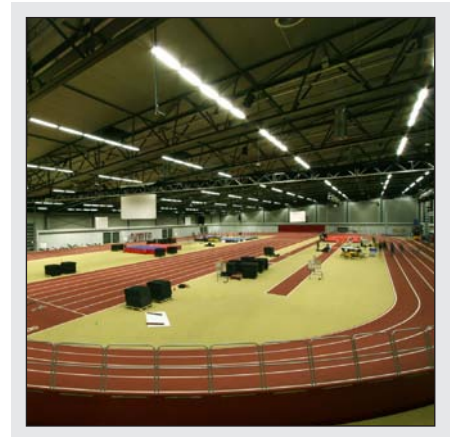


Professional Series



■ Model 5

■ Model 7

■ Model 9

The Model 5, Model 7, and Model 9 cameras of our Professional Series offer customers versatile indoor and outdoor solutions for complete surveillance, no matter the application or project requirements. The Professional Series provides ideal solutions for corporate security needs.

The Model 5 offers several standard and high definition core options, and features our mixed media indoor housing. Our outdoor PTZ housing is a valuable pair for the Model 5, providing complete PTZ capabilities and added protection against harsh weather and outdoor conditions.

The Model 7 and Model 9 offer two dome mounting options – in-ceiling and dome respectively - for superior 360° surveillance. For discrete indoor applications, the Model 7 in-ceiling mount uses the latest technology and tamper resistant housing to deliver high quality images. The Model 9 dome camera, available in either a pendant or wall mount, is ideally suited for outdoor and maritime use and is available with stainless steel corrosion resistant housing.

Available Models:

■ Standard Definition Models

- 5-SD10
- 5-SD18
- 5-SD36

■ High Definition Models

- 5-HD12
- 5-HD20
- 5-HD30



Wall
Mount



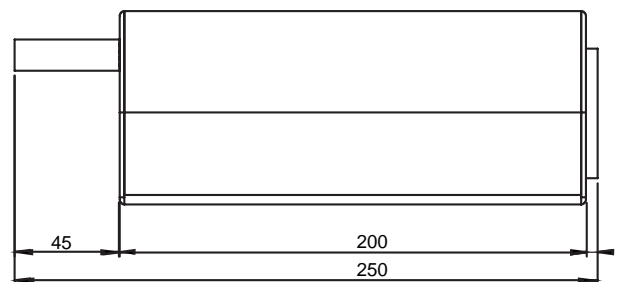
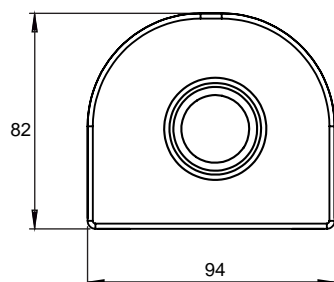
Indoor



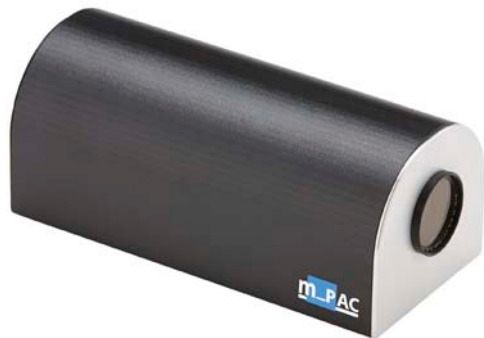
Outdoor

mm

Dimensions
are in
millimeters



Model 5



Highlighted Features



Standard & High Definition



DIS



Wide Dynamic Range



External Optics Compatible



IP Output



PoE Connection



Local Storage



Two-way Audio

Description

The high resolution capabilities of the Model 5 IP cameras are designed for indoor use as well as outdoor area and perimeter security. The highly sensitive HAD CCD sensors and Day & Night ICR functions make it ideal for extremely low light applications. The Model 5 also offers integrated motion detection and privacy zone masking for superior surveillance capabilities.

The Model 5 comes standard in our unique anodized aluminum mixed media indoor housing, available in white, black, silver, red or blue. For advanced outdoor applications, the Model 5 can be paired with our outdoor PTZ housing and external lenses to increase optical zoom capabilities.

Housing and Mounts



Indoor



Outdoor



Wall Mount



IP 67 External Fixed Housing



IP 67 External PT Housing



Maritime Mount

Suggested Applications

- Air and Sea Port Facilities
- Banking and Treasuries
- Commercial Real Estate
- Educational and Research Facilities
- Energy Infrastructures
- Governmental Facilities
- High Security Facilities
- Stadiums, Arenas and Public Venues
- Towers and Large Buildings
- Traffic and Transportation Infrastructures

Materials and Finish



Mixed Media



Housing Color



Corrosion Resistant Materials

Certifications



ONVIF



CE Certified



FCC Certified

	5-SD10	5-SD18	5-SD36
Lens			
Image sensor	1/3 Super HAD CCD II	1/4 Ex-view HAD CCD progressive scan	1/4 Ex-view HAD CCD progressive scan
Angle view	52° wide to 5.4° tele	48° wide to 2.8° tele	57.8° wide to 1.7° tele
Lens	10x optical zoom f=5.1mm wide to 51.0mm tele, f1.8 to f2.1	18x optical zoom f=4.1mm wide to 73.8mm tele, f1.4 to f3.0	36x optical zoom f=3.4mm wide to 122.4mm tele, f1.6 to f4.5
Minimum illumination	0.25 lux at 1/50 s (f1.8, 50 IRE) 0.0004 lux at 1/4 s ICR - on	0.7 lux at 1/50 s (f1.4, 50 IRE) 0.01 lux at 1/4 s ICR - on	1.4 lux at 1/50 s (f1.4, 50 IRE) 0.01 lux at 1/4 s ICR - on
Digital zoom	12x (120x with optical zoom)	12x (216x with optical zoom)	12x (432x with optical zoom)
Shutter	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps
TV lines	530 TVL	550 TVL	550 TVL
Video			
Compression	H.264 dual stream	H.264 dual stream	H.264 dual stream
Bit rate	16k to 1Mbps controllable	16k to 1Mbps controllable	16k to 1Mbps controllable
Video resolution	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)
Frame rate	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)
Image enhancement	auto white balance, AGC, backlight compensation, auto exposure	auto white balance, AGC, backlight compensation, auto exposure, 2D/3D noise reduction, auto WDR	auto white balance, AGC, backlight compensation, auto exposure, 2D/3D noise reduction, auto WDR, digital image stabilizer
Audio			
Audio input	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p
Audio output	one channel, RCA interface, linear output	one channel, RCA interface, linear output	one channel, RCA interface, linear output
Audio compression	G.726, G.711, ADPCM	G.726, G.711, ADPCM	G.726, G.711, ADPCM
Alarm System Integration			
Alarm input	one channel on/off input NO/NC	one channel on/off input NO/NC	one channel on/off input NO/NC
Alarm output	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A
Serial port	RS485 transparent protocol	RS485 transparent protocol	RS485 transparent protocol
Recording	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule
Network and Storage			
Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPoE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPoE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPoE, SMTP, UPNP
Web browser	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above
Wireless protocols	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)
SD storage	up to 32GB	up to 32GB	up to 32GB
Operating Conditions			
Operating temp.	-10° C ~ +60° C	-10° C ~ +60° C	-10° C ~ +60° C
Storage temp.	-20° C ~ +80° C	-20° C ~ +80° C	-20° C ~ +80° C
Operating humidity	10% ~ 85%	10% ~ 85%	10% ~ 85%
Weight and Dimensions			
Input voltage	12 VDC	12 VDC	12 VDC
Power consumption	6W	6W	6W
Dimensions (cm)	94 x 200 x 82 (L x W X H)	94 x 200 x 82 (L x W X H)	94 x 200 x 82 (L x W X H)
Weight	0.9 Kg	0.9 Kg	0.9 Kg
Colors	anodized aluminum and plastic in black, white, red, blue or silver	anodized aluminum and plastic in black, white, red, blue or silver	anodized aluminum and plastic in black, white, red, blue or silver

	5-HD12	5-HD20	5-HD30
Lens			
Image sensor	1/4-Type CMOS	1/2.8" Exmor CMOS	1/2.8" Exmor CMOS
Angle view	53.4° (wide end) to 2.9° (tele end)	55.4° (wide end) to 2.9° (tele end)	54.1° (wide end) to 2.9° (tele end)
Lens	12x optical zoom f=3.7mm wide to 44.4mm tele, f1.6 to f2.5	20x optical zoom f=4.7mm wide to 94.0mm tele, f1.6 to f3.5	30x optical zoom f=4.6 mm wide to 138.0mm tele, f1.8 to f4.7
Minimum illumination	0.3 lux (f1.6, ICR off) / 0.06 lux (f1.6, ICR on)	0.5 lux (f1.6, ICR off) / 0.095 lux (f1.6 ICR on)	0.5 lux (f1.6, ICR off) / 0.095 lux (f1.6, ICR – on)
Digital zoom	12x (144x with optical zoom)	12x (240x with optical zoom)	12x (360x with optical zoom)
Shutter	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps	1/2 s ~ 1/10,000 s, 21 steps
Effective pixels	1.43 megapixels	3 megapixels	3 megapixels

	5-HD12	5-HD20	5-HD30
Video			
Compression	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG
Bit rate	32Kbps to 8Mbps	32Kbps to 8Mbps	32Kbps to 8Mbps
Video resolution	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 576 (V) / 352 (H) x 288 (V)	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 480 (V) / 720 (H) x 576 (V)	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 576 (V) / 352 (H) x 288 (V)
Signal system	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25
Frame rate	25 fps at full D1 (PAL), 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL), 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL), 30 fps at full D1 (NTSC)
Image enhancement	auto white balance, AGC, backlight compensation, auto exposure, WDR, tour recording, guard tour, auto track, iris control, on-screen display	auto white balance, AGC, backlight compensation, auto exposure, WDR, tour recording, guard tour, auto track, iris control, on-screen display	auto white balance, AGC, backlight compensation, auto exposure, WDR, tour recording, guard tour, auto track, iris control, on-screen display

	5-HD12	5-HD20	5-HD30
Audio			
Audio input	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p
Audio output	one channel, RCA interface, linear output	one channel, RCA interface, linear output	one channel, RCA interface, linear output
Audio compression	G.726, G.711, ADPCM	G.726, G.711, ADPCM	G.726, G.711, ADPCM

	5-HD12	5-HD20	5-HD30
Alarm System Integration			
Alarm input	one channel on/off input NO/NC	one channel on/off input NO/NC	one channel on/off input NO/NC
Alarm output	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A
Serial port	RS485 transparent protocol	RS485 transparent protocol	RS485 transparent protocol
Recording	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule

	5-HD12	5-HD20	5-HD30
Network and Storage			
Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP
Web browser	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above
Wireless protocols	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)
SD storage	up to 32GB	up to 32GB	up to 32GB

	5-HD12	5-HD20	5-HD30
Operating Conditions			
Operating temp.	-10° C ~ +60° C	-10° C ~ +60° C	-10° C ~ +60° C
Storage temp.	-20° C ~ +80° C	-20° C ~ +80° C	-20° C ~ +80° C
Operating humidity	10% ~ 85%	10% ~ 85%	10% ~ 85%

	5-HD12	5-HD20	5-HD30
Weight and Dimensions			
Input voltage	12 VDC	12 VDC	12 VDC
Power consumption	5W	5W	5W
Dimensions (cm)	94 x 200 x 82 (L x W X H)	94 x 200 x 82 (L x W X H)	94 x 200 x 82 (L x W X H)
Weight	0.9 Kg	0.9 Kg	0.9 Kg
Colors	anodized aluminum and plastic in black, white, red, blue or silver	anodized aluminum and plastic in black, white, red, blue or silver	anodized aluminum and plastic in black, white, red, blue or silver

Available Models:

- Standard Definition Models
 - 7-SD10
 - 7-SD18
 - 7-SD36

- High Definition Models
 - 7-HD12
 - 7-HD20
 - 7-HD30



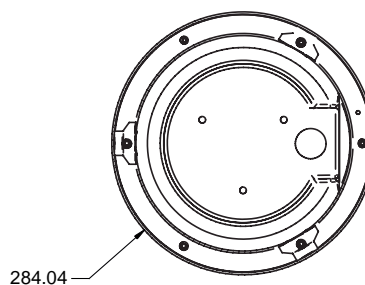
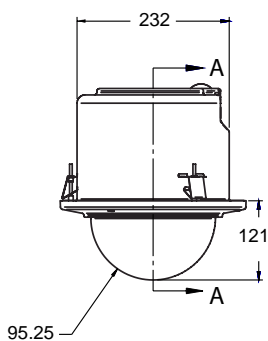
Indoor



Outdoor

mm

Dimensions
are in
millimeters





Highlighted Features



Standard & High Definition



DIS



Wide Dynamic Range



PTZ Capability



IP Output



PoE Connection



Local Storage



Two-way Audio

Description

The Model 7 is offered as an indoor/outdoor in-ceiling camera designed for a variety of surveillance and monitoring applications. The camera is mounted discretely in-ceiling inside a vandal resistant, plenum rated aluminum housing and an impact-resistant polycarbonate dome. During cold weather an internal heater unit enables the camera to continue operating in low temperatures.

The highly sensitive HAD CCD sensors and Day & Night ICR function make the Model 7 suitable for daytime as well as low light applications. Advanced DSP technology, combined with an H.264 compression stream delivers crystal clear images and provides improved picture quality in nearly all lighting conditions

Suggested Applications

- Air and Sea Port Facilities
- Banking and Treasuries
- Commercial Real Estate
- Educational and Research Facilities
- Energy Infrastructures
- Governmental Facilities
- High Security Facilities
- Stadiums, Arenas and Public Venues
- Towers and Large Buildings
- Traffic and Transportation Infrastructures

Housing and Mounts



Indoor



Outdoor



In-Ceiling Mount



High Speed PTZ

Materials and Finish



Aluminum



Tamper Protection



Housing Color



Glass Color

Certifications



ONVIF



CE Certified



FCC Certified



IP Rating

	7-SD10	7-SD18	7-SD36
Lens			
Image sensor	1/3 Super HAD CCD II	1/4 Ex-view HAD CCD progressive scan	1/4 Ex-view HAD CCD progressive scan
Angle view	52° wide to 5.4° tele	48° wide to 2.8° tele	57.8° wide to 1.7° tele
Lens	10x optical zoom f=5.1mm wide to 51.0mm tele, f1.8 to f2.1	18x optical zoom f=4.1mm wide to 73.8mm tele, f1.4 to f3.0	36x optical zoom f=3.4mm wide to 122.4mm tele, f1.6 to f4.5
Minimum illumination	0.25 lux at 1/50 s (f1.8, 50 IRE) 0.0004 lux at 1/4 s ICR - on	0.7 lux at 1/50 s (f1.4, 50 IRE) 0.01 lux at 1/4 s ICR - on	1.4 lux at 1/50 s (f1.4, 50 IRE) 0.01 lux at 1/4 s ICR - on
Digital zoom	12x (120x with optical zoom)	12x (216x with optical zoom)	12x (432x with optical zoom)
Shutter	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps
TV lines	530 TVL	550 TVL	550 TVL
Video			
Compression	H.264 dual stream	H.264 dual stream	H.264 dual stream
Bit rate	16k to 1Mbps controllable	16k to 1Mbps controllable	16k to 1Mbps controllable
Video resolution	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)
Frame rate	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)
Image enhancement	auto white balance, AGC, backlight compensation, auto exposure	auto white balance, AGC, backlight compensation, auto exposure, 2D/3D noise reduction, auto WDR	auto white balance, AGC, backlight compensation, auto exposure, 2D/3D noise reduction, auto WDR, digital image stabilizer
Preset points	128	128	128
Audio			
Audio input	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p
Audio output	one channel, RCA interface, linear output	one channel, RCA interface, linear output	one channel, RCA interface, linear output
Audio compression	G.726, G.711, ADPCM	G.726, G.711, ADPCM	G.726, G.711, ADPCM
Alarm System Integration			
Alarm input	one channel on/off input NO/NC	one channel on/off input NO/NC	one channel on/off input NO/NC
Alarm output	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A
Serial port	RS485 transparent protocol	RS485 transparent protocol	RS485 transparent protocol
Recording	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule
Network and Storage			
Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP
Web browser	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above
Wireless protocols	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)
SD storage	up to 32GB	up to 32GB	up to 32GB
Operating Conditions			
Operating temp.	-10° C ~ +60° C	-10° C ~ +60° C	-10° C ~ +60° C
Storage temp.	-20° C ~ +80° C	-20° C ~ +80° C	-20° C ~ +80° C
Operating humidity	10% ~ 85%	10% ~ 85%	10% ~ 85%
Weight and Dimensions			
Input voltage	24 VAC	24 VAC	24 VAC
Power consumption	20W	20W	20W
Dimensions	Ø 284.04 x 121 (R x H)	Ø 284.04 x 121 (R x H)	Ø 284.04 x 121 (R x H)
Weight	4.6 Kg	4.6 Kg	4.6 Kg
Colors	white, black, silver, blue	white, black, silver, blue	white, black, silver, blue
Glass color	transperant, smoked	transperant, smoked	transperant, smoked

	7-HD12	7-HD20	7-HD30
Lens			
Image sensor	1/4-Type CMOS	1/2.8" Exmor CMOS	1/2.8" Exmor CMOS
Angle view	53.4° (wide end) to 2.9° (tele end)	55.4° (wide end) to 2.9° (tele end)	54.1° (wide end) to 2.9° (tele end)
Lens	12x optical zoom f=3.7mm wide to 44.4mm tele, f1.6 to f2.5	20x optical zoom f=4.7mm wide to 94.0mm tele, f1.6 to f3.5	30x optical zoom f=4.6 mm wide to 138.0mm tele, f1.8 to f4.7
Minimum illumination	0.3 lux (f1.6, ICR off) / 0.06 lux (f1.6, ICR on)	0.5 lux (f1.6, ICR off) / 0.095 lux (f1.6 ICR on)	0.5 lux (f1.6, ICR off) / 0.095 lux (f1.6, ICR – on)
Digital zoom	12x (144x with optical zoom)	12x (240x with optical zoom)	12x (360x with optical zoom)
Shutter	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps	1/2 s ~ 1/10,000 s, 21 steps
Effective pixels	1.43 megapixels	3 megapixels	3 megapixels

	7-HD12	7-HD20	7-HD30
Video			
Compression	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG
Bit rate	32Kbps to 8Mbps	32Kbps to 8Mbps	32Kbps to 8Mbps
Video resolution	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 576 (V) / 352 (H) x 288 (V)	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 480 (V) / 720 (H) x 576 (V)	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 576 (V) / 352 (H) x 288 (V)
Signal system	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25
Frame rate	25 fps at full D1 (PAL) 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) 30 fps at full D1 (NTSC)
Image enhancement	auto white balance, AGC, backlight compensation, auto exposure, WDR, Tour Recording, Guard tour, Auto track, Iris Control, On-Screen Display	auto white balance, AGC, backlight compensation, auto exposure, WDR, Tour Recording, Guard tour, Auto track, Iris Control, On-Screen Display	auto white balance, AGC, backlight compensation, auto exposure, WDR, Tour Recording, Guard tour, Auto track, Iris Control, On-Screen Display
Preset points	128	128	128

	7-HD12	7-HD20	7-HD30
Audio			
Audio input	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p
Audio output	one channel, RCA interface, linear output	one channel, RCA interface, linear output	one channel, RCA interface, linear output
Audio compression	G.726, G.711, ADPCM	G.726, G.711, ADPCM	G.726, G.711, ADPCM

	7-HD12	7-HD20	7-HD30
Alarm System Integration			
Alarm input	one channel on/off input NO/NC	one channel on/off input NO/NC	one channel on/off input NO/NC
Alarm output	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A
Serial port	RS485 transparent protocol	RS485 transparent protocol	RS485 transparent protocol
Recording	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule

	7-HD12	7-HD20	7-HD30
Network and Storage			
Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP
Web browser	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above
Wireless protocols	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)
SD storage	up to 32GB	up to 32GB	up to 32GB

	7-HD12	7-HD20	7-HD30
Operating Conditions			
Operating temp.	-10° C ~ +60° C	-10° C ~ +60° C	-10° C ~ +60° C
Storage temp.	-20° C ~ +80° C	-20° C ~ +80° C	-20° C ~ +80° C
Operating humidity	10% ~ 85%	10% ~ 85%	10% ~ 85%

	7-HD12	7-HD20	7-HD30
Weight and Dimensions			
Input voltage	24 VAC	24 VAC	24 VAC
Power consumption	20W	20W	20W
Dimensions	Ø 284.04 x 121 (R x H)	Ø 284.04 x 121 (R x H)	Ø 284.04 x 121 (R x H)
Weight	4.6 Kg	4.6 Kg	4.6 Kg
Colors	white, black, silver, blue	white, black, silver, blue	white, black, silver, blue
Glass color	transperant, smoked	transperant, smoked	transperant, smoked

Available Models:

■ Standard Definition Models

- 9-SD10
- 9-SD18
- 9-SD36
- 9E-SD10
- 9E-SD18
- 9E-SD36

■ High Definition Models

- 9-HD12
- 9-HD20
- 9-HD30
- 9E-HD12
- 9E-HD20
- 9E-HD30



Maritime
Mount



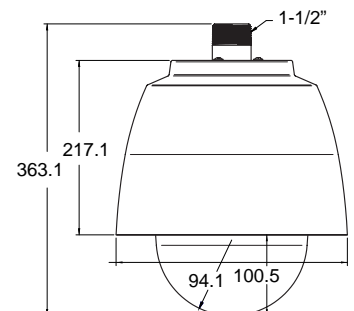
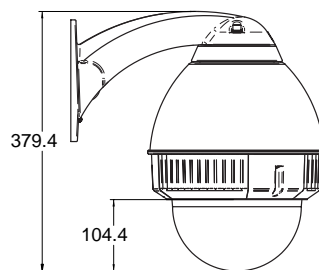
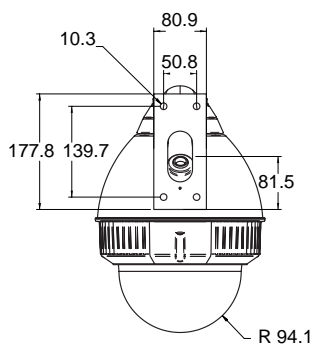
Indoor



Outdoor



Dimensions
are in
millimeters



Model 9



Highlighted Features



Standard & High Definition



DIS



Wide Dynamic Range



PTZ Capability



IP Output



PoE Connection



Local Storage



Two-way Audio

Description

Designed primarily for outdoor area surveillance, the Model 9 is a 360 degree PTZ dome camera. The Model 9 provides superior surveillance with one of our Standard Definition or High Definition camera cores in durable IP66 housing. The Model 9 also offers a ruggedized option, the Model 9 Heavy Duty, which features an IP67 and IK10 rated stainless steel corrosion resistant housing.

All Model 9 cameras feature an easy-install exterior design as well as local storage, PoE, internal temperature control, optional smoked glass. Both the Model 9 and Model 9 Heavy Duty are available with either a pendant or wall mount.

Housing and Mounts



Indoor



Outdoor



Ceiling Mount



Wall Mount



High Speed PTZ



Maritime Mount

Suggested Applications

- Air and Sea Port Facilities
- Banking and Treasuries
- Commercial Real Estate
- Educational and Research Facilities
- Energy Infrastructures
- Governmental Facilities
- High Security Facilities
- Stadiums, Arenas and Public Venues
- Towers and Large Buildings
- Traffic and Transportation Infrastructures

Materials and Finish



Aluminum



Housing Color



Glass Color



Corrosion Resistant Materials

Certifications



ONVIF



CE Certified



FCC Certified



IP Rating



IK Rating

	9-SD10	9-SD18	9-SD36
Lens			
Image sensor	1/3 Super HAD CCD II	1/4 Ex-view HAD CCD progressive scan	1/4 Ex-view HAD CCD progressive scan
Angle view	52° wide to 5.4° tele	48° wide to 2.8° tele	57.8° wide to 1.7° tele
Lens	10x optical zoom f=5.1mm wide to 51.0mm tele, f1.8 to f2.1	18x optical zoom f=4.1mm wide to 73.8mm tele, f1.4 to f3.0	36x optical zoom f=3.4mm wide to 122.4mm tele, f1.6 to f4.5
Minimum illumination	0.25 lux at 1/50 s (f1.8, 50 IRE) 0.0004 lux at 1/4 s ICR - on	0.7 lux at 1/50 s (f1.4, 50 IRE) 0.01 lux at 1/4 s ICR - on	1.4 lux at 1/50 s (f1.4, 50 IRE) 0.01 lux at 1/4 s ICR - on
Digital zoom	12x (120x with optical zoom)	12x (216x with optical zoom)	12x (432x with optical zoom)
Shutter	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps
TV lines	530 TVL	550 TVL	550 TVL
Video			
Compression	H.264 dual stream	H.264 dual stream	H.264 dual stream
Bit rate	16k to 1Mbps controllable	16k to 1Mbps controllable	16k to 1Mbps controllable
Video resolution	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)	NTSC CIF (352x240), QCIF (176x120), full D1 (720x480) PAL CIF (352x288), QCIF (176x144), full D1 (720x576)
Frame rate	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) , 30 fps at full D1 (NTSC)
Image enhancement	auto white balance, AGC, backlight compensation, auto exposure	auto white balance, AGC, backlight compensation, auto exposure, 2D/3D noise reduction, auto WDR	auto white balance, AGC, backlight compensation, auto exposure, 2D/3D noise reduction, auto WDR, digital image stabilizer
Preset points	128	128	128
Audio			
Audio input	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p
Audio output	one channel, RCA interface, linear output	one channel, RCA interface, linear output	one channel, RCA interface, linear output
Audio compression	G.726, G.711, ADPCM	G.726, G.711, ADPCM	G.726, G.711, ADPCM
Alarm System Integration			
Alarm input	one channel on/off input NO/NC	one channel on/off input NO/NC	one channel on/off input NO/NC
Alarm output	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A
Serial port	RS485 transparent protocol	RS485 transparent protocol	RS485 transparent protocol
Recording	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule
Network and Storage			
Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP
Web browser	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above
Wireless protocols	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)
SD storage	up to 32GB	up to 32GB	up to 32GB
Operating Conditions			
Operating temp.	-10° C ~ +60° C	-10° C ~ +60° C	-10° C ~ +60° C
Storage temp.	-20° C ~ +80° C	-20° C ~ +80° C	-20° C ~ +80° C
Operating humidity	10% ~ 85%	10% ~ 85%	10% ~ 85%
Weight and Dimensions			
Input voltage	24 VAC	24 VAC	24 VAC
Power consumption	20W	20W	20W
Dimensions	Model 9: 260.9 x 373.3 x 379.4 (L x W X H) Model 9E: 287.9 x 363.1 (R x H)	Model 9: 260.9 x 373.3 x 379.4 (L x W X H) Model 9E: 287.9 x 363.1 (R x H)	Model 9: 260.9 x 373.3 x 379.4 (L x W X H) Model 9E: 287.9 x 363.1 (R x H)
Weight	Model 9: 5.0 Kg Model 9E: 6.5 Kg	Model 9: 5.0 Kg Model 9E: 6.5 Kg	Model 9: 5.0 Kg Model 9E: 6.5 Kg
Colors	white, black, silver, blue	white, black, silver, blue	white, black, silver, blue
Glass color	transparent, smoked	transparent, smoked	transparent, smoked
Housing	standard, extreme environment	standard, extreme environment	standard, extreme environment

	9-HD12	9-HD20	9-HD30
Lens			
Image sensor	1/4-Type CMOS	1/2.8" Exmor CMOS	1/2.8" Exmor CMOS
Angle view	53.4° (wide end) to 2.9° (tele end)	55.4° (wide end) to 2.9° (tele end)	54.1° (wide end) to 2.9° (tele end)
Lens	12x optical zoom f=3.7mm wide to 44.4mm tele, f1.6 to f2.5	20x optical zoom f=4.7mm wide to 94.0mm tele, f1.6 to f3.5	30x optical zoom f=4.6 mm wide to 138.0mm tele, f1.8 to f4.7
Minimum illumination	0.3 lux (f1.6, ICR off) / 0.06 lux (f1.6, ICR on)	0.5 lux (f1.6, ICR off) / 0.095 lux (f1.6 ICR on)	0.5 lux (f1.6, ICR off) / 0.095 lux (f1.6, ICR – on)
Digital zoom	12x (144x with optical zoom)	12x (240x with optical zoom)	12x (360x with optical zoom)
Shutter	1/1 s ~ 1/10,000 s, 22 steps	1/1 s ~ 1/10,000 s, 22 steps	1/2 s ~ 1/10,000 s, 21 steps
Effective pixels	1.43 megapixels	3 megapixels	3 megapixels
Video			
Compression	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG	H.264 / M-JPEG support dual stream/ MPEG4/ ASP/ MxPEG
Bit rate	32Kbps to 8Mbps	32Kbps to 8Mbps	32Kbps to 8Mbps
Video resolution	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 576 (V) / 352 (H) x 288 (V)	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 480 (V) / 720 (H) x 576 (V)	1920 (H) x 1080 (V) / 1280 (H) x 720 (V) / 720 (H) x 576 (V) / 352 (H) x 288 (V)
Signal system	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25	1080p/29.97, 1080p/25, 1080i/59.94, 1080i/50, 720p/50, 720p/29.97, 720p/25
Frame rate	25 fps at full D1 (PAL) 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) 30 fps at full D1 (NTSC)	25 fps at full D1 (PAL) 30 fps at full D1 (NTSC)
Image enhancement	auto white balance, AGC, backlight compensation, auto exposure, WDR, Tour Recording, Guard tour, Auto track, Iris Control, On-Screen Display	auto white balance, AGC, backlight compensation, auto exposure, WDR, Tour Recording, Guard tour, Auto track, Iris Control, On-Screen Display	auto white balance, AGC, backlight compensation, auto exposure, WDR, Tour Recording, Guard tour, Auto track, Iris Control, On-Screen Display
Preset points	128	128	128
Audio			
Audio input	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p	one channel MIC in or line input unbalanced 1.4 Vp-p
Audio output	one channel, RCA interface, linear output	one channel, RCA interface, linear output	one channel, RCA interface, linear output
Audio compression	G.726, G.711, ADPCM	G.726, G.711, ADPCM	G.726, G.711, ADPCM
Alarm System Integration			
Alarm input	one channel on/off input NO/NC	one channel on/off input NO/NC	one channel on/off input NO/NC
Alarm output	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A	one channel on/off output 120 VAC 1A / 24 VDC 1A
Serial port	RS485 transparent protocol	RS485 transparent protocol	RS485 transparent protocol
Recording	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule	motion trigger, alarm trigger, manual or schedule
Network and Storage			
Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port	10/100M Base-t self-adapting Ethernet port
Protocol	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP	TCP/IP, UDP, RTP, RTSP, RTCP, HTTP, DNS, DDNS, DHCP, FTP, NTP, PPPOE, SMTP, UPNP
Web browser	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above	Internet Explorer 9.0 or above
Wireless protocols	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)	802.11b/g supports WEP, WPA, WPA2 (optional)
SD storage	up to 32GB	up to 32GB	up to 32GB
Operating Conditions			
Operating temp.	-10° C ~ +60° C	-10° C ~ +60° C	-10° C ~ +60° C
Storage temp.	-20° C ~ +80° C	-20° C ~ +80° C	-20° C ~ +80° C
Operating humidity	10% ~ 85%	10% ~ 85%	10% ~ 85%
Weight and Dimensions			
Input voltage	24 VAC	24 VAC	24 VAC
Power consumption	20W	20W	20W
Dimensions	Model 9: 260.9 x 373.3 x 379.4 (L x W X H) Model 9E: 287.9 x 363.1 (R x H)	Model 9: 260.9 x 373.3 x 379.4 (L x W X H) Model 9E: 287.9 x 363.1 (R x H)	Model 9: 260.9 x 373.3 x 379.4 (L x W X H) Model 9E: 287.9 x 363.1 (R x H)
Weight	Model 9: 5.0 Kg Model 9E: 6.5 Kg	Model 9: 5.0 Kg Model 9E: 6.5 Kg	Model 9: 5.0 Kg Model 9E: 6.5 Kg
Colors	white, black, silver, blue	white, black, silver, blue	white, black, silver, blue
Glass color	transperant, smoked	transperant, smoked	transperant, smoked
Housing	standard, extreme environment	standard, extreme environment	standard, extreme environment