BOSCH

Invented for life

AutoDome Easy II IP

- ▸ **Choice of standard, including high-performance H.264 and JPEG**
- ▸ **High-quality H.264 compression at 4CIF/D1 and CIF resolutions**
- ▸ **Tri-streaming generates three independent IP video streams (simultaneous H.264 dual streams and JPEG streaming)**
- ▸ **ONVIF compliant**
- ▸ **Embedded Intelligent Video Analytics (IVA) eliminates dedicated PCs and associated software maintenance (optional)**
- ▸ **Durable vandal-resistant housing and bubble**
- ▸ **Ultra compact for discrete surveillance and improved aesthetics in indoor and outdoor applications**
- ▸ **High-speed 360-degree continuous pan**
- ▸ **High resolution/sensitivity 530 TVL color camera**
- ▸ **120x zoom (10x optical, 12x digital)**

AutoDome Easy II IP is a rugged, extremely compact, and easy to install PTZ camera system which incorporates many features typically only found in traditional high-speed dome cameras. This discrete, high-speed dome camera has been specifically designed to deliver uncompromised functionality and performance at a very affordable price for indoor and outdoor applications.

The AutoDome Easy II IP provides direct network connection using H.264 and JPEG compression and bandwidth throttling to efficiently manage bandwidth and storage requirements while delivering outstanding image quality. The AutoDome Easy II IP provides complete network-based control of all dome functionality including pan/tilt/zoom operation, presets, tours and alarming as well as web-based configuration of all dome settings.

The AutoDome Easy II IP conforms to the ONVIF (Open Network Video Interface Forum) specification guaranteeing interoperability between network video products regardless of manufacturer.

AutoDome Easy II IP highlights

With a dome diameter of only 4 inches (10.2 cm), the AutoDome Easy II IP is about 70% smaller than traditional PTZ cameras and 20% smaller than other compact domes. These compact dimensions make the AutoDome Easy II IP ideal for discrete surveillance applications.

Despite its compact design, the AutoDome Easy II IP delivers state-of-the-art technology and features that are rare to most compact PTZ cameras. Its variable pan and tilt speeds and autopivot ensure optimal camera control and viewing at all zoom levels. The high-performance 120x (10x optical/12x digital) zoom autofocus camera incorporates the latest digital imaging technology with excellent sensitivity and resolution. With 99 user-defined presets as well as multiple tour and autopan modes, the AutoDome Easy II IP is not small on features.

A single AutoDome Easy II IP provides as much coverage as four fixed mini domes and is priced lower than a traditional PTZ dome camera. The AutoDome Easy II IP maximizes your security investment by integrating with the entire line of Bosch video products including variable speed Allegiant matrix switchers and Divar XF digital recorders, as well as the full range of Bosch video over IP products.

And, the AutoDome Easy II IP is simple to install and use; available with surface, wall, recessed, and pipe mount options. These mounting options plus the Outdoor Installation kit ensure that the AutoDome Easy II IP can be mounted nearly anywhere.

System Overview

High-performance 120x PTZ color camera
The AutoDome Easy II IP PTZ cameras have a 1/4-inch color CCD. With 530 TVL resolution and sensitivity to below 1.0 lux, the AutoDome Easy II IP Series offers exceptional performance at a very affordable price.

The AutoDome Easy II IP supports up to 99 user-defined pre-positions, as well as 1 preset tour, 2 recorded tours, and 2 auto-pan modes. The preset tour can be programmed with up to 99 prepositions and a configurable dwell time between positions. The recorded tours playback up to 15 minutes of any manual camera movements made during the recording, including the rate of pan, tilt and zoom speeds and other lens setting changes.

Pan and tilt preset repeatability are accurate to within ±0.1 degrees to ensure that the correct scene is captured every time. AutoDome Easy II IP delivers variable pan/tilt speeds from a crawl speed of only 0.1 degrees per second up to an ultra-quick 120 degrees per second. The dome is capable of pan speeds of 360 degrees per second and tilt speeds of 100 degrees per second between prepositions. AutoDome Easy II IP provides a tilt range of 0 to 94 degrees, and a pan range of up to 360 degrees continuous rotation.

The patented AutoScaling (proportional zoom) and AutoPivot (automatically rotates and flips the camera) ensure optimal control.

Ultra-efficient H.264 encoding
AutoDome Easy II IP uses an advanced H.264 encoder to create DVD-quality streaming video at ultra-low bit rates. Use of H.264 encoding, bandwidth throttling and multicasting capabilities, minimizes bandwidth and storage usage to significantly reduce costs. AutoDome Easy II IP supports 4CIF and CIF resolutions at frame rates up to 25 and 30 images per second (for PAL and NTSC respectively).

Tri-streaming video
The AutoDome Easy II IP is capable of generating Two independent H.264 streams with up to 4CIF resolution plus one JPEG stream simultaneously. This profile allows you to stream high-quality H.264 images for live viewing and recording, and at the same time, stream JPEG images to a remote FTP server or PDA device.

ONVIF conformance
The AutoDome Easy II IP conforms to the ONVIF (Open Network Video Interface Forum) specification guaranteeing interoperability between network video products regardless of manufacturer. ONVIF conformant devices are able to exchange live video, audio, metadata and control information and ensure that they are automatically discovered and connected to network applications such as video management systems.

Intelligence
With built-in video content analysis, the standard AutoDome Easy II IP reinforces the Intelligence-at-the-Edge concept where edge devices become increasingly intelligent. This camera comes with built-in MOTION+ video motion detection. This motion detection algorithm is based on pixel change and includes object size filtering capabilities and sophisticated tamper detection capabilities.

The AutoDome Easy II IP also features Bosch's Intelligent Video Analysis (IVA) in a dedicated, optimized version. IVA is state-of the-art intelligent video analysis that reliably detects, tracks, and analyzes moving objects while suppressing unwanted alarms from spurious sources in the image.

Rugged reliability
A heavy-duty, tamper-resistant aluminum housing and rugged polycarbonate bubble protect the camera from vandalism and theft, ensuring the AutoDome Easy II IP continues to deliver critical images even in the toughest environments.

As with all Bosch products, the AutoDome Easy II IP has been subjected to the industry's most comprehensive and demanding battery of endurance tests such as HALT (highly accelerated life testing) to make sure it will hold up through years of use. And of course, it comes with Bosch's industry-leading 3-year warranty.

Functions

The following are some of the features that make the AutoDome Easy II IP Series the perfect fit for a variety of indoor surveillance applications.

iSCSI device support
Built-in iSCSI support allows AutoDome Easy II IP to stream video directly to an iSCSI RAID array. This enables local video storage just like a conventional DVR without streaming high bandwidth video across the network. Local recording, or Recording at the Edge, minimizes bandwidth usage and makes system recording performance totally independent from network performance.

Network-based control and configuration

The AutoDome Easy II IP enables full camera control and configuration capabilities over the network. Operators or technicians can control camera pan/tilt/zoom operation, presets, tours, and alarm management functions virtually anywhere without need for additional wiring.

The embedded web server lets the installer access all the user settings, make camera adjustments, and update firmware via a standard web browser.

Device management

Simple Network Management Protocol (SNMP) support facilitates the remote monitoring and management. AutoDome Easy II IP provides full support for SNMP v3.

Cost effective coverage

It typically requires four or more fixed dome cameras to provide a full 360 degrees of surveillance coverage. Traditional PTZ dome cameras provide full coverage, but at a significantly higher cost. A single AutoDome Easy II IP provides as much coverage as four fixed domes, but is priced lower than a traditional PTZ dome camera. Not only is your initial investment smaller, but installation and maintenance costs are reduced as well.

Superior privacy masking

The AutoDome Easy II IP allows for a total of 12 individual privacy masks, with up to 12 displayed in the same scene. Unlike conventional privacy masks, these can each be programmed with three, four, or even five corners to cover more complex shapes. As the camera is zoomed each mask changes size smoothly and quickly ensuring that the covered object cannot be seen. You also have a choice of black, white, and blurred characteristics. The blurred option comes in handy when privacy is an issue, but determining the presence of motion is still required.

Ease of installation and servicing

The AutoDome Easy II IP has been designed for quick and easy installation; a key feature from Bosch CCTV products. The dome comes fully assembled and ready for surface mount applications. Also available are wall, recessed, and pipe mounting kits which allow the AutoDome Easy II IP to be easily adapted for the individual site requirements. Available in white or charcoal.

Power over Ethernet

Power for indoor camera models may be supplied via a Power over Ethernet (IEEE 802.3af) compliant network cable connection. With this configuration, only a single cable connection is required to view, power, and control the camera.
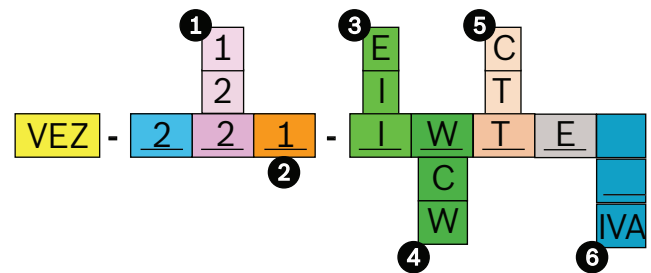
Viewing

View the video on a PC using a Web browser, in the Bosch Video Management System or Divar XF, or integrate it into another video management system.

Certifications and Approvals

Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003, and CE regulations
Product Safety	Complies with CE regulations, UL, CSA, EN, and IEC Standards
Environmental (Outdoor models)	IP65

Installation/Configuration Notes

Ordering Guide

1 Video Format		**4 Color**	
1	PAL	C	Charcoal
2	NTSC	W	White
2 Camera Type		**5 Bubble**	
1	Color (10x)	C	Clear
		T	Tinted
3 Housing		**6 Intelligent Video Analysis**	
E	Outdoor		No IVA
I	Indoor	IVA	IP with IVA

Ø 153.0
(6.02)

149.9
(5.88)

R50.6
(1.99)

mm
in.
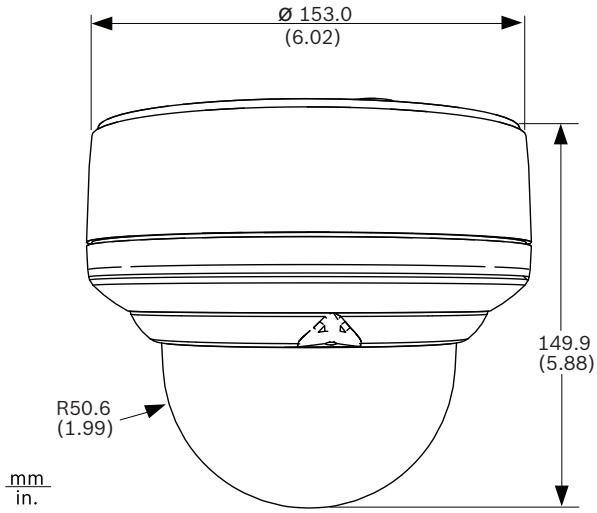
AutoDome Easy II IP Dimensions

349.7
(13.8)

316.7
(12.5)

204.1
(8.0)

203.5
(8.01)

280.0
(11.02)

Wall Mount Dimensions

88.8
(3.5)

88.8
(3.5)

3/4-14 NP
SM Threads

Ø11.2 (4x)
(0.44)

751.9
(29.6)

544.9
(21.5)

444.9
(17.5)

Ø153.0

mm
in.
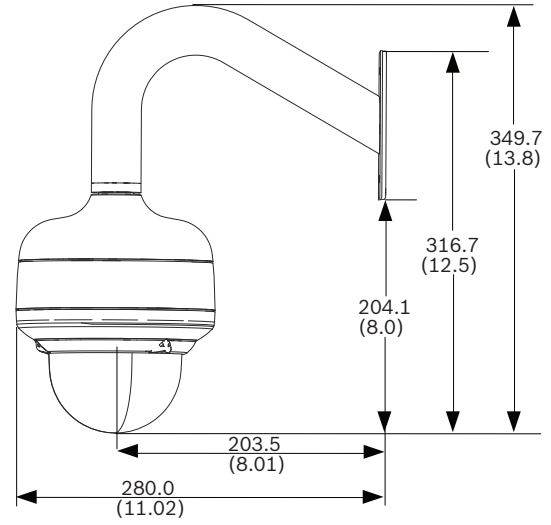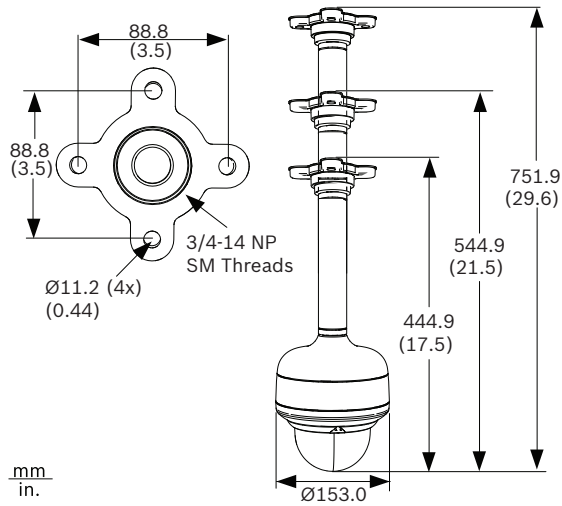
Pipe Mount Dimensions

Ø194.0
(7.64)

BOSCH
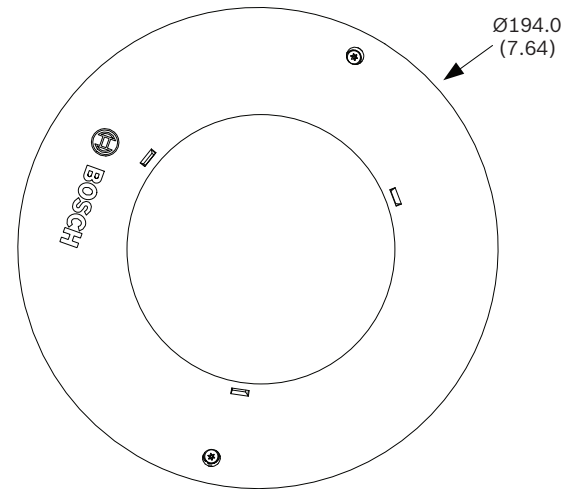
Recess Mount In-ceiling

46.0
(1.81)

83.0
(3.27)
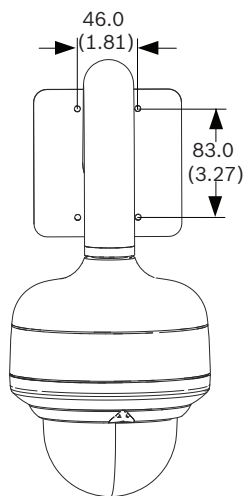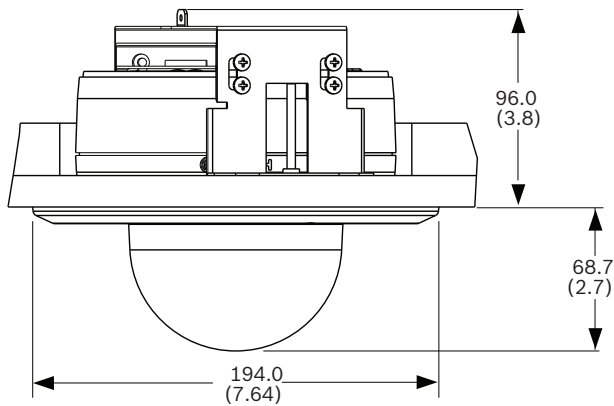
In-ceiling Dimensions
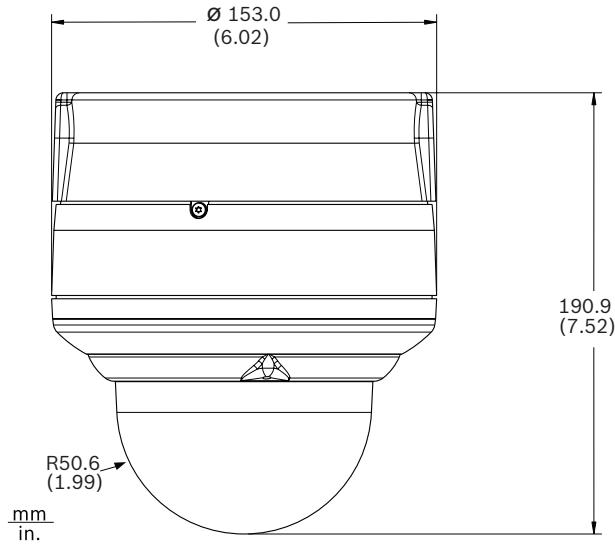
Surface Mount Dimensions

Technical Specifications

Camera 10x Color

Imager	1/4 in. Exview HAD CCD
	(752 x 582 PAL)/(768 x 494 NTSC)
Lens	10x Zoom (4.2–42.0 mm) (f/1.8)
Focus	Automatic with manual override
Iris	Automatic with manual override (F1.8 to F2.9)
Field of View	Approx. 4.6° (TELE end) to 46° (Wide end)
Video Output	1.0 Vp-p, 75 Ohm
Gain Control	AGC on/off (28dB max)
Synchronization	Internal/external

Aperture Correction	User adjustable
Horizontal Resolution	530 TVL typical
Digital	12x
Optical Zoom	10x
Optical Zoom FOV	4.6° to 46°

Sensitivity (typical)	**30 IRE**	**50 IRE**
With Tinted Bubble*		
SensUP Off	0.83 lx	1.67 lx
SensUP On (1/4)	0.043 lx	0.110 lx

*With optional clear bubble, approximately 0.6 F-stop improvement.

SNR	50 dB
White Balance	Auto, indoor, outdoor, 1 push

Video

Standards	H.264 (ISO/IEC 14496-10), M-JPEG, JPEG
Streaming	Multiple, individually configurable streams in H. 264 and JPEG, configurable frame rate and bandwidth
GOP Structure	I, IP, IPBB
Data Rate	9.6 kbps to 6 Mbps

Resolutions and Frame Rates

Name	NTSC	PAL
4CIF/D1	704 x 480, 30 ips	704 x 576, 25 ips
CIF	352 x 240, 30 ips	352 x 288, 25 ips
Overall IP delay	240 ms	
Frame rate	1 to 50/60 (PAL/NTSC)	

Network

Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/V3, ICMP, ARP, SMTP, SNTP, SNMP, RTSP, 802.1x, iSCSI, DynDNS, UPnP
Ethernet	100 Base-TX, auto-sensing, half/full duplex, RJ45
Power over Ethernet (Indoor models only)	IEEE 802.3af

Software Control

Unit Configuration	Via Microsoft Internet Explorer 7.0 Web browser or higher, Divar XF, Vidos, or Configuration Manager
Software Update	Flash ROM, remote update

Mechanical/Electrical

Weight	1.3 kg (2.86 lb)
Pan Range	0-360° continuous
Tilt Angle	0-94°
Variable Speed	0.1°/s-120°/s
Pre-position Speed	Pan:360°/s Tilt: 100°/s
Preset Accuracy	± 0.1° typ.

Rated Voltage

•	Camera, Indoor	24 VAC ± 10%, 50/60 Hz or Power over Ethernet (IEEE 802.3af Class 3)
•	Camera, Outdoor	24 VAC ± 10%, 50/60 Hz
•	Heater, Outdoor Models	24 VAC ± 10%, 50/60 Hz

Power Draw: (typ.)

•	Indoor Models	12 W
•	Outdoor Models	Camera only: 12 W Heater only: 15 W Total: 27 W

Environmental

Operating Temp.

•	Indoor Models	−10℃ to 40℃ (14℉ to 104℉)
•	Outdoor Models	−30℃ to 50℃ (−22℉ to 122℉)
Operation Humidity		0% to 90% relative, non-condensing
Storage Temp.		−20℃ to 60℃ (−4℉ to 140℉)

Environmental Rating

•	Indoor Models	Rated for indoor use only
•	Outdoor Models	Rated for IP65

Miscellaneous

Sectors/Titling	8 independent sectors with 16-character titles/ sector
Pre-positions	99, each with 16-character titles
Guard Tours	Two (2) types of tours: •Recorded tours - two (2), total duration 15 minutes •Preset tour - one (1), consisting of up to 99 scenes, consecutively
Supported Languages	English, French, German, Spanish, Portuguese, Polish, Italian, Dutch, and Russian

User Connections

Power

•	PoE, Indoor Models	RJ-45 100 Base-TX Ethernet Power over Ethernet IEEE 802.3af Class 3
•	Camera, All Models	24 VAC, 50/60 Hz
•	Heater, Outdoor Models	24 VAC, 50/60 Hz
Video and Control		RJ-45 100 Base-TX Ethernet
Alarm Input (2)		NC/NO
Alarm Output		Open collector NPN 32 VDC @ 150 mA max

Construction

Material	Cast aluminum
Color	White or Charcoal
Size (Diameter x Height)	6.02 in. x 4.61 in. (153.0 mm x 133.0 mm), Cast aluminum
Bubble	4.0 in. (10.2 cm), Polycarbonate

Ordering Information

VEZ-211-EWCE Outdoor AutoDome Easy II IP Clear 10x Color PAL
Outdoor AutoDome Easy II IP white 10x Color PAL camera with clear bubble

VEZ-211-EWCE

VEZ-221-EWCE Outdoor AutoDome Easy II IP Clear 10x Color NTSC
Outdoor AutoDome Easy II IP white 10x Color NTSC camera with clear bubble

VEZ-221-EWCE

VEZ-211-ECCE Outdoor AutoDome Easy II IP Clear 10x Color PAL
Outdoor AutoDome Easy II IP charcoal 10x Color PAL camera with clear bubble

VEZ-211-ECCE

VEZ-221-ECCE Outdoor AutoDome Easy II IP Clear 10x Color NTSC
Outdoor AutoDome Easy II IP charcoal 10x Color NTSC camera with clear bubble

VEZ-221-ECCE

VEZ-211-EWTE Outdoor AutoDome Easy II IP Tinted 10x Color PAL
Outdoor AutoDome Easy II IP white 10x Color PAL camera with tinted bubble

VEZ-211-EWTE

VEZ-221-EWTE Outdoor AutoDome Easy II IP Tinted 10x Color NTSC
Outdoor AutoDome Easy II IP white 10x Color NTSC camera with tinted bubble

VEZ-221-EWTE

VEZ-211-ECTE Outdoor AutoDome Easy II IP Tinted 10x Color PAL
Outdoor AutoDome Easy II IP charcoal 10x Color PAL camera with tinted bubble

VEZ-211-ECTE

VEZ-221-ECTE Outdoor AutoDome Easy II IP Tinted 10x Color NTSC
Outdoor AutoDome Easy II IP charcoal 10x Color NTSC camera with tinted bubble

VEZ-221-ECTE

VEZ-211-IWCE Indoor AutoDome Easy II IP Clear 10x Color PAL
Indoor AutoDome Easy II IP white 10x Color PAL camera with clear bubble

VEZ-211-IWCE

VEZ-221-IWCE Indoor AutoDome Easy II IP Clear 10x Color NTSC
Indoor AutoDome Easy II IP white 10x Color NTSC camera with clear bubble

VEZ-221-IWCE

VEZ-211-ICCE Indoor AutoDome Easy II IP Clear 10x Color PAL
Indoor AutoDome Easy II IP charcoal 10x Color PAL camera with clear bubble

VEZ-211-ICCE

VEZ-221-ICCE Indoor AutoDome Easy II IP Clear 10x Color NTSC
Indoor AutoDome Easy II IP charcoal 10x Color NTSC camera with clear bubble

VEZ-221-ICCE

VEZ-211-IWTE Indoor AutoDome Easy II IP Tinted 10x Color PAL
Indoor AutoDome Easy II IP white 10x Color PAL camera with tinted bubble

VEZ-211-IWTE

Ordering Information

VEZ-221-IWTE Indoor AutoDome Easy II IP Tinted 10x Color NTSC Indoor AutoDome Easy II IP white 10x Color NTSC camera with tinted bubble	**VEZ-221-IWTE**
VEZ-211-ICTE Indoor AutoDome Easy II IP Tinted 10x Color PAL Indoor AutoDome Easy II IP charcoal 10x Color PAL camera with tinted bubble	**VEZ-211-ICTE**
VEZ-221-ICTE Indoor AutoDome Easy II IP Tinted 10x Color NTSC Indoor AutoDome Easy II IP charcoal 10x Color NTSC camera with tinted bubble	**VEZ-221-ICTE**
VEZ-211-EWCEIVA Outdoor AutoDome Easy II IP with IVA Clear 10x Color PAL Outdoor AutoDome Easy II IP with IVA, white 10x Color PAL camera with clear bubble	**VEZ-211-EWCEIVA**
VEZ-221-EWCEIVA Outdoor AutoDome Easy II IP with IVA Clear 10x Color NTSC Outdoor AutoDome Easy II IP with IVA, white 10x Color NTSC camera with clear bubble	**VEZ-221-EWCEIVA**
VEZ-211-ECCEIVA Outdoor AutoDome Easy II IP with IVA Clear 10x Color PAL Outdoor AutoDome Easy II IP with IVA, charcoal 10x Color PAL camera with clear bubble	**VEZ-ECCEIVA**
VEZ-221-ECCEIVA Outdoor AutoDome Easy II IP with IVA Clear 10x Color NTSC Outdoor AutoDome Easy II IP with IVA, charcoal 10x Color NTSC camera with clear bubble	**VEZ-221-ECCEIVA**
VEZ-211-EWTEIVA Outdoor AutoDome Easy II IP with IVA Tinted 10x Color PAL Outdoor AutoDome Easy II IP with IVA, white 10x Color PAL camera with tinted bubble	**VEZ-211-EWTEIVA**
VEZ-221-EWTEIVA Outdoor AutoDome Easy II IP with IVA Tinted 10x Color NTSC Outdoor AutoDome Easy II IP with IVA, white 10x Color NTSC camera with tinted bubble	**VEZ-221-EWTEIVA**
VEZ-211-ECTEIVA Outdoor AutoDome Easy II IP with IVA Tinted 10x Color PAL Outdoor AutoDome Easy II IP with IVA, charcoal 10x Color PAL camera with tinted bubble	**VEZ-211-ECTEIVA**
VEZ-221-ECTEIVA Outdoor AutoDome Easy II IP with IVA Tinted 10x Color NTSC Outdoor AutoDome Easy II IP with IVA, charcoal 10x Color NTSC camera with tinted bubble	**VEZ-221-ECTEIVA**
VEZ-211-IWCEIVA Indoor AutoDome Easy II IP with IVA Clear 10x Color PAL Indoor AutoDome Easy II IP with IVA, white 10x Color PAL camera with clear bubble	**VEZ-211-IWCEIVA**
VEZ-221-IWCEIVA Indoor AutoDome Easy II IP with IVA Clear 10x Color NTSC Indoor AutoDome Easy II IP with IVA, white 10x Color NTSC camera with clear bubble	**VEZ-221-IWCEIVA**

Ordering Information

VEZ-211-ICCEIVA Indoor AutoDome Easy II IP with IVA Clear 10x Color PAL Indoor AutoDome Easy II IP with IVA, charcoal 10x Color PAL camera with clear bubble	**VEZ-211-ICCEIVA**
VEZ-221-ICCEIVA Indoor AutoDome Easy II IP with IVA Clear 10x Color NTSC Indoor AutoDome Easy II IP with IVA, charcoal 10x Color NTSC camera with clear bubble	**VEZ-221-ICCEIVA**
VEZ-211-IWTEIVA Indoor AutoDome Easy II IP with IVA Tinted 10x Color PAL Indoor AutoDome Easy II IP with IVA, white 10x Color PAL camera with tinted bubble	**VEZ-211-IWTEIVA**
VEZ-221-IWTEIVA Indoor AutoDome Easy II IP with IVA Tinted 10x Color NTSC Indoor AutoDome Easy II IP with IVA, white 10x Color NTSC camera with tinted bubble	**VEZ-221-IWTEIVA**
VEZ-211-ICTEIVA Indoor AutoDome Easy II IP with IVA Tinted 10x Color PAL Indoor AutoDome Easy II IP with IVA, charcoal 10x Color PAL camera with tinted bubble	**VEZ-211-ICTEIVA**
VEZ-221-ICTEIVA Indoor AutoDome Easy II IP with IVA Tinted 10x Color NTSC Indoor AutoDome Easy II IP with IVA, charcoal 10x Color NTSC camera with tinted bubble	**VEZ-221-ICTEIVA**

Accessories

VEZ-A2-IC AutoDome Easy II Indoor Ceiling Mount	**VEZ-A2-IC**
VEZ-A2-JC Surface Mount Adapter Charcoal adapter for AutoDome Easy II surface installations	**VEZ-A2-JC**
VEZ-A2-JW Surface Mount Adapter White adapter for AutoDome Easy II surface installations	**VEZ-A2-JW**
VEZ-A2-PC AutoDome Easy II Pipe Mount Charcoal	**VEZ-A2-PC**
VEZ-A2-PW AutoDome Easy II Pipe Mount White	**VEZ-A2-PW**
VEZ-A2-WC AutoDome Easy II Wall Mount Charcoal	**VEZ-A2-WC**
VEZ-A2-WW AutoDome Easy II Wall Mount White	**VEZ-A2-WW**
VEZ-SBUB-CL AutoDome Easy II Clear Bubble	**VEZ-SBUB-CL**
VEZ-SBUB-TI AutoDome Easy II Tinted Bubble	**VEZ-SBUB-TI**
LTC 9349MK In-ceiling Mounting Kit In-ceiling mounting kit	**LTC 9349MK**