

# SA19L

## Athermal Ge Lens

### Technical Data



Suzhou Grand Sensor Inc.

Module		SA19L	Detect	Identify	Verify
Focus Length		19mm			
F number		F1.0			
Lens mounting		M25*0.5			
Lenses back distance range		12.8/18.5mm			
Idoneity of detector diagonal		≤14mm			
FOV (H×V)	17μm384×288	19.5 °×14.7 °			
	25μm384×288	28.4 °×21.5 °	700m	175m	88m
	17μm640×480	32.0 °×25.8 °	1029m	257m	129m
Lenses Structure		2G (spherical*2)	<p>The above data according to the Johnson criterion calculation (1.5 pixels for detection , 6 pixels for identification,12 pixels for verification, the probability is 50%, the contrast of target and background is 1). The target size is calculated based on the critical size of the car( 2.3 meters). The actual range will be affected by other factors such as attenuation vary, different climatic conditions, the thermal sensitivity of the detector pixel, noise, image algorithm, target background difference.</p>		
Lenses Material		High pure Ge Mono crystal			
Operating Wave length (μm)		8 ~ 14			
Distortion		< 7.5%			
Central MTF		0.75 @20 line to/mm			
Marginal MTF		0.55@20 line to/mm			
Lens coating		AR			
Coating transmissivity		96%			
Bets imaging range		0.3m ~ ∞			
Focusing		Athermal Fixed			
Intercept		9mm			
Exposed parts waterproof		Yes			
Operating temperature		-40°C ~ +60°C			
Weight		31g (No lens cover)			
Max diameter		Φ29mm			
Length		26.5mm			
Aperture		Fixed circular aperture			
Standard accessories		Front cover			

