

# FD360IR-E

## High-definition 6 MP outdoor fisheye camera with D/N and IR

- ✓ 1/1.8" Progressive CMOS
- ✓ 6MP @ 30 fps
- ✓ Quad-stream H.264 and MJPEG video
- ✓ Day/Night with IR-cut filter
- ✓ Built-in IR illuminator (effective distance: 5 m)
- ✓ 24 Vdc, 12 Vdc, PoE (802.3af)
- ✓ ONVIF Profile S conformant



### Description

The FD360IR-E is an 6MP HD bullet camera with built-in IR illumination providing clear images under any lighting condition. With its cable-managed bracket, IP66 construction, IK10 vandal resistant housing and fixed lens, installation is fast and easy, and remote adjustment is simple.

### Multistream high definition

The camera has quad-stream capability for simultaneous streaming of H.264/H.264 or H.264/MJPEG. Multiple combinations of resolution and frame rate can be configured to satisfy different live viewing and recording scenarios. 6 Mpixel resolution is available at 30 fps, a full-HD 1080p stream at 60 fps can be combined with a HD stream at 60 fps. Each selected resolution-frame rate combination can be freely set to a stream number.

### Open standards

Multiple options are available to easily integrate the FD360IR-E to a video management system. In support of open standards, the camera is compliant with the ONVIF Profile S specification.

### Image enhancement

The FD360IR-E provides automatic day/night functionality with configurable thresholds and built-in IR illuminator, for use in low-light situations. Backlight compensation enhances image visibility in difficult lighting situations. The FD360IR-E provides two modes for wide dynamic range. The first mode uses different gain ratios for different illuminated areas to bring details in the darker areas of an image without saturation in the brighter parts. The second mode uses a 2 shutter mechanism which applies two different exposure settings to capture both darker and lighter areas with excellent details. The resulting image is the optimal aggregation of both exposures. The available image enhancement methods ensure quality pictures at all times.

### Power source choices

The FD360IR-E can be powered by 12 Vdc, 24 Vdc, or over the network with 802.3af-compliant PoE sources.

### Privacy masks

Privacy masks cover sections of the image. This feature is often requested for such situations as city centre surveillance and point of sale keypads.

# FD360IR-E

## Technical specifications

Camera	
Image sensor	1/1.8" Progressive CMOS 6 MP
Effective pixels	3072(H) x 2048(V)
Minimum scene illumination	0.04 Lux @ F2.0 colour, 0.002 lux @ F2.0 (b/w), 0 lux with IR
Shutter speed	1 ~ 1/10.000 sec
Lens	1.55 mm, F2.0
Lens type	Fixed Iris
Horizontal field of view	185°
Functions	
Privacy masks	5
Text and picture overlay	Date, time, date & time, text string (40 characters), subtitles (3 boxes, 40 characters each)
Video motion detection	On, Off, By schedule
Video motion detection alarm	Alarm output, record video clip, send alarm message, upload image
Network failure detection	On, Off, By schedule
Network failure detection alarm	Alarm output, record video clip, send alarm message
Tamper detection	On, Off, By schedule
Tamper detection alarm	Alarm output, record video clip, send alarm message, upload image
Time laps	On/Off
Time laps action	Upload image
Recording	On, Off, By schedule
Recording destination	SD card/ Network share
Image control	
Wide dynamic range	Off, low, mid, high
Exposure	Auto, Manual
White balance	Auto, ATW, Manual, One push
Contrast	Manual
Brightness	Manual
Saturation	Manual
Hue	Manual
Sharpness	Manual
Day/Night function	Auto, Night, Day, Light sensor, IR light compensation, Configurable day/ night threshold levels, Smart
Noise reduction	Off, 3DNR (low, medium, high), 2DNR (On/Off), ColorNR (low, medium, high)
Backlight compensation	On/Off
Image rotation	Normal, Flip, Mirror, 180° Rotate, 90° clockwise, 90° counterclockwise



# FD360IR-E

## Technical specifications

Video	
Compression algorithm(s)	H.264 (baseline / main / high profile); MJPEG
Number of compression instances	Quad stream. Any combination of H.264 streams with possibly one MJPEG stream.
Output streams	Any output stream can be freely configured to one of the resolution/frame rate formats.
Supported resolutions	3072x2048; 2048x2048; 1920x1080 (1080p); 1600x1200; 1408x1408; 1280x1024; 1280x720 (720p); 1024x768; 960x960; 960x720; 960x554; 800x600; 720x480 (D1); 640x480; 352x240
Compression capabilities	
In-camera dewarping	H.264 in 2048x2048 or MJPEG in 1080p (25/30fps) H.264 in 2048x2048 (20fps) + H.264 or MJPEG in 1080p (20fps)
Back-end dewarping	H.264 in 3072x2048 or MJPEG in 1080p (25/30fps) H.264 in 3072x2048 + H.264 or MJPEG in 720p (25/30fps) H.264 in 1080p (50/60fps) + H.264 in 1280x1024 (25/30fps) + H.264 or MJPEG in 720p (25/30fps) H.264 in 1080p (50/60fps) + H.264 in 1280x1024 (25/30fps) + H.264 in 720p (25/30fps) + H.264 or MJPEG D1 (25/30fps)
MJPEG	One of the above resolution formats in each instance can be MJPEG instead of H.264 if the resolution is lower than or equal to 1920x1080
Compression bit rate control	Constant bit rate (CBR), variable bit rate (VBR)
Output bit rate (per H.264 stream)	Up to 20480 kbit/s
Total H.264 output	26624 kbit/s
Number of video output streams	Up to 20 (RTSP)
Total output data rate (max)	50000 kbit/s
Video frame rate	1 to 30 fps / 1 to 25 fps
Analogue video output	PAL/NTSC
Connector type	BNC (1.0 Vpp in 75 Ω)
Audio	
Two-way audio	Line in, Line out
Compression	G.711 (μ-law, a-law) / G.726 / AAC / PCM
Bit rate	G.711: 64 Kbps G.726: 16 Kbps, 24 Kbps, 32 Kbps, 40 Kbps AAC: 128 Kbps PCM: 128 Kbps, 256 Kbps, 384 Kbps, 768 Kbps
Sample rate	G.711: 8 KHz / G.726: 8 KHz
Input level, Output level	Adjustable gain
Connector type	Female phone jack, ø 3.5 mm on breakout cable
Alarm inputs/output	
Input	0 - 5 V, 10 kΩ pull-up
Output	Photo relay output 300 Vdc/ac
Operational modes	Normally open; normally closed
Connector type	Multifunction terminal block (D+, D-)
Storage	
Storage options	Supports up to 64 GB capacity of SD/SDHC/SDXC memory (fat32)
Network storage	NAS
Network	
Interface(s)	10/100/1000 Ethernet
Network protocols	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, IGMP, PNAC (IEEE 802.1x), QoS

# FD360IR-E

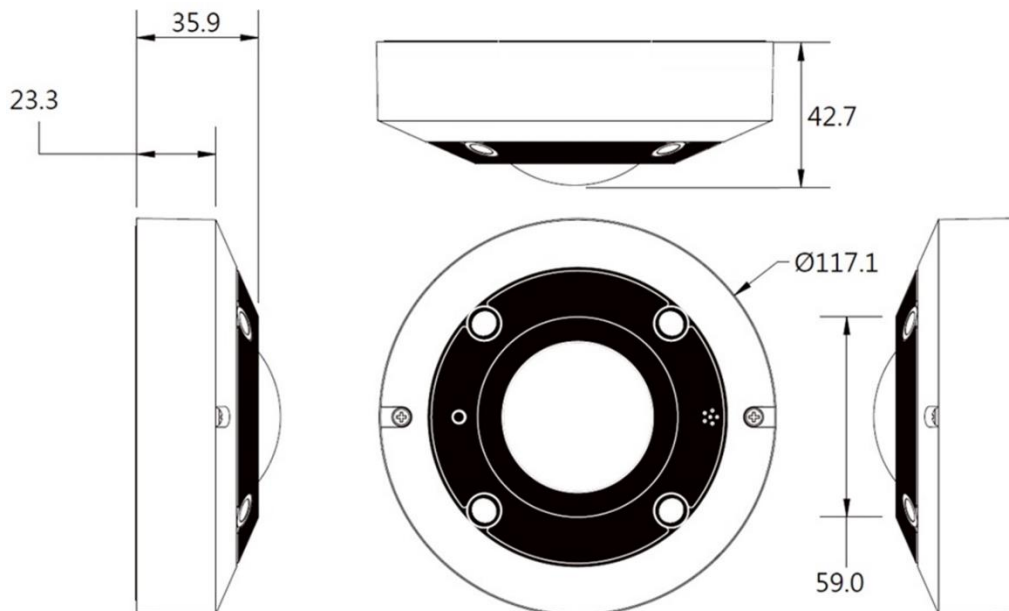
## Technical specifications

Connector type	RJ-45 on breakout cable
<b>Management</b>	
Supported browsers	Internet Explorer (6.0+), Chrome, Firefox, Safari
Security	HTTPS, IP Filter, PNAC (IEEE 802.1x)
Protocols	UPnP, SNMP, ONVIF Profile S
Password levels	User and Administrator
User accounts	20
<b>Powering</b>	
Power consumption	Max. 9 W
Power	12 Vdc / 24 Vdc / PoE (802.3af)
Connector type	
<b>Environmental</b>	
Operating temperature	-10°C ~ +50°C (14°F to 122°F)
Relative humidity	10% to 90%, no condensation
<b>Mechanical</b>	
Dimensions	117 x 43 mm (4.61 x 1.69 In)
Weight	0.47 kg (1.04 lbs)
Color	RAL 9003 (Signal white)
Built-in IR illuminator	
- Working distance	Up to 5 m
- Wavelength	850 nm
- Number of LEDs	4
Ingress protection	IP66
Impact rating	IK10
<b>Ordering information</b>	
FD360IR-E	High-definition 6 MP outdoor fisheye camera with D/N and IR
WM09	Wall mount
CM16	Flush mount kit for FD360
<b>Accessories</b>	
WM09	Wall mount for FD810/CD810/CD820/FD360E/IFD8xx
	
CM16	Flush mount kit for FD360
	

# FD360IR-E

Technical specifications

## Dimensions



The quality management system used in the development, production, sales, and support of this product is ISO 9001 certified by LRQA.

© Siquira B.V. 2018 - Version 1.4 - Subject to modification.

