BOSCH

Invented for life

AutoDome Modules and Accessories

- ▸ **Interchangeable Central Processing Unit (CPU), Camera, Housing and Communications modules**
- ▸ **Analog and Hybrid (analog/IP) Communications module options**
- ▸ **24 VAC, 120 VAC, and 230 VAC Power Supply Units with an optional Fiber Optic Module**
- ▸ **Roof, Pipe, and Pendant Arm Mounting Systems**
- ▸ **Analog and IP Fiber Optic Communication Units**
- ▸ **Rugged Polycarbonate and High-resolution Acrylic Bubble Options**

The Bosch AutoDome modular camera system is a revolutionary new concept in dome cameras. The entire AutoDome system is based on five interchangeable modules: the Central Processing Unit (CPU), camera, housing, communications, and power supply. Simply swap one of the AutoDome's interchangeable modules and quickly upgrade from analog to IP, color to day/night, or add motion detection, and AutoTrack. Never before have you had the ability to adapt a security system to your changing needs this quickly or inexpensively.

The Bosch AutoDome also features a selection of power supply and mounting accessories with clear or tinted bubbles.

Interchangeable modules

Five interchangeable modules 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.

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. AutoDome's Ethernet communications module allows you to add IP functionality while maintaining connectivity to existing analog inputs and outputs.

Functions

CPU Modules

100 Series CPU Module

The 100 Series CPU module provides fixed camera functionality, "hotswap" camera module replacement, pluggable communications module upgrades, and built-in surge suppression.

200 Series CPU Module

The 200 Series CPU module delivers fast 360° per second pan/tilt/zoom speeds, "hotswap" camera module replacement, pluggable communications module upgrades, built-in surge suppression, advanced diagnostics, and multilingual displays.

This module 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.

300 Series CPU Module

The 300 Series CPU module includes all of the features of the 200 Series plus additional presets and tours, cable compensation to extend cabling distances, and third-party protocol support. The Advanced Series also supports privacy masking and advanced alarm handling via a built-in rules engine.

500i Series CPU Module

The 500i Series CPU module includes all of the features of the 300 Series plus AutoTrackII motion tracking and video motion detection.

Camera Modules

High-performance Fixed Camera

The high-performance fixed cameras have a 1/3-inch interline CCD with Bosch's unique 15-bit Dinion digital imaging technology to deliver a 32-fold sensitivity improvement and a full 540 horizontal lines of resolution. Available in color and day/night versions, these cameras incorporate a number of features not found in other fixed dome cameras.

High-performance 18x PTZ Color Camera

The high-performance 18x PTZ color cameras have a 1/4-inch color CCD. With 470/480 TVL (NTSC/PAL) horizontal resolution and sensitivity down to 0.5 lux, this camera offers exceptional performance at an affordable price. A rugged motor with fewer moving parts mean that this camera uses less power and is extremely reliable, making it ideal for high-usage applications.

High-performance 18x and 26x PTZ Day/Night Camera

The high-performance PTZ day/night cameras have 470/480 TVL (NTSC/PAL) horizontal resolution. These cameras are available with either an 18x or a 26x optical zoom lens, and all cameras offer a full 12x digital zoom. The AutoScaling (proportional zoom) and AutoPivot (automatically rotates and flips the camera) features ensure optimal control.

High-performance 36x PTZ Day/Night Camera

Bosch offers the industry-leading 36x optical zoom lens with a full 12x digital zoom. The 36x camera provides a full 540 TVL of horizontal resolution for outstanding clarity and image detail. The 36x camera also incorporates an advanced backlight compensation technology that dramatically improves the dynamic range by 128 times, resulting in clear image reproduction in extreme high-contrast environments.

Housing Modules

All housings feature recessed screws and latches for increased tamper resistance.

AutoDome pendant housings (indoor and outdoor) are rated to provide IP 66 protection. In addition, the pendant housings come equipped with a low-impact, high-resolution acrylic bubble for enhanced image clarity

AutoDome in-ceiling housings provide IP 54 protection and are rated IK 8 (IEC 62262). These housings feature an impact-resistant polycarbonate Rugged Bubble to protect your camera from vandalism. The Rugged Bubble can withstand impacts equivalent to a 4.5 kg (10 lb) weight dropped from a height of 3 m (10 ft).

Outdoor EnviroDome housings provide an operating temperature range down to -40°C (-40°F). The optional "XT" extreme temperature kit allows an AutoDome to operate in temperatures down to -60°C (-76°F), ensuring reliable operation in even the harshest environments.

The Pressurized Environmental Housing is rated to provide IP 67 protection for a VG4 Series AutoDome® Modular Camera System from the elements, both natural and manmade. It is the ideal surveillance solution for applications that require frequent wash-down, including traffic, transit, bridges, tunnels and coastal installations where salt, moisture, dust, insects and fumes threaten the long-term operation of the camera.

Communications Modules

Fixed Communications Module

The Fixed Communications Module (standard on the AutoDome 100 Series) supports a variety of standard video and data transmission methods, including Bilinx (over coax and UTP) remote control, configuration, and firmware updates can also be performed over these cables, offering you unparalleled control of your cameras.

Standard Analog Communications Module

The Standard Analog Communications Module (standard on the AutoDome 200 and 300 Series) supports a variety of data transmission methods, including Bilinx (over coax and UTP) and fiber. Remote control, configuration, and firmware updates can also be performed over these cables, offering you unparalleled control of your cameras. Cable compensation provides extended coaxial and UTP distance runs while preventing the image quality degradation caused by signal losses from long cable lengths.

Alternative Protocol Communications Module

The Alternative Protocol Module allows you to control a VG4 AutoDome from an American Dynamics Manchester or Sensormatic RS-422 PTZ control device.

TCP/IP Communications Module

The TCP/IP Communications Module is an integral part of Bosch's AutoDome Modular Camera System, adding network connectivity to any AutoDome 100, 200, 300 or 500i Series camera. The TCP/IP module provides complete network-based control of all dome functionality including pan/tilt/zoom operation, presets, tours, and alarms as well as web-based configuration of all dome settings.

AutoDome cameras equipped with the TCP/IP Communications Module deliver true hybrid operation. With both Ethernet and analog BNC connections, network-enabled AutoDome cameras provide direct network connection while simultaneously supporting existing analog equipment. The TCP/IP Communications Module uses the latest compression technology, bandwidth throttling, and tri-streaming capabilities to efficiently manage bandwidth and storage requirements while delivering outstanding image quality.

Power Supplies

Bosch offers a variety of power supply units that are available with 24 VAC, 120 VAC, or 230 VAC transformers, come with an optional analog, multimode Fiber Optic video transmitter/data receiver module, and are NEMA-rated.

Accessories

Fiber Optic Kits

The VG4-SFIBER-MM (multimode) is an analog, fiber optic conversion kit for use with VG4 Series AutoDomes using either the Fixed or the Standard Communications Modules. This module is a video transmitter/data receiver modules designed to be mounted directly into a VG4 AutoDome power supply box.

The VG4-SFPSCKT is a unique media converter module for use with VG4 series AutoDomes incorporating the Ethernet (TCP/IP) Communications Module. This media converter module is designed to accept any of the 10/100 Mbps SFP modules described below.

The media converter module along with the SFP module is user installed directly into the AutoDome's power supply box to provide an integrated fiber optic solution.

Mounts

Bosch offers three mounting options for the AutoDomes: roof, pipe, or pendant arm mounts. The pendant arm mounts come with a connected power supply unit. In addition, Bosch offers an accessory to mount a unit in an upright position on a flat surface.

Bubbles

All housings feature recessed screws and latches for increased tamper resistance. AutoDome in-ceiling models feature an impact-resistant rugged polycarbonate bubble to protect your camera from vandalism. Designed to meet stringent strength standards without compromising optical clarity, the Rugged Bubble can withstand impacts equivalent to a 10 pound (4.5 kilograms) weight dropped from a height of 10 feet (3 meters). AutoDome pendant cameras come equipped with a low-impact, high-resolution acrylic bubble for enhanced image clarity, but can easily be upgraded to the Rugged Bubble when needed.

Both the rugged polycarbonate and the high-resolution acrylic bubbles are available in clear, tinted (smoke), gold and chrome. The clear bubble offers maximum sensitivity by allowing as much light through as possible. The tinted, gold and chrome bubbles offer covertness by making it difficult to see the direction the camera is looking from the outside.

Certifications and Approvals

Region	Certification	
Europe	CE	VG4-1ab-cdefgh, VG4-2ab-cdefgh, VG4-3ab-cdefgh, VG4-5ab-cdefgh, VG4-A-PAxx, VG4-A-PSUxx
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

Technical Specifications

Central Processor Unit Modules

VG4-MCPU-100	Unity Pass-through CPU, 100 Series
VG4-MCPU-200	Basic CPU, 200 Series
VG4-MCPU-300	Standard CPU, 300 Series
VG4-MCPU-500	Advanced CPU with Video Content Analysis, 500 Series

Camera Modules

2.7–13.5 mm Fixed Color Camera

Availability	100 Series only	
VG4-MCAM-51	PAL	
VG4-MCAM-61	NTSC	
Imager	1/3 in. Interline CCD	
	(752 x 582 PAL)/(768 x 492 NTSC)	
Lens		
Iris	Automatic	
Field of View	78.3° to 18.5°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Off, auto (with adjustable limit), and manual	
Synchronization	Line-Lock (0° to 358° vertical phase adjust) or internal crystal	
Aperture Correction	Horizontal and vertical	
Horizontal Resolution	540 TVL (NTSC)/540 TVL (PAL)	
Sensitivity (typical)	**30 IRE**	**50 IRE**
SensUp Off	0.29 lx	0.9 lx
SensUp On (15x)	0.029 lx	0.09 lx

2.7–13.5 mm Fixed Color Camera

SNR	>50 dB
White Balance	2500 K to 9000 K (with AWB hold mode and manual mode)

2.7–13.5 mm Fixed Day/Night Camera

Availability	100 Series only	
VG4-MCAM-52	PAL	
VG4-MCAM-62	NTSC	
Imager	1/3 in. Interline CCD	
	(752 x 582 PAL)/(768 x 492 NTSC)	
Lens		
Iris	Automatic	
Field of View	78.3° to 18.5°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Off, auto (with adjustable limit), and manual	
Synchronization	Line-Lock (0° to 358° vertical phase adjust) or internal crystal	
Aperture Correction	Horizontal and vertical	
Horizontal Resolution	540 TVL (NTSC)/540 TVL (PAL)	
Sensitivity (typical)	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.29 lx	0.9 lx
SensUp On (15x)	0.029 lx	0.09 lx
Night Mode		
SensUp Off	0.12 lx	0.36 lx
SensUp On (15x)	0.012 lx	0.09 lx
SNR	>50 dB	
White Balance	2500 K to 9000 K (with AWB hold mode and manual mode)	

5–50 mm Fixed Color Camera

Availability	100 Series only	
VG4-MCAM-53	PAL	
VG4-MCAM-63	NTSC	
Imager	1/3 in. Interline CCD	
	(752 x 582 PAL)/(768 x 492 NTSC)	
Lens		
Iris	Automatic	
Field of View	47.5° to 5.0°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Off, auto (with adjustable limit), and manual	
Synchronization	Line-Lock (0° to 358° vertical phase adjust) or internal crystal	
Aperture Correction	Horizontal and vertical	
Horizontal Resolution	540 TVL (NTSC)/540 TVL (PAL)	
Sensitivity (typical)	**30 IRE**	**50 IRE**
SensUp Off	0.42 lx	1.3 lx

5–50 mm Fixed Color Camera

SensUp On (15x)	0.042 lx	0.13 lx
SNR	>50 dB	
White Balance	2500 K to 9000 K (with AWB hold mode and manual mode)	

5–50 mm Fixed Day/Night Camera

Availability	100 Series Only	
VG4-MCAM-54	PAL	
VG4-MCAM-64	NTSC	
Imager	1/3 in. Interline CCD	
	(752 x 582 PAL)/(768 x 492 NTSC)	
Lens		
Iris	Automatic	
Field of View	47.5° to 5.0°	
Video Output	1.0 Vp-p, 75 Ohm	
Gain Control	Off, auto (with adjustable limit), and manual	
Synchronization	Line-Lock (0° to 358° vertical phase adjust) or internal crystal	
Aperture Correction	Horizontal and vertical	
Horizontal Resolution	540 TVL (NTSC)/540 TVL (PAL)	
Sensitivity (typical)	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.42 lx	1.3 lx
SensUp On (15x)	0.042 lx	0.13 lx
Night Mode		
SensUp Off	0.17 lx	0.52 lx
SensUp On (15x)	0.017 lx	0.052 lx
SNR	>50 dB	
White Balance	2500 K to 9000 K (with AWB hold mode and manual mode)	

18x Color Camera

Availability	200, 300, and 500i Series
VG4-MCAM-11	PAL
VG4-MCAM-21	NTSC
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

18x Color Camera

Horizontal Resolution	NTSC: 470 TVL, typical PAL: 480 TVL, typical	
Sensitivity (typical)	**30 IRE**	**50 IRE**
F1.4, 1/60 (1/50) shutter, max AGC	0.5 lx	0.8 lx
Electronic Shutter Speed	1 to 1/10,000	
SNR	>50 dB	
White Balance	2000 K to 10,000 K	

18x Day/Night Camera

Availability	200, 300, and 500i Series	
VG4-MCAM-12	PAL	
VG4-MCAM-22	NTSC	
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	
Digital Zoom	12x	
Horizontal Resolution	NTSC: 470 TVL, typical PAL: 480 TVL, typical	
Sensitivity (typical)[1]	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.4 lx	0.7 lx
SensUp On (15x)	0.0041 lx	0.0082 lx
Night Mode		
SensUp Off	0.05 lx	0.17 lx
SensUp On (15x)	0.0007 lx	0.0013 lx
Electronic Shutter Speed	1 to 1/10,000	
SNR	>50 dB	
White Balance	2000 K to 10,000 K	

1) F1.4, 1/60 (1/50) shutter, max AGC

26x Day/Night Camera

Availability	200, 300, and 500i Series	
VG4-MCAM-13	PAL	
VG4-MCAM-23	NTSC	
Imager	1/4-in Exview HAD CCD	
	(752 x 582 PAL)/(768 x 494 NTSC)	

26x Day/Night Camera

Lens	26x Zoom (3.5–91.0 mm) F1.6 to F3.8	
Focus	Automatic with manual override	
Iris	Automatic with manual override	
Field of View	2.3° to 55°	
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	
Digital Zoom	12x	
Horizontal Resolution	NTSC: 470 TVL, typical PAL: 480 TVL, typical	
Sensitivity (typical)[2]	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.5 lx	1.0 lx
SensUp On (15x)	0.0052 lx	.013 lx
Night Mode		
SensUp Off	0.10 lx	0.26 lx
SensUp On (15x)	0.0013 lx	0.0026 lx
Electronic Shutter Speed	1 to 1/10,000	
SNR	>50 dB	
White Balance	2000 K to 10,000 K	

2) F1.6, 1/60 (1/50) shutter, max AGC

36x Day/Night Camera

Availability	300 and 500i Series	
VG4-MCAM-14	PAL	
VG4-MCAM-24	NTSC	
Imager	1/4 in. Exview HAD CCD	
	(752 x 582 PAL)/(768 x 494 NTSC)	
Lens	36x Zoom (3.4–122.4 mm) F1.6 to F4.5	
Focus	Automatic with manual override	
Iris	Automatic with manual override	
Field of View	1.7° to 57.8°	
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	
Digital Zoom	12x	
Horizontal Resolution	540 TVL (NTSC, PAL) typical	
Sensitivity (typical)[3]	**30 IRE**	**50 IRE**
Day Mode		
SensUp Off	0.66 lx	1.4 lx

36x Day/Night Camera

SensUp On (1/4) (15x)	0.033 lx	0.083 lx
Night Mode		
SensUp Off	0.166 lx	0.33 lx
SensUp On (1/4) (15x)	0.0065 lx	0.0164 lx
Electronic Shutter Speed	1 to 1/10,000	
SNR	>50 dB	
White Balance	2000 K to 10,000 K	

3) F1.6, 1/60 (1/50) shutter, max AGC

Housing Modules

VG4-MHSG-CC	In-ceiling housing with a clear rugged polycarbonate bubble
VG4-MHSG-CT	In-ceiling housing with a tinted rugged polycarbonate bubble
VG4-MHSG-EC	Outdoor pendant with a clear high-resolution bubble
VG4-MHSG-ET	Outdoor pendant with a tinted high-resolution bubble
VG4-MHSG-NC	Pressurized environmental housing with a clear high-resolution bubble
VG4-MHSG-NT	Pressurized environmental housing with a tinted high-resolution bubble
VG4-MHSG-PC	Indoor pendant with a clear high-resolution bubble
VG4-MHSG-PT	Indoor pendant with a tinted high-resolution bubble

Communications Modules

VG4-MTRN-0	Fixed (100 Series) module
VG4-MTRN-C	Alternative protocol communications module
VG4-MTRN-E1	Ethernet (TCP/IP) communications module
VG4-MTRN-S	Standard analog communications module

Heating Module

VG4-SHTR-XT	Extended temp heater module extends temperature range to −60℃ (−76℉) for EnviroDome® only

Power Supplies

Model	Input	Output Rating	Input Fuses	Output Fuses	
				Camera	Heater
VG4-A-PSU0F[4] (with integrated fiber optic module)	24 VAC, 50/60 Hz	24 V @ 96 VA	5.0 A	2.0 A	3.15 A
VG4-A-PSU1	120 VAC, 50/60 Hz	24 V @ 96 VA	1.6 A	2.0 A	3.15 A
VG4-A-PSU1F[4] (with integrated fiber optic module)	120 VAC, 50/60 Hz	24 V @ 96 VA	1.6 A	2.0 A	3.15 A
VG4-A-PSU2	230 VAC, 50/60 Hz	24 V @ 96 VA	0.8 A	2.0 A	3.15 A
VG4-A-PSU2F[4] (with integrated fiber optic module)	230 VAC, 50/60 Hz	24 V @ 96 VA	0.8 A	2.0 A	3.15 A

Certifications	UL, CE, NEMA-rated, Plenum Rated
Operating Temperature	−60℃ to 50℃ (−76℉ to 122℉)
Humidity	0% to 100%, condensing
Environmental Protection	IP 66, IK 8 (IEC 62262)
Color	White

4) Integrated analog multimode fiber optic video transmitter/ data receiver (VG4-SFIBER-MM).

Indoor Power Supplies[5]

Voltage Input

ALTV244UL, ALTV248UL3, ALTV2416ULX3	115 VAC ± 10%, 50/60 Hz, 0.9 A

Voltage Output

ALTV244UL, ALTV248UL3, ALTV2416ULX3	24/28 VAC, unregulated

Total Output Current

	At 24 VAC	At 28 VAC	Max. Per Channel
ALTV244UL, ALTV248UL3	3.5 A	3.0 A	3.5 A
ALTV2416ULX3	7.0 A	6.0 A	3.5 A
Max. Current Output per Channel	3.5 A		
Fuse Ratings	3.5 A		
Main Fuse Ratings	5.0 A		
Maximum Power Draw	**At 24 VAC**	**At 28 VAC**	
ALTV244UL, ALTV248UL3	84 W	72 W	
ALTV2416ULX3	168 W	144 W	

5) Available only in the Americas region.

Dimensions (L x H x W)

ALTV244UL, ALTV248UL3	215.9 x 190.5 x 88.9 mm (8.5 x 7.5 x 3.5 in.)
ALTV2416ULX3	330.2 x 342.9 x 88.9 mm (13.0 x 13.5 x 3.5 in.)

Certifications

UL, CE, CSA

Accessories – Fiber Optic Kits

VG4-SFIBER-MM

Description	Multimode Fiber Optic Module
Compatible Receiver	LTC 4629 Series
Optical Fiber Compatibility	50/125 µm, 62.5/125 µm, low loss multimode glass fiber, rated for a minimum system bandwidth of 20 MHz
Max. Distance[6]	4.0 km (2.5 miles)
Optical Budget	14 dB

VG4-SFIBER-MM

Connector	One (1) ST connector
Wavelength (video/data)	850 nm / 1310 nm

VG4-SFPSCKT

Description	Fiber Optic Ethernet Media Converter kit. Requires a small form-factor pluggable (SFP) module (sold separately).
Data Interface	Ethernet
Data Rate	10/100 Mbps IEEE 802.3 Compliant Full Duplex or Half Duplex Electrical Port Full Duplex Optical Port
Compatible Receiver	CNFE2MC
Installation	Installed inside a VG4-A-PA1, VG4-A-PA2, VG4-A-PSU1 or a VG4-A-PSU2 power supply box with supplied mounting hardware

SFP Modules

Description	Interchangeable modules available for use with MMF or SMF optical fiber.
Data Interface	Ethernet
Data Rate	10/100 Mbps IEEE 802.3 Compliant

Mechanical

Dimensions (LxWxH)

• SFP-2 and SFP-3	55.5 x 13.5 x 8.5 mm (2.2 x 0.5 x 0.3 in.)
• SFP-23, SFP-24, SFP-25, SFP-26	63.8 x 13.5 x 8.5 mm (2.5 x 0.5 x 0.3 in.)
Weight (all SFP modules)	0.23 kg (.05 lb)

	Type	Connector	Wavelength (transmit/receive)	Max. Distance
SFP-2	MMF	Duplex LC	1310 nm / 1310 nm	2 km (1.2 miles)
SFP-3	SMF	Duplex LC	1310 nm / 1310 nm	20 km (12.4 miles)
SFP-23	SMF	Single SC	1310 nm / 1550 nm	60 km (37.3 miles)
SFP-24	SMF	Single SC	1550 nm / 1310 nm	60 km (37.3 miles)
SFP-25	MMF	Single SC	1310 nm / 1550 nm	2 km (1.2 miles)
SFP-26	MMF	Single SC	1550 nm / 1310 nm	2 km (1.2 miles)

Fiber Compatibility

Optical Fiber Compatibility, MMF	50/125 μm MMF. For 50/125 μm fiber, subtract 4 dB from the specified optical budget value. Must meet or exceed fiber standard ITU-T G.651.
Optical Fiber Compatibility, SMF	8–10/125 μm SMF. Must meet or exceed fiber standard ITU-T G.652.
Optical Distance Specifications	Specified transmission distances are limited to the optical loss of the fiber and any additional loss introduced by connectors, splices, and patch panels. The modules are designed to operate over the entire optical loss budget range, so they do not require a minimum loss in order to operate.

Accessories – Mounts

VG4-A-PA0	Pendant arm mount without transformer, white
VG4-A-PA0N	Pendant arm mount without transformer, white, for Pressurized Environmental Housing module
VG4-A-PA0F[7]	Pendant arm mount without transformer, including an integrated multimode fiber optic module, white
VG4-A-PA0FN[7]	Pendant arm mount without transformer, including an integrated multimode fiber optic module, white, for Pressurized Environmental Housing module
VG4-A-PA1	Pendant arm mount with 120 VAC transformer, white
VG4-A-PA1N	Pendant arm mount with 120 VAC transformer, white, for Pressurized Environmental Housing module
VG4-A-PA1F[7]	Pendant arm mount with 120 VAC transformer power supply including an integrated multimode fiber optic module, white
VG4-A-PA1FN[7]	Pendant arm mount with 120 VAC transformer power supply including an integrated multimode fiber optic module, white, for Pressurized Environmental Housing module
VG4-A-PA2	Pendant arm mount with 230 VAC transformer, white
VG4-A-PA2N	Pendant arm mount with 230 VAC transformer, white, for Pressurized Environmental Housing module
VG4-A-PA2F[7]	Pendant arm mount with 230 VAC transformer power supply including an integrated multimode fiber optic module, white
VG4-A-PA2FN[7]	Pendant arm mount with 230 VAC transformer power supply including an integrated multimode fiber optic module, white, for Pressurized Environmental Housing module
VG4-A-9230	Roof mount, white
LTC 9230/01	Accessory for mounting a unit in an upright position on a flat surface (for use with VG4-A-9230)
VG4-A-9541	Pole mount adapter for a pendant arm, designed for poles with a diameter between 100–380 mm (4-15 in.)
VG4-A-9542	Corner mount adapter for a pendant arm
VG4-A-9543	Pipe mount, white
VG4-A-9543N	Pipe mount, white, for Pressurized Environmental Housing module
LTC 9316/00P	Square, heavy duty, steel, 16-ft mounting pole, supports up to 91 kg (200 lbs)

7) Integrated analog multimode fiber optic video transmitter/ data receiver (VG4-SFIBER-MM).

VG4-SBOX-24VAC	Box without cover and transformer
VG4-SBOX-120VAC	Box, no cover, with a 120 VAC transformer
VG4-SBOX-230VAC	Box, no cover, with a 230 VAC transformer
VG4-SBOX-COVER	Cover for VG4-SBOX-24VAC, VG4-SBOX-120VAC and VG4-SBOX-230VAC
VG4-SARM	Pendant arm with wiring
VG4-SBIM	Interface box for in-ceiling housing
VG4-A-ARMPLATE	Mounting Plate for VG4-SARM

Accessories – Bubbles

VG4-SBUB-CCH	Rugged Polycarbonate Chrome, for in-ceiling housing
VG4-SBUB-CCL	Rugged Polycarbonate Clear, for in-ceiling housing
VG4-SBUB-CGL	Rugged Polycarbonate Gold, for in-ceiling housing
VG4-SBUB-CTI	Rugged Polycarbonate Tinted, for in-ceiling housing
VG4-SBUB-PCH	Rugged Polycarbonate Chrome, for pendant housing
VG4-SBUB-PCH-A	High-resolution Chrome, for pendant housing
VG4-SBUB-PCL	Rugged Polycarbonate Clear, for pendant housing
VG4-SBUB-PCL-A	High-resolution Clear, for pendant housing
VG4-SBUB-PGL	Rugged Polycarbonate Gold, for pendant housing
VG4-SBUB-PGL-A	High-resolution Gold, for pendant housing
VG4-SBUB-PTI	Rugged Polycarbonate Tinted, for pendant housing
VG4-SBUB-PTI-A	High-resolution Tined, for pendant housing

VG4-MCAM-51 AutoDome 2.7-13.5 mm Fixed PAL Color Camera Module
2.7–13.5 mm color PAL camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-51**

VG4-MCAM-61 AutoDome 2.7-13.5 mm Fixed NTSC Color Camera Module
2.7–13.5 mm color NTSC camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-61**

VG4-MCAM-52 AutoDome 2.7-13.5 mm Fixed PAL Day/Night Camera Module
2.7–13.5 mm day/night PAL camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-52**

VG4-MCAM-62 AutoDome 2.7-13.5 mm Fixed NTSC Day/Night Camera Module
2.7–13.5 mm day/night NTSC camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-62**

VG4-MCAM-53 AutoDome 5-50 mm Fixed PAL Color Camera Module
5–50 mm color PAL camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-53**

VG4-MCAM-63 AutoDome 5-50 mm Fixed NTSC Color Camera Module
5–50 mm color NTSC camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-63**

Ordering Information

VG4-MCAM-54 AutoDome 5-50 mm Fixed PAL Day/Night Camera Module
5–50 mm day/night PAL camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-54**

VG4-MCAM-64 AutoDome 5-50 mm Fixed NTSC Day/Night Camera Module
5–50 mm day/night NTSC camera, 1/3 in. CCD, 540 TVL — **VG4-MCAM-64**

VG4-MCAM-11 AutoDome 18x PAL Color Camera Module
High-performance, 18x (4.1–73.8 mm) PTZ color PAL camera, F1.4 to F3.0, 1/4 in. CCD, 460 TVL — **VG4-MCAM-11**

VG4-MCAM-21 AutoDome 18x NTSC Color Camera Module
High-performance, 18x (4.1–73.8 mm) NTSC color PAL camera, F1.4 to F3.0, 1/4 in. CCD, 470 TVL — **VG4-MCAM-21**

VG4-MCAM-12 Autodome 18x PAL Day/Night Camera Module
High-performance, 18x (4.1–73.8 mm) PTZ day/night PAL camera, F1.4 to 3.0, 1/4 in. CCD, 460 TVL — **VG4-MCAM-12**

VG4-MCAM-22 AutoDome 18x NTSC Day/Night Camera Module
High-performance, 18x (4.1–73.8 mm) NTSC day/night camera, F1.4 to F3.0, 1/4 in. CCD, 470 TVL — **VG4-MCAM-22**

VG4-MCAM-13 AutoDome 26x PAL Day/Night Camera Module
High-performance, 26x (3.5–91.0 mm) PAL PTZ day/night camera, F1.6 to F3.8, 1/4 in. CCD, 460 TVL — **VG4-MCAM-13**

VG4-MCAM-23 AutoDome 26x NTSC Day/Night Camera Module
High-performance, 26x (3.5–91.0 mm) NTSC PTZ day/night camera, F1.6 to F3.8, 1/4 in. CCD, 470 TVL — **VG4-MCAM-23**

VG4-MCAM-14 AutoDome 36x PAL Day/Night Camera Module
High-performance, 36x (3.4–122.4 mm) PTZ Day/Night PAL camera, F1.6 to F4.5, 1/4 in. CCD, 540 TVL — **VG4-MCAM-14**

VG4-MCAM-24 AutoDome 36x NTSC Day/Night Camera Module
High-performance, 36x (3.4–122.4 mm) PTZ Day/Night NTSC camera, F1.6 to F4.5, 1/4 in. CCD, 540 TVL — **VG4-MCAM-24**

VG4-MCPU-100 AutoDome Unity Pass-through CPU Module — **VG4-MCPU-100**

VG4-MCPU-200 AutoDome Basic CPU Module — **VG4-MCPU-200**

VG4-MCPU-300 AutoDome Standard CPU Module — **VG4-MCPU-300**

Ordering Information

VG4-MCPU-500 AutoDome Advanced CPU Module with VCA	**VG4-MCPU-500**
VG4-MTRN-C Alternative Protocol Communications Module	**VG4-MTRN-C**
VG4-MTRN-E AutoDome TCP/IP Communications Module	**VG4-MTRN-E**
VG4-MTRN-E1 AutoDome® TCP/IP Communications Module H.264 TCP/IP (Ethernet) communications module for AutoDome 100, 200, 300 and 500i Series products	**VG4-MTRN-E1**
VG4-MTRN-0 Autodome Fixed Communications Module	**VG4-MTRN-0**
VG4-MTRN-S AutoDome Standard Analog Communications Module	**VG4-MTRN-S**
VG4-SFIBER-MM Analog Multimode Fiber Optic Kit Analog multimode video transmitter/data receiver fiber optic kit	**VG4-SFIBER-MM**
VG4-SFPSCKT Fiber Optic Ethernet Media Converter Kit Ethernet media converter video transmitter/ data receiver fiber optic kit	**VG4-SFPSCKT**
VG4-MHSG-CC AutoDome In-ceiling Clear Housing Module In-ceiling housing with a clear rugged polycarbonate bubble	**VG4-MHSG-CC**
VG4-MHSG-CT AutoDome In-ceiling Tinted Housing Module In-ceiling housing with a tinted rugged polycarbonate bubble	**VG4-MHSG-CT**
VG4-MHSG-EC AutoDome Outdoor Clear Pendant Housing Module Outdoor pendant housing with a clear high-resolution bubble	**VG4-MHSG-EC**
VG4-MHSG-ET AutoDome Outdoor Tinted Pendant Housing Module Outdoor pendant housing with a tinted high-resolution bubble	**VG4-MHSG-ET**
VG4-MHSG-NC Pressurized Environmental Housing Module Pressurized environmental housing for VG4 AutoDome Modular Camera System, includes a clear high-resolution bubble	**VG4-MHSG-NC**
VG4-MHSG-NT Pressurized Environmental Housing Module Pressurized environmental housing for VG4 AutoDome Modular Camera System, includes a tinted high-resolution bubble	**VG4-MHSG-NT**
VG4-MHSG-PC AutoDome Indoor Clear Pendant Housing Module Indoor pendant housing with a clear high-resolution bubble	**VG4-MHSG-PC**

Ordering Information

VG4-MHSG-PT AutoDome Indoor Tinted Pendant Housing Module Indoor pendant housing with a tinted high-resolution bubble	**VG4-MHSG-PT**
VG4-SBUB-CCH Rugged Chrome Bubble for an In-ceiling Housing Chrome rugged polycarbonate bubble for an in-ceiling housing	**VG4-SBUB-CCH**
VG4-SBUB-CCL Rugged Clear Bubble for an In-ceiling Housing Clear rugged polycarbonate bubble for an in-ceiling housing	**VG4-SBUB-CCL**
VG4-SBUB-CGL Rugged Gold Bubble for an In-ceiling Housing Gold rugged polycarbonate bubble for an in-ceiling housing	**VG4-SBUB-CGL**
VG4-SBUB-CTI Rugged Tinted Bubble for an In-ceiling Housing Tinted rugged polycarbonate bubble for an in-ceiling housing	**VG4-SBUB-CTI**
VG4-SBUB-PCH Rugged Chrome Bubble for a Pendant Housing Chrome rugged polycarbonate bubble for a pendant housing	**VG4-SBUB-PCH**
VG4-SBUB-PCH-A High-resolution Chrome Bubble for Pendant Housing Chrome high-resolution bubble for a pendant housing	**VG4-SBUB-PCH-A**
VG4-SBUB-PCL Rugged Clear Bubble for a Pendant Housing Clear rugged polycarbonate bubble for a pendant housing	**VG4-SBUB-PCL**
VG4-SBUB-PCL-A High-resolution Clear Bubble for a Pendant Housing Clear high-resolution bubble for a pendant housing	**VG4-SBUB-PCL-A**
VG4-SBUB-PGL Rugged Gold Bubble for a Pendant Housing Gold rugged polycarbonate bubble for a pendant housing	**VG4-SBUB-PGL**
VG4-SBUB-PGL-A High-resolution Gold Bubble for Pendant Housing Gold high-resolution bubble for a pendant housing	**VG4-SBUB-PGL-A**
VG4-SBUB-PTI Rugged Tinted Bubble for a Pendant Housing Tinted rugged polycarbonate bubble for a pendant housing	**VG4-SBUB-PTI**
VG4-SBUB-PTI-A High-resolution Tinted Bubble for a Pendant Housing Tinted high-resolution bubble for a pendant housing	**VG4-SBUB-PTI-A**

Ordering Information

Accessories

ALTV244UL 120 VAC Power Supply Four-channel, 120 VAC, 60 Hz, 84 VA out, wall mount, indoor	**ALTV244UL**
ALTV248UL3 8-channel Indoor Power Supply, 120 VAC Eight-channel, 120 VAC input, 24/28 VAC output, 3.5 A total output, indoor	**ALTV248UL3**
ALTV2416ULX3 16-channel Indoor Power Supply, 120 VAC Sixteen-channel, 120 VAC input, 24/28 VAC output, 7 A total output, indoor	**ALTV2416ULX3**
LTC 9230/01 Flat Roof Mount Adapter for mounting a unit in an upright position on a flat surface for roof parapet mount LTC 9230/00	**LTC 9230/01**
VG4-A-9230 Roof Mount Roof mount, white	**VG4-A-9230**
LTC 9316/00P Standard Pole Square, heavy duty, steel, 16-ft mounting pole, supports up to 91 kg (200 lbs)	**LTC 9316/00P**
LTC 9349MK In-ceiling Mounting Kit In-ceiling mounting kit	**LTC 9349MK**
VG4-A-9541 Pole Mount Adapter Pole mount adapter for a pendant arm, designed for poles with a diameter from 100–380 mm (4–15 in.), white	**VG4-A-9541**
VG4-A-9542 Corner Mount Adapter Corner mount adapter for a pendant arm	**VG4-A-9542**
VG4-A-9543 Pipe Mount Pipe mount, white	**VG4-A-9543**
VG4-A-9543N Pipe Mount (for Pressure Dome) Pipe mount, white, for Pressurized Environmental Housing Module	**VG4-A-9543N**
VG4-A-PA0 Pendant Arm Mount Pendant arm mount, no transformer, white	**VG4-A-PA0**
VG4-A-PA0N Pendant Arm Mount (for Pressure Dome) Pendant arm mount, no transformer, white, for Pressurized Environmental Housing Module	**VG4-A-PA0N**
VG4-A-PA0F Pendant Arm Mount with Fiber Optic Module Pendant arm mount, no transformer, with an integrated analog multimode fiber optic video transmitter/data receiver module, white	**VG4-A-PA0F**
VG4-A-PA0FN Pendant Arm Mount with Fiber Optic Module (for Pressure Dome) Pendant arm mount, no transformer, with an integrated analog multimode fiber optic video transmitter/data receiver module, white, for Pressurized Environmental Housing Module	**VG4-A-PA0FN**

Ordering Information

VG4-A-PA1 Pendant Arm Mount with 120 VAC Transformer Pendant arm mount with a 120 VAC transformer, white	**VG4-A-PA1**
VG4-A-PA1N Pendant Arm Mount (for Pressure Dome) with 120 VAC Transformer Pendant arm mount with a 120 VAC transformer, white, for Pressurized Environmental Housing	**VG4-A-PA1N**
VG4-A-PA1F Pendant Arm Mount with Fiber Optic Module with 120 VAC Transformer Pendant arm mount with an integrated analog multimode fiber optic video transmitter/data receiver module and a 120 transformer, white	**VG4-A-PA1F**
VG4-A-PA1FN Pendant Arm Mount with Fiber Optic Module (for Pressure Dome) with 120 VAC Transformer Pendant arm mount with an integrated analog multimode fiber optic video transmitter/data receiver module and a 120 VAC transformer, white, for Pressurized Environmental Housing Module	**VG4-A-PA1FN**
VG4-A-PA2 Pendant Arm Mount with 230 VAC Transformer Pendant arm mount with a 230 VAC transformer, white	**VG4-A-PA2**
VG4-A-PA2N Pendant Arm Mount (for Pressure Dome) with 230 VAC Transformer Pendant arm mount with a 230 VAC transformer, white, for Pressurized Environmental Housing Module	**VG4-A-PA2N**
VG4-A-PA2F Pendant Arm Mount with Fiber Optic Module with 230 VAC Transformer Pendant arm mount with an integrated analog multimode fiber optic video transmitter/data receiver module and a 230 VAC transformer, white	**VG4-A-PA2F**
VG4-A-PA2FN Pendant Arm Mount with Fiber Optic Module (for Pressure Dome) with 230 VAC Transformer Pendant arm mount with an integrated analog multimode fiber optic video transmitter/data receiver module and a 230 VAC transformer, white, for Pressurized Environmental Housing Module	**VG4-A-PA2FN**
VG4-A-PSU0F 24 VAC Power Supply Unit with Fiber Optic Module 24 VAC, NEMA-rated with an integrated analog multimode fiber optic video transmitter/data receiver module, white	**VG4-A-PSU0F**
VG4-A-PSU1 120 VAC Power Supply Unit 120 VAC, 100 W, NEMA-rated, white	**VG4-A-PSU1**
VG4-A-PSU1F 120 VAC Power Supply Unit with Fiber Optic Module 120 VAC, 100 W, NEMA-rated with an integrated analog multimode fiber optic video transmitter/data receiver module, white	**VG4-A-PSU1F**

Ordering Information

VG4-A-PSU2 230 VAC Power Supply Unit 230 VAC, 100 W, NEMA-rated, white	**VG4-A-PSU2**
VG4-A-PSU2F 230 VAC Power Supply Unit with Fiber Optic Module 230 VAC, 100 W, NEMA-rated with an integrated analog multimode fiber optic video transmitter/data receiver module, white	**VG4-A-PSU2F**
VG4-A-ARMPLATE Mounting Plate Mounting plate for VG4-SARM	**VG4-A-ARMPLATE**
VG4-SARM Pendant Arm with Wiring	**VG4-SARM**
VG4-SBIM Interface Box for In-ceiling Housing	**VG4-SBIM**
VG4-SBOX-24VAC Power Supply Box Box without cover or transformer	**VG4-SBOX-24VAC**
VG4-SBOX-120VAC Power Supply Box Box, without cover, with a 120 VAC transformer	**VG4-SBOX-120VAC**
VG4-SBOX-230VAC Power Supply Box Box, without cover, with a 230 VAC transformer	**VG4-SBOX-230VAC**
VG4-SBOX-COVER Cover for Power Supply Box Cover for VG4-SBOX-24VAC, VG4-SBOX-120VAC, VG4-SBOX-230VAC, and EX30 junction box	**VG4-SBOX-COVER**
VG4-SHTR-XT Heating Module Extended temperature heater module extends temperature range to −60℃ (−76℉) for EnviroDome® only	**VG4-SHTR-XT**

Software Options

VP-CFGSFT Bilinx Configuration Tool configuration software with USB adapter	**VP-CFGSFT**