



4800 Ashford Dunwoody Road
 Dunwoody, Georgia 30338
 dunwoodyga.gov | 678.382.6700

MEMORANDUM

To: Mayor and City Council

From: Billy Grogan, Chief of Police

Date: May 21, 2018

Subject: **Approval of Contract with GC&E Systems Group for Video Surveillance Cameras at Pernoshal Park and Georgetown Park**

DESCRIPTION

Approval of a contract with GC&E Systems Group for the installation and maintenance of a Video Surveillance System at both Pernoshal Park, Georgetown Park and a portion of the trail system entering Brook Run Park from Pernoshal Park.

BACKGROUND

The City of Dunwoody currently has video surveillance cameras located in Brook Run Park and City Hall. These cameras are maintained on our Genetec platform, which now includes all building access controls as well.

GC&E Systems Group currently provides both annual support and maintenance under a contract for both the video surveillance systems, License Plate Reader cameras and the access control systems. GC&E provides 24/7/365 service within one hour with a four hour onsite response time.

In 2016, the Council appropriated \$271,000 for the installation of video surveillance cameras and License Plate Reader cameras at Pernoshal Park, Georgetown Park and portions of the trail at Brook Run Park.

GC&E Systems Group has provided a quote of \$286,137.51 for the installation of video cameras and LPRs in Pernoshal Park, video cameras in Georgetown Park and a portion of the trail system in Brook Run Park.

RECOMMENDATION

At this time, staff recommends the City Council approve the contract with GC&E Systems Group for \$286,137.51 as a Single Source purchase.

The City of Dunwoody Purchasing Policy reads as follows:

Denis Shortal Mayor
 Eric Linton, ICMA-CM City Manager
 Sharon Lowery, CMC City Clerk

Pam Tallmadge City Council Post 1
 Jim Riticher City Council Post 2
 Tom Lambert City Council Post 3

Terry Nall City Council Post 4
 Lynn Deutsch City Council Post 5
 John Heneghan City Council Post 6

Packet page:...



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*"The City may acquire Goods and Service pursuant to a **Single Source Procurement**. A Single Source Procurement is a procurement made from one Person among others in a competitive market place which, for justifiable reasons, is found to be most advantageous for the purpose of fulfilling the given purchasing need. The User must provide the justification for the Single Source Procurement to the Purchasing Agent after approved by the City Manager or Council. The Purchasing Agent may elect to purchase particular brand name Goods or Services when the Goods or Services comprise a major brand system, program or service previously selected by the City and due to operational effectiveness, future enhancements or additions, or maintenance or storage of spare parts precludes the mixing of brands, manufacture, etc."*

Single Source Procurement is permissible by the City of Dunwoody policy. Staff believes using this method and awarding the contract to GC&E Systems Group is appropriate due to several important reasons:

- GC&E Systems Group is the current vendor we use to support our video surveillance cameras, LPRs and access control system.
- Having the same vendor handle the installation of the cameras as well as the support provides a seamless project and eliminates any finger pointing if something doesn't work after installation.
- GC&E Systems Group is already familiar with our current systems and operations

I have worked closely with Ashley Smith and Brent Walker on this project. Both concur with the Single Source purchase contract as does our Purchasing Department.

Additional funds of \$15,137.51 to cover the difference between the allocated funds and the contract price will come from previous allocated Capital funds that were left over from a previous License Plate Reader project.



5835 Peachtree Corners East, Suite A Norcross, GA 30092
Phone: 770-448-3908, Fax: 770-448-3918
www.gcesg.com

#18..

Charlie McRoberts, (678) 451-7213
cmcroberts@gcesg.com

City of Dunwoody Parks



Project: Pernoshal and Georgetown Parks CCTV Installation
Quote #: 1609-039-RM R6
Date: March 22, 2018

Prepared for:

City of Dunwoody Parks
Attn: Brent Walker, Director
41 Perimeter Center East, Suite 250
Dunwoody, GA 30346
(678) 382-6850

This proposal includes data that will not be disclosed outside the Customer and will not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offered as a result of – or in connection with – submission of this data, the Customer will have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Customer's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in all sheets.

1.0 Introduction: Company Background and Experience

Founded in 1999, GC&E Systems Group, Inc. (GC&E) is an independently-owned and operated Veteran Owned Small Business headquartered in Norcross, GA. GC&E specializes in Electronic Security, Information Technology (IT), and Telecommunications Solution Design and Installation in federal, state, and local markets. GC&E is a full service electronic security systems integrator, which provides technically complex and innovative Internet Protocol (IP) video surveillance, Closed Circuit TV (CCTV), electronic access control, intercom, intrusion detection, and other security-related solutions. We leverage and apply our strong industry expertise to all electronic security projects we support so that all of our customers benefit from our diverse experience.

GC&E has served as the electronic security system integrator for many large-scale contracts where similar services were required. Our team includes more than 200 technical professionals, including Network / System Architects and Engineers, Registered Communication Distribution Designers, Project Managers, Security System Installation Technicians, Electricians and other technical professionals who are seasoned veterans in the electronic security system industry. While there are many companies capable of providing the services requested, few have our proven combination of unique experience, range of expertise, and technical insights to address all facets of the video surveillance installation requirements that are required to successfully perform this project.

2.0 Scope of Work

2.1 Solution Summary

This proposal is for the installation of a new IP video management system for the City of Dunwoody Parks and Recreation's Pernoshal and Georgetown Parks. This proposal includes the installation of eleven (11) new 20' steel camera poles, weatherproof enclosures, and twenty (20) IP cameras (combination of fixed and 180° IP cameras). The pole and cabling for a future LPR camera is provided at the Pernoshal Park entrance. All required conduits, pole grounds, camera power and fiber cabling is included. This CCTV system will provide both deterrent and detection capability, enhancing the safety of all visitors to the park.

2.2 Installation Approach

Head End Equipment Pernoshal Park Pavilion

This project consists of one (1) NetGear switch, and one (1) fiber optic enclosure mounted in the existing customer network rack located in the network closet in the Pernoshal pavilion. There will be a network connection available by the customer in the main pavilion for the newly installed switch with connectivity to the City of Dunwoody City Hall Genetec server. The customer will need to provide IP addresses for all IP cameras, and server prior to installation. Included with this proposal are (20) Genetec camera licenses, and twenty (20) Genetec Advantage for 1-year SMA's.

Pole locations and Equipment for Pernoshal Park Trail to Brook Run Trail

This project consists of the installation of five (5) new 20' metal poles throughout the Pernoshal Park Trail to maintain line of site along the trail to the beginning of the Brook Run Park Trail parking lot. Each of these poles will be installed with new concrete bases, and associated grounding materials. New OSP fiber optic cabling, and 120VAC electrical cabling from the main pavilion to each pole will be installed to provide communications, and power at each pole. Each pole will receive one (1) L-com weather proof enclosure with a 120V outlet, one (1) Interlogix hardened POE switch, and one (1) fiber optic enclosure with a fiber adapter panel. The two (2) of the poles located from the main Pernoshal trail to the beginning of Brook Run trail parking lot will each receive one (1) Axis P3225-VE MkII IP dome camera. Then three (3) poles will each receive one (1) Axis Q3708-PVE 180° IP dome

Why GC&E?

- ✓ GC&E is a full service electronic security systems integrator, who provides technically complex and innovative video surveillance, access control, intrusion detection, intercom, panic, mass notification, perimeter security, biometric, and other security solutions
- ✓ GC&E provides turnkey solutions, from the initial needs assessment and consultation, to systems engineering, design, and provisioning, through installation, and on-going system operations and maintenance, through the providing of preparedness and safety training programs
- ✓ GC&E has established partnerships with multiple electronic security system manufacturers enabling GC&E to be manufacturer and technology neutral
- ✓ GC&E possesses diverse project experience and expertise gained through the performance of over 8,000 electronic security projects over the last 10 years, which range in value from a few hundred dollars to over \$3.5 million dollars
- ✓ GC&E employs industry-recognized management and leadership with more than 100 years of combined electronic security experience and original equipment manufacturer trained and certified installation technicians and engineers
- ✓ GC&E has experience working in all major markets including Education; Federal, Civilian and Defense; State, Local, and County Governments; Law Enforcement and Correctional Institutions; Health Care; Commercial and Office; Critical Infrastructure (utilities); Manufacturing; and New Construction
- ✓ GC&E is a licensed security, electrical, and low voltage contractor
- ✓ GC&E employs five (5) Building Industry Consulting Services International (BICSI) Registered Communications Distribution Designers
- ✓ GC&E Quality Management System is ISO 9001 certified

camera to view the paths in each direction of the poles location. Each of the camera locations are depicted in the drawings below. These newly installed IP cameras will each receive a Ditek surge suppressor that will be bonded to a local ground point. New Category 6 OSP shielded cable will be installed for each new pole IP camera. Upon completion of the installation GC&E will aim, and focus the cameras for proper viewing with the customer.

Pole locations and Equipment for Pernoshal Park Amphitheater and Pavilion

This project consists of the installation of six (6) new 20' metal poles throughout the Pernoshal Park as depicted on the attached drawing. Each of these poles will be installed with new concrete bases, and associated grounding materials. New OSP fiber optic cabling, and 120VAC electrical cabling from the main pavilion to each pole will be installed to provide communications, and power at each pole. Each pole will receive one (1) L-com weather proof enclosure with a 120V outlet, one (1) Interlogix hardened POE switch, and one (1) fiber optic enclosure with a fiber adapter panel. There will be a total of four (4) Axis Q3708-PVE 180° IP cameras, three (3) Axis P3225-VE fixed IP cameras, and one (1) LPR IP camera. The cabling and materials for the LPR camera will be installed on the pole at the main entrance to the park. These newly installed IP cameras will each receive a Ditek surge suppressor that will be bonded to a local ground point. New Category 6 OSP shielded cable will be installed for each new pole IP camera. Upon completion of the installation GC&E will IP address, aim, and focus the newly installed IP cameras with the customer.

***** Existing conduit from Pernoshal Park to Brook Run Park is in place, free, and clear of all obstructions *****

***** Existing conduit around Pernoshal Park Amphitheater trail to Georgetown crosswalk is in place, free, and clear of all obstructions *****

Camera locations and Equipment for Georgetown Park

Georgetown East Pavilion

The Georgetown East pavilion will receive one (1) NetGear POE switch in the existing network rack, and three (3) Axis P3225-VE IP cameras in the following locations: one (1) with a view of the restroom, one (1) with a view of the pavilion, and one (1) looking at the sidewalk and street area. There will be one (1) Axis Q3708-PVE installed above the pavilion with a view towards the main center area. New Category 6 OSP shielded cable will be installed from the pole to the newly installed NetGear switch in the network closet. There will be a network connection available by the customer in the electrical room at the East Pavilion with connectivity to the City of Dunwoody network. Upon completion of the installation GC&E will IP address, aim, and focus the newly installed IP cameras with the customer. The (20) Genetec IP camera licenses, and (20) Genetec Advantage for 1-year SMA's are part of this scope of work.

Georgetown West Pavilion

The Georgetown West pavilion will receive one (1) NetGear POE switch in the existing network rack, and four (4) Axis P3225-VE IP cameras in the following locations: two (2) on the front of the pavilion with a cross view of the entrance into the park, and one (1) on the back looking into the park area. New Category 6 cable will be installed from each camera and terminated to the new NetGear POE switch. Each of these new IP cameras will receive one (1) new Ditek surge suppressor that will be bonded to a local ground. There will be a network connection available by the customer in the electrical room at the West pavilion with connectivity to the City of Dunwoody network. Upon completion of the installation GC&E will IP address, aim, and focus the newly installed IP cameras with the customer.

3.0 Warranty

Upon substantial completion of the project, GC&E provides a one (1) year warranty on parts and labor.

To receive product replacement and or warranty support, the customer is required to comply with the manufacturer's standard product registration process as well the standard product return policy that may include prior contact with manufacturer Technical Support, returning defective materials in the original packaging along with all original connectors, cable assemblies, connectors, and all original documentation.

Warranty Coverage does not include damage or malfunction due to accident, acts of nature (including lightning strikes), improper operation, power surge/loss, misuse, neglect, unauthorized modification or repair or use in a manner for which the equipment was not intended. Nor does it cover technician services for troubleshooting, removing or replacing any failed component not covered by this warranty.

4.0 Exclusions or Items Not Included in Quote

- ❖ Repairing any pre-existing issues with the system associated with the installation
- ❖ Bid, payment, or performance bond costs
- ❖ Troubleshooting of existing network, power, or grounding issues
- ❖ Correcting of existing code violations
- ❖ Network connection to City of Dunwoody network
- ❖ Genetec server, and video storage
- ❖ Engineered surveying or drawings
- ❖ Costs for independent inspections or testing
- ❖ Union labor, escorts, specific wage rates, or certified payroll
- ❖ Permit
- ❖ Items that are not specifically listed in this quote are not included
- ❖ Network connectivity from each location
- ❖ LPR cameras, software, and camera license

5.0 General Assumptions and Clarifications

- ❖ 120V electrical power is available on site to power new equipment
- ❖ Pricing is contingent on the project being award as a whole
- ❖ Rock clause for trenching and boring
- ❖ Customer is tax exempt
- ❖ The existing conduit for Pernoshal to Brookrun is in place, free and clear of any obstructions
- ❖ All work will be done during normal business hours
- ❖ Space will be available in existing (rack and/or cabinet) for new equipment
- ❖ No material will be ordered without approved submittals
- ❖ Manufactures and part numbers are subject to change due to availability and technology changes

6.0 Terms and Conditions

Terms and Conditions	
1.	TAXES: Prices exclude (unless otherwise noted in the proposal) all duties, taxes, tariffs, or other governmental charges that now are, or hereafter may be, imposed upon the sale or use of the Products or Services. All such duties, taxes, tariffs, or other charges paid by GC&E shall be for Purchaser's account. Any exemption claimed paid by GC&E shall be for Purchaser's account. Any exemption claimed from the application of such duties, taxes, tariffs, or other charges should be plainly designated on the face of orders placed with GC&E and accompanied by exemption certificates where required.
2.	PRICE VALIDITY: The prices set forth in this proposal are predicated on receipt of a contract or Purchase Order within 30 days from the date of this proposal. If 30 days have passed and performance is required, GC&E reserves the right to revise the pricing in this proposal to reflect current material and labor market prices and current site conditions.
3.	PURCHASER SPECIFICATIONS: GC&E Systems Group assumes no liability for any errors or omissions in any specification provided by the purchaser, including any errors or omissions made by GC&E in the interpretation of any such specifications. Any items included in any specification provided by the purchaser and not listed and priced on GC&E's proposal are not part of this Agreement.
4.	LIQUIDATED DAMAGES: GC&E will not be responsible for any liquidated damages other than those attributed to delays caused solely by GC&E. If GC&E is one of several contractors responsible for delays, GC&E will only be responsible for a pro rata share of liquidated damages to the extent attributable to or cause by GC&E. GC&E will not be responsible for any liquidated damages in an amount greater than that actually accessed against GC&E.
5.	CANCELLATION: This Agreement cannot be cancelled or postponed by the Purchaser except with GC&E's consent and upon terms that will indemnify GC&E against loss. Accordingly, Purchaser shall pay GC&E the greater of (i) a charge equal to 10% of its total price or (ii) reasonable cancellation charges, GC&E's anticipated profit, restocking fees, and expenses already incurred by GC&E in performing or preparing to perform the work required by Purchaser's order, as invoiced by GC&E. GC&E Systems Group reserves the right to cancel this Quotation Agreement if excessive downtime is encountered which, in the discretion of GC&E, is beyond its control (limited access to work area, training, etc.) or if customer fails to comply with any term of this agreement. The GC&E billable rate for downtime is per GC&E standard rates.
6.	INSPECTION: Within five business days of receipt of the Products and Services, Purchaser shall inspect the Products and Services to check for shortages or any other nonconformity. Unless Purchaser shall thereafter notify GC&E in writing of any nonconformity (other than that relating to loss or damage in transit, which claims will be made directly to the carrier) within ten days of inspection, Purchaser shall be deemed to have accepted the Products and Services without any qualifications and cannot, thereafter, reject the Products and Services for any reason. In any event, Products and Services accepted and used shall be deemed to have been accepted in good condition and in compliance with the specification and order therefore.
7.	GOVERNING LAW: The terms of this quotation shall be governed and interpreted in accordance with the laws of the State of Georgia. If any provision of this Quotation Agreement shall be held by a court of competent jurisdiction to be contrary to law, the remaining provisions shall remain in full force and effect.
8.	EXISTING CODE VIOLATIONS: Existing code violations requiring correction by the local authority inspectors is the responsibility of the customer and is not included in GC&E's pricing.
9.	PAYMENTS: Payment is due Net 30.
10.	DELINQUENT PAYMENTS: If any amount owing to GC&E under the terms hereof is not paid when due, interest shall accrue on any unpaid balance at a rate of 1.5% (1% for Georgia customers per O.C.G.A. § 13-11-2) simple interest every thirty (30) days. Additionally, in the event full payment is not made and GC&E is required to institute legal proceeding in order to collect amounts owing hereunder, the party against whom enforcement is sought shall be required to reimburse GC&E for all reasonable costs of collection, including attorneys' fees, if GC&E is ultimately successful in prosecuting its claims.
11.	DISCLAIMER: In no event shall GC&E Systems Group be responsible for any direct, indirect, incidental, special or consequential damages, including loss of profits, revenue, and/or data, incurred by any party to the agreement, or any third party, resulting from the usage of products or services supplied under this Quotation Agreement, even if such party has been advised of the possibilities of such damages.
12.	ACCEPTED: This Quotation Agreement and any exhibits attached hereto constitutes the entire agreement between parties concerning the subject matter hereof, superseding all prior negotiations, discussions and agreements, oral or written. The above prices, specifications and all conditions are satisfactory and are hereby accepted. GC&E is authorized to do work as specified. Payment will be made as outlined above.

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7.0 Bill of Materials

State Contract Bill of Materials- 99999-SPD0000025-0004				
Description	UoM	Qty	Manufacturer	Part Number
Q3708-PVE, 180° IP Dome Camera, WDR	Each	9	Axis	0801-001
P3225-VE MkII Fixed Dome IP Camera, Outdoor, WDR, 2MP	Each	11	Axis	0953-001
Wall Mount Bracket for Pole Adapter	Each	7	Axis	5506-481
Outdoor Pendent Kit for Fixed Dome IP Cameras	Each	7	Axis	5505-871
Pole Mount for Fixed Dome IP Cameras	Each	6	Axis	5504-581
Pole Mount for PTZ, and Q37 series	Each	9	Axis	5801-721
GSC AutoVu Standard Package	Each	1	Genetec	GSC-Av-S
AutoVu SharpV Generic Camera Kit: Includes SharpV Dual (LPR and Context) camera, bracket and camera connection	Each	1	Genetec	AU-K-V-GENERIC-LC
Genetec Advantage for 1 AutoVu Fixed Camera, for 1 - Year	Each	1	Genetec	ADV-LPR-F-1Y
1 Camera Connection	Each	20	Genetec	GSC-Om-E-1C
Genetec Advantage for 1 Omnicast Enterprise Camera- 1 Year	Each	20	Genetec	ADV-CAM-E-1Y

Please refer to the last section of this document for manufacturers' specification sheets, if applicable.

Non-State Contract Bill of Materials				
Description	UoM	Qty	Manufacturer	Part Number
Category 6 OSP Shielded Cable	Foot	1000	SCP	CAT6SH-DB
OSP, OM3, 6 Strand MM – Loose Tube Fiber	Foot	5500	Prysmian	EDH-1JKT-12-G3-06-M3
NEMA 4, 120V, Weatherproof Enclosure	Each	12	L-Com	NBE141006-10F
Hardened 8 Port, POE Switch	Each	11	Interlogix	NS3552-8P-2S
LC MM Mini GBIC	Each	22	Interlogix	S30-2MLC-2
Round Tapered Steel Pole	Each	11	American Lite Pole	RTS-20-65-11-AB
Switch, 16 Port, 2U Rackmount	Each	3	NetGear	GS716T-300NAS
SFP, LC, MM, 1000BASE-SX GBIC	Each	3	Proline	AGM731FTAA

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8.0 Pricing

Figure 8.0: Project Summary	
Non-State Contract Equipment:	\$93,861.07
State Contract Equipment:	\$33,539.06
Labor:	\$158,737.38
Tax:	Exempt
Grand Total:	\$286,137.51

I have read all of the project scope information and fully understand the quote in its entirety. I have also had the opportunity to request clarification on any and all items listed in this document. I have full authority to execute this agreement and enter into contract with GC&E Systems Group to furnish labor and materials for the project scope as listed above.

Company: City of Dunwoody Parks
 Printed Name: _____
 Signature: _____
 Title: _____
 Dated: _____

I have fully coordinated, reviewed, and/or clarified all project scope information listed above with the customer.

Company: GC&E Systems Group, Inc.
 Printed Name: Charlie McRoberts
 Signature: _____
 Title: Senior Account Manager
 Dated: _____

Pernoshal Park

Design Tool for AXIS Perimeter Defender



Note that the blue depictions are based on selected camera view and recognition. Cameras will see further but lose recognition further out. All cameras will be reviewed with Park Management on actual view before completion of installation.

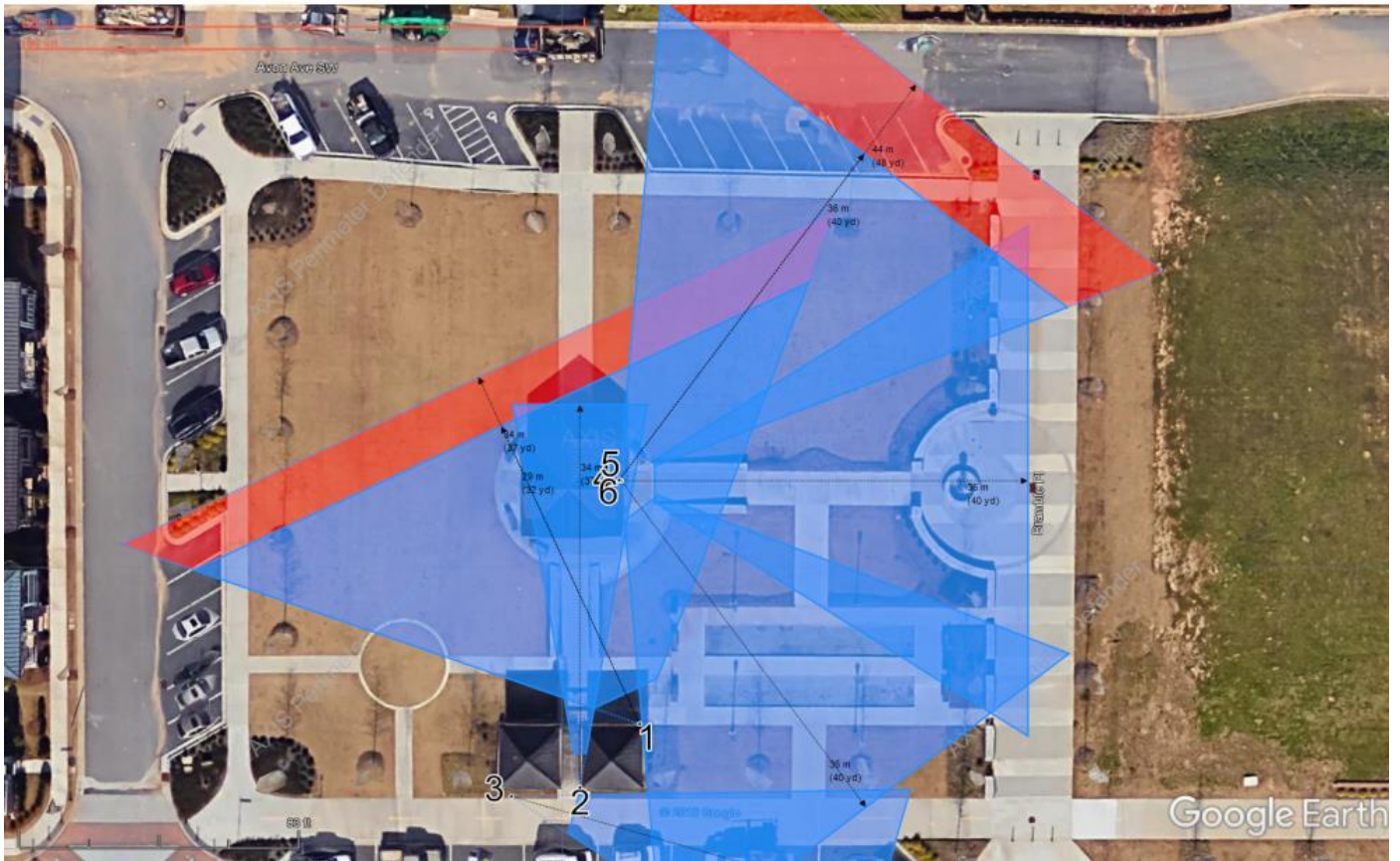
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Pernoshal Trail to Brook Run



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Georgetown Park East



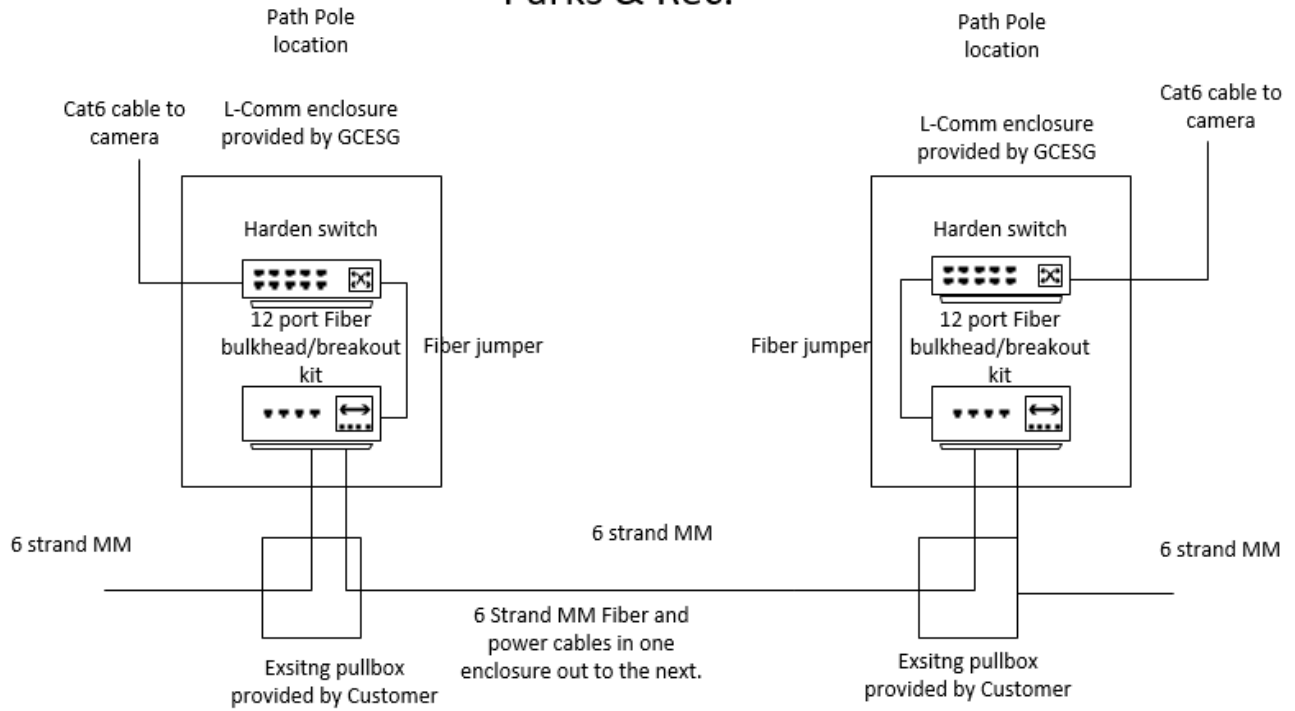
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Georgetown Park West



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City of Dunwoody Parks & Rec.



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Datasheet



AXIS Q3708-PVE Network Camera

180° overview in challenging light conditions

AXIS Q3708-PVE is a fixed dome with multiple sensors, providing an easy, reliable and cost-efficient one-camera installation. With WDR – Forensic Capture and excellent light sensitivity, it covers large areas even in challenging light conditions. Its three sensors together give a 180° panoramic view with smooth capture of movements at up to 30 fps in 3 x Quad HD or 20 fps in 3 x 5 MP resolution. The camera's factory-focused lenses eliminate the need for manual focusing. It is effectively installed indoors or outdoors with a wide operating temperature range powered by standard PoE+. AXIS Q3708-PVE comes with a repaintable weather shield.

- > 180° panoramic overview
- > Three sensors, one IP address
- > Enhanced light sensitivity and WDR – Forensic Capture
- > 3 x Quad HD at 30 fps or up to 15 MP at 20 fps
- > Axis' Zipstream technology



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www.axis.com

AXIS Q3708-PVE Network Camera

Camera		General	
Image sensor	3 x 1/1.8" progressive scan CMOS	Casing	IP66- and NEMA 4X-rated, IK10 impact-resistant aluminum casing with transparent, polycarbonate cover and dehumidifying membrane Encapsulated electronics Captives screws (T30) Color: White NCS 1002-B For repainting instructions and impact on warranty contact your Axis partner.
Lens	3 x lenses, fixed focus, 5.0 mm, F2.8 Combined horizontal angle of view: 180°	Sustainability	PVC free
Day and night	Automatically removable infrared-cut filter	Memory	2.5 GB RAM, 512 MB Flash
Minimum illumination	Color: 0.3 lux, F2.8 B/W: 0.06 lux, F2.8	Power	Power over Ethernet IEEE 802.3at Type 2 Class 4, max. 25.5 W, typical 18.3 W
Shutter time	1/71500 s to 1 s	Connectors	RJ45 10BASE-T/100BASE-TX/1000BASE-T
Camera angle adjustment	Pan +/- 180° Tilt 18°-75°	Storage	Support for recording to dedicated network-attached storage (NAS)
Video		Operating conditions	-40 °C to 55 °C (-40 °F to 131 °F) Humidity 10-100% RH (condensing)
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles Motion JPEG	Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F)
Resolutions	3 x (2560x1920 to 480x270)	Approvals	EN 55022 Class A, EN 50121-4, IEC62236-4, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS CISPR 22 Class A, KCC KN32 Class A, KN35, IEC/EN/UL 60950-1, IEC/EN/UL 60950-22, EN 50581, IEC/EN 60529 IP66, NEMA 250 Type 4X, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-30, IEC 60068-2-78, IEC/EN 62262 IK10
Frame rate	3 x Quad HD (2560x1440): Up to 25/30 fps with power line frequency 50/60 Hz 3 x 5 MP: Up to 16/20 fps with power line frequency 50/60 Hz	Dimensions	205 x 205 x 172 mm (8.1 x 8.1 x 6.8 in)
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR H.264 Axis' Zipstream technology in H.264	Weight	2.5 kg (5.5 lb) including weather shield
Image settings	Compression, Color, Brightness, Sharpness, Contrast, White balance, Exposure control, Exposure zones, Fine tuning of behavior at low light, Text and image overlay, Privacy mask, Capture alignment WDR - forensic capture: Up to 110 dB depending on scene	Included accessories	RJ45 Push-pull connector (IP66), Torx L-key T30, Weather shield, Installation Guide, Windows decoder 1-user license
Network		Optional accessories	Axis Mounts AXIS PoE+ Midspans For more accessories, see www.axis.com
Security	Password protection, IP address filtering, HTTPS ^a encryption, IEEE 802.1X ^a network access control, Digest authentication, User access log, Centralized Certificate Management	Video management software	AXIS Camera Companion, AXIS Camera Station, Video management software from Axis' Application Development Partners available on www.axis.com/techsup/software
Supported protocols	IPv4/v6, HTTP, HTTPS ^a , SSL/TLS ^a , QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP TM , SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, SFTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH	Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese
System integration		Warranty	Axis 3-year warranty and AXIS Extended Warranty option, see www.axis.com/warranty
Application Programming Interface	Open API for software integration, including VAPIX [®] and AXIS Camera Application Platform; specifications at www.axis.com ONVIF Profile S, specification at www.onvif.org	a. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (www.openssl.org), and cryptographic software written by Eric Young (eyay@cryptsoft.com).	
Analytics	AXIS Video Motion Detection 3, Active tampering alarm Support for AXIS Camera Application Platform enabling installation of third-party applications, see www.axis.com/acap	Environmental responsibility: www.axis.com/environmental-responsibility	
Event triggers	Analytics, Edge storage events		
Event actions	File upload: FTP, SFTP, HTTP, HTTPS, network share and email Notification: email, HTTP, HTTPS, TCP and SNMP trap Video recording to edge storage Pre- and post-alarm video buffering Overlay text		
Built-in installation aids	Pixel counter		

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Datasheet



AXIS P3225-VE Mk II Network Camera

Streamlined and versatile, outdoor-ready HDTV 1080p fixed dome

AXIS P3225-VE Mk II is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. It features a varifocal lens and remote zoom and focus, which eliminates the need for hands-on fine tuning. Equipped with WDR – Forensic Capture to handle scenes with strong variations in light as well as Lightfinder technology for exceptional light sensitivity, this versatile camera provides outstanding video quality in both strong and poor light conditions. It supports Axis Zipstream technology that significantly reduces bandwidth and storage requirements. The vandal-resistant AXIS P3225-VE Mk II is IK10 rated.

- > **HDTV 1080p video quality**
- > **Outdoor ready and IK10 rated**
- > **Remote zoom and focus**
- > **Lightfinder and WDR – Forensic Capture**
- > **Axis Zipstream**



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AXIS P3225-VE Mk II Network Camera

Camera	
Image sensor	Progressive scan RGB CMOS 1/3"
Lens	Varifocal, 3.0–10.5 mm, F1.4 Horizontal field of view: 92°–34° Vertical field of view: 50°–20° Remote focus and zoom, P-Iris control, IR corrected
Day and night	Automatically removable infrared-cut filter
Minimum illumination	HDTV 1080p 25/30 fps with WDR – forensic capture and Lightfinder: Color: 0.15 lux at 50 IRE, F1.4 B/W: 0.03 lux at 50 IRE, F1.4 HDTV 1080p 50/60 fps: Color: 0.3 lux at 50 IRE, F1.4 B/W: 0.06 lux at 50 IRE, F1.4
Shutter time	1/66500 s to 1 s
Camera angle adjustment	Pan ±180°, tilt -5 to +85°, rotation ±95°
Video	
Video compression	H.264 Baseline, Main and High Profile (MPEG-4 Part 10/AVC) Motion JPEG
Resolution	1920x1080 to 160x90
Frame rate	With WDR: 25/30 fps with power line frequency 50/60 Hz Without WDR: 50/60 fps with power line frequency 50/60 Hz
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG Axis Zipstream technology in H.264 Controllable frame rate and bandwidth VBR/MBR H.264
Multi-view streaming	2 individually cropped out view areas
Pan/Tilt/Zoom	Digital PTZ, preset positions
Image settings	Compression, color, brightness, sharpness, contrast, local contrast, white balance, exposure control (including automatic gain control), exposure zones, fine tuning of behavior at low light, WDR – forensic capture: up to 120 dB depending on scene, text and image overlay, mirroring of images, privacy masks Rotation: 0°, 90°, 180°, 270°, including Corridor Format
Network	
Security	Password protection, IP address filtering, HTTPS ^a encryption, IEEE 802.1X ^a network access control, Digest authentication, User access log, Centralized Certificate Management
Supported protocols	IPv4/v6, HTTP, HTTPS ^a , SSL/TLS ^a , QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, Bonjour, UPnP TM , SNMP v1/v2c/v3(MIB-II), DNS, DynDNS, NTP, RTSP, RTP, SRTP, SFTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS, SSH, LLDP
System integration	
Application Programming Interface	Open API for software integration, including VAPIX [®] and AXIS Camera Application Platform; specifications at www.axis.com AXIS Video Hosting System (AVHS) with One-Click Connection ONVIF Profile S and ONVIF Profile G, specification at www.onvif.org
Analytics	Included AXIS Video Motion Detection, active tampering alarm Supported AXIS Guard Suite including AXIS Motion Guard, AXIS Fence Guard, and AXIS Loitering Guard, AXIS Perimeter Defender AXIS Digital Autotracking, AXIS People Counter, AXIS Tailgating Detector, AXIS Direction Detector, AXIS Occupancy Estimator, AXIS Random Inspection, AXIS Queue Monitor Support for AXIS Camera Application Platform enabling installation of third-party applications, see www.axis.com/acap
Event triggers	Analytics, edge storage events, virtual inputs through API
Event actions	Record video: SD card and network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email

	Pre- and post-alarm video or image buffering for recording or upload Notification: email, HTTP, HTTPS, TCP and SNMP trap Overlay text
Data streaming	Event data
Built-in installation aids	Remote zoom, remote focus, pixel counter
General	
Casing	IP66- and NEMA 4X-rated, IK10 impact-resistant casing with hard-coated dome and dehumidifying membrane Encapsulated electronics and captive screws Color: white NCS S 1002-B For repainting instructions of casing and impact on warranty, contact your Axis partner.
Sustainability	PVC free
Memory	512 MB RAM, 256 MB Flash
Power	Power over Ethernet IEEE 802.3af/802.3at Type 1 Class 3, max 7.1 W, typical 4.6 W
Connectors	RJ45 10BASE-T/100BASE-TX PoE
Storage	Support for microSD/microSDHC/microSDXC card Support for SD card encryption Support for recording to network-attached storage (NAS) For SD card and NAS recommendations see www.axis.com
Operating conditions	-40 °C to 50 °C (-40 °F to 122 °F) Start-up: -30 °C to 50 °C (-22 °F to 122 °F) Maximum temperature (intermittent): 55 °C (131 °F) Humidity 10 to 100% RH (condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F)
Approvals	EMC EN 55022 Class B, EN 61000-6-1, EN 61000-6-2, EN 55024, EN 50121-4, IEC 62236-4, FCC Part 15 Subpart B Class A and B, ICES-003 Class B, VCCI Class B, RCM AS/NZS CISPR 22 Class B, KCC KN32 Class B, KN35 Safety IEC/EN/UL 60950-1, IEC/EN/UL 60950-22 Environment IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14 IEC 60068-2-6 (vibration), IEC 60068-2-27 (shock), IEC 60068-2-30, IEC 60068-2-78, IEC/EN 60529 IP66, NEMA 250 Type 4X, IEC/EN 62262 IK10
Dimensions	Height: 104 mm (4 1/16 in) ø 149 mm (5 7/8 in)
Weight	800 g (1.8 lb)
Included accessories	Installation Guide, Windows decoder 1-user license, mounting bracket, cable gasket, Resistor [®] T20 L-key, drill template, connector guard Weathershield
Optional accessories	AXIS ACI Conduit Bracket A, AXIS ACI Conduit Adapters, AXIS T94M01L Recessed Mount Kit, AXIS T94T01D Pendant Kit including weather shield, AXIS Mounts, Smoked dome For more accessories, see www.axis.com
Video management software	AXIS Companion, AXIS Camera Station, Video management software from Axis Application Development Partners available on www.axis.com/vms
Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese
Warranty	Axis 3-year warranty and AXIS Extended Warranty option, see www.axis.com/warranty

a. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (www.openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).

Environmental responsibility:

www.axis.com/environmental-responsibility

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SharpV

Automatic License Plate Recognition Device

Know who's in your facility

The Genetec AutoVu™ SharpV is a specialized, all-in-one automatic license plate recognition (ALPR) camera designed to simplify deployments from specification through installation. Versatile and accurate, the SharpV is suited for fixed ALPR installations, such as monitoring entries and exits or capturing license plates at high-speeds on city-streets and highways.

The SharpV is ideally suited for a range of applications, from managing off-street parking lots and facilities to covering major city access points for wanted vehicles. The SharpV is also capable of simultaneously streaming ALPR and video data to Security Center, the Genetec security platform, where it can be unified with plate reads from mobile ALPR vehicles, surveillance camera streams and access control events in a single system.



Features

On-board ALPR processing ensures performance and scalability

Varifocal lenses ease specification and design

IP67-rated enclosure allows for operation in extreme weather conditions and harsh environments

Built-in illumination for around-the-clock operation

Simultaneously read license plates and stream high-resolution contextual color video

On-board I/Os for integration to induction loops or gates

Benefits

See more – Equipped with high-resolution ALPR and context cameras as well as on-board illumination, the SharpV covers a wide field-of-view and provides high-quality images and video, day or night.

Intelligence at the Edge – With processing on-board, the SharpV brings ALPR intelligence to the edge of your system. Since only plate read data needs to be transferred over the network, this means decreased data load on the network and server as all the image processing and analysis is done in the unit. The cameras are not dependent on the server, hence providing uninterrupted coverage even when connectivity goes down.

Unify on a Single Platform – The SharpV can be enrolled within Security Center as a surveillance camera for streaming and recording video. On-board I/Os can be used to trigger reads based on sensors to increase capture rates or open gates based on credentials associated to the plates.

Simplify Specification and Installation – The SharpV is built to facilitate deployment. As a varifocal PoE+ device, the reading distance, magnification and cabling are easily adjustable on site, reducing system design and specification effort. Meanwhile, the modern HTML5 web portal simplifies configurations and maintenance.

Specifications

ALPR camera sensor

1280 x 960 progressive scan @ 30 fps (ALPR), monochrome

Capture range

Standard Range: 9–60 ft (3–18.25 m)

Long Range: 60–115 ft (18–35 m)

Dimensions

2.5 in x 7.6 in x 8.5 in (2.7 high with sunshield for black version)

(63 mm x 192 mm x 214 mm)

Weight

5.04 lb (2.29 kg)

Illuminator

Pulsed LED illuminator for effective use in

0 lux (total darkness) environments

940nm, 850nm, 740nm and 590nm illumination wavelengths available

Context camera sensor

1280 x 960 progressive scan @ 30 fps (ALPR),

15 fps (streaming), color

Available color(s)

Security White / Black

Operating Temperature

-40°F to 140°F (-40°C to 65°C) ambient

On-board Analytics

Single-camera speed estimation, direction of travel and virtual loop

Power supply

PoE+ (Power-over-Ethernet) - 802.3at Type 2 (25.5 W)

Cabling

Cat5e cable

(special connector provided for IP67 rating)

Sealing (Water/Dust Protection)

IEC 60529: IP66/IP67

Compression

Concurrent MJPEG video compression for ALPR and Context feeds;

JPEG compression for ALPR and Context still images

External interface

1 x 10/100/1000 Base-T Ethernet port

Vibration & Shock

IEC 60068-2-64: 5–100Hz | 0.5 g rms

IEC 60068-2-27: 10g | 16ms half-sine

NEMA TS-2: 5–30 Hz | 0.5 g double-amplitude

Electromagnetic immunity & emissions

FCC part 15 Subpart B | ICES-003 Issue 4 | CISPR32 / EN55032 |

CISPR 24 / EN 55024

EMC Directive (CE marking)

2014/30/EU

External I/Os

2 inputs / 2 outputs (opto-isolated)

Mounting

Pole and Wall Mount included

