

Your intelligent mini-dome camera, delivering clear and detailed images. Designed for security.

SNC-DF/85P/80N/80P/50P Network Mini-Dome Cameras

**SONY**



# Introducing Sony's **SNC-DF85/80/50** intelligent mini-dome camera lineup.

## Why choose the SNC-DF85/DF80/DF50 Network Mini-dome Cameras

Sony's SNC-DF85/DF80/DF50 is an intelligent mini-dome camera lineup, designed for a variety of surveillance and monitoring applications. The SNC-DF50 offers a wide dynamic range; the SNC-DF80 offers a tough camera body and Day/Night function; the SNC-DF85 combines the benefits of both.



Ideal for outdoor applications the SNC-DF85/DF80

heavy-duty aluminum die-cast enclosure with impact-resistant polycarbonate dome, provides

protection against vandalism and

guards against damage from

dust and water ingress. The

optional heater\* enables the

camera to operate down to

-40° C (-40° F). The camera's

Day/Night function provides

clear monitoring images in

low light conditions.

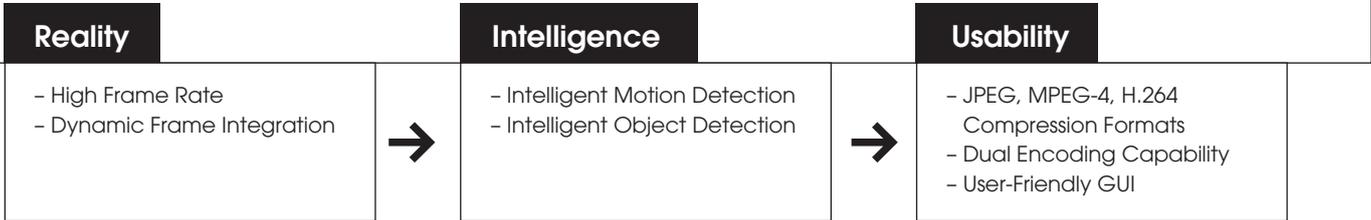
Features	Benefits	SNC-DF85	SNC-DF80	SNC-DF50	Page
Weather-resistant and Rugged Design	Enables Outdoor Use	Yes (Outdoor/Indoor)	Yes (Outdoor/Indoor)	No (Indoor)	P.5
Wide Dynamic Range (DynaView)	Provides Backlight Compensation	Yes	No <sup>*2</sup>	Yes	P.3
Day/Night Function	Enables Night Monitoring, Without Visible Light	Yes	Yes	No	P.4

\*2 The SNC-DF80 has a conventional backlight compensation function.



Stunning video and audio brought to you by the "IPELA" series of visual communication products that encompass the three-pronged concept of "Reality," "Intelligence," and "Usability." "IPELA" connects people, places, and information with reality. "IPELA" lets you share,

understand, and experience as if you are actually there, when in fact, you are miles away. It allows you to quickly grasp a situation to make better business decisions. Real audiovisual communication over networks - this is "IPELA."



The SNC-DF85/DF50 incorporates DynaView Technology, which contributes to the camera's wide dynamic range. It reduces 'white-out' in high-contrast shooting environments, such as when the camera is located at the entrance of a building where there is a strong backlight.

The SNC-DF85/DF80/DF50 incorporates advanced compression technologies to transmit image data in three different formats, JPEG, MPEG-4, and H.264, so that users can choose the best compression format depending on their applications. With a 3.6x zoom, vari-focal lens that covers up to 100.8°, the SNC-DF85/DF80/DF50 can be used to monitor facilities that require a wide angle of view.

The PoE (Power-over-Ethernet, IEEE802.3af compliant) function gives users more freedom over where to install the cameras, while saving cost. Plus, they are all equipped with Intelligent Video Analytics to give you an intelligent and dynamic detection system.

## Features

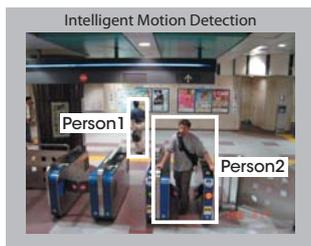
### The DEPA Platform - Intelligent Video Analytics

The SNC-DF85, SNC-DF80, and SNC-DF50 cameras offer intelligent video analytics, based on the Sony DEPA platform.

This comprises two elements: intelligent built-in camera functions, such as IMD and IOD, and rules/filters that determine which images should be recorded or when an alarm should be triggered.

When the network cameras perform IMD or IOD, 'tagged' objects and their associated metadata, including object position data, are sent either to the NSR Series recorder or the IMZ-RS400 Series software. These products then use the metadata, together with filters, to analyze object movement and to

perform a predefined action, such as image recording or alarm triggering. This method of distributed processing minimizes server workload, network bandwidth, and storage requirements.



Sends Object ID and Position

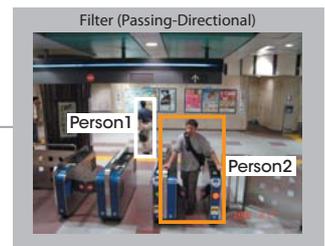


Mini-dome Camera



NSR Series/IMZ-RS400 Series Analyzes Object Movement

Requests Relevant Images



Sends Relevant Images



**High-quality Images**

**Wide Dynamic Range With DynaView Technology**

DynaView technology in the SNC-DF85 and SNC-DF50, enhance the cameras' dynamic range by 128 times. The cameras capture the same image twice – combining the dark areas from a normal shutter speed with the bright areas at high shutter speed into one image. Advanced white balance circuits reproduce high-contrast with proper colour.



SNC-DF85/DF50 Camera Image\*

**SuperExwave Technology**

The SNC-DF80 incorporates an advanced 1/3-type CCD with SuperExwave technology that achieves extremely high sensitivity levels. The camera provides a minimum illumination of 0.6 lx in color and 0.06 lx in B/W at F1.3, allowing it to capture clear and detailed images even under low light conditions.

The high-quality CCD imager, in combination with the camera's state-of-the-art DSP technology, produces a high horizontal resolution of 540 TV lines via the analogue composite video output, which provides amazingly clear and detailed images.

**Day/Night Function**

The SNC-DF85 and SNC-DF80 cameras can switch from day mode (color) to night mode (B/W) by replacing its infrared-cut filter with a clear filter. Users can toggle between the two manually, on a predefined schedule using an external sensor, or automatically in response to available light. In night mode, sensitivity to near-IR illuminators, allow operation in even in zero conditions.

**Dynamic Frame Integration**

Frame Integration (DFI) technology detects movement within the image and reproduces those areas with minimal blurring, while displaying areas with little or no movement naturally. DFI provides clear images – even in low light conditions.



SNC-DF85/DF80/DF50 Camera Image



Conventional Camera Image

Image Comparison Between SNC-DF85/DF80/DF50 Camera and a Conventional Camera

**JPEG Picture Quality Settings With Constant Bitrate Algorithm**

Users can preset the JPEG picture quality from a choice of ten levels. Data bitrate can be limited while still maintaining high-quality images - ideal for calculating storage capacity and bandwidth during installation.

**Flexible and Easy Installation**

**Wall- or Ceiling-mountable/Easy Viewing-angle Adjustment**

This range can be easily wall- or ceiling mounted.\*\* An analogue composite output (RCA jack), enables the camera image to be monitored locally while the viewing angle is adjusted, making focus and viewing-angle adjustment both accurate and easy.

\*\* Supplied bracket is required when the SNC-DF85 and SNC-DF80 are wall- or ceiling-mounted.

**Powerful 3.6x Zoom, Vari-focal Lens**

These cameras come equipped with a 3.6x zoom, vari-focal lens that covers an extremely wide range of viewing angles from 100.8° (wide-angle) to 27.7° (telephoto).

**Ball-Joint Lens Mount Technology**

Sony patented Ball-Joint Lens Mount mechanism enables the lens to be rotated freely in any direction. Unlike conventional cameras, it takes only one action to adjust the pan and tilt angles, ideal for viewing angle adjustment during installation.

**Ruggedized Design**

The vandal-resistant SNC-DF85 and SNC-DF80 comply with the IP66 standard, and offer additional water resistance by using a special inner conduit for the camera cables. The optional YT-HU75 Heater Unit allows the camera to be used in severe temperatures as low as -40 °C (-40 °F).

\*Simulated images



## Operational Flexibility

### Selectable JPEG, MPEG-4, H.264 Compression Formats

These multi-codec cameras support three compression formats: JPEG, MPEG-4, and H.264. The industry-standard JPEG compression format is the best choice for high-quality still images. MPEG-4 provides clear moving images efficiently over networks when bandwidth is limited. And H.264 provides twice the efficiency of MPEG-4, for when bandwidth is even more limited.

### Dual-encoding Capability

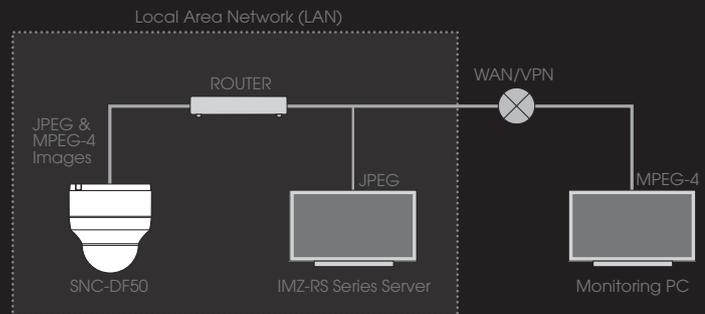
With a dual-encoding capability, these cameras can generate both MPEG-4 and JPEG images simultaneously. For example, the system can be set up to transfer MPEG-4 images over a WAN or an Internet VPN where network bandwidth is limited, while storing high-resolution JPEG images on a server that's configured on your LAN.

### Bi-directional Audio

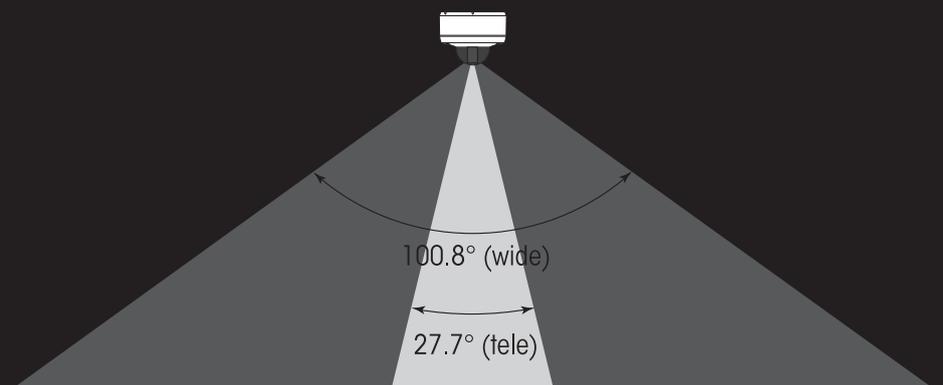
Users can connect an external microphone to these cameras in order to pick up audio from a preferred location. They are also equipped with an active speaker output, enabling users to sound an alert or make an announcement from the camera unit via a remote location. This significantly expands the possibilities of monitoring applications.

### Voice Alert

The Voice Alert function allows users to upload up to three pre-recorded audio files to the camera. These can then be played out via a locally connected speaker upon an alarm trigger.



Dual Image Encoding



Powerful 3.6x Zoom



Compact Flash™ Card Slot available on the SNC-DF85 and SNC-DF80.

## Features

### High Level of Security

#### Intelligent Motion Detection (IMD)

The built-in IMD function can trigger a variety of actions, such as the storage and transfer of images or the activation of an external device through its output relays. False alarms caused by noise and repeated motion patterns are minimized thanks to an advanced Sony algorithm. Plus, when used in conjunction with DEPA-enabled recorders or software, a multitude of filter functions are available. These allow you to initiate alarms based on more specific movements, such as passing a virtual borderline or appearing into a virtual area.

#### Intelligent Object Detection (IOD)

The SNC-DF85, SNC-DF80, and SNC-DF50 cameras can detect objects that have been abandoned or become stationary for a specified duration within up to four designated detection areas. This feature is useful for detecting suspicious objects left in public places, or for detecting stalled cars or accidents on the road.

As with IMD, filters can be used to refine this intelligence if the camera is configured with DEPA-enabled products.

#### Sensor IN/Alarm OUT Ports

Equipped with a sensor input, these cameras can receive triggers from an external sensor. Also, two alarm relay outputs can be used to trigger external devices to perform a variety of actions.

#### Pre-/Post-alarm Image Storage

These cameras are capable of storing both preand post-alarm images on 16 MB of built-in memory or on removable storage media.

### Network Security Features

#### IEEE802.1X Compliant

The SNC-DF85, SNC-DF80, and SNC-DF50 support IEEE802.1X port-based network access control. This means they can be integrated to a network environment that uses the IEEE802.1X client authorization protocol for security purposes.

### Versatile Interfaces

#### Analogue Composite Video Output

These cameras can output an analogue composite video signal via the BNC connector. This feature is ideal for outputting images to a local recording device or monitor.

## Other Features

#### Date/Time Superimposition

The date and time of images recorded by these cameras can be superimposed on the video while it is being monitored and recorded. This feature is ideal for easily identifying the exact date and time of an event during playback. Also because the information becomes part of the video image, it is a useful feature when providing video evidence to authorities.

#### File Export to Removable Media

The SNC-DF85 and SNC-DF80 cameras are equipped with a Compact Flash™ (CF) card slot, allowing users to export images on CF media as required.

#### Privacy Zone Masking\*<sup>8</sup>

These cameras can mask up to seven unwanted or prohibited areas within an image for privacy protection.

\*<sup>8</sup> Supplied "SNC Privacy Masking Tool" software is required to set masking areas.

#### 24 V AC, 12 V DC, or PoE Operation

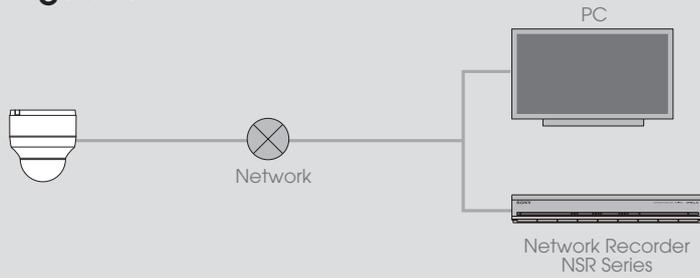
These cameras offer a choice of three types of power: 24 V AC, 12 V DC, or PoE (Power-over-Ethernet, IEEE 802.3af). They automatically adapt to whichever power source is used, making installation fast and effective.

#### Network Features

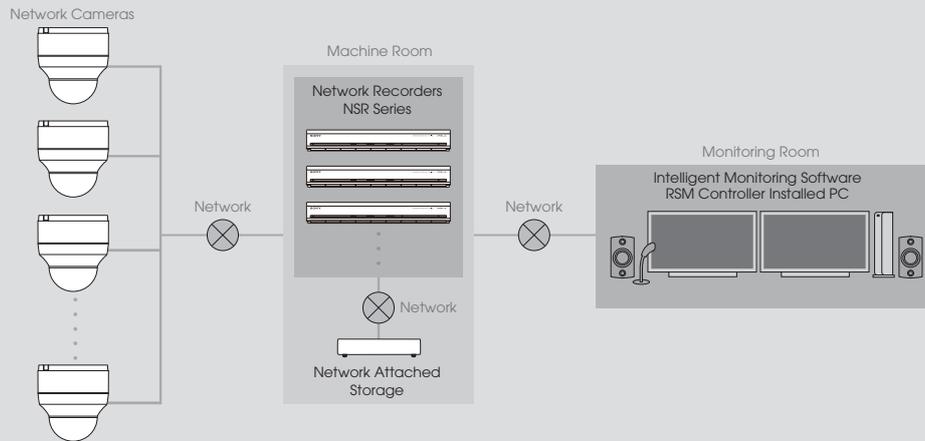
- Simultaneous Access for up to 20 Users
- Multicasting Capability

# System Configurations

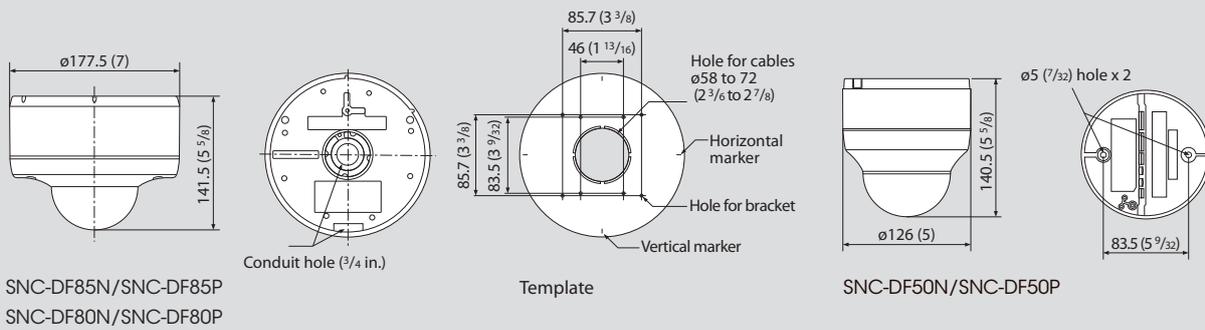
## Standalone Configuration



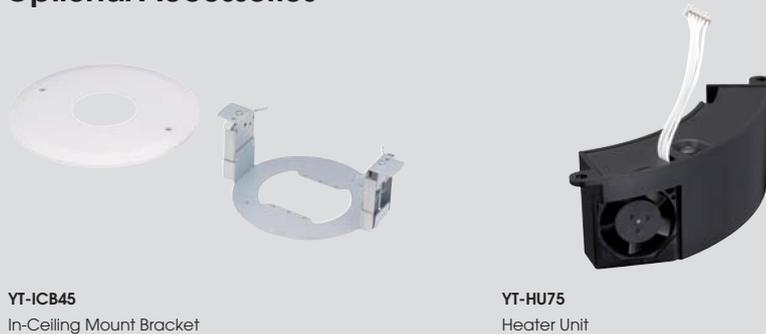
## Client-Server Configuration



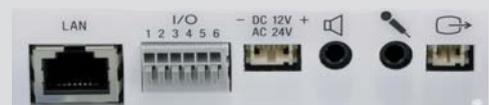
## Dimensions



## Optional Accessories



## Rear Panel



SNC-DF50N/DF50P

## SNC-DF/85P/80N/80P/50P Specifications

Camera	SNC-DF85N	SNC-DF85P	SNC-DF80N	SNC-DF80P	SNC-DF50N	SNC-DF50P	
Image device	1/3-type CCD with DynaView Technology		1/3-type CCD with SuperExwave Technology		1/3-type CCD with DynaView Technology		
Number of effective pixels (H x V)	380,000 (768 x 494)	440,000 (752 x 582)	380,000 (768 x 494)	440,000 (752 x 582)	380,000 (768 x 494)	440,000 (752 x 582)	
Electronic shutter	1/60 to 1/10,000 s	1/50 to 1/10,000 s	1/60 to 1/10,000 s	1/50 to 1/10,000 s	1/60 to 1/10,000 s	1/50 to 1/10,000 s	
Auto gain control	Auto, EV compensation, DynaView		On/Off (0 dB to +24 dB)		Auto, EV compensation, DynaView		
Exposure control	Auto, Backlight compensation						
White balance mode	ATW, ATW Pro						
Lens type	Vari-focal lens						
Zoom ratio	3.6x optical zoom (1.5x digital zoom)						
Horizontal viewing angle	100.8° to 27.7°						
Focal length	f=2.8 to 10.0 mm						
F-number	F1.3 (wide), F3.0 (tele)						
Minimum object distance	300 mm						
<b>Image</b>							
Image size (H x V)	640 x 480, 320 x 240, 160 x 120 (JPEG, MPEG-4, H.264)						
Compression format	JPEG, MPEG-4, H.264						
Maximum frame rate	JPEG/MPEG-4 H.264	30 fps (640 x 480) 10 fps (640 x 480)	25 fps (640 x 480) 8 fps (640 x 480)	30 fps (640 x 480) 10 fps (640 x 480)	25 fps (640 x 480) 8 fps (640 x 480)	30 fps (640 x 480) 10 fps (640 x 480)	25 fps (640 x 480) 8 fps (640 x 480)
<b>Audio</b>							
Audio compression	G.711/G.726 (40, 32, 24, 16 Kb/s)						
<b>Network</b>							
Protocols	TCP/IP, HTTP, ARP, ICMP, FTP, SMTP, DHCP, SNMP, DNS, NTP, RTP/RTCP						
Number of clients	20						
Authentication	IEEE802.1X						
<b>Interface</b>							
Ethernet	10Base-T/100Base-TX (RJ-45)						
Card slot	CF card x 1				-		
Analogue video output	BNC x 1, 1.0 Vp-p, 75 Ω, RCA x 1						
I/O port	Sensor in x 1, Alarm out x 2						
External microphone input	Mini-jack (monaural, 2.2 K 2.5 V plug-in power)						
Audio line output	Mini-jack (monaural), max output level: 1 Vrms						
<b>Analogue video output</b>							
Signal system	NTSC (Composite)	PAL (Composite)	NTSC (Composite)	PAL (Composite)	NTSC (Composite)	PAL (Composite)	
Horizontal resolution	480 TV lines		540 TV lines		480 TV lines		
S/N ratio	more than 50 dB						
Min. illumination	Color: 0.7 lx (50IRE, F1.3, AGC ON) B/W: 0.15 lx (50IRE, F1.3, AGC ON)		Color: 0.6 lx (50IRE, F1.3, AGC ON) B/W: 0.06 lx (50IRE, F1.3, AGC ON)		0.7 lx (50IRE, F1.3, AGC ON)		
<b>General</b>							
Mass	Approx. 1.8 kg (3 lb 15 oz)				Approx. 920 g (2 lb)		
Dimensions (Ø x H)	177.5 x 141.5 mm (7 x 5 5/8 inches)				126 x 140.5 mm (5 x 5 5/8 inches)		
Power requirements	PoE (IEEE-802.3af)/AC24V/DC12 V						
Power consumption	10 W max.				9 W max.		
Operating temperature	-10 to 50 °C (14 to 122 °F) -40 to 50 °C (-40 to 122 °F) w/heater unit				-10 to 50 °C (14 to 122 °F)		
Storage temperature	-20 to 60 °C (-4 to 140 °F)						
<b>Supplied accessories</b>							
	Bracket, Template, Torx wrench, M4 screws (4), Wire rope, M4 shoulder screw, Audio cable, I/O cable, CD-ROM (User's guide, IP setup program, Audio Upload Tool, Privacy Masking Tool, Video Player, Custom Homepage Installer), Installation manual				Template, Wire rope, M4 shoulder screw, AC power cord, Monitor cable, CD-ROM (User's guide, IP setup program, Audio Upload Tool, Privacy Masking Tool, Video Player, Custom Homepage Installer), Installation manual		
<b>System requirements</b>							
Operating system	Microsoft® Windows® 2000/XP						
Processor	CPU: Intel® Pentium® IV 1.5 GHz or higher (2.4 GHz or higher is recommended)						
Memory	RAM: 256 MB or more						
Web browser	Microsoft Internet Explorer® Ver. 6.0						

\*The SNC-DF85N/DF85P, SNC-DF80N/DF80P, and SNC-DF50N/DF50P include software developed by the OpenSSL project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)

\*The SNC-DF85N/DF85P, SNC-DF80N/DF80P, and SNC-DF50N/DF50P include cryptographic software written by Eric Young (eay@cryptsoft.com)

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