DATASHEET

CM93-IP • CM93-NDI CM93-DAV

The standard in **4K60** PTZ cameras

The CM93 is the most versatile PTZ camera from Avonic, delivering 4K Ultra HD output at 60fps. Designed for fixed installations, the CM93 comes with 30x zoom in 4K Ultra HD and 50x zoom in Full HD. Available as IP, NDI®|HX or Dante AV-H, setting the new standard in ultra-low latency.

4K60FPS

30x PTZ camera with 4K Ultra HD output at 60fps

The new standard in 4K PTZ cameras boasts a 59.2°-degree wide-angle lens and simultaneous HDMI 2.0, 3G-SDI, USB 2.0, and IP stream outputs. The high-quality Sony CMOS sensor with HDR support has the ability to deliver pristine image quality, even under low and challenging light conditions.

Pan, Tilt, and Zoom your way into outstanding high-quality 4K video content with Avonic's CM93-IP, CM93-NDI or CM93-DAV PTZ Camera.

Applications

- Education
- Large Conferencing
- Video Conferencing
- Worship
- Webcast
- Broadcast

FEATURES

Fast over IP

Distribute high-quality video over IP, fast and reliable with close to zero latency. This new standard in ultra-low latency encoding, using open standards like H.264 and HVEC. is the closest thing to real-time available on the market today. Less delay means a better experience for everyone watching. From streaming and recording lectures and large conferences to healthcare applications.

Fluent 4K60 video

With 60 frames per second, the Avonic CM93 delivers high-quality 4K Ultra HD output. A big difference with the standard 4K 30fps PTZ cameras being used in fixed installations. Processing image with 60 frames per second, provides a pristine image quality via simultaneous video outputs.

Every environment

Most cameras have a hard time coping with changing lighting conditions during the day affecting the video output. The high-quality glass lens with 30x Zoom, captures images with superb sensitivity and natural color rendering, achieving pristine image quality even under the most challenging light conditions.

Tested and validated

Avonic cameras are tested and validated with many leading brands in the Pro-AV industry like Bosch, MVI, Televic, Skaarhoj, Roland Professional AV, and more. Our interoperability and easy installation, give integrators peace of mind during installation.

AVONIC

SPECIFICATIONS

Camera

Resolution	Up to 4K60
Video Systems HDMI	2160p60, 2160p59, 2160p50, 2160p30, 2160p25, 1080p60,1080p59, 1080p50, 1080i60, 1080i59, 1080i50, 1080p30, 1080p29, 1080p25, 720p60,720p59, 720p50
Video Systems SDI	1080p60, 1080p59, 1080p50, 1080i60, 1080i59, 1080i50, 1080p30, 1080p29, 1080p25, 720p60, 720p59, 720p50
Sensor	Sony 1/1.8",8.42MP, 16:9 High SNR CMOS Sensor
Shutter	Auto/ Manual 1/60th ~ 1/10000th
Scanning mode	Progressive/ Interlace
Zoom/Aperture/Focal lenght	30x zoom*/ F1.6 ~ F11/ 7mm ~ 172mm (+/-5%)
Minimal Illumination	0.05LUX @F1.6
White Balance	Auto, Manual, One Push, Manual 2400 ~ 7100K in 100K steps
Backlight Compensation	supported
Digital Noise Reduction	supported
Signal Noise Ratio	>50 dB
Horizontal FOV	59.2° - 2.5°
Vertical FOV	34.6° - 1.4°
Horizontal rotation	+/- 170°
Vertical rotation	120° (30° down, 90° up)
Pan speed range	0.15° ~ 120° p/sec
Tilt speed range	0.15° ~ 70° p/sec
H&V image flip	supported
Number of presets	255 with 0.1° accuracy
Control	UVC, IR Remote, IP, Serial
Control protocol	PELCO (Serial), VISCA (Serial/ IP), HTTP API (IP)

IP Features

Video coding standard	H.265 / H.264 / MJPEG
H.265 Profiles	main
H.264 Profiles	base, main, high
Main stream resolution	3840x2160/ 1920x1080/ 1280x720
Main stream max framerate	60fps
Main stream bitrate	64 ~ 81920 Kbps
Sub stream resolution	1920x1080/ 720x480/ 640x480/ 640x360/ 320x240
Sub stream max framerate	30fps max
Sub stream bitrate	64 ~ 5120 Kbps
Video bitrate type	CBR, VBR
Supported protocols	RTSP, RTMP, ONVIF, SRT, Multicast, Unicast
Audio standard	AAC
Audio bitrate	32, 64, 96, 128 Kbps
Audio sample rate	48Khz
Audio line in	balanced audio by 5-way Phoenix connector

Input / Output Interface

HDMI output	HDMI 2.0 up to 4K60
SDI output	3G-SDI, 1080p60 max.
USB Output	USB2.0 Type B, 2160p30 max.
Network interface	RJ45 1 Gb.
Serial interface	RS232 mini DIN-8, RS485 2-pin phoenix

General Specifications

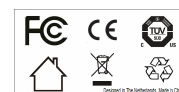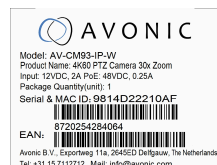|	
Input Voltage	12V
PoE	PoE 802.3AT (PoE+) at 18 watt
Power consumption	18W
Power supply	12V2A
Power connector	EIAJ-4 - Philmore 255 plug
Operating temperature	-5°C ~ 35°C
Storage temperature	-20°C ~ 60°C
Operating humidity	20% ~ 95% non-condensing
Bottom fastening screw thread	1/4" 20 UNC
Features	SRT and Tally Light
Color	Black, White
Dimensions product wxhxd	300 x 235 x 300mm
Weight product	3.5 kg
Dimensions box	30 x 30 x 24 cm
Weight box	3.8 kg
Included	power adapter, remote control, RS232 cable, RS485 2-way Phoenix connector, Balanced Audio, Line-In 5-way Phoenix connector

Versions

Black	CM93-IP-B • CM93-NDI-B • CM93-DAV-B
White	CM93-IP-W • CM93-NDI-W • CM93-DAV-W

CM93-NDI/ CM93-DAV Only

NDI/ DanteStandard	NDI®| HX / Dante AV-H
PTZ control over NDI	Enable via WebGUI

License required features

Feature	Tracking
Tracking distance	0 - 15 meters **
License SKU	AV-LC90-1
License type	Life-time License

*Avonic's Optimal Zoom
** For larger distances CamDirector® Teacher Tracker and two CM70 series required