-20~ +70°C	
Storage Temperature	-40~ +85 °C	



**H1670AFC-B-ZWA Autofocus**

**f16 F6.4 1/1.8" Φ10mount liquid lens**

Focal length	16mm	570nm, without liquid lens
Focal length	13.76-17.16mm	570nm, including liquid lens, WD=60mm-8m
FNO(WD=∞)	F6.4	without liquid lens
WFNO(WD=60mm -8m)	F6.9-F7.0	including liquid lens
Image Size	1/1.8"	Φ9.2mm
FOV	H	25.4°
	V	19.2°
	D	31.5°
Distortion(OPT)	0.2 % max	
Working wavelength	435-680nm	
Reference wavelength	570nm	
Working Distance Range	60 mm - 8m	
Reference Working Distance	198 mm	At this working distance, the optical power of the liquid lens is zero
CRA	15°max	
TTL	20.75 mm	
BFL	3.83mm	include 0.55 mm CG
Image resolution	6MP	
Relative Illumination	78%	
Mount	Φ10	
Temperature Range	-20~ +70℃	
Storage Temperature	-40~ +85℃	

