

# KOLO FL1 Series Mid and Long-Range Day/Night Cameras



## FL1 Series

FL1 Mid and long-range day and night cameras are advanced and powerful systems designed for fixed installations or mounted on positioning systems. Capable of displaying and capturing crispy and full-detail video over long distances. Perfect for Blue Line surveillance, border control, and other long-distance demanding projects.

Best image definition powered by long-range optical zooms up to 80X optical zoom and focal length up to 1000mm to provide accurate information in long distances, recognition, and detection of intruders kilometers away supported by EIS (video stabilization), fog filter, and optical defogging.



## Key Features

- 2mp. resolution
- Advanced super low lux Starvis back-illuminated CMOS sensors
- 80X IR-corrected optical zoom, 25-2000mm.
- Narrow FOV up to 0,18°
- Up to 120fps. video
- High-performance AF lens
- TFC design for high-temperature environments
- H.265, H.264, Mjpeg compression
- WDR, HLC, BLC, AWB
- Optical defogging and fog filter
- EIS video stabilization for perfect image video stability
- Near Infrared video
- On-board video analytics
- DC power
- Onvif 2.5 and Profile S, G, T, M
- Serial communication RS485/Pelco D

**Specifications:**

<b>MODEL</b>	<b>FL1224</b>	
<b>CAMERA</b>	Type	Long range Day/night network camera
	Sensor	1/2" Sony Exmor CMOS Starvis
	Resolution	1920x1080 / Full HD
	Focal length/factor	25-2000mm.
	F. number	F. 7
	HFOV	15.1°- 0.18°
	Min. illumination	Color: 0.006Lux - B/W : 0.0006Lux 30/25fps. Color: 0.012Lux - B/W : 0.0012Lux 60/50fps. Color: 0.024Lux - B/W : 0.0024Lux 120/100fps.
	S/N ratio/WDR	≥55dB./120dB.
	Zoom travel speed	6 sec. for full travel
<b>VIDEO</b>	Video compression	H.265/H.264 baseline, main profile, high profile, Mjpeg,
	Video streams	Triple
	Bitrate	1024-8,384Kbps., customizable
	Optical defogging	Night Mode 750nm~1100nm channel optical defog
	Day/night	Active, passive, day, night, scheduled
	Focus type	Auto, manual, one push, multiple focus options
	Frames/second	H.265/H.264: Max. 60/50fps.(AI on), Max. 120/100fps.(AI off) MJPEG: Max. 15fps./12fps.
	Image settings	WDR, HLC, BLC, AWB, Optical defog, EIS, ROI (6)
	Digital zoom	16X
<b>GENERAL</b>	Network	RJ45 10/100/1000 Mbps Ethernet
	Network protocols	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP (TCP,UDP unicast)
	Local storage	Micro SD max. 1Tb.
	Platform	Onvif 2.5, Profile S, G, T, M, SDK included
	Working temperature	-32°/55°C
	Humidity	0-95% RH not condensing
	Power	12v. DC
	VMS	KOLO VMS and 3rd. party compatible
	IVS	Classify: Person/Face/Vehicle/License plate Attributes: Vehicle Type: car/bus/truck/motorcycle/bicycle Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Fog detection, Shock detection, Virtual area(Appear/Disappear)
	Protocols	Pelco D/P
	RS485	Yes
	Alarms in/out	1/1
	Waterproof	IP66
	Cable kit	Included complete matting connectors
	Weight	19,4Kg.
Size	650x240x245mm.	

## **Visible/NIR Optical Camera**

FL1 Series is designed and optimized for long-range surveillance. Using large size progressive scan CMOS sensors to capture more light and perform better in low lux scenarios, able to perform perfectly under 0,006 Lux. FL1Series also integrates the latest technology in real-time image processing such as BLC, HLC, WDR, EIS, 2/3D DNR, Near Infrared video and fog penetration filter.

## **HD resolution video up to 120fps.**

FL1 Series cameras are best in class providing high-definition images in your surveillance applications, now able to provide video in multiple fps. speed, providing up 120fps. speed to ensure crispy and super clear video in fast-moving objects.

## **Long-Range Zoom Lenses**

Select from available lens options, all AIKOLO advanced zoom lenses include several AF speeds modes, and available zoom up to 80X providing narrow FOV as small as 0,18°.

## **High performance Japanese made lens / TFC, ready for high temperatures**

High quality and outstanding Japanese made long range zoom lens. Designed for demanding application where very long distances shall be achieved. Designed with TFC tolerance to be used in high temperature environments.




## **EIS video stabilization, advanced motion detection and AI**




FL1 Series include advanced video analysis, AI and digital video stabilization and turbulence mitigation taking security cameras to a next level.

AIKOLO cameras are now including advanced video analytics to make the cameras smartest than ever, set the cameras to help in different risk auto-detection:

- **Tripwire**
- **Classified object type: Person/Face/Vehicle/License plate**
- Attributes: Vehicle type: car/bus/truck/motorcycle/bicycle**
- **Analytics events based on AI engine**
- Object detection, Virtual line Crossing/Direction, Virtual area Loitering/Intrusion/Enter/Exit**
- **Analytics events**
- Defocus detection, Motion detection, Fog detection, Shock detection, Virtual areaAppear/Disappear**

## Day and Night - DRI Distances

Recognition 32 pixels/target 2000mm. lens		
Boat 8x3m.		57,87 km.
Vehicle 2.3x2.3m.		36,76 km.
Human 1.8x0.5m.		28,77 km.

Identification 64 pixels/target 2000mm. lens		
Boat 8x3m.		19.16 km.
Vehicle 2.3x2.3m.		18,38 km.
Human 1.8x0.5m.		14,39 km.

\* AI classification metadata compatibility with 3rd. party VMS is base in Onvif Profile M.  
 \* Different light/environment conditions may affect to the lens performance.  
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