L120-DEVKIT

Brief

L120 is 6.7-190mm focal length (28x) motorized zoom lens is designed for 1/1.8" image sensors, has zoom/focus/iris functions, designed for 5M sensors.

Specifications

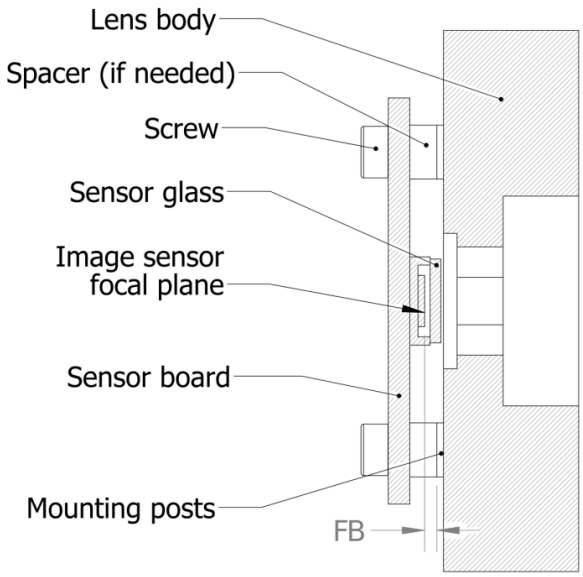
Optics

Image sensor	1/1.8" Effective image area > 9.3mm
Focal distance	6.7 ~ 190mm / ±5%
Aperture	f/1.6 ~ f/4.7
Focus range	• WIDE: 0.1m - infinity • TELE: 1.0m - infinity
Field of view (D=8.26mm)	• WIDE: 65.5° • TELE: 2.4°
Distortion	• WIDE: -1.08% • TELE: 0.35%
Recommended image sensor	IMX385

Mechanics

Flange back (**FB**, see diagram below)	-1.0mm (in glass t=0.3 IRCF)
Lens zoom structure	The stepper motor is directly connected to the screw
Lens focusing structure	The stepper motor is directly connected to the screw
Lens size	• Length: 119mm • Width: 50mm • Height: 50mm • Front end diameter: 43mm
Weight	194g (+controller 7.6g)

In order to accommodate different image sensors, the focal distance is set back by flange back (FB) distance. The actual distance for a specific sensor has to be calculated and spacers used. If the image plane is not set correctly, focus irregularities in the projected picture are expected.



Motor specifications

Screw pitch	0.4mm
Spiral rotation direction	Right
Rated voltage	5.0 VDC
Coil resistance	• Zoom: 55Ω ± 10% / phase (T=25°C) • Focus: 55Ω ± 10% / phase (T=25°C)
Phase count	2
Step angle	• Zoom: 18° / step • Focus: 18° / step
Operating temperature range	-30°C ~ +70°C

Position alignment sensor PI

Model number	GP1S093HCZ0F SHARP

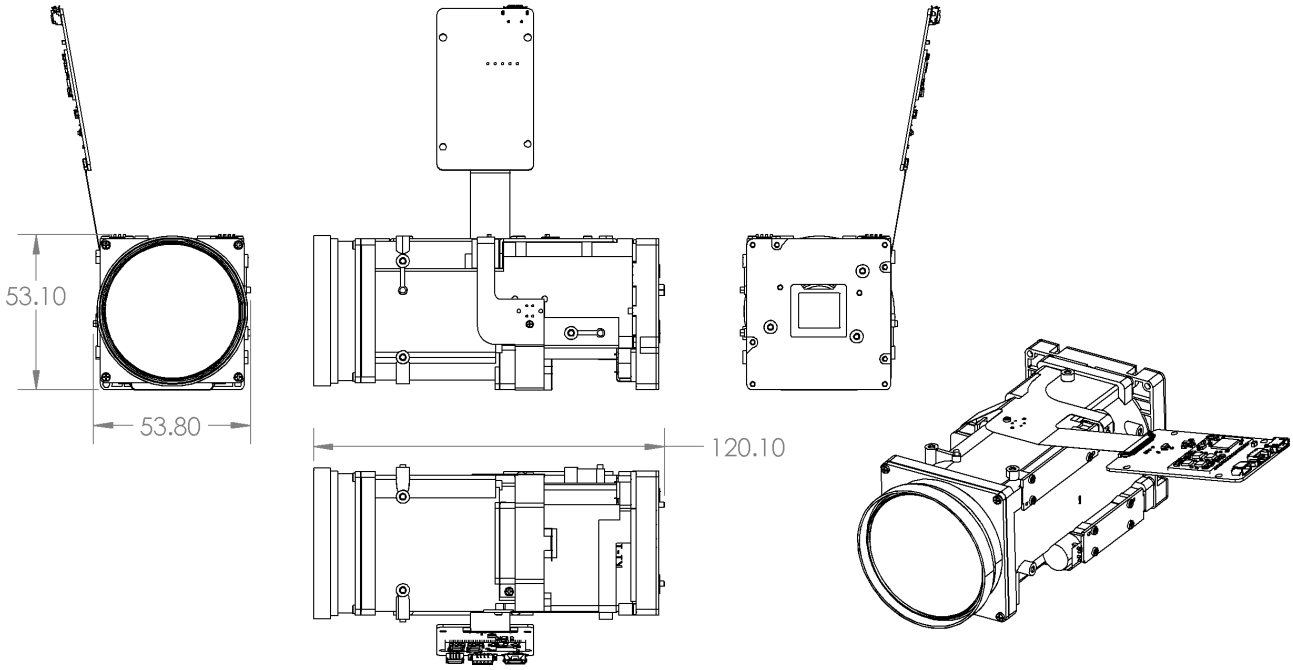
Iris

Driving resistance	120Ω ± 10% (T=20°C, 65% RH)
Braking resistance	120Ω ± 10% (T=20°C, 65% RH)
Close to open operation	3.5 ~ 5.0V
Open to close operation	0 ~ 0.8V

IR switch

Coil resistance	22.5 ± 10% (T=20°C)
Operation voltage	4.5 ~ 5.0V
Current consumption	144 ~ 200mA
Filter thickness	0.3mm
Switching time	200 ~ 500ms
Filters	• Open air • 380 ~ 650nm (T_{AVG} >90%)

Dimensions



More detailed documentation coming soon!

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