


**BOSCH**

Invented for life

# VDC-485 and VDN-495 Series Dome Cameras FlexiDomeXF and FlexiDomeDN



- ▶ High impact, vandal-resistant, weatherproof housing
- ▶ True Day/Night and NightSense versions
- ▶ 15-bit DSP technology
- ▶ XF-Dynamic for wide dynamic range
- ▶ 540 TVL color resolution
- ▶ SensUp 10 x extended sensitivity
- ▶ Bilinx bi-directional communication
- ▶ Patented dome shape for 90° vertical view

The FlexiDome<sup>XF</sup> and FlexiDome<sup>DN</sup> series are the ultimate solutions for virtually any indoor or outdoor surveillance application. These color dome cameras are high-performance, vandal-resistant units with Day/Night capability.

The cast-aluminum housing, polycarbonate dome, and hardened inner liner can withstand the equivalent of 55 kg (120 lbs) of force. The enclosure contains full-featured Day/Night and color cameras with 1/3-inch CCD and integral varifocal lenses. Ideal for outdoor use, the cameras are protected against water and dust to IP 66 (NEMA-4X) standards.

Installation is quick and easy, since the cameras come completely assembled and ready to use. Using the proprietary pan/tilt/rotation mechanism, installers can select the exact field of view. Mounting options are numerous, including surface, 4S (USA), wall, corner and suspended ceiling.

The FlexiDome<sup>XF</sup> and FlexiDome<sup>DN</sup> cameras are an ideal solution for many surveillance applications, even under the most challenging lighting conditions. Their compact, sleek design and virtually flush-mount appearance will complement any decor. The camera enclosure provides the extra protection necessary for applications such as in schools, banks, prisons, parking garages, retail and industrial buildings.

## Functions

### Technology

The FlexiDome<sup>XF</sup> and FlexiDome<sup>DN</sup> series incorporate the latest technology adopted from the high-performance Dinion<sup>XF</sup> Color and true Day/Night cameras. This technology ensures the highest possible image quality at all times and under all conditions. Based on a unique combination of 15-bit digital video processing and XF-dynamic, these cameras provide excellent sensitivity, with up to 32 x extended dynamic range. This delivers a sharper, more detailed image with outstanding accuracy in color reproduction.

### Operation

The Day/Night model switches automatically from color to monochrome to provide enhanced IR-sensitive night viewing. All cameras feature video motion detection, auto black, default shutter and back light compensation for optimum performance in all lighting conditions. The lens wizard and focus aid make lens adjustment easy and straightforward, and ensure proper focus throughout the 24-hour cycle. All cameras incorporate Bilinx, a technology that allows technicians to set up, control the camera settings, and even update firmware remotely over the video cable.

### Controls and Indicators

- OSD
- 5-key operation

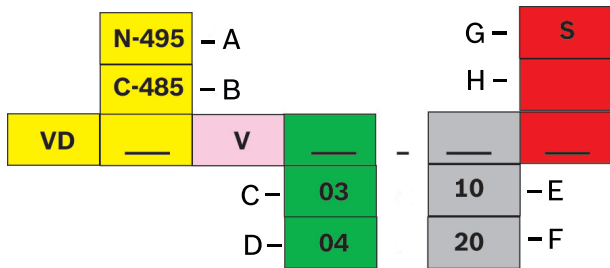
**Interconnections**

- Video connection BNC on flying lead
- Power connection on flying leads

**Certifications and Approvals**

Safety	UL 1950; CSA 22.2 No. 950; EN 60950 (CE)
Immunity	EN 50130-4 (CE)
Emission	EN 50022 class B (CE); FCC, class B part 15
Water/dust protection	IP 66 and NEMA-4X

**Installation/Configuration Notes**



A Day/Night	E PAL color or CCIR mono
B Color (with NightSense)	F NTSC color or EIA mono
C 3 to 9 mm F1.4 (Day/Night version) 3 to 9.5 mm F1.0 (Color version)	G Surface mount
D 3.7 to 12 mm F1.6	H Flush mount

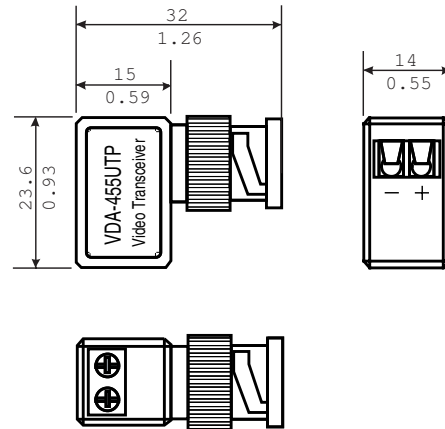
**FlexiDome<sup>XF</sup> model overview**

Model	Standard	Lens
VDC-485V03-10	PAL	3 to 9.5 mm F1.0
VDC-485V03-20	NTSC	3 to 9.5 mm F1.0
VDC-485V04-10	PAL	3.7 to 12 mm F1.6
VDC-485V04-20	NTSC	3.7 to 12 mm F1.6

**FlexiDome<sup>DN</sup> model overview**

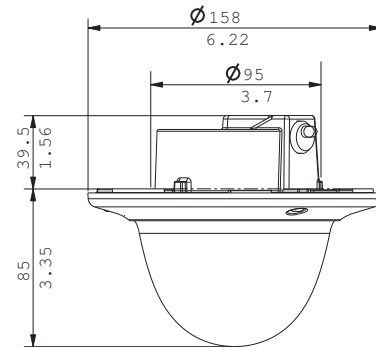
Model	Standard	Lens
VDN-495V03-10	PAL	3 to 9 mm F1.4
VDN-495V03-20	NTSC	3 to 9 mm F1.4

**BNC to UTP Transceiver**



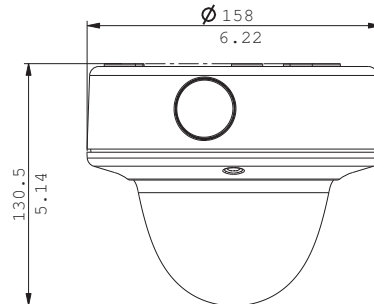
Dimensions in mm (in.)

**Flush Mounting**



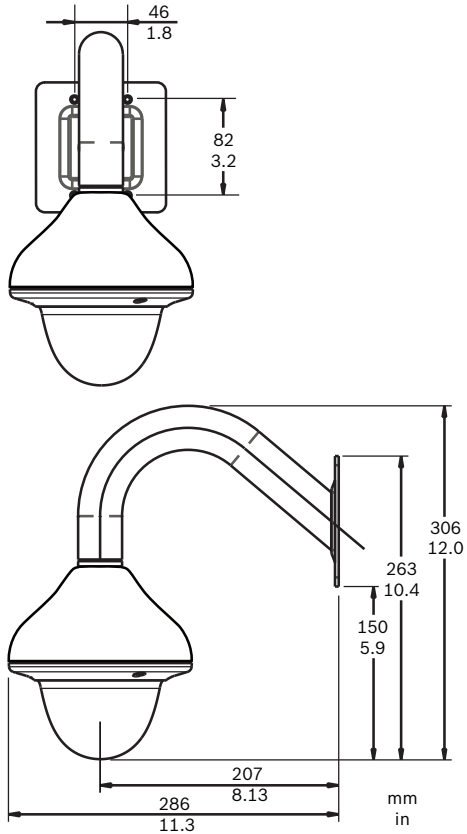
Dimensions in mm (in.)

**VDA-455SMB-Surface Mount Box**



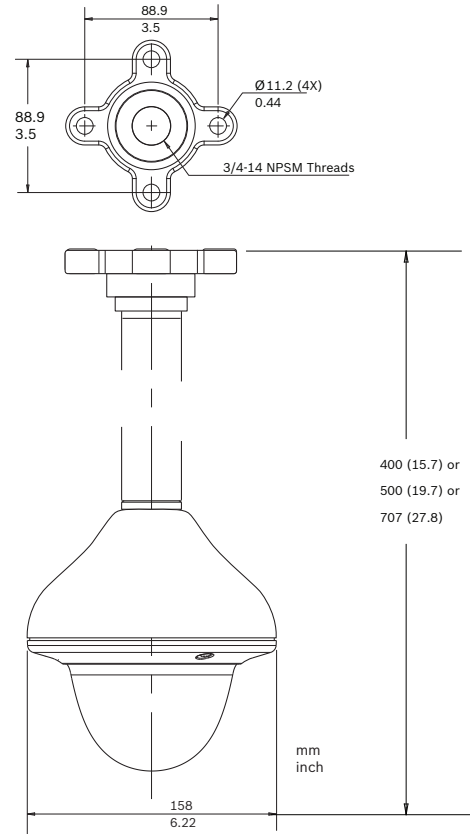
Dimensions in mm (in.) for surface mounting

**VDA-445WMT-Pendant Wall Mount**



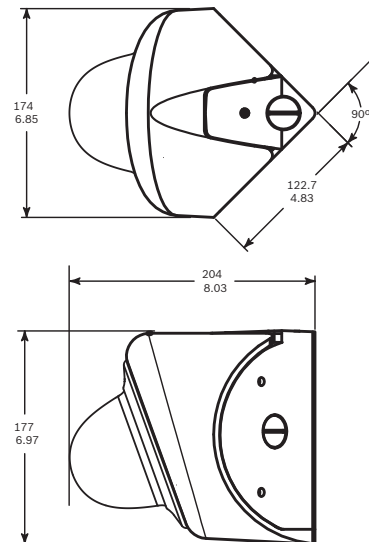
Dimensions in mm (in.)

**VDA-455PMT-Pendant Pipe Mount**



Dimensions in mm (in.)

**VDA-455CMT-Corner Mount**



Dimensions in mm (in.) for corner mounting

## Technical Specifications

### Electrical

Power supply	
Rated voltage	12 VDC or 24 VAC, 50/60 Hz
Voltage range	10.8 to 39 VDC or 12 to 28 VAC, 45 to 65 Hz
Power consumption	4 W (6 W with heater operating)
Imager	Interline transfer CCD, 1/3-inch image format
Active picture elements	
PAL models	752 H x 582 V
NTSC models	768 H x 494 V

### Sensitivity (3200 K)

Model		Usable picture (30 IRE)	Usable picture (50 IRE)	Full video (100 IRE)
-------	--	----------------------------	----------------------------	-------------------------

### Color

Model		Usable picture (30 IRE)	Usable picture (50 IRE)	Full video (100 IRE)
VDC-485V03	Color	0.16 lx (0.015 fc)	0.35 (0.033 fc)	1.4 (0.13)
	Color + 10 x SensUp	0.016 lx (0.0015 fc)	0.035 (0.0033)	0.14 (0.013)
	NightSense	0.056 lx (0.0052 fc)	0.13 (0.012)	0.5 (0.046)
VDC-485V04	NightSense+ 10 x SensUp	0.0056 lx (0.00052fc)	0.013 (0.0012)	0.05 (0.0046)
	Color	0.4 lx (0.037 fc)	0.9 (0.083)	3.6 (0.33)
	Color + 10 x SensUp	0.04 lx (0.0037 fc)	0.09 (0.0083)	0.36 (0.033)
VDC-485V04	NightSense	0.14 lx (0.013 fc)	0.32 (0.03)	1.3 (0.12)
	NightSense+ 10x SensUp	0.014 lx (0.0013 fc)	0.032 (0.003)	0.13 (0.012)

### Day/Night

Model		Usable picture (30 IRE)	Usable picture (50 IRE)	Full video (100 IRE)
VDN-495V03	Color	0.32 lx (0.03 fc)	0.69 (0.064)	2.7 (0.26)
	Color + 10 x SensUp	0.032 lx (0.003 fc)	0.069 (0.0064)	0.27 (0.026)
	Mono	0.11 lx (0.01 fc)	0.27 (0.026)	1.1 (0.1)
VDN-495V03	Mono + 10 x SensUp	0.011 lx (0.001 fc)	0.027 (0.0026)	0.11 (0.01)

SensUp	Automatic continuous up to 10 x, off selectable
Horizontal resolution	540 TVL
Signal-to-noise ratio	>50 dB
AGC	Auto, maximum level selectable 28 dB
Auto black	On/off selectable
Electronic shutter	Flickerless, on/off, default shutter
NightSense (XF only)	Auto, forced, off selectable
Day/Night (DN only)	Auto, monochrome, color selectable

Dynamic range	32 x dynamic range enhancement
Dynamic noise reduction	Automatic, off, selectable
Sharpness correction	Horizontal and vertical, symmetrical
Backlight compensation	Off, programmable window and level selectable
White balance	Automatic sensing (2500 to 9000 K), AWB hold and manual
Video motion detector	Four (4) areas, sensitivity selectable
Camera ID	16-character editable string, position selectable
Video output	Composite video 1.0 Vpp, 75 ohm
Remote control	Bi-directional coaxial communication
Synchronization	Internal or LineLock*
Connector	Flying leads (through the back)

\* *LineLock (only when AC-powered) synchronizes the camera to the power line zero crossing for roll-free vertical interval switching. Vertical phase delay can be adjusted (from 0° to 358°) to allow vertical synchronization in multi-phase power installations.*

### Optical

Varifocal	Manual zoom and focus adjustment
Iris control	Automatic iris control
Viewing angle	
3 to 9 mm	Wide 90.3° x 66.4° (H x V) Tele 31.9° x 23.9° (H x V)
3 to 9.5 mm	Wide 95° x 69° (H x V) Tele 30.2° x 22.6° (H x V)
3.7 to 12 mm	Wide 76.1° x 55.8° (H x V) Tele 23.8° x 17.9° (H x V)

### Mechanical

Dimensions	See drawings
Weight	740 g (1.63 lb)
Mounting	Flush on hollow surface with three (3) screws in a 4S electrical box
Color	White (RAL9010) trim ring with black inner liner
Adjustment range	360° pan, 90° tilt, ±90° azimuth
Dome bubble	Polycarbonate, clear with UV blocking anti-scratch coating
Trim ring	Aluminum

### Environmental

Operating temperature	-50 °C to +50 °C (-58 °F to +122 °F) (with heater 'ON')
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Humidity	5% to 93% relative humidity
Impact protection	IEC 60068-2-75 test Eh, 50 J EN 50102, exceeding IK 10

**Ordering Information**

<b>VDC-485V03-10 Vandal Resistant Color Model</b> 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3-9.5 mm F1.0 Varifocal lens, white	<b>VDC-485V03-10</b>
<b>VDC-485V03-10S Vandal Resistant Color Model, Surface Mount</b> 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3-9.5 mm F1.0 Varifocal lens, white, surface mount	<b>VDC-485V03-10S</b>
<b>VDC-485V03-20 Vandal Resistant Color Model</b> 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3-9.5 mm F1.0 Varifocal lens, white	<b>VDC-485V03-20</b>
<b>VDC-485V03-20S Vandal Resistant Color Model, Surface Mount</b> 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3-9.5 mm F1.0 Varifocal lens, white, surface mount	<b>VDC-485V03-20S</b>
<b>VDC-485V04-10 Vandal Resistant Color Model</b> 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3.7-12 mm F1.4 Varifocal lens, white	<b>VDC-485V04-10</b>
<b>VDC-485V04-10S Vandal Resistant Color Model, Surface Mount</b> 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3.7-12 mm F1.4 Varifocal lens, white, surface mount	<b>VDC-485V04-10S</b>
<b>VDC-485V04-20 Vandal Resistant Color Model</b> 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3.7-12 mm F1.4 Varifocal lens, white	<b>VDC-485V04-20</b>
<b>VDC-485V04-20S Vandal Resistant Color Model, Surface Mount</b> 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3.7-12 mm F1.4 Varifocal lens, white, surface mount	<b>VDC-485V04-20S</b>
<b>VDN-495V03-10 Vandal Resistant Day/Night Model</b> 1/3-inch, PAL D/N, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3-9 mm F1.4 Varifocal lens, white	<b>VDN-495V03-10</b>
<b>VDN-495V03-10S Vandal Resistant Day/Night Model, Surface Mount</b> 1/3-inch, PAL D/N, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3-9 mm F1.4 Varifocal lens, white, surface mount	<b>VDN-495V03-10S</b>
<b>VDN-495V03-10SF Vandal Resistant Day/Night Model, Surface Mount, French</b> 1/3-inch, PAL D/N, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3-9 mm F1.4 Varifocal lens, white, surface mount, French	<b>VDN-495V03-10SF</b>

**Ordering Information**

<b>VDN-495V03-20 Vandal Resistant Day/Night Model</b> 1/3-inch, NTSC D/N, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3-9 mm F1.4 Varifocal lens, white	<b>VDN-495V03-20</b>
<b>VDN-495V03-20S Vandal Resistant Day/Night Model, Surface Mount</b> 1/3-inch, NTSC D/N, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3-9 mm F1.4 Varifocal lens, white, surface mount	<b>VDN-495V03-20S</b>
<b>Accessories</b>	
<b>VDA-455SMB</b> Surface mount box, high impact for VDC-455, VDM-455, VDC-485 and VDN-495 (not for FlexiDome VF).	<b>VDA-455SMB</b>
<b>VDA-445WMT</b> Wall mounting bracket	<b>VDA-445WMT</b>
<b>VDA-455CMT</b> Corner mounting bracket for interior corner	<b>VDA-455CMT</b>
<b>VDA-455PMT</b> Pendant pipe mount	<b>VDA-455PMT</b>
<b>VDA-455UTP</b> Adaptor for UTP twisted pair output	<b>VDA-455UTP</b>
<b>TC220PSX-24 Power Supply Unit</b> 230 VAC/24 VAC, 50 Hz, 20 VA	<b>TC220PSX-24</b>
<b>TC220PS Power Supply Unit</b> 230 VAC/12 VDC, 50 Hz, 10 VA	<b>TC220PS</b>
<b>TC1334 Power Supply Unit</b> 120 VAC/24 VAC, 60 Hz, 30 VA	<b>TC1334</b>
<b>TC24PS Power Supply Unit</b> 24 VAC/15 VDC, 50/60 Hz, 9 VA	<b>TC24PS</b>
<b>S1460 Service/Monitor Cable</b> for FlexiDome XT (2.5 mm connector to BNC), 1 m	<b>S1460</b>
<b>Software Options</b>	
<b>VP-CFGSFT Configuration Software</b> for cameras using Bilinx, includes VP-USB Adaptor	<b>VP-CFGSFT</b>

**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

**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

**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**