

FLEXIDOME AN outdoor 5000

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Invented for life



- ▶ Ultra high resolution 960H sensor
- ▶ High Dynamic Range to see bright and dark details simultaneously
- ▶ High impact, vandal-resistant, weatherproof housing
- ▶ Bilinx communication for remote set-up and control
- ▶ Easy to install

The FLEXIDOME 5000 camera is the ultimate solution for virtually any indoor or outdoor surveillance application. This vandal-resistant dome camera uses a high performance 960H 1/3-inch CCD sensor with a resolution of 720TVL. The sensor, the high dynamic range engine and the advanced image processing technology combine to provide a detailed image with outstanding accuracy in color reproduction even under harsh lighting conditions. True day/night performance ensures the highest image quality possible at any time, day or night. The camera is easy to install and ready to use, and offers the best solution for demanding scene conditions.

System overview

The cast-aluminum housing, polycarbonate dome, and hardened inner liner can withstand the equivalent of 55 kg (120 lbs) of force. The enclosure contains the full-featured camera and integral varifocal lens. Ideal for outdoor use, the cameras are protected against water and dust to IP66 and NEMA Type 4X standards. The camera enclosure provides the extra protection necessary for applications such as schools, banks, prisons, parking garages, retail and industrial buildings.

Installation is quick and easy, as the camera comes 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 compact, sleek design and virtually flush-mount appearance complements any decor.

The camera is supplied ready to operate. Six distinct pre-programmed operational modes are stored in the camera. Recall the mode that suits your application for optimized performance.

Functions

Detail in extreme lighting

In harsh lighting, the difference between the brightest and the darkest parts of a scene can be extreme. To produce a clear picture in these conditions, the CCD sensor in the camera generates two images; one long exposure to resolve details in the scene's darkest areas, and one short exposure to resolve details in the scene's brightest areas. The advanced image processing technology in the camera combines these dual shutter images, mixing pixels from each exposure

to produce the most detailed image possible. The superior wide dynamic range for all lighting conditions reveals details previously unseen.

Day/Night mode

The day/night mode provides enhanced night viewing by increasing the IR sensitivity. The IR filter can switch from color to monochrome automatically by either sensing the illumination level or via the alarm input. The filter can be switched manually via the alarm input, through the camera menu or via the Bilinx coaxial control interface. An internal through-the-lens IR detector enhances the monochrome mode stability, as it prevents reverting to the color mode when IR illumination is dominant. IR contrast is also measured and used to handle reflected IR light in outdoor scenes.

Ease of installation

The lens wizard helps focus the lens at the maximum opening to ensure proper back-focus is maintained throughout the 24-hour cycle. No special tools or filters are required.

Six independent, pre-programmed operating modes support typical applications, but are fully programmable for individual situations. Switching between modes is easy via Bilinx or the external alarm input.

Several other features are available that make installation easy:

- Video BNC and power connectors on flying leads.
- A built-in test pattern generator produces signals to test and fault-find cables.
- A multi-language On-Screen Display (OSD).
- A high efficiency power supply improves maximum operating temperature

Cable compensation is used to avoid the need for amplifiers in long distance coaxial connections up to 1000 m (3000 ft). It can prevent the image quality degradation caused by signal losses from long cable lengths.

Bilinx technology

Bilinx is a bidirectional communication capability embedded in the video signal of this camera. Installers can check status, change camera settings and even update firmware from virtually anywhere along the video cable. Bilinx reduces service and installation time, provides for more accurate set-up and adjustment, and improves overall performance. In addition, Bilinx uses the standard video cable to transmit alarm and status messages, providing superior performance without additional installation steps.

Ideal picture performance

There are many settings available to help fine-tune the picture performance to match your installation environment. These include:

- Smart BLC – automatically and dynamically compensates for strong backlight

- Peak White Invert – reduces glare from highlight areas
- Contrast and sharpness – enhance details in bright or misty scenes
- SensUp – sensitivity is dramatically enhanced by a factor of 10
- Default shutter – improves the motion performance in auto exposure mode
- Dynamic noise reduction – dynamically reduces noise in the picture

Privacy masking

Fifteen different privacy zones allow specific parts of a scene to be blocked. Pre-program any part of the scene to be masked.

Video Motion Detection

The built-in video motion detector allows you to select four programmable areas with sensitivity thresholds. When motion is detected, alarms can be displayed in the video signal or an alarm message can be transmitted via Bilinx.

Lens Options

With this dome camera, there is no compromise between scene coverage and aesthetics of the camera. The camera brings the widest choice of lens selection. Choose lenses between 2.8 to 10.5 mm for wide coverage, 9 to 22 mm VF lens for standard coverage, or 18 to 50 mm for long-rang coverage.

Typical applications

- Entrance foyer/lobby with glass
- Warehouses and loading bays
- Prisons and correctional facilities
- Airport locations including:
 - baggage handling
 - fuel and equipment storage
- Stadium

Certifications and approvals

Electro Magnetic Compatibility

Emission	EN 55022 class B, FCC part 15 class B, EN61000-3-2, EN61000-3-3, EN50121-4
Immunity	EN 50130-4, EN 50121-4
Vibration	IEC 60068-2-6

Safety

EN60950-1, UL60950-1 (2ND edition), CSA C22.2 No. 60950-1-07 (2ND edition)

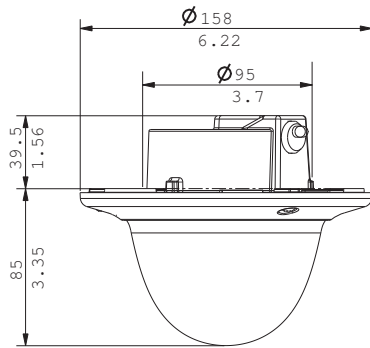
Region	Certification
Europe	CE
USA	UL
	FCC
Canada	CSA

Installation/configuration notes

FLEXIDOME 5000 model overview

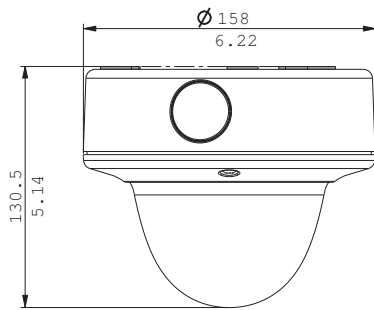
Model	Standard	Lens
VDN-5085-V311	PAL	2.8 to 10.5 mm F1.2
VDN-5085-V321	NTSC	2.8 to 10.5 mm F1.2
VDN-5085-V911	PAL	9 to 22 mm F1.4
VDN-5085-V921	NTSC	9 to 22 mm F1.4
VDN-5085-VA11	PAL	18 to 50 mm F1.5
VDN-5085-VA21	NTSC	18 to 50 mm F1.5

Flush Mounting



Dimensions in mm (in.)

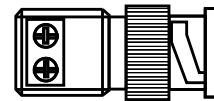
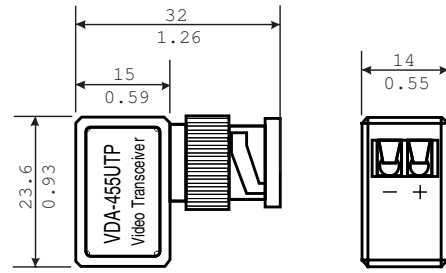
VDA-455SMB-Surface Mount Box



Dimensions in mm (in.) for surface mounting

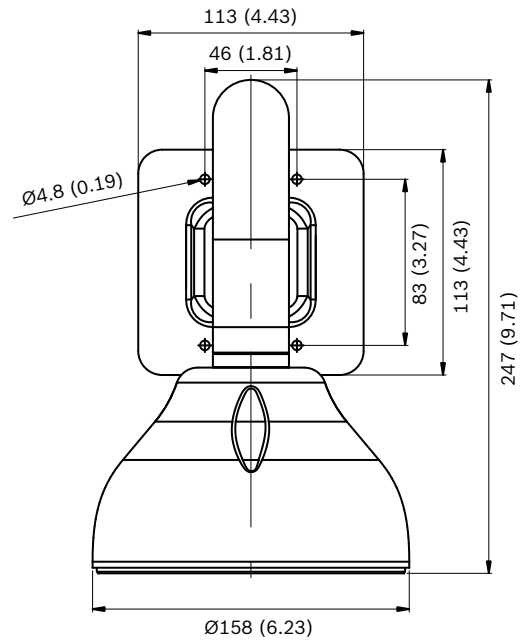
Accessories (not included)

BNC to UTP Transceiver

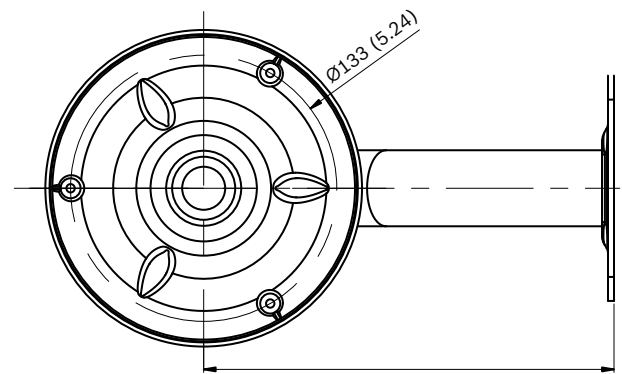


Dimensions in mm (in.)

VDA-WMT-DOME -Pendant Wall Mount



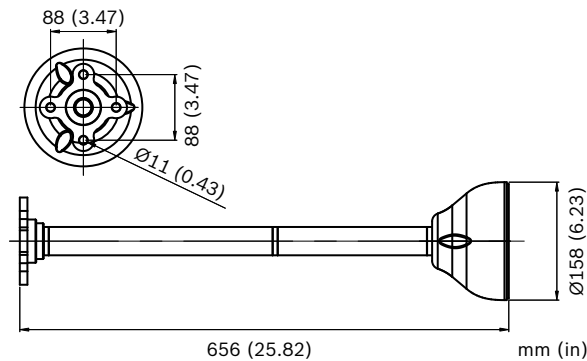
Ø158 (6.23)



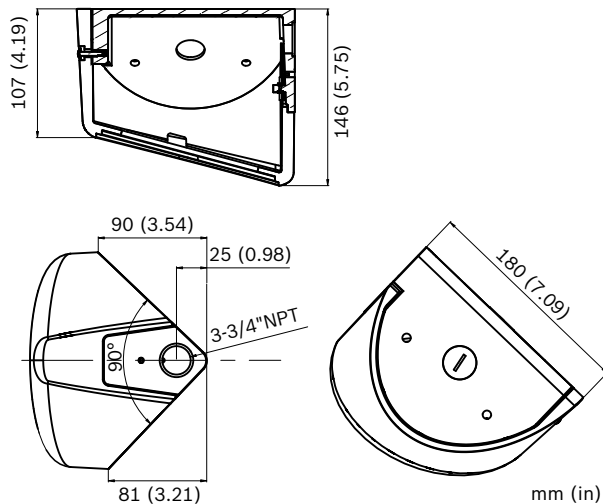
mm (in)

205 (8.07)

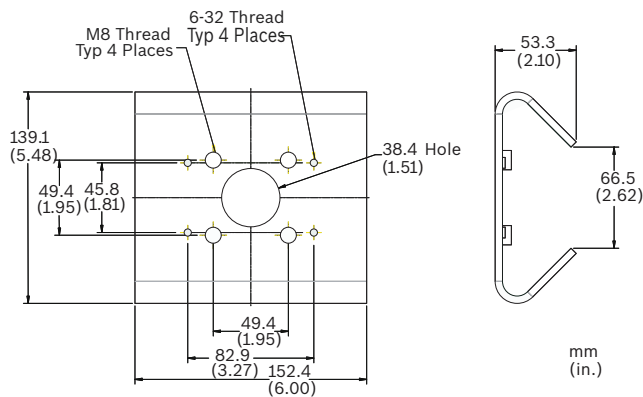
VDA-PMT-DOME –Pendant Pipe Mount



VDA-CMT-DOME –Corner Mount



LTC 9213/01 Pole Mount Adapter



Technical specifications

Electrical

Model No.	Rated Voltage	Rated Frequency
VDN-5085-V311, VDN-5085-V911, VDN-5085-VA11	12 VDC / 24 VAC	50 Hz

VDN-5085-V321, VDN-5085-V921, VDN-5085-VA21	12 VDC / 24 VAC	60 Hz
Power Consumption	360 mA (12 VDC), 700 mA with heater on 330 mA (24 VAC), 650 mA with heater on	
Image Sensor	960H, 1/3" DS CCD, sensor resolution 720TVL, WDR dual shutter	
System	PAL or NTSC	
Total pixels (H x V)	1020 x 596 (PAL) 1020 x 508 (NTSC)	
Effective pixels (H x V)	976 x 582 (PAL) 976 x 494 (NTSC)	

Sensitivity Lens 2.8 to 10.5 mm (3200K, scene reflectivity 89%, transmission 68%, F1.2)"

	Full video (100 IRE)	Usable picture (50 IRE)	Usable picture (30 IRE)
Color	0.7 lx (0.0651 fc)	0.13 lx (0.0121 fc)	0.06 lx (0.00558 fc)
Color + SensUp 10x	0.07 lx (0.00651 fc)	0.013 lx (0.00121 fc)	0.006 lx (0.000558 fc)
Monochrome	0.3 lx (0.0279 fc)	0.06 lx (0.00558 fc)	0.03 lx (0.00279 fc)
Monochrome SensUp 10x	0.03 lx (0.00279 fc)	0.006 lx (0.000558 fc)	0.003 lx (0.000279 fc)

Sensitivity Lens 9 to 22 mm (3200K, scene reflectivity 89%, transmission 68%, F1.4)"

	Full video (100 IRE)	Usable picture (50 IRE)	Usable picture (30 IRE)
Color	1 lx (0.0930 fc)	0.17 lx (0.0158 fc)	0.08 lx (0.00744 fc)
Color + SensUp 10x	0.1 lx (0.00930 fc)	0.017 lx (0.00158 fc)	0.008 lx (0.000744 fc)
Monochrome	0.4 lx (0.0372 fc)	0.08 lx (0.00744 fc)	0.04 lx (0.00372 fc)
Monochrome SensUp 10x	0.04 lx (0.00372 fc)	0.008 lx (0.000744 fc)	0.004 lx (0.000372 fc)

Sensitivity Lens 18 to 50 mm (3200K, scene reflectivity 89%, transmission 68%, F1.5)"

	Full video (100 IRE)	Usable picture (50 IRE)	Usable picture (30 IRE)
Color	1.1 lx (0.102 fc)	0.2 lx (0.0186 fc)	0.09 lx (0.00836 fc)
Color + SensUp 10x	0.11 lx (0.0102 fc)	0.02 lx (0.00186 fc)	0.009 lx (0.000836 fc)

Monochrome	0.5 lx (0.0465 fc)	0.09 lx (0.00836 fc)	0.05 lx (0.00465 fc)
Monochrome SensUp 10x	0.05 lx (0.00465 fc)	0.009 lx (0.000836 fc)	0.005 lx (0.000465 fc)
Signal-to-Noise Ratio	>54 dB		
Video Output	Composite video 1 Vpp, 75 ohm		
Synchronization	Internal, Line Lock		
Shutter	Auto (1/50 [1/60] to 1/100000) selectable, fixed, flickerless, default		
Sensitivity Up	Adjustable from Off up to 10x		
Day/Night	Color, Mono, Auto		
Dynamic Engine	XF-Dynamic, HDR, Smart BLC		
Dynamic Range	94 dB (WDR)		
Dynamic Noise Reduction	2D-NR, 3D-NR		
AGC	AGC On or Off (0 – 40 dB) selectable		
Smart BLC	On/Off		
Peak White Invert	On/Off		
White Balance	ATW Indoor, ATW Outdoor, ATW hold and Manual		
Contrast Enhancement	Low, Medium, High		
Sharpness	Sharpness enhancement level selectable		
Alarm Output	VMD or Bilinx		
Cable Compensation	Up to 1000 m (3000 ft) coax without external amplifiers (automatic set-up in combination with Bilinx coaxial communication)		
Camera ID	17 character editable string, position selectable		
Test Pattern Generator	Color bar, Raster, Impulse, Cross Impulse, Cross hatch,		
Modes	6 preset programmable modes		
Remote Control	Bilinx coaxial bi-directional communication		
Video Motion Detection	4 areas, fully programmable		
Privacy Masking	15 independent areas, fully programmable		
E-Zoom	Up to 16x		
Digital Image Stabilizer	On/Off		
Controls	OSD with soft-key operation		
OSD Language	English, French, German, Spanish, Portuguese, Simplified Chinese, Russian		

Optical

Varifocal	Manual zoom and focus adjustment
Iris control	Automatic iris control

Viewing angle

2.8 to 10.5 mm	Wide 101.8° x 73.7° (H x V)
	Tele 27.4° x 20.6° (H x V)
9 to 22 mm	Wide: 32.1° x 23.3° (H x V)
	Tele: 13.1° x 9.8° (H x V)
18 to 50 mm	Wide: 14.6° x 10.9° (H x V)
	Tele: 5.6° x 4.2° (H x V)

Mechanical

Dimensions	See drawings
Weight	750 g (1.65 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 default (with heater off)	-30 °C to +55 °C (-22 °F to +131 °F)
Operating temperature (with heater on)	-50 °C to +55 °C (-58 °F to +131 °F)
Storage temperature	-55 °C to +70 °C (-67 °F to +158 °F)
Operating humidity	5% to 93% relative humidity
Storage humidity	Up to 98% relative humidity
Impact protection	IEC 60068-2-75 test Eh, 50 J
	EN 50102, exceeding IK 10
Water/dust protection	IP66 and NEMA Type-4X

Ordering information

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 2.8 to 10.5 mm lens; 50 Hz; PAL
Order number **VDN-5085-V311**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 2.8 to 10.5 mm lens; 60 Hz; NTSC
Order number **VDN-5085-V321**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 9 to 22 mm lens; 50 Hz; PAL
Order number **VDN-5085-V911**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 9 to 22 mm lens; 60 Hz; NTSC
Order number **VDN-5085-V921**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 18 to 55 mm lens; 50 Hz; PAL
Order number **VDN-5085-VA11**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 18 to 55 mm lens; 60 Hz; NTSC
Order number **VDN-5085-VA21**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 2.8 to 10.5 mm lens; surface mount; 50 Hz; PAL
Order number **VDN-5085-V311S**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 2.8 to 10.5 mm lens; surface mount; 60 Hz; NTSC
Order number **VDN-5085-V321S**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 9 to 22 mm lens; surface mount; 50 Hz; PAL
Order number **VDN-5085-V911S**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 9 to 22 mm lens; surface mount; 60 Hz; NTSC
Order number **VDN-5085-V921S**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 18 to 50 mm lens; surface mount; 50 Hz; PAL
Order number **VDN-5085-VA11S**

FLEXIDOME AN outdoor 5000

960H analog outdoor WDR dome camera. IP66; IK10; 12VDC/24VAC; true day/night; 720 TVL; 3-axis adjustment; 4-zone motion detect; 15-zone privacy mask; varifocal 18 to 50 mm lens; surface mount; 60 Hz; NTSC
Order number **VDN-5085-VA21S**

Accessories**VDA-455SMB**

High impact surface mount box for dome cameras
Order number **VDA-455SMB**

VDA-455UTP

Adaptor for UTP twisted pair output
Order number **VDA-455UTP**

S1460 Service/Monitor Cable

2.5 mm jack to BNC video connector cable. 1 m
Order number **S1460**

VDA-WMT-DOME Wall Pendant Mount Bracket

Wall pendant mount bracket for FlexiDome cameras
Order number **VDA-WMT-DOME**

VDA-CMT-DOME Corner Mount Bracket

Corner mount bracket for FlexiDome cameras
Order number **VDA-CMT-DOME**

VDA-PMT-DOME Pendant Pipe Mount Bracket

Pendant pipe mount bracket for FlexiDome cameras
Order number **VDA-PMT-DOME**

LTC 9213/01 Pole Mount Adapter

Flexible pole mount adapter for camera mounts. Max. 9 kg (20 lb); 3 to 15 inch diameter pole; stainless steel straps
Order number **LTC 9213/01**

UPA-2420-50 Power Supply

Power supply for cameras. 220 VAC, 50 Hz In; 24 VAC, 20 VA Out
Order number **UPA-2420-50**

UPA-2430-60 Power Supply

Power supply for camera. 120 VAC, 60 Hz; 24 VAC, 30 VA Out

Order number **UPA-2430-60**

UPA-2450-50 Power Supply, 220 V, 50 Hz

Indoor power supply for camera. 220 VAC, 50 Hz In; 24 VAC, 50 VA Out

Order number **UPA-2450-50**

UPA-2450-60 Power Supply, 120 V, 60 Hz

Indoor power supply for camera. 120 VAC, 60 Hz In; 24 VAC, 50 VA Out

Order number **UPA-2450-60**

VDA-455TBL Tinted bubble

Tinted bubble for FlexiDome series

Order number **VDA-455TBL**

VDA-455CBL Clear bubble

Clear Bubble for FlexiDome series

Order number **VDA-455CBL**

EX12LED-3BD-8M Infrared Illuminator

Mini IR 850 nm illuminator. LED array; 3D Diffuser; black; 17 m HFOV; 30° beam pattern

Order number **EX12LED-3BD-8M**

EX12LED-3BD-8W Infrared Illuminator

Mini IR 850 nm illuminator. LED array; 3D Diffuser; black; 16 m HFOV; 60° beam pattern

Order number **EX12LED-3BD-8W**

EX12LED-3BD-9M Infrared Illuminator

Mini IR 940 nm illuminator. LED array; 3D Diffuser; black; 17 m HFOV; 30° beam pattern

Order number **EX12LED-3BD-9M**

EX12LED-3BD-9W Infrared Illuminator

Mini IR 940 nm illuminator. LED array; 3D Diffuser; black; 16 m HFOV; 60° beam pattern

Order number **EX12LED-3BD-9W**

TC8235GIT Ground Loop Isolation Transformer

Order number **TC8235GIT**

Software Options**VP-CFGSFT Configuration Software**

Configuration software for cameras using Bilinx. VP-USB adaptor

Order number **VP-CFGSFT**

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