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# VDM-3x5 & VDC-4x5 Series Dome Cameras FlexiDome VF & XT+



The FlexiDome<sup>VF</sup> and FlexiDome<sup>XT+</sup> series of dome cameras are an excellent solution for virtually any indoor or outdoor application. The cast aluminum housing, polycarbonate dome and hardened inner liner of the FlexiDome<sup>XT+</sup> version can withstand the equivalent of 120 lbs of force. The FlexiDome<sup>VF</sup> utilizes a standard indoor enclosure. These units contain full-featured color and monochrome cameras, with 1/3-inch CCD and integral varifocal lenses.

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 exactly the required field of view. Mounting options are numerous, including surface, 4S, wall, corner and suspended ceiling.

The FlexiDome<sup>VF</sup> and FlexiDome<sup>XT+</sup> cameras are an ideal solution for many surveillance applications. Their compact, sleek design and virtually flush-mount appearance complement any decor. The camera enclosure provides the extra protection necessary for applications such as in schools, banks, prisons, parking garages, retail and commercial buildings.

- ▶ Low-impact and impact-resistant models
- ▶ 1/3-inch format CCD imager
- ▶ Superior picture clarity in virtually all situations
- ▶ 540 TVL color resolution
- ▶ AC or DC operation
- ▶ Patented dome shape for 90° vertical view
- ▶ Extended sensitivity with NightSense
- ▶ Bilinx bi-directional communication

## Functions

### Technology

The FlexiDome<sup>VF</sup> and FlexiDome<sup>XT+</sup> series incorporate the latest technology in imaging, with 540 TVL resolution color cameras. Their superior sensitivity, high resolution and picture quality provide optimal performance in virtually all situations. The choice of lenses makes these cameras very versatile, because they can cover everything from standard and telephoto to low-light applications.

### Operation

The lens wizard and focus aid make lens adjustment easy and straightforward, and ensure proper focus throughout the 24-hour cycle. All cameras can operate on both AC and DC. LineLock and phase adjustment are available, when AC power is used. NightSense, available in FlexiDome color versions, is a feature that can extend its excellent sensitivity by a factor of three in monochrome operation. All cameras incorporate Bilinx, a technology that allows technicians to set up and control the camera settings remotely over the video cable.

### Controls and Indicators

- OSD
- 5-key operation

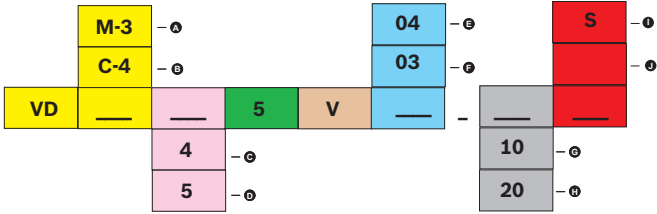
### Interconnections

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

**Certifications and Approvals**

Safety	UL 1950, CSA 22.2 No. 950 and CE (EN 60950)
Immunity	CE (EN 50130-4)
Emission	CE (EN 50022 class B); FCC, class B part 15
Water/dust protection	IP 66 and NEMA-4X (VDM-355 and VDC-455 models only)

**Installation/Configuration Notes**



A	Monochrome	F	2.6 to 6 mm F1.4
B	Color (with NightSense)	G	PAL color or CCIR mono
C	Low impact	H	NTSC color or EIA mono
D	High impact	I	Surface mount
E	4 to 9 mm F1.6 (low impact version) 3.7 to 12 mm F1.6 (high impact version)	J	Flush mount

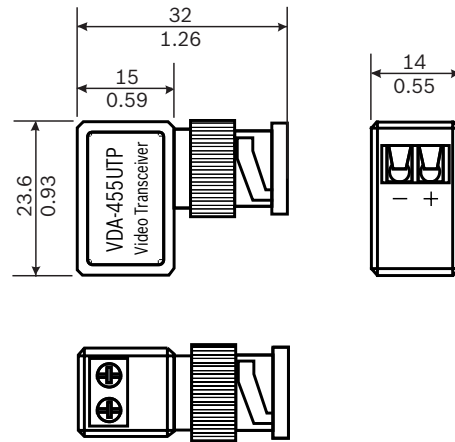
**FlexiDome<sup>VF</sup> model overview**

Model	Standard	Lens
<b>Monochrome</b>		
VDM-345V03-10	CCIR	2.6 to 6 mm F1.4
VDM-345V03-20	EIA	2.6 to 6 mm F1.4
VDM-345V04-10	CCIR	4 to 9 mm F1.6
VDM-345V04-20	EIA	4 to 9 mm F1.6
<b>Color</b>		
VDC-445V03-10	PAL	2.6 to 6 mm F1.4
VDC-445V03-20	NTSC	2.6 to 6 mm F1.4
VDC-445V04-10	PAL	4 to 9 mm F1.6
VDC-445V04-20	NTSC	4 to 9 mm F1.6

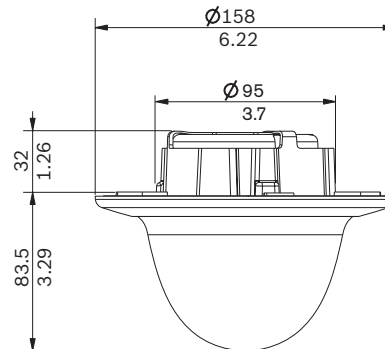
**FlexiDome<sup>XT+</sup> model overview**

Model	Standard	Lens
<b>Monochrome</b>		
VDM-355V03-10	CCIR	2.6 to 6 mm F1.4
VDM-355V03-20	EIA	2.6 to 6 mm F1.4
VDM-355V04-10	CCIR	3.7 to 12 mm F1.6
VDM-355V04-20	EIA	3.7 to 12 mm F1.6
<b>Color</b>		
VDC-455V03-10	PAL	2.6 to 6 mm F1.4
VDC-455V03-20	NTSC	2.6 to 6 mm F1.4
VDC-455V04-10	PAL	3.7 to 12 mm F1.6
VDC-455V04-20	NTSC	3.7 to 12 mm F1.6

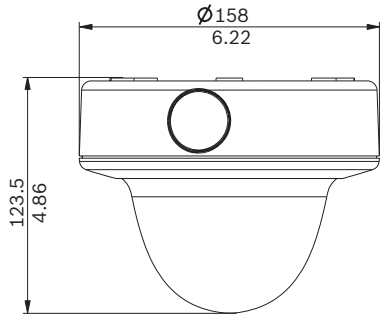
**Dimensions in mm (in.) for BNC to UTP transceiver**



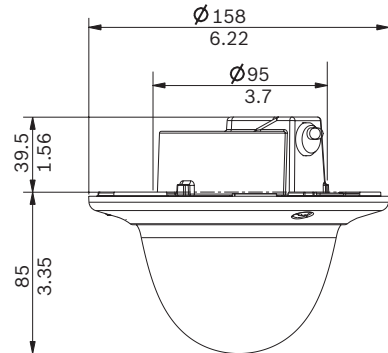
**Dimensions in mm (in.) for the FlexiDome<sup>VF</sup> low-impact, indoor flush mounting models**



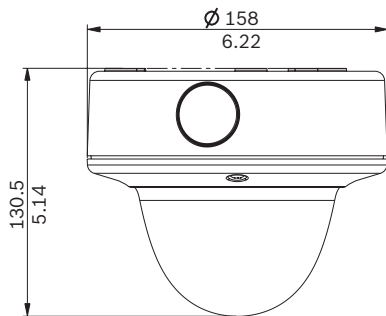
**Dimensions in mm (in.) for the FlexiDome<sup>VF</sup> low-impact, indoor surface mounting models**



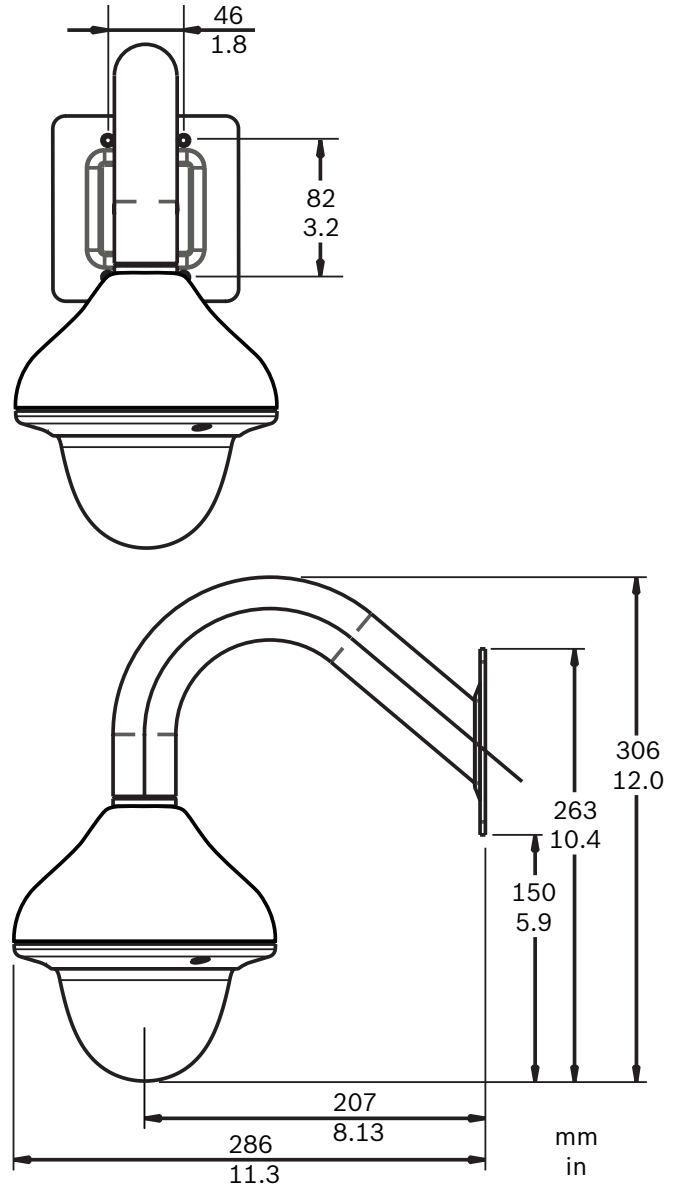
**Dimensions in mm (in.) for the FlexiDome<sup>XT+</sup> impact-resistant, indoor flush mounting models**



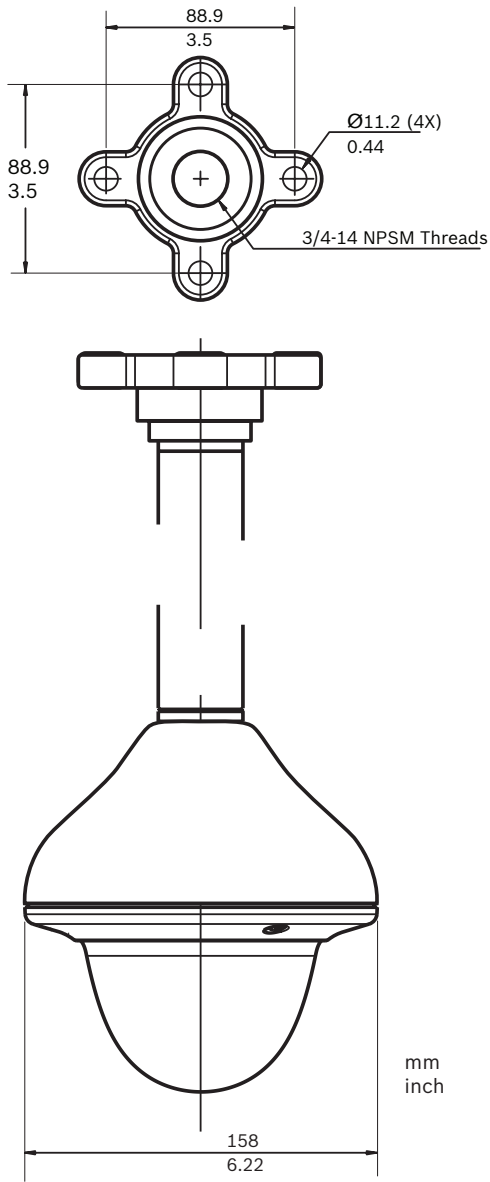
**Dimensions in mm (in.) for the FlexiDome<sup>XT+</sup> impact-resistant, indoor surface mounting models**



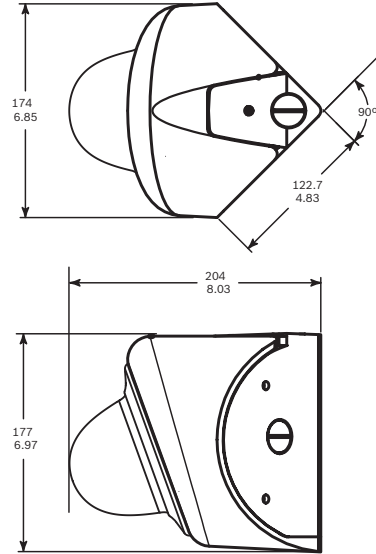
**VDA-445WMT dimensions in mm (in) for wall mounting**



**VDA-455PMT dimensions in mm (in.) for pendant or pipe mounting**



**VDA-455CMT 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	
VDM-345 and VDC-445	4 W
VDM-355 and VDC-455	4 W (6 W with heater operation)
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)
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### Monochrome

VDM-345V03	0.09 lx (0.008 fc)	0.2 (0.019)	0.78 (0.074)
VDM-345V04	0.12 lx (0.011 fc)	0.26 (0.024)	1.0 (0.095)

### Color

VDC-445V03	Color	0.44 lx (0.041 fc)	0.98 (0.091)	3.9 (0.36)
VDC-455V03	NightSense	0.18 lx (0.016 fc)	0.39 (0.036)	1.6 (0.15)
VDC-445V04	Color	0.58 lx (0.053 fc)	1.3 (0.12)	5.1 (0.48)
VDC-455V04	NightSense	0.23 lx (0.021 fc)	0.5 (0.048)	2.0 (0.19)

Horizontal Resolution	
color models	540 TVL
monochrome models	570 TVL
Signal-to-noise ratio	>50 dB
AGC	20 dB (max)
Auto black	On/off selectable
Electronic shutter	Flickerless, on/off
NightSense	Auto, forced, off selectable
Sharpness correction	Horizontal and vertical, symmetrical
Backlight compensation	Center window weighting, off selectable
White balance	Automatic sensing (2500 to 9000 K) and hold
Video output	Composite video 1.0 Vpp, 75 ohm
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	
2.6 to 6 mm	Wide 98.5° x 75.3° (H x V) Tele 48.1° x 36.2° (H x V)
4 to 9 mm	Wide 68° x 50.2° (H x V) Tele 32.1° x 24.1° (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 drawing
Weight	
VDM-345 and VDC-445	440 g (1.1 lb)
VDM-355 and VDC-455	740 g (1.63 lb)
Mounting	Flush on hollow surface with three (3) screws in 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	Vandal resistant models: aluminum Low impact models: polycarbonate

### Environmental

Operating temperature	
VDM-345 and VDC-445	-10 °C to +45 °C (+14 °F to +113 °F)
VDM-355 and VDC-455	-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 (VDM-355 and VDC-455 models only)

**Ordering Information****Model & Description**

VDM-345V03-10 indoor monochrome model 1/3 inch, B/W CCIR, 570 TVL, 12 VDC/24 VAC, 50 Hz, w/2.6-6 mm F1.4 Varifocal lens, white.
VDM-345V03-20 indoor monochrome model 1/3-inch, B/W EIA, 570 TVL, 12 VDC/24 VAC, 60 Hz, w/2.6-6 mm F1.4 Varifocal lens, white.
VDM-345V04-10 indoor monochrome model 1/3-inch, B/W CCIR, 570 TVL, 12 VDC/24 VAC, 50 Hz, w/4-9 mm F1.6 Varifocal lens, white.
VDM-345V04-20 indoor monochrome model 1/3-inch, B/W EIA, 570 TVL, 12 VDC/24 VAC, 60 Hz, w/4-9 mm F1.6 Varifocal lens, white.
VDC-445V03-10 indoor color model 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/2.6-6 mm F1.4 Varifocal lens, white.
VDC-445V03-20 indoor color model 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/2.6-6 mm F1.4 Varifocal lens, white
VDC-445V04-10 indoor color model 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/4-9 mm F1.6 Varifocal lens, white
VDC-445V04-20 indoor color model 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/4-9 mm F1.6 Varifocal lens, white
VDM-355V03-10 vandal resistant monochrome model 1/3-inch, B/W CCIR, 570 TVL, 12 VDC/24 VAC, 50 Hz, w/2.6-6 mm F1.4 Varifocal lens, white
VDM-355V03-20 vandal resistant monochrome model 1/3-inch, B/W EIA, 570 TVL, 12 VDC/24 VAC, 60 Hz, w/2.6-6 mm F1.4 Varifocal lens, white
VDM-355V04-10 vandal resistant monochrome model 1/3-inch, B/W CCIR, 570 TVL, 12 VDC/24 VAC, 50 Hz, w/3.7-12 mm F1.6 Varifocal lens, white
VDM-355V04-20 vandal resistant monochrome model 1/3-inch, B/W EIA, 570 TVL, 12 VDC/24 VAC, 60 Hz, w/3.7-12 mm F1.6 Varifocal lens, white
VDC-455V03-10 vandal resistant color model 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/2.6-6 mm F1.4 Varifocal lens, white
VDC-455V03-20 vandal resistant color model 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/2.6-6 mm F1.4 Varifocal lens, white
VDC-455V04-10 vandal resistant color model 1/3-inch, PAL color, 540 TVL, 12 VDC/24 VAC, 50 Hz, w/3.7-12 mm F1.6 Varifocal lens, white
VDC-455V04-20 vandal resistant color model 1/3-inch, NTSC color, 540 TVL, 12 VDC/24 VAC, 60 Hz, w/3.7-12 mm F1.6 Varifocal lens, white

**Ordering Information****Model & Description****Accessories**

VDA-445SMB Surface mount box, indoor for FlexiDome <sup>VF</sup> series
VDA-455SMB Surface mount box, high impact
VDA-455UTP Adaptor for UTP twisted pair output
VDA-445WMT Wall mounting bracket
VDA-455PMT Pendant pipe mount
VDA-455CMT Corner mounting bracket for interior corner
VP-CFGSFT Configuration software, including VP-USB adaptor for Bilinx
S1460 Service/Monitor cable (2.5 mm connector to BNC), 1 m
TC220PSX-24 Power Supply Unit 230 VAC/20 VAC, 50 Hz, 20 VA
TC220PS Power Supply Unit 230 VAC/15 VDC, 50 Hz, 10 VA
TC1334 Power Supply Unit 120 VAC/24 VAC, 60 Hz, 30 VA
TC24PS Power Supply Unit 24 VAC/15 VDC, 50/60 Hz, 9 VA

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