

**BOSCH**

Invented for life

# AutoDome® 200 Series PTZ Camera System



- ▶ Economical, high-speed PTZ dome
- ▶ Fully interchangeable CPUs, cameras, housings, communications, and mounts
- ▶ 18x color camera
- ▶ Tri-streaming (simultaneous dual MPEG-4 and M-JPEG streaming)
- ▶ Optional hybrid operation provides simultaneous analog (coax) and IP (MPEG-4) connectivity
- ▶ UTP transmission standard on all analog models
- ▶ All versions allow for remote configuration and update
- ▶ Multi-protocol capable
- ▶ Advanced diagnostics
- ▶ Three-year warranty

Bosch's AutoDome modular camera system is a revolutionary new concept in dome cameras. More than just a series of cameras, it's a dome platform built around a system of intelligent, interchangeable modules that allow you to update camera functionality quickly and cost-effectively. Using common components lets you install a basic camera system today and migrate to a more advanced version tomorrow – without having to replace the entire dome, thus protecting your initial investment.

## Interchangeable modules

The entire AutoDome system is based on five interchangeable modules: the CPU, camera, housing, communications, and power supply. Simply swap one of AutoDome's interchangeable modules and quickly upgrade from analog to IP, color to day/night, or add motion tracking. Never before have you had the ability to adapt a security system to your changing needs this quickly or inexpensively.

By using the same housing components, all installations have a consistent look, and observers have no idea which type of camera (if any) is watching over them. This unique, modular design also gives you the flexibility to move cameras between different housings when special coverage is needed, or as site plan requirements change. For

example, an 18x PTZ camera over a specific area could easily be “hot-swapped” to a 26x day/night without removing the power.

Migrating from a basic dome to one with advanced features such as AutoTrack II intelligent tracking can be done quickly and easily, without requiring dome removal or rewiring. AutoDome's Ethernet communications module allows you to add IP functionality while maintaining connectivity to existing analog inputs and outputs.

## 200 Series highlights

The AutoDome 200 Series is an economical, high-speed dome camera that uses a high-performance, 18x color PTZ camera. The 200 Series supports a variety of standard and optional video and data transmission methods, including Bilinx (over coax and UTP), fiber, and even TCP/IP over Ethernet. Remote control, configuration, and firmware updates can also be performed over these cables, offering you unparalleled control of your cameras.

The optional IP Communications Module has hybrid functionality to protect your current analog technology investment while providing a clear and stable migration path to fully digital, IP-based solutions. This allows you to move to IP video at your own pace – all at once or one camera at a time. And since all AutoDome modules are

completely interchangeable, there is no need to replace expensive components (for example cameras) or labor-intensive components (for example mounts and housings).

### Functions

The following are some of the features that make the AutoDome 200 Series the most flexible PTZ dome camera systems in the security industry.

#### High-performance 18x PTZ color camera

AutoDome 200 Series PTZ color cameras have a 1/4-inch color CCD. With 470 TVL (NTSC/PAL) horizontal resolution and sensitivity down to 0.5 lux, the 200 Series offers exceptional performance at an affordable price. A rugged motor with fewer moving parts mean the 200 Series uses less power and is extremely reliable, making it ideal for high-usage applications.

With super-quick, 360° per-second pan and tilt speeds, the AutoDome 200 Series outperforms other domes in its class. As with all AutoDome Modular PTZ Camera Systems, the 200 Series includes our patented AutoScaling (proportional zoom) and AutoPivot (automatically rotates and flips the camera), so tracking a subject is effortless. The 200 Series supports 64 pre-positions and a single preset tour. The preset tour has the capacity for up to 64 pre-positions with a configurable dwell time between pre-positions.

Supported menu languages include: English, French, German, Spanish, Portuguese, Italian, Dutch, and Polish.

#### Optional hybrid analog/IP operation

Optional hybrid connectivity allows the AutoDome to simultaneously stream IP video across a local or wide area network, and CVBS video via coaxial cabling to support existing analog equipment. Network video streams are sent over IP networks and can be viewed with the Bosch DiBos Digital Video Recorder, or on a PC running VIDOS video management software. Alternatively, a Bosch IP video decoder can be used to display the video on an analog CVBS or VGA monitor. For maximum accessibility, video can be viewed using a Web browser. The BNC connection provides direct input to a conventional analog matrix switcher or DVR, further enhancing AutoDome's viewing and recording flexibility. Hybrid operation allows simultaneous dome control over the network and via biphase analog controllers.

#### MPEG-4 encoding

AutoDome's IP Communications Module uses the latest MPEG-4 compression technology to provide DVD-quality 4CIF video at frame rates up to 25/30 PAL/NTSC images per second (IPS). The IP module also leverages bandwidth throttling and multicasting capabilities to efficiently manage bandwidth and storage requirements while delivering the best possible image quality and resolution.

#### Tri-streaming video

Bosch's innovative tri-streaming feature enables AutoDomes equipped with the optional IP Communications Module to generate two independent MPEG-4 streams and a JPEG stream simultaneously. This feature allows you to stream high-quality images for live viewing while recording at a reduced frame rate, and at the same time, stream JPEG images to a remote PDA device.

#### Unsurpassed reliability

AutoDome builds on Bosch's 10-plus years of experience designing and manufacturing dome camera systems. All AutoDome pendant housings (indoor and outdoor) are rated to provide IP 66 protection. Outdoor EnviroDome housings provide an operating temperature range down to -40° C (-40° F). The optional "XT" extended temperature kit allows AutoDome to operate in temperatures down to -60° C (-76° F), ensuring reliable operation in even the harshest environments.

All housings come standard with a rugged polycarbonate bubble, recessed set screws, and a recessed bubble latch to reduce the chance of damage from vandalism. Inside the dome, the power, data, and video are all protected against unexpected surges of power.

#### Ease of installation and servicing

Bosch's innovative software, the Configuration Tool for Imaging Devices (CTFID), allows operators or technicians to control the PTZ, change camera settings and even update firmware from virtually anywhere without need for additional wiring. For the new Ethernet versions, an embedded Web server lets the installer access all the user settings, make camera adjustments, and update firmware via a standard Web browser.

The AutoDome's innovative design simplifies installation and servicing. AutoDome reduces maintenance costs because you can replace individual modules instead of entire camera assemblies. Simply pop out the old module and slide in the new: it's almost as easy as changing a light bulb. All tethers have been replaced with hinges, making installation and servicing safer and easier. You can even access the built-in power supply without taking down the dome.

The AutoDome 200 Series has advanced, built-in diagnostics to simplify service and minimize downtime. Using the On Screen Display (OSD), a technician can quickly and easily check critical parameters (such as internal temperature and input voltage level) to verify that the dome is functioning within acceptable operating limits. If video is not present, a local inspection of three diagnostic LEDs at the camera site can identify the presence of video and control data.

## Feature Comparison Matrix

The following table provides an overview of the AutoDome camera family and its available features:

Standard Features	AutoDome 100 Series	AutoDome 200 Series	AutoDome 300 Series	AutoDome 500i Series
Interchangeable Modules	•	•	•	•
High Speed PTZ		•	•	•
Preset Shots		64	99	99
Preset Tour		•	•	•
Guard Tour			•	•
Alarm Inputs			7/4	7/4
High Resolution Camera	•	•	•	•
Day/Night Operation	•		•	•
IR Sensitive	•		•	•
SensUp Extended Sensitivity	•		•	•
UTP/Coax Transmission	•	•	•	•
Hybrid Analog/IP Connectivity	•	•	•	•
Bilinx Remote Configuration*	•	•	•	•
Cable Compensation			•	•
Hot-Swap Camera Modules	•	•	•	•
Ruggedized, Vandal-Resistant Enclosure	•	•	•	•

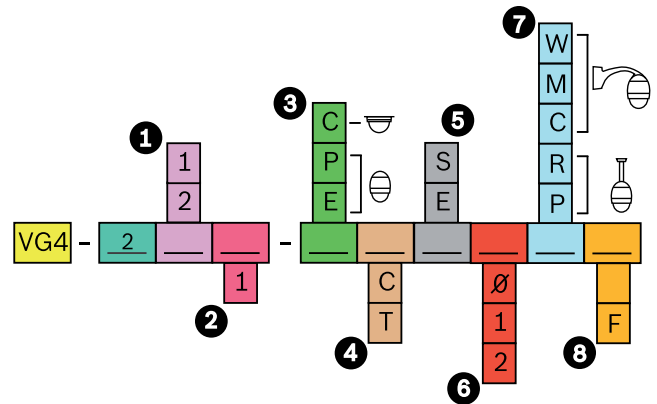
Advanced Features	
AutoTrack II Motion Tracking	•
Video Motion Detection	•
Image Stabilization	•
Privacy Masking and Sector Blanking	•
Advanced Alarm Control	•

\*Compatible over Coax and UTP transmission only. Remote configuration over IP via web interface.

## Certifications and Approvals

Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003, and CE regulations, including EN50130-4 and EN50121-4
Product Safety	Complies with CE regulations, UL, CSA, EN, and IEC Standards
Patents	D424,087, 7,111,998, 7,217,045, 7,306,383, D561,808

## Installation/Configuration Notes



### Ordering Guide

#### 1 Video Format

- 1 PTZ PAL
- 2 PTZ NTSC

#### 2 Camera Type

- 1 18x Color PTZ

#### 3 Enclosure

- C In-ceiling<sup>2</sup>
- P Indoor Pendant
- E Outdoor Pendant

#### 4 Bubble

- C Clear Rugged
- T Tinted Rugged

#### 5 Communications

- S Standard (Coax/UTP)
- E Ethernet (TCP/IP)

#### 6 Power

- 0 24 VAC<sup>1</sup>
- 1 120 VAC
- 2 230 VAC

#### 7 Mount

- W Wall
- M Mast
- C Corner
- R Roof<sup>4</sup>
- P Pipe

#### 8 Fiber Optics

- \_ No Fiber
- F Fiber<sup>3</sup>

1 No transformer included. Customer must supply an approved 24 VAC limited power supply (VG4-A-PSUx or equivalent).

2 Recessed in-ceiling housing units do not require kit options for reference numbers 6, 7, or 8.

3 Fiber optic option is multi-mode with biphase. Requires LTC 4629 at the system.

4 Roof mount mounts to vertical Parapet. For flat roof installation, order an additional LTC 9230/01 Flat Roof Adapter Plate.

## Technical Specifications

### Camera 18x Color

Imager	1/4 in. Exview HAD CCD (752 x 582 PAL)/(768 x 494 NTSC)	
Lens	18x Zoom (4.1–73.8 mm) F1.4 to F3.0	
Focus	Automatic with manual override	
Iris	Automatic with manual override	
Field of View	2.7° to 48°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Off/Auto (with adjustable limit)	
Synchronization	Line-Lock (–120° to 120° vertical phase adjust) or internal crystal	
Aperture Correction	Horizontal and vertical	
Horizontal Resolution	470 TVL (NTSC, PAL) typical	
<b>Sensitivity</b> (typical)	30 IRE	50 IRE
F1.4, 1/60 (1/50) shutter, max AGC	0.5 lx	0.8 lx
SNR	>50 dB	
White Balance	2000 K to 10,000 K	

### Mechanical/Electrical

Model	In-Ceiling	Indoor Pendant	EnviroDome®
Weight	2.66 kg (5.86 lb)	2.88 kg (6.3 lb)	3.32 kg (7.3 lb)
Pan Range	360° cont.	360° cont.	360° cont.
Tilt Angle	1° above horizon	18° above horizon	18° above horizon
Variable Speed	0.1°/s-120°/s	0.1°/s-120°/s	0.1°/s-120°/s
Pre-position Speed	Pan: 360°/s Tilt: 210°/s	Pan: 360°/s Tilt: 210°/s	Pan: 360°/s Tilt: 210°/s
Preset Accuracy	± 0.1° typ.	± 0.1° typ.	± 0.1° typ.
Power	21-30 VAC 50/60 Hz	21-30 VAC 50/60 Hz	21-30 VAC 50/60 Hz

### Power Draw: (typ)

Analog Models	10 W	10 W	46 W <sup>5</sup>
Ethernet Models	14 W	14 W	50 W <sup>5</sup>

5 Add 16 W if using VG4-SHTR-XT kit.

### Surge Suppression

Protection on Video	Peak current 10 kA (Gas Tube Arrester), peak power 1000 W (10/1000 µ)
Protection on RS-232/485, Bi-phase	Peak current 10 A, peak power 300 W (8/20 µ)
Protection on Alarm Inputs	Peak current 17 A, peak power 300 W (8/20 µ)
Protection on Alarm Outputs	Peak current 2 A, peak power 300 W (8/20 µ)
Protection on Relay Outputs	Peak current 7.3 A, peak power 600 W (10/1000 µ)
Protection on Power Input (Dome)	Peak current 7.3 A, peak power 600 W (10/1000 µ)
Protection on Power Output (Arm Power Supply)	Peak current 21.4 A, peak power 1500 W (10/1000 µ)

### Environmental

Model	In-Ceiling	Indoor Pendant	EnviroDome®
Operating Temp.	–10°C to 50°C (14°F to 122°F)	–10°C to 50°C (14°F to 122°F)	–40°C to 50°C (–40°F to 122°F)
Storage Temp.	–40°C to 60°C (–40°F to 140°F)	–40°C to 60°C (–40°F to 140°F)	–40°C to 60°C (–40°F to 140°F)
Humidity	0% to 90% relative, non-condensing	0% to 90% relative, non-condensing	0% to 100% relative, condensing
Protection	IP 66, IK 8 (IEC 62262)		

### Miscellaneous

Sectors/Titling	16 independent sectors with 16-character titles/sector
Camera Setup/Control	Biphase, RS-232, RS-485, Bilinx <sup>6</sup> (coax)
Communications Protocols	Biphase, Bilinx <sup>6</sup> , Pelco P, and Pelco D
Pre-positions	64, each with 16-character titles
Preset Tour	One (1), consisting of up to 64 scenes, consecutively
Supported Languages	English, French, German, Spanish, Portuguese, Polish, Italian, and Dutch

6 Bilinx not available on Ethernet models.

### User Connections

Power (Camera)	21-30 VAC, 50/60 Hz
Power (Heater)	21-30 VAC, 50/60 Hz
Biphase ±	Control Data
Audio Line In <sup>7</sup>	9 K Ohm typ, 5.5 Vp-p max
RS-232 RX/TX or RS-485 ± - optional control data (dip switch selectable)	
Video	BNC/UTP <sup>8</sup>

7 With Ethernet models, the biphase ± can optionally be used as the audio line in connector.

8 Ethernet models have no UTP analog output only BNC (coax).

## Mounts/Accessories

### Pendant Mounts

#### Arm Mounts

Wall Arm (No Transformer)	VG4-A-PA0
Wall Arm (120/230 VAC Transformer)	VG4-A-PA1 / VG4-A-PA2
Wall Arm (120/230 VAC Transformer and Fiber Optics)	VG4-A-PA1F / VG4-A-PA2F

#### Optional Mounting Plates for Arm Mounts

Corner Mounting Plate	LTC 9542/01
Mast (Pole) Mounting Plate	LTC 9541/01

#### Pipe Mounts

Pipe Mount Cap	VG4-A-9543
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#### Roof Mounts

Roof (Parapet) Mount	VG4-A-9230
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#### Optional Mounting Plates for Roof Mounts

Flat Roof Adapter for Parapet Mount	LTC 9230/01
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### Pendant Mounts

#### Power Supplies

Outdoor Power Supply Box (120/230 VAC VG4-A-PSU1 / VG4-A-PSU2 Transformer)

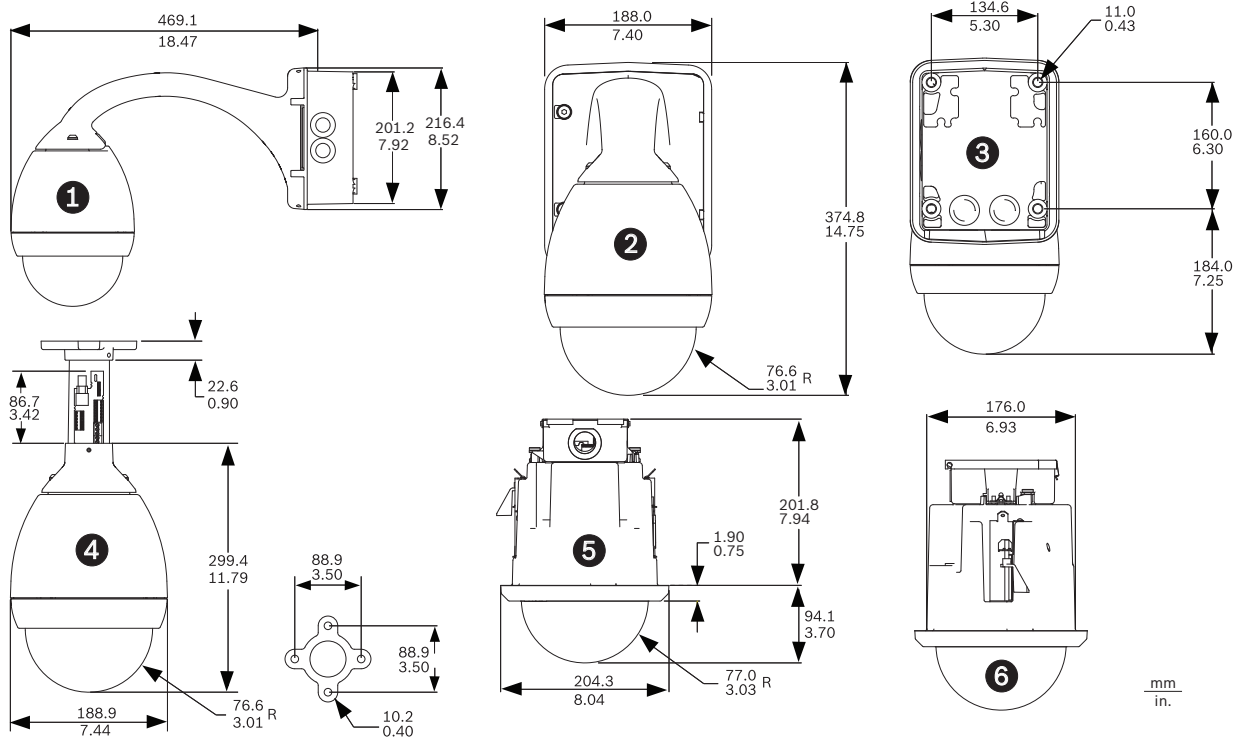
Outdoor Power Supply Box (120/230 VAC VG4-A-PSU1F / VG4-A-PSU2F Transformer and Fiber Optics)

Extended temp heater VG4-SHTR-XT  
module extends temperature range to –  
60°C (–76°F) for EnviroDome® only

#### Fiber Optic Models

Optical Fiber Compatibility 50/125 mm, 62.5/125 mm, low loss multimode glass fiber, rated for a minimum system bandwidth of 20 MHz (video 850 nm/Control 1300 nm)

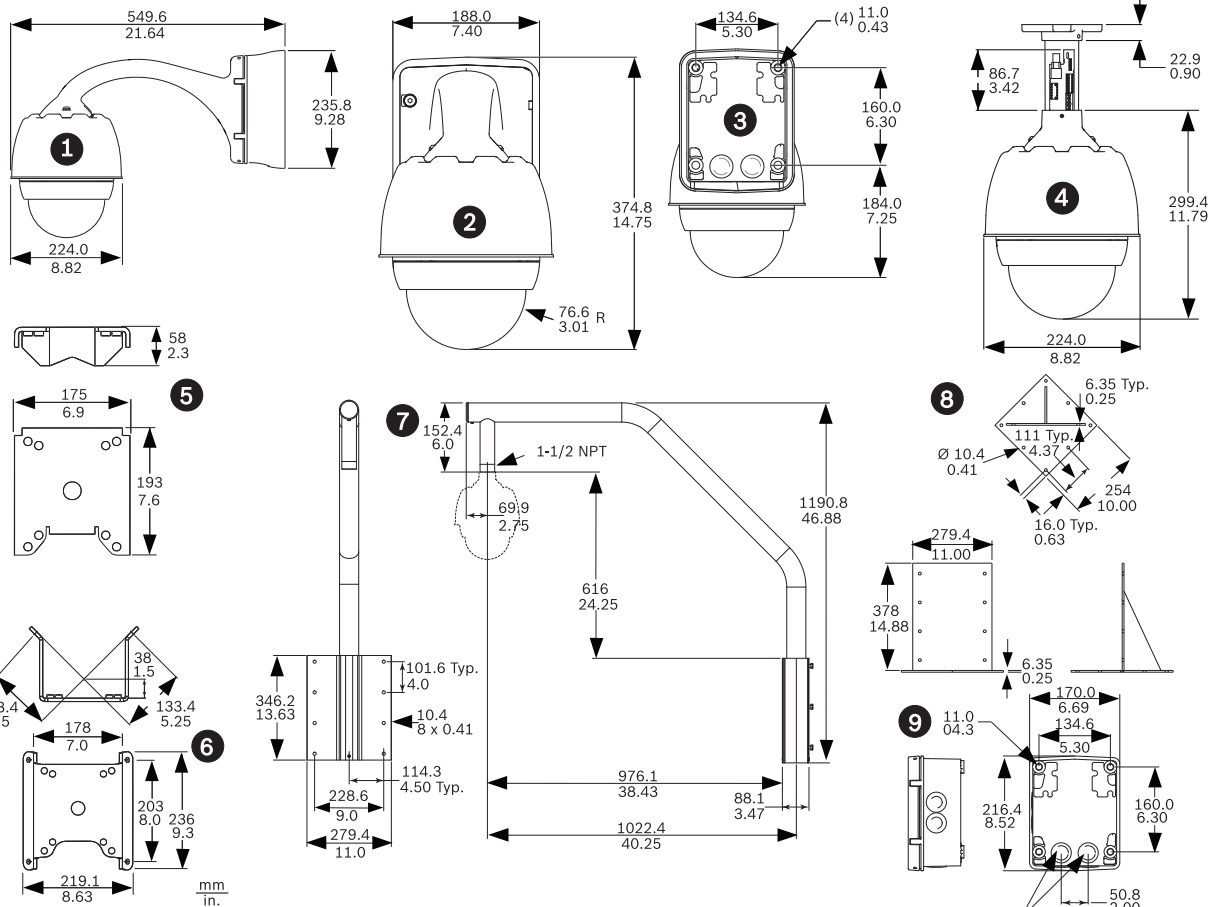
Max Distance 4 km (2.5 miles)



## Indoor System Dimensions

**Reference Description**

- 1 Wall Mount – Side with power supply and trim skirt removed  
 2 Wall Mount – Front with power supply and trim skirt  
 3 Wall Mount – Back with power supply and trim skirt  
 4 Pipe Mount

*Outdoor System Dimensions***Reference Description**

- 1 Wall Mount – Side with power supply and trim skirt  
 2 Wall Mount – Front with power supply and trim skirt  
 3 Wall Mount – Back with power supply and trim skirt  
 4 Pipe Mount  
 5 Mast Mount  
 6 Corner Mount  
 7 Roof Mount  
 8 Roof Mount Adapter  
 9 Power Supply for Pipe and Roof Mounts

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