

SPECTRUM

CAMERA SOLUTIONS



SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY

D201-S-Q6055-E

Explosion Camera Proof Network Camera



Installation and User's Manual

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Labels



8935 ALMEDA GENOA RD.
HOUSTON, TEXAS 77075
USA

FILE:FM17US0156

SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY

MODEL NUMBER: D201-S AXIS Q6055-E

SERIAL: TIME-MO-DY-YEAR

CLASS I DIVISION 1 GROUP B,C,D T6

CLASS I, ZONE 1, IIB+H2, T6

Tamb -20°C TO +55°C

-WARNINGS:

-NOT INCLUDING KETONE OR ESTER ATMOSPHERES

-CONDUIT ENTRIES ARE M20 X 1.5

-DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

-INSTALL SEAL AT ENCLOSURE ENTRY


US Patent 9917428

Section 1

How to Use This Manual

General Manual:

This manual is intended to be used in conjunction with installed equipment manual from internal equipment manufacturer.

 Note: In the event of a conflict between the requirements of this general installation manual and the internal equipment manual, the safety and installation procedures described in this manual shall take precedence.

Safety Considerations:

This chapter includes important information that must be read and understood by all persons installing, using, or maintaining this equipment. This manual is designed to aid personnel in the correct and safe installation, operation, and maintenance of the systems described. Personnel must consider all actions and procedures for potential hazards or conditions that may not have been anticipated in the written procedures. If a procedure cannot be performed safely, it must not be performed until appropriate actions can be taken to ensure the safety of equipment and personnel. The procedures in this manual are not designed to replace or supersede required or common sense safety practices. All safety warnings listed in any documents applicable to equipment and parts used in or with the system described in this manual must be read and heeded before commencing work on any part of the system.



NOTE: Refer to all ATEX, CSA, IECEx, NEC, NFPA and FM certificates for any Special Conditions of Use. If the sign “X” is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule of the certificate.



NOTE: Review all material and safety information in this manual and install in accordance with this document and all other applicable ATEX, CSA, IECEx, NEC, NFPA70 Installation Methods and FM and National standards.






WARNING: Failure to follow appropriate safety procedures or inappropriate use of the equipment described in this manual can lead to injury of personnel or equipment damage.



WARNING – EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

The following symbols are used throughout this manual to alert users to potential hazards or important information. ***Failure to heed the warnings and cautions listed herein can lead to injury and equipment damage.***

Document Label Definitions used to indicate potential hazards		
Symbol	Label	Description
	WARNING:	Consists of conditions, practices, or procedures that must be observed to prevent personal injury and / or equipment damage.
	CAUTION:	Risk of electric shock or high temperature parts may result in injury if proper precautions are not taken.
	NOTE:	Emphasizes important or essential information.

Locating Information:



NOTE: *In the interest of completeness, manuals and drawings included with the system may provide information pertaining to options not included with your equipment. Information in application notes supersedes general information in these documents. Information can be located in this manual using any of the following aids.*

General Safety and Operating Information:

This section contains general safety and operating information applicable to electrical equipment installed within hazardous locations. This information must be understood by all persons installing, using, or maintaining the electrical equipment. This information is designed to aid personnel in safe installation, operation, and maintenance of the D200 Series IP devices. It is not designed to replace or limit appropriate safety measures applicable to work performed by personnel. Any additional safety and operating measures that are required must be determined by and followed by personnel performing work on the electrical equipment.



WARNING: Deviation from the specified instructions or procedure steps can result in injury to personnel, equipment malfunction or equipment damage.



WARNING: Return unit to factory for any repairs or replacement of parts, customer not permitted to repair. This will void all warranties and hazardous area certification(s).

General Precautions:

Slip resistant gloves and protective eyewear (***glasses with side shields or goggles as appropriate***) ***should*** be worn when installing and servicing any part of electrical equipment. Hot components should be allowed to cool before servicing if possible. Other appropriate equipment or clothing must be used as required by the type of work performed. All applicable regulations and procedures must be followed for the work performed. ***Before*** beginning any work on the equipment, carefully consider all the potential hazards and ensure that appropriate measures are taken to prevent injury to personnel or equipment damage.



CAUTION: Electrical equipment components may be hot even when power is not applied. Take appropriate precautions to prevent injury from contact with hot items.



CAUTION: *Applicable permits must be obtained and appropriate precautions must be taken to prevent possible injury to personnel or equipment damage when installing or maintaining this equipment.*

Electrical Power:

The D200 Series IP cameras operate off of the following IEEE compliant POE devices.

- The power supply used with this product shall fulfill the requirements for Safety Extra Low Voltage (SELV) and Limited Power Source (LPS) according to IEC/EN/UL 62368-1 or IEC/EN/UL 60950-1 or Listed Class II Power Source Equipment.
- The product shall be grounded either through a shielded network cable (STP) or other appropriate method.

Camera Location:

The D200 Series IP cameras must be installed in a suitable location away from impacts, heavy vibration and extreme heat. The D200 Series IP cameras must not be installed in an area classification for which it is not rated. The D200 Series IP cameras must be attached securely and appropriately to a wall or supporting structure.



CAUTION: *The electrical cover should never be removed unless power is removed from the unit or the area is known not to contain explosive materials.*



NOTE:

- The product shall be installed by a trained professional
 - The product shall be used in compliance with local laws and regulations.
 - **Store the product in a dry and ventilated environment.**
 - Avoid exposing the product to shocks or heavy pressure.
 - Do not install the product on unstable brackets, surfaces or walls.
 - Use only applicable tools when installing the product. Using excessive force with power tools could cause damage to the product.
 - Do not use chemicals, caustic agents, or aerosol cleaners.
 - Use a clean cloth dampened with pure water for cleaning.
 - Use only accessories that comply with the technical specification of the product.
- These can be provided by Spectrum or a third party.

Section 2

Specifications

Features and Certifications	
<p>Certified for installation and use in CLASS I DIVISION 1 GROUP B,C,D T6 CLASS I, ZONE 1, IIB+H2, T6 Tamb -20°C TO +55°C</p>	
<p>Utilizing Network IP Device Axis Q6055-E</p>	

Utility Requirements	
Power Input / Consumption	Camera consumption: typical 16 W, max 60 W
Voltage	44-57VDC 60W over 4-pairs

Environmental Conditions (Equipment must be powered)	
Operating Temperature Range	With 30 W midspan: -20 °C to 50 °C With 60 W midspan: -50 °C to 50 °C Maximum temperature (intermittent): 60 °C Arctic Temperature Control: Start-up as low as -40 °C Humidity 10–100% RH(condensing)
Used and Mounted	For Indoor and Outdoor Use

D201-S-Q6055-E Series Casing Material Specifications	
316 Stainless Steel, Unit Weight	62lbs



NOTE: Spectrum Camera Solutions, LLC is NOT responsible for any misuse or improper installation of product, assumes no liability for special or consequential damages caused by use or misuse or improper installation of its products sold and assumes no liability for injury from use or misuse or improper installation of its products or attached products.

D201-S-Q6055-E Explosion Proof Camera Hazardous Area		
Voltage	Material	Model Number
IEEE 802.3bt / PoE++ / 60W PoE Midspans/PoE Injectors	Stainless Steel	D201-S-Q6055-E

Section 3

Introduction

Description:

The D200 Series cameras are designed to provide CCTV monitoring in hazardous environments both on and offshore. Available in either stainless steel or aluminum depending on the customers' requirements. All D200 Series cameras utilize the same junction box, terminal block, and mounting brackets for ease of installation.



WARNING:

The main housing is manufactured in a controlled environment that eliminates moisture at the factory and is only to be opened by factory certified technicians at an authorized repair facility. Opening of the main housing will void all warranties and could result in injury.

NEVER open the main housing of the D200 Series unless authorized and trained and certified to do so



CAUTION: *Electrical equipment components may be hot even when power is not applied. Take appropriate precautions to prevent injury from contact with hot items.*



WARNING: *Failure to allow adequate cooling of electrical equipment components with hot surfaces before opening the enclosure can lead to injury of personnel or equipment damage.*

Section 4

Installation



WARNING: Before attempting to install the D200 Series Camera, review all the material and all safety information in this manual and all other applicable document.



WARNING: Applicable permits must be obtained and appropriate precautions must be taken to prevent possible injury to personnel or equipment damage when installing the D200 Series Camera



CAUTION: This product is heavy. Care must be taken at all times to avoid injury. Never attempt to move or install this product without help or lifting gear.

Mounting:

Review all of the material in this manual prior to installing and interfacing the D200 Camera. For D200 Series mounting bracket information refer to page 22-25

Ensure the area in which you plan to install the D201-S-Q6055-E Camera is known to be non-hazardous at the time of installation.

Mount D200 Series mounting bracket to suitable structure.

Step 3:

Mount D200 Series Camera to mounting bracket using supplied fasteners.

Electrical Power Installation:

Power Source Specification For D201-S-Q6055-E

AXIS T8154 60 W SFP Midspan.

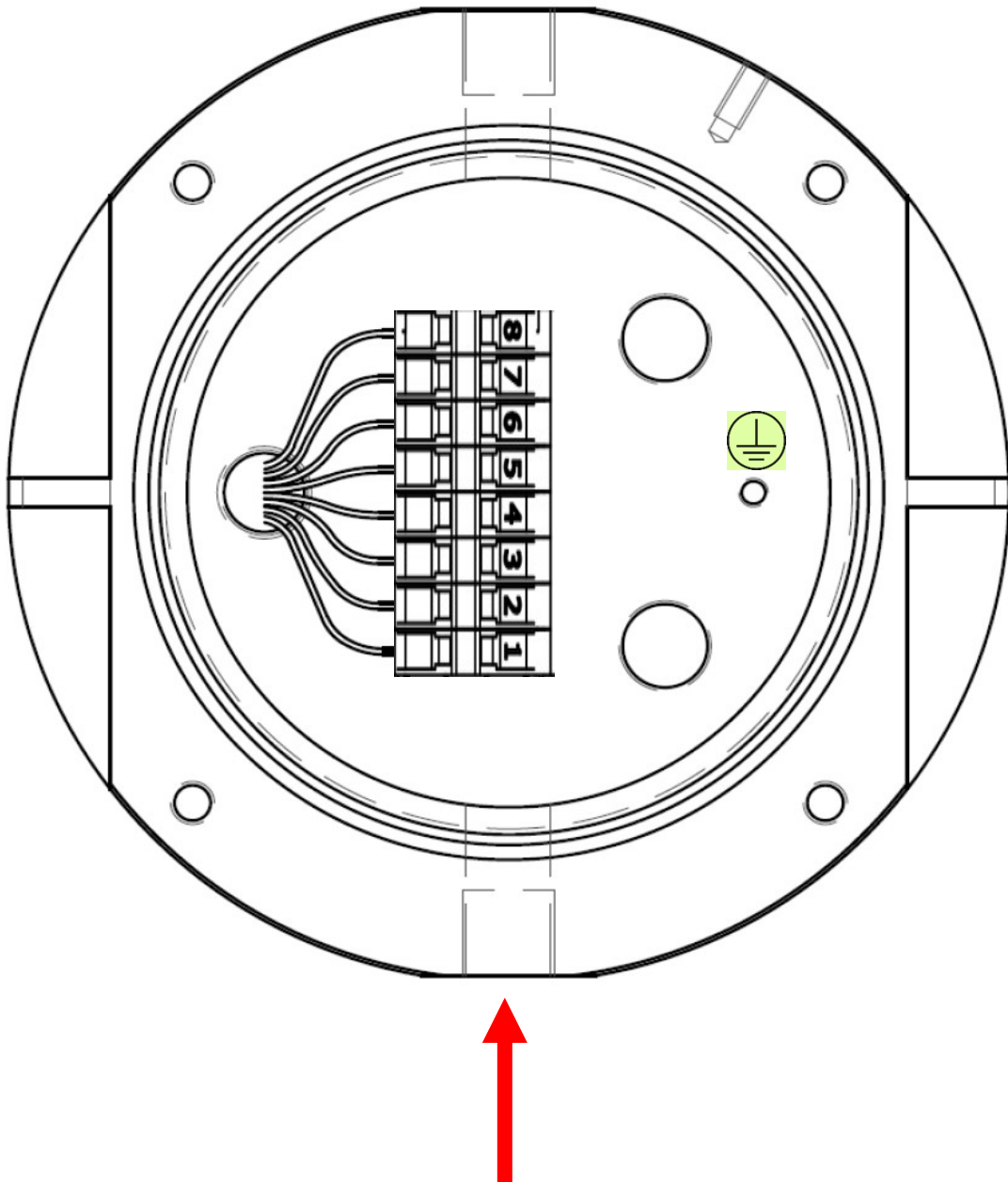


CAUTION: *Electrical power must be free of spikes, sags, surges, or electrical noise.*

Power Connection To D200 Series Camera	
TERMINAL NUMBER	WIRE
Position - 1	White-Orange
Position - 2	Orange
Position - 3	White-Green
Position - 4	Blue
Position - 5	White-Blue
Position - 6	Green
Position - 7	White-Brown
Position - 8	Brown

See wiring diagram on next page

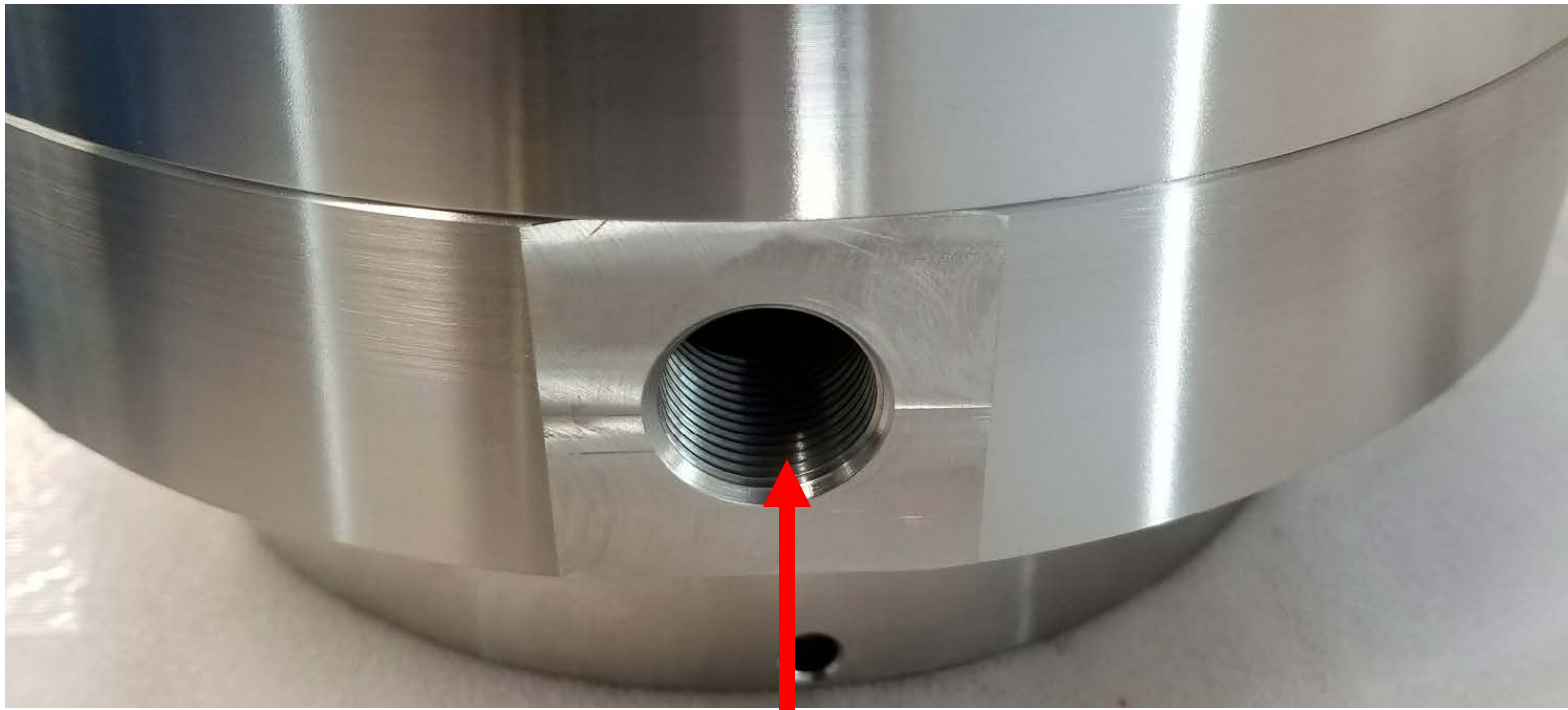
Wiring Diagram



Conduit Entries are M20 x 1.5 Use appropriate Adapter With Nylon Washer or O-ring to keep ingress protection



CAUTION: Ensure the Ethernet cable is disconnected from power source prior to wiring to the terminal block



**Conduit Entries are M20 x 1.5 Use appropriate Adapter
With Nylon Washer or O-ring to keep ingress protection**



Example of CMP M20 to
3/4NPT adapter with Nylon
Washer

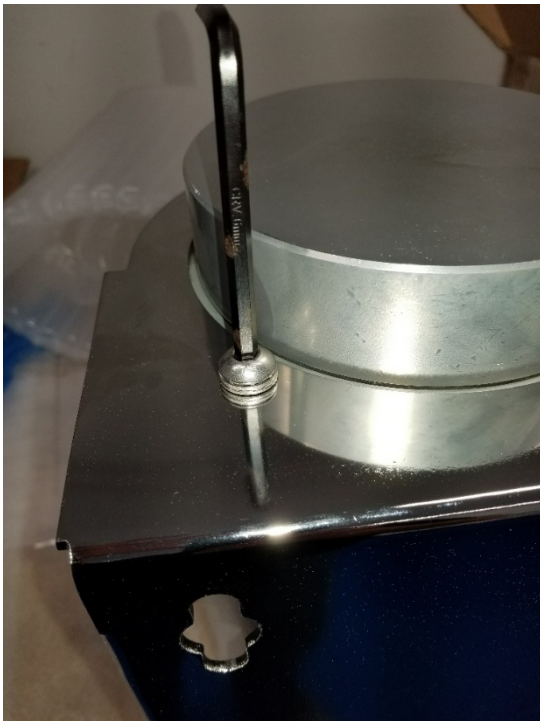


CAUTION: Ensure the Ethernet cable is disconnected from power source prior to wiring to the terminal block

Use supplied M6 Hex tool to unscrew bolts and lock washers supplied on camera



Place mount on camera and align holes and tighten bolts (option inverted)



Place mount on camera and align holes and tighten bolts (right-side up)



Install Z clip bolt

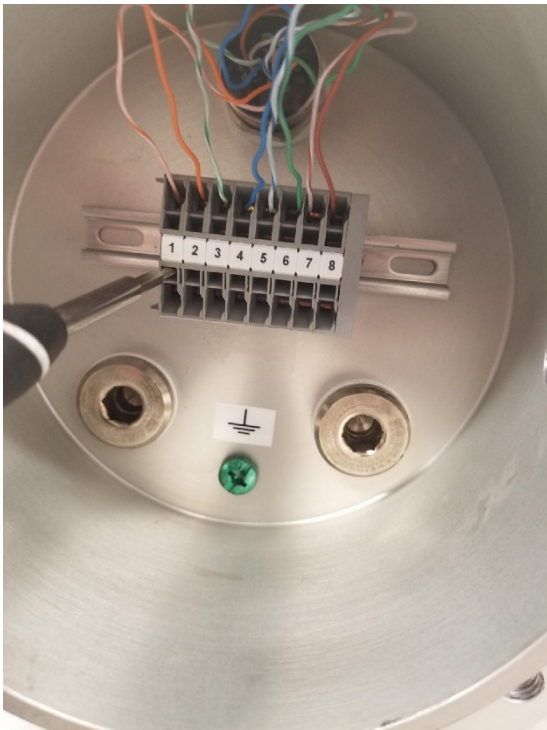


CAUTION: Ensure the Ethernet cable is disconnected from power source prior to wiring to the terminal block

Use supplied M5 Hex tool to loosen D1005 Cap



Make connection to wire terminal use screwdriver to punch down (page 16) and ground as per appropriate standard



Bring gland or EYS into side of Terminal Housing D1006

NOTE (Threads are M20 1.5, Nylon Washer or O-ring is required)



Screw D1005 Cap down and Install 'Z clip' then lock washers then nut



CAUTION: Ensure the Ethernet cable is disconnected from power source prior to wiring to the terminal block

♪ **NOTE: Remove Protective film after installation. If protective film is not removed in timely manor damage to dome is likely to occur with UV exposure**



♪ **NOTE: Do not install camera unless power is applied in near future.**

Section 5

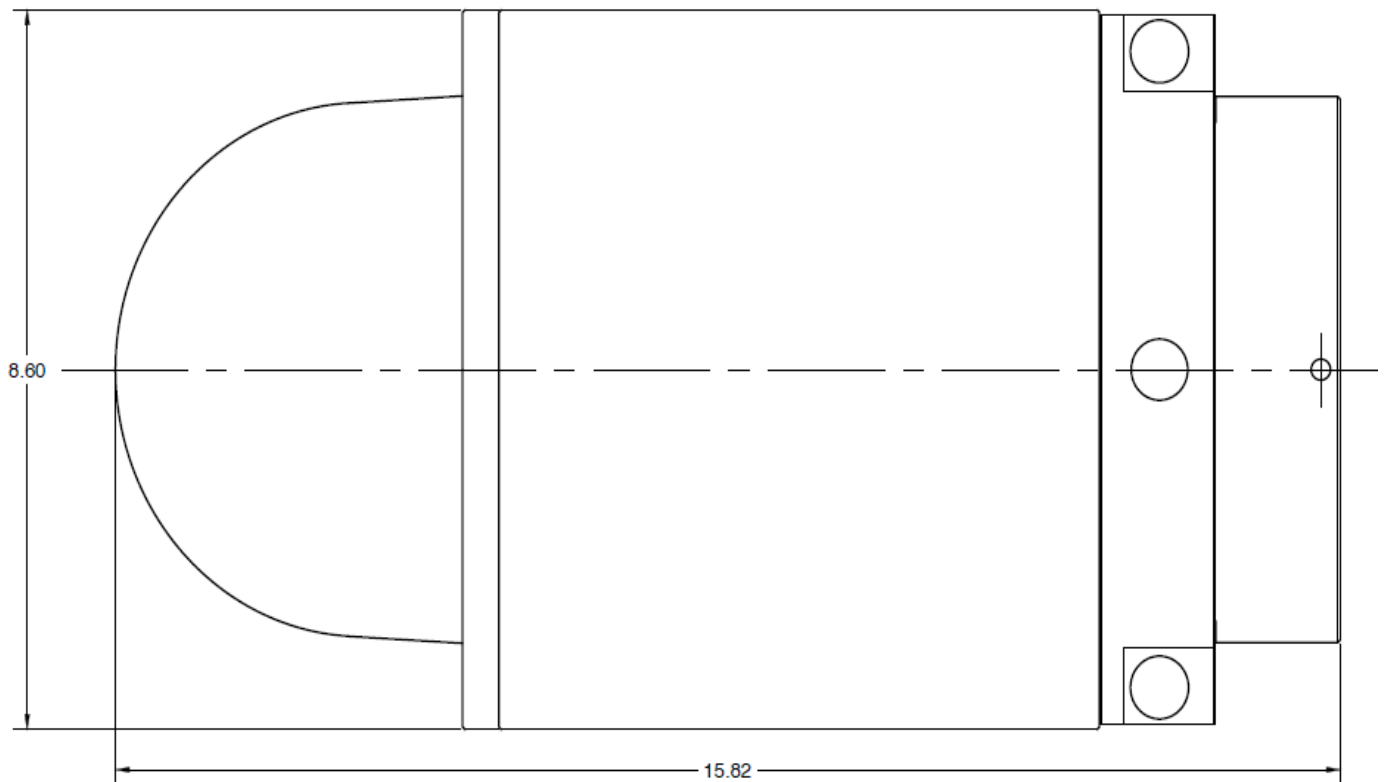
Start Up Procedures

For internal equipment startup procedures, setting changes, and troubleshooting guides reference the camera manufacturer's manual included with the D200 Series Cameras. If the included copy is lost please contact <https://www.axis.com/support> for a PDF copy.

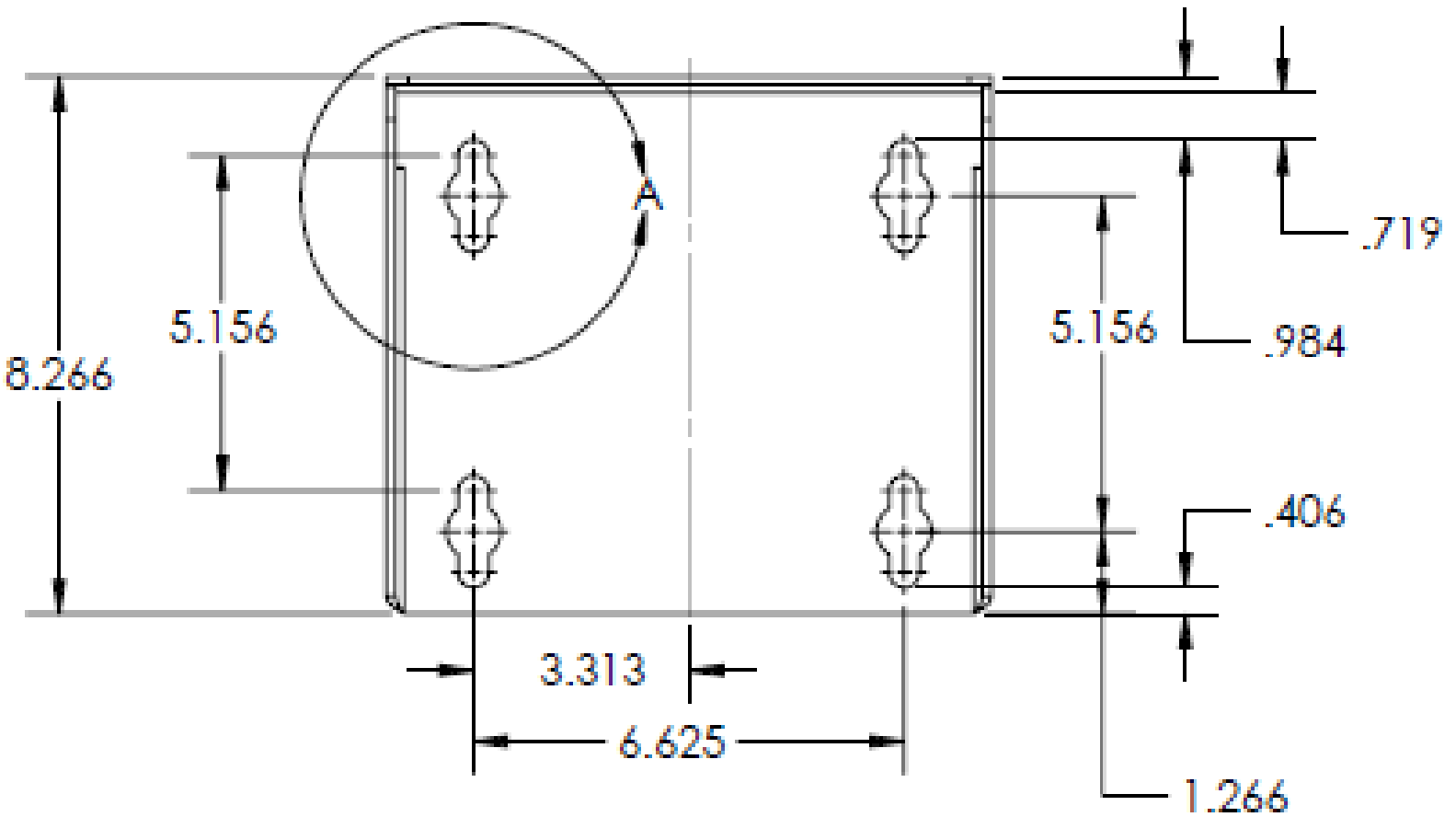
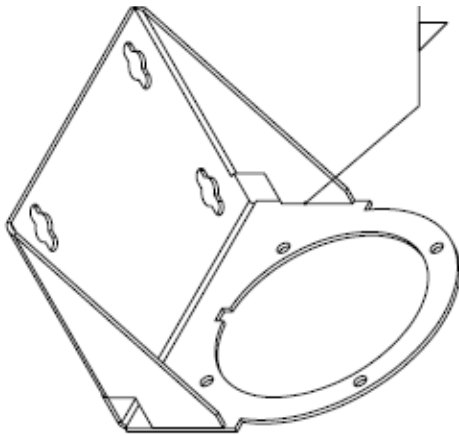
Section 6

Dimensional General Assembly:

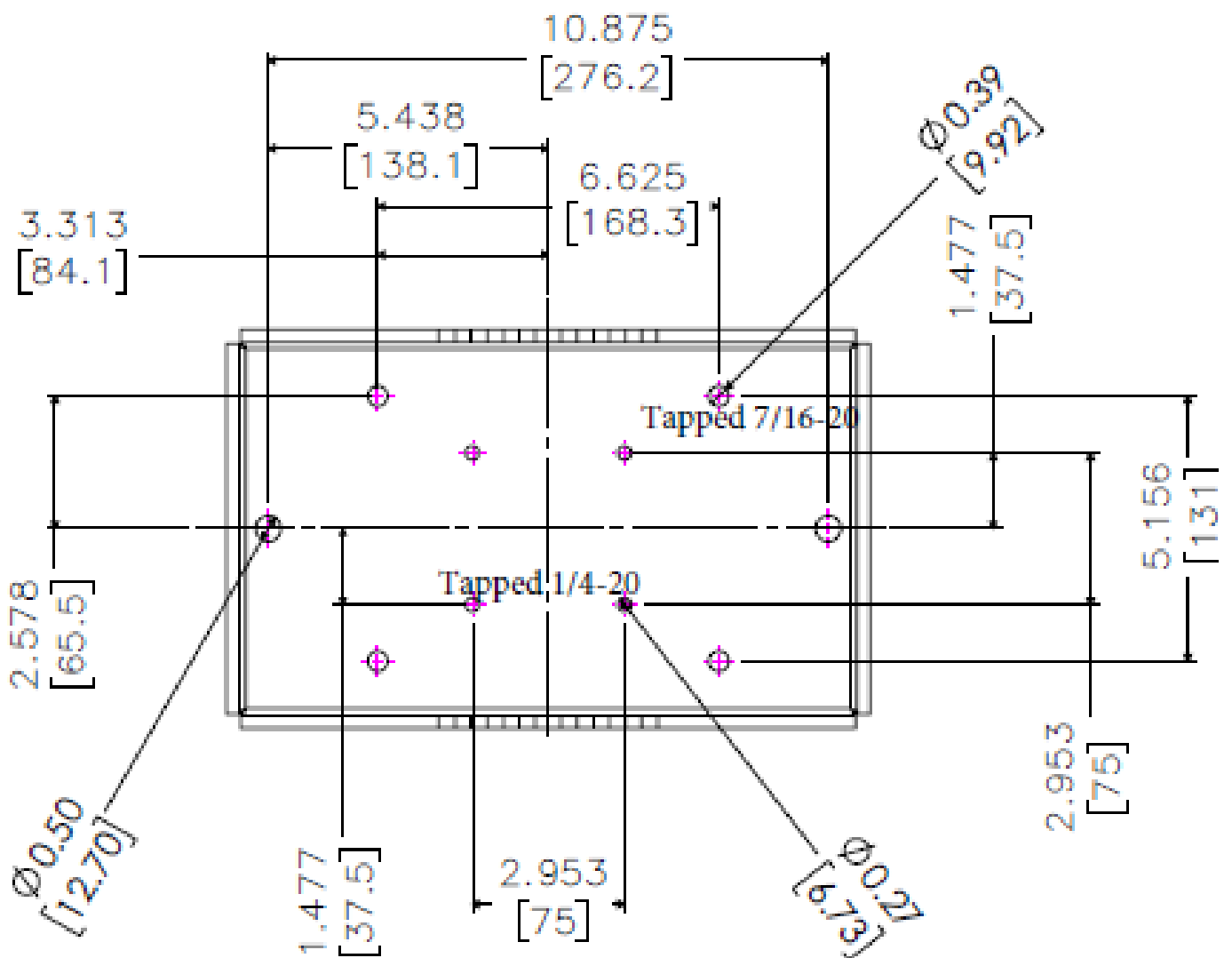
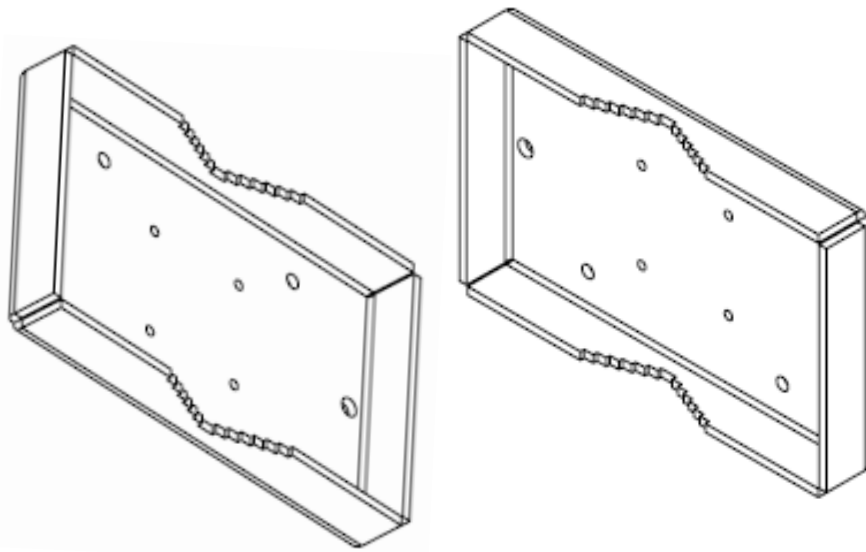
D200



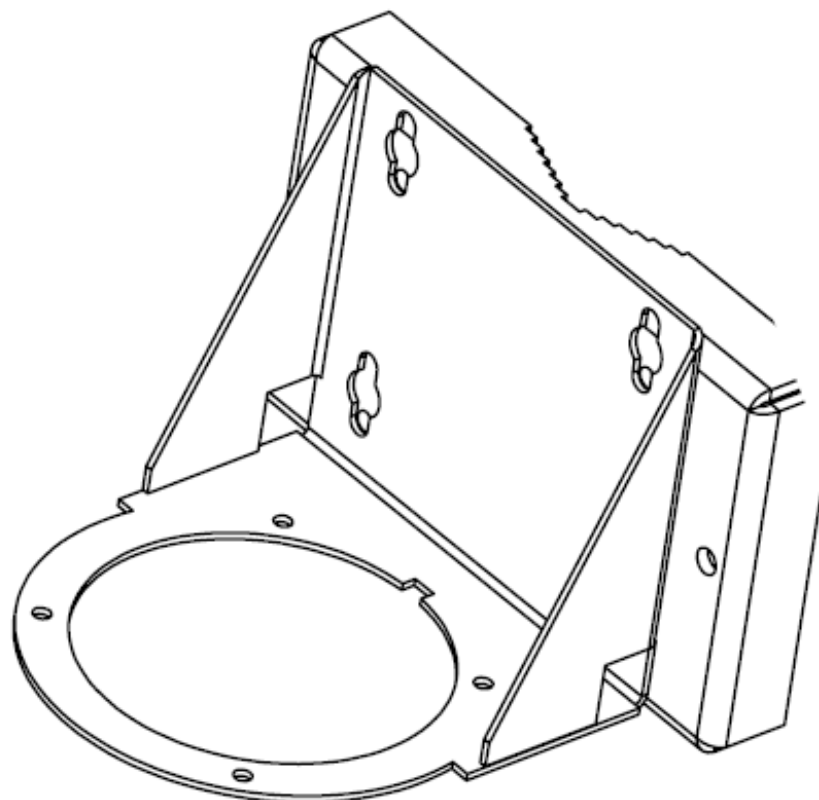
Wall Mount SD-WM Bracket Hole Location Reference



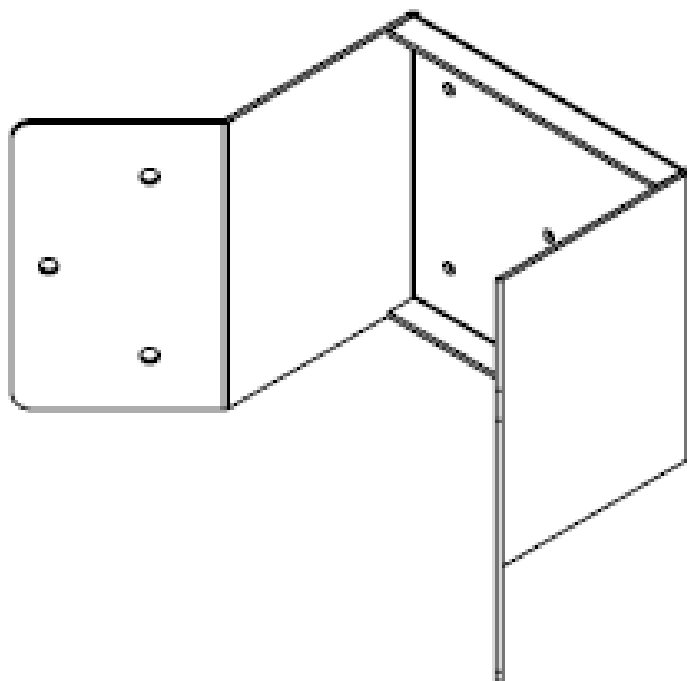
Pole Mount SPMA Bracket Hole Location Reference



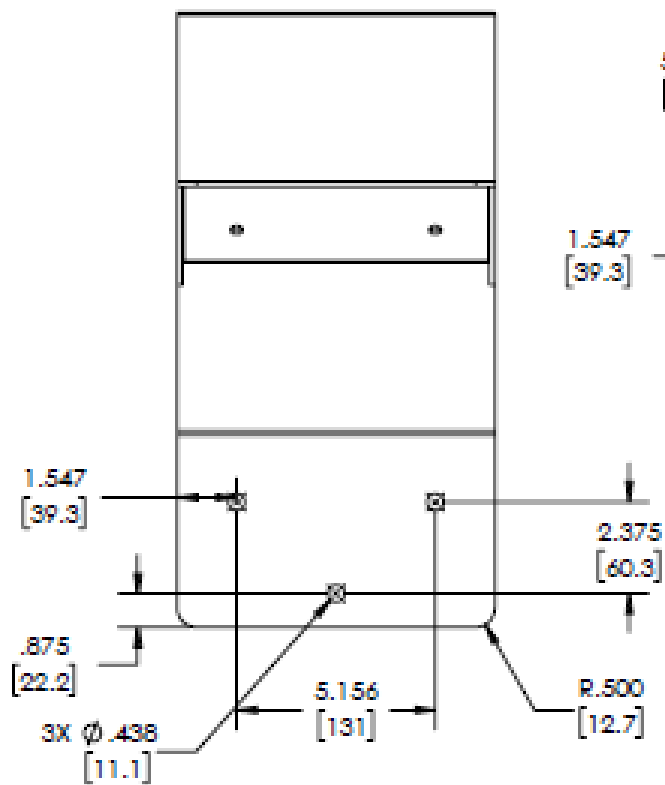
Installation example Wall Mount + Pole Mount Adapter



Corner Mount SD-CM Bracket Hole Location Reference

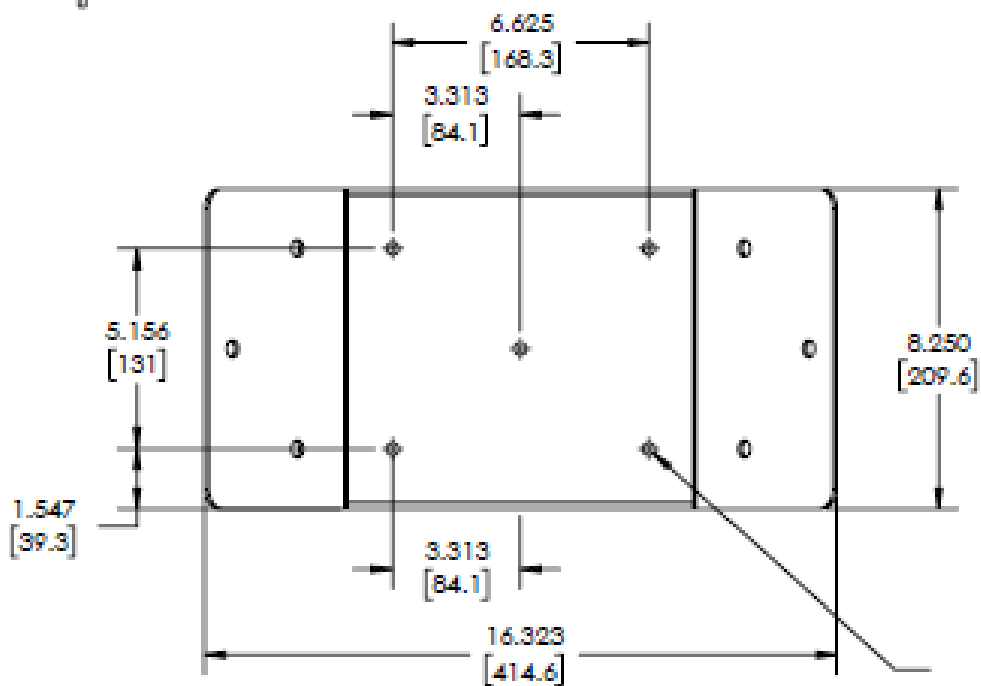


Side



VIEW M-M
 \curvearrowright 45.000°

Front



Possible installation accessories

M20 to 1/2" NPT Thread Adapter



M20 to 3/4" NPT Thread Adapter



<https://www.threadtoolsupply.com/m20-12-npt-316-stainless-steel-thread-adapter-atex.html#>

<https://www.cmp-products.com/glands/products/adaptors-reducers-cable-glands/737-adaptors-reducers/>

TMCX Gland



Appleton EYS Horizontal



<https://www.cmp-products.com/glands/products/explosive-atmosphere/tmcx-us-hazardous-location-cable-gland-2/>

<http://www.emersonindustrial.com/en-US/egselectricalgroup/products/fitting/haz-loc-fitting/haz-loc-sealing-fitting/aec-ey-25-vertical-horizontal-csf/Pages/default.aspx>

Possible installation accessories

ITC-HL Cat6

Below example includes-

- DEKORON 189W91277 ITC-HL CABLE;
- CMP 737DRM2T25 ADAPTOR 737 SERIES M20 (M) X 3/4" NPT (F) NICKEL PLATED ADAPTER WITH O-RING;
- CMPTMCX075A1AA132 CMP-TMCX075A 3/4" NPTALUM MC CONNECTORS



Novus 1 Cleaner and Polish Mates cloths



The examples shown are only installation examples, and no endorsement of the various products is made

Section 6

Getting Help

Getting Help:

To obtain assistance, please go to <https://www.axis.com/support>