



**BOSCH**  
Invented for life

## NWC-0495 DinionXF Day/Night IP Cameras



- ▶ **Advanced Day/Night camera with mechanically switching IR filter**
- ▶ **15-bit DSP technology with XF-dynamic extended dynamic range**
- ▶ **DVD-quality up to 25/30 IPS at 4CIF**
- ▶ **Storage efficient tri-streaming : Dual MPEG-4 and JPEG simultaneously**
- ▶ **Power over Ethernet (IEEE 802.3af compliant)**
- ▶ **Hybrid IP camera with analog and Ethernet outputs**
- ▶ **Ultra-compact size**

The NWC-0495 Dinion IP is a high-performance 1/3-inch CCD Day/Night network camera, designed to ensure the highest possible image quality at all times. This ultra-compact camera provides DVD-like quality MPEG-4 video at up to 25 and 30 images per second (for PAL and NTSC respectively). Dinion IP is a true hybrid camera with both Ethernet and BNC connections capable of providing direct network connection while simultaneously supporting existing analog equipment. Network video signals are sent over IP networks and can be received and displayed on a PC web browser, using the DiBos or VIDOS video management systems, or via a BOSCH Video over IP (BVIP) decoder for viewing on a CVBS or VGA monitor. The BNC connection provides direct input to a conventional analog matrix switcher or DVR, which further enhances Dinion IP's flexible viewing and recording options.

The camera combines 15-bit digital video processing (which enhances sensitivity) and XF-Dynamic (which extends the dynamic range) to provide a sharper, more detailed image with outstanding accuracy in color reproduction. Depending on the available light, the NWC-0495 automatically switches from color to monochrome, enhancing sensitivity for IR illumination to provide high-quality images even in challenging low-light conditions. Dinion IP uses MPEG-4 compression, bandwidth throttling, and multicasting capabilities to efficiently manage bandwidth and storage requirements while delivering the best image quality and resolution. On-screen Displays

(OSD) simplify back focus adjustment and network configuration, leading to lower installation and support costs. Power over Ethernet (PoE) makes installation easier and more cost-effective because cameras can now be installed where there is no AC power outlet.

### Functions

#### Day/Night Mode

In Day/Night Mode, the NWC-0495 provides enhanced night viewing by increasing the IR sensitivity. The IR filter can switch automatically from color to monochrome by either sensing the illumination level or via the alarm input. The filter can be switched manually via the alarm input, or remotely via a web browser. An internal, through-the-lens IR detector enhances monochrome mode stability by preventing the camera returning to the color mode when IR illumination is dominant.

#### XF-Dynamic

The highly accurate 15-bit digital signal is automatically processed to reveal every detail of the image in both the high-light and low-light areas of the scene simultaneously.

#### Video Motion Detection

The built-in video motion detector allows you to select up to four fully programmable areas with individual thresholds.

The global scene change detector minimizes false alarms caused by sudden changes in lighting conditions, such as switching on or off the security lighting.

### MPEG-4 Video Encoding

The Dinion MPEG-4 encoder creates high-quality streaming video at low bit rates, minimizing bandwidth and storage requirements, which further reduces costs. Each Dinion IP camera can deliver up to 25 and 30 images per second (PAL and NTSC) at true 4CIF video resolution.

### Tri-streaming Video

Dinion IP cameras can generate two separate MPEG-4 video streams and one JPEG stream simultaneously. This advanced tri-streaming capability, not typically found in other IP CCTV systems, enables the user to tune live viewing and recording requirements to meet specific site and enterprise needs. For example, BOSCH Video over IP Systems (BVIP) can be configured to record video at one quality setting (e.g. 3.75IPS at 2CIF), while simultaneously providing live images at the best possible image quality (e.g. 30IPS at 4CIF). Alternatively, the system can be configured to deliver a high bandwidth MPEG-4 stream to a local LAN user, while simultaneously streaming a low bandwidth MPEG-4 stream to a remote user over a WAN connection and at the same time using the JPEG stream for remote viewing, for instance, on a PDA.

### Power Options

Three power options, PoE, 24 VAC and 12 VDC, are available on the NWC-0495. Utilizing PoE makes installation easier and more cost-effective since cameras do not require a local AC power source. Additionally, they can use an uninterruptible power supply (UPS), which will allow for continuous operation even when there's a power failure e.g. in emergencies.

### OSD-based Network Set-up

Network parameters and basic camera set-up (e.g. lens set-up and back focus) are quickly and easily performed using the On-screen Displays (OSD) and BNC composite video output. Unlike other IP cameras, no network connection, PC configuration utilities or other tools are required to set up Dinion IP.

### Lens Wizard

The Lens Wizard automatically detects the lens type and helps focus the lens at the maximum opening to ensure proper focus is maintained throughout the 24-hour cycle. No special tools or filters are required.

## Certifications and Approvals

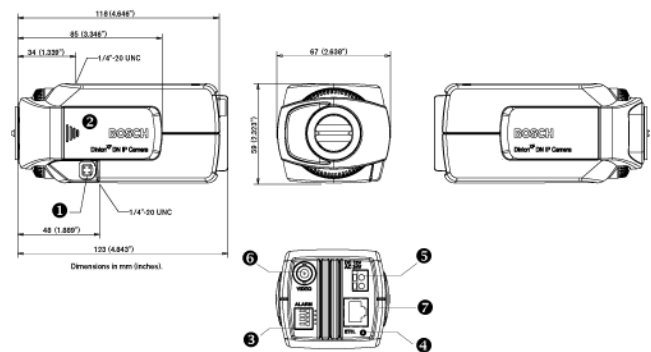
### Electro Magnetic Compatibility

Emission EU	EN55022 class B EN 61000-3-2, EN 61000-3-3
Emission USA	FCC CFR 47 part 15 class B
Immunity EU	EN50130-4 Alarm Systems
EMC Australian	AS/NZS CISPR 22 (equal to CISPR 22)
Vibration	Camera with 500 gr (1.1 lbs) lens according to IEC60068-2-6

### Safety

EU	EN60950-1
USA + Canada	UL60950-1, CAN/CSA E60950-1

## Installation/Configuration Notes



### Dimensions

1	Lens connector	5	Power supply input
2	Control buttons	6	BNC Video output
3	Alarm in, Relay out	7	10/100 Base-T Fast Ethernet
4	LED (power, link, traffic)		

## Parts Included

Quantity	Components
1	Dinion IP camera
1	Spare lens connector
1	Quick installation guide
1	CD-ROM with manual

## Technical Specifications

### Electrical

Video Standards	MPEG-4; M-JPEG
Video Data Rate	9.6 Kbps - 6 Mbps Constant & variable
Imager resolution	752x582 (PAL) 768x494 (NTSC)
Video resolution	704 x 576/480 (4CIF: 25/30 IPS) 704 x 288/240 (2CIF: 25/30 IPS) 352 x 576/480 (Half D1: 25/30 IPS) 352 x 288/240 (CIF: 25/30 IPS) 176 x 144/120 (QCIF: 25/30 IPS)
GOP Structure	I, IP
Overall Delay (IP)	MPEG-4: 100 ms
Select. Frame Rate	1-25/30 IPS (PAL/NTSC); Field / frame based coding
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMPv2/v3, ICMP
Software Update	Flash ROM, remote programmable
Configuration	Via web browser, built-in web server interfaces
Video out	1x Analog composite: NTSC or PAL; BNC connector 75 Ohm
Sensitivity <sup>1</sup>	0.59 lux (0.059 fc) (color) 0.08 lux (0.008 fc) (Night mode)
Min Illumination	0.24 lux (0.024 fc) (color) 0.038 lux (0.0038 fc) (Night mode)
Min Illumination with Sen- sUp	0.024 lux (0.0024 fc) (color) 0.0038 lux (0.00038 fc) (Night mode)
Shutter	Auto (1/60 (1/50) to 1/500000), fixed, flick- erless, default
Sensitivity up	Off, Automatic continuous up to 10x
Auto Black	On, Off selectable
Range	32x dynamic range enhancement
Dynamic Noise Reduction	Auto, Off selectable
Contour	Sharpness enhancement level selectable
BLC	Off, Area and Level selectable
Gain	Auto (maximum level selectable to 28 dB) or fixed level selectable
Lens Mount	CS (max lens protrusion 5 mm, 0.2 inch)
White Balance	ATW (2500 - 10000 K), AWB hold, Manual WB selectable
VMD	4 area, sensitivity selectable
Alarm In	+5 V nominal, +40 VDC max

Relay Out	max. 30 VAC or +40 VDC, Max 0,5 A continu- ous, 10 VA
Ethernet	10/100 Base-T, auto-sensing, half/full duplex, RJ-45

1) 50% video signal amplitude, F1.2, scene reflectivity 89%

### Environmental

Input Voltage	VDC: 11-36 V (700 mA) VAC: 12-28 V (700 mA) PoE: IEEE 802.3af compliant
Power Consumption	Max. 8 VA
Weight	Approx. 0.45 kg (0.99 lb)
Operating Temperature	0°C - 40°C (32°F - 104°F)

## Ordering Information

### Model | Description

NWC-0495-10P DinionXF Day/Night IP Camera	1/3-inch, high performance, 540 TVL, 24 VAC / 12 VDC / PoE, 50Hz
NWC-0495-20P DinionXF Day/Night IP Camera	1/3-inch, high performance, 540 TVL, 24 VAC / 12 VDC / PoE, 60Hz

### Software Options

NWC-04X5-FS1	Dinion IP IVMD 1.0 VCA License
--------------	--------------------------------

**Europe, Middle East, Africa:**  
Bosch Security Systems B.V.  
P.O. Box 80002  
5600 JB Eindhoven, The Netherlands  
Phone: + 31 40 2577 284  
Fax: +31 40 2577 330  
emea.securitysystems@bosch.com  
www.boschsecurity.com

**Americas:**  
Bosch Security Systems, Inc.  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
security.sales@us.bosch.com  
www.boschsecurity.us

**Asia-Pacific:**  
Bosch Security Systems Pte Ltd  
38C Jalan Pemimpin  
Singapore 577180  
Phone: +65 6319 3450  
Fax: +65 6319 3499  
apr.securitysystems@bosch.com  
www.boschsecurity.com

### Represented by