

## LWIR A-Thermal – commercial off the shelf lens

# FALCON

19 mm F/0.9 LWIR A-Thermal Lens  
for large FPA detectors



### FEATURES / APPLICATIONS / CAPABILITIES

- True A-Thermal lens for -40°C to + 62°C temperature range
- Rugged design for harsh environments
- High sensitivity F# as low as 0.9, supporting multiple detector formats
- Optimized for DVE applications and other remote driving applications

PARAMETER		VALUE	NOTES
Main	Sub		
<b>OPTICAL</b>			
<b>Focal Length / F#</b>		19 mm / F0.9	Nominal values.
<b>Detector (FPA) type / size</b>		1024 x 768 pixles x17μ or smaller	
<b>FOV (degrees)</b>		FOV: 48° (H) x 36° (V)	640 x 480 pixles x 25 microns
		FOV: 28.4° (H) x 21.5° (V)	384 x 288 pixels x 25 microns
		FOV: 32° (H) x 26° (V)	640 x 480 pixles x 17 microns
		FOV: 52.25° (H) x 39.2° (V)	1024 x 768 pixles x17 microns
<b>Optical Coatings</b>			
	<b>All internal surfaces</b>	High efficiency AR coating	Average transmission: 84%
	<b>Front surface</b>	DLC coating	Hi durability AR coating is optional
<b>Optical Total lens track</b>		86.8 mm / 12 mm	To FPA. Assuming 1mm Ge cover glass
<b>MECHANICAL</b>			
<b>Mechanical Back Focal Length</b>		11 mm	To FPA. Assuming 1mm Ge cover glass
<b>Total Weight</b>		280 gram	Nominal
<b>External Dimensions</b>		Front Diameter: 58 mm; Rear Diameter: 45 mm Length: 70 mm	
<b>Mount/ Mechanical Interface</b>		Please refer to MICD	Custom interfacing, available upon request
<b>ENVIRONMENTAL</b>			
<b>Operating Temperature</b>		-40°C to +62°C	A-Thermal lens over the entire working range
<b>Storage Temperature</b>		-40°C to +70°C	
<b>Shock and Vibrations</b>		Per applicable standard	
<b>Front lens sealing</b>		IP67	By request