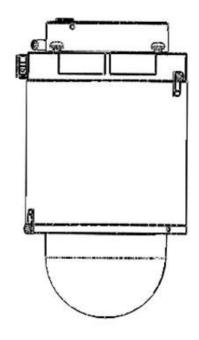


# SPECTRUM D201-(1)-Q6055-E-BD Series

D201-A-Q6055-E-BD

D201-S-Q6055-E-BD



# Explosion Proof Network Camera Installation Manual



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#### SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY

Release Date: 08/30/2018

Document Name D201-(1)-Q6055-E-BD

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Revision Record					
Rev.	. Description Date				
0	Initial Release	Aug 30, 2018			
1	Updated	Oct 10, 2018			
2	EU	July 15, 2019			
3	Format adjust	Feb 5, 2020			
4	coc	Feb 18, 2020			



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#### **Patent Notice:**

Manufactured under United States US Patent 9917428 & US Patent D858611

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#### DESCRIPTION



The "D" Series includes a full range of Stainless Steel or Anodized Aluminum camera stations specifically designed for Hazardous Area Applications.

Spectrum's D Series is the first Class I II III Division 1 rated dome style explosion proof housings and utilizes the most robust and advanced camera technologies available. The D Series was designed with the integrator in mind and offers features not available in competing EX camera systems available in the market. The solution is Patented with features including a uniform constructed enclosure consisting of an integrated junction box milled directly to the camera housing. This eliminates the need for extra equipment, reduces installation time, reduces labor expenses, and increases safety by lessening the potential for mismatched hazardous rated components. Additionally, the D Series are constructed with a proprietary explosion resistant polymer blend offering maximum clarity and enhance optical performance. To enhance optical performance, the explosion proof lens is equipped with our Virtual Wiper Nano Technology. The series are available in anodized aluminum or 316L Stainless steel ensuring protection against rain, dust and corrosion within a wide temperature range between -20°C to 55°C. This feature ensures operation under extreme weather conditions and hazardous environments. It is suitable for monitoring wide open indoor/outdoor spaces such as refineries, wellheads, pipelines, offshore installations, remote and harsh locations where high-level reliability and precision are always required.



# Option A- Model Matrix- D100-D500\*



# D(N)(XX)-(1)-(CCCCC)-BD

- N=(1) HOUSING LENGTH=3.32 in
- N=(2) HOUSING LENGTH=7.75 in
- N=(3) HOUSING LENGTH=4.5 in
- N=(4) HOUSING LENGTH=5 in
- N=(5) HOUSING LENGTH= 5.5 in
- XX= Internal Equipment Manufacturer Code\*\*
- 1= (A) Aluminum Housing with SS 316L Dome Ring
- 1= (S) Stainless Steel 316L Housing
- C= Internal Equipment Part Number from Manufacturer\*\*\*
- BD= Optional Breather drain model\*\*\*\*
- \*Internal components and D Series must be approved by Spectrum
- \*\*Internal Equipment Manufacturer Code below
- \*\*\*Must be approved and verified by Spectrum
- \*\*\*\* Models supplied with Breather Drains will have IP66 ingress protection level

CODE "XX" Manufacture 01 AXIS COMMUNICATIONS		
	CODE "XX"	Manufacture
	O1	TWIS COMMONICATIONS



## Labels Option A



#### **BREATHER DRAIN MODEL**





8935 ALMEDA GENOA RD. **HOUSTON, TEXAS 77075** USA

CERT NO. FM17US0156X

INPUT: 44-57 Vdc 60W

MODEL NUMBER: D201-(1)-Q6055-E-BD SERIAL: TIME-MO-DY-YEAR

Class I Division 1 Groups B,C,D T6, Type 4X, IP66 Class II/III, Division 1, Groups E,F,G T6

-WARNINGS:

Ta = -20°C to +55°C

-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

US Patent D858611

#### BREATHER DRAIN MODEL









SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY

8935 ALMEDA GENOA RD. HOUSTON, TEXAS 77075 USA

**SERIAL:** TIME-MO-DY-YEAR

MODEL: D201-(1)-Q6055-E-BD INPUT: 44-57 Vdc 60W

Class I, Zone 1, AEx/Ex db IIB+H2 T6 Gb Ta = -20°C to +55°C, Type 4X, IP66 Zone 21, AEx/Ex tb IIIC T85°C Db Ta = -20°C to +55°C, Type 4X, IP66



II 2 G Ex db IIB+H2 T6 Gb Ta = -20°C to +55°C, IP66 II 2 D Ex tb IIIC T85°C Db Ta = -20°C to +55°C, IP66 CERT NO. FM18ATEX0057X & IECEx FMG 18.0020X



WARNING:DO NOT OPEN WHEN ENERGIZED OR WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT INSTALL SEAL AT ENCLOSURE ENTRY

www.spectrumcamera.com

US Patent 9917428 US Patent D858611

#### **AVERTISSEMENTS:**



-NE PAS OUVRIR SOUS TENSION

-NE PAS OUVRIR SI UNE ATMOSPHERE EXPLOSIVE PEUT ÊNTRE PRESENTE

-POTENTIEL DÉCHARGE ÉLECTROSTATIQUE: VOIR INSTRUCTION

-DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT

-POTENTIAL ELECTROSTATIC DISCHARGE: SEE INSTRUCTION

-SEAL AT ENTRY

-PRESS ÉTOUP, CÂBLE OU RACCORDEMENT AU CONDUIT DOIT AVOIR AU M. -CABLE GLAND, CABLE AND/OR WIRING IN CONDUIT WHICH WILL BE USED IS REQUIRED TEMPÉRATURE AMBIANTE DE - 20 À 70 DEGRÉS CELSIUS TO BE RATED TO AT LEAST +70°C

-SEAL A L'ENTREE



#### STANDARDS & CERTIFICATIONS



#### STANDARDS-

The equipment is manufactured in accordance with the IECEX scheme, the ATEX Directive 94/9CE and with the following standards:

IEC 60079-0:2011

IEC 60079-1:2014

IEC 60079-31:2013

IEC 60529:2013

EN 60079-0:2012 + A11:2013

EN 60079-1:2014

EN 60079-31:2014

EN 60529:1991 + A1:2000 + A2:2013

ANSI/ISA 60079-0:2013

ANSI/UL 60079-1:2015

ANSI/ISA 60079-31:2015

ANSI/IEC 60529:2004

CAN/CSA-C22.2 No. 60079-0:2015

CAN/CSA-C22.2 No. 60079-1:2016

CAN/CSA-C22.2 No. 60079-31:2015

CAN/CSA-C22.2 No. 60529:2016

#### Specific Conditions of Use:

- -The flameproof joints of the equipment are not intended to be repaired. Consult the manufacturer if dimensional information on the flameproof joints is necessary.
- -Follow the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the surface of the equipment in Group II and III environments.
- -The equipment meets the requirements according to the low level risk of mechanical danger. Therefore, the equipment shall be located and installed such that the risk of impact or other mechanical damage is reduced or avoided.



NOTE: Use a clean cloth dampened with pure water for cleaning.

#### **CERTIFICATIONS-**

CERT NO. FM17US0156X & FM18CA0103X

Class I Division 1 Groups B,C,D T6, Ta = -20°C to +55°CType 4X, IP66/67

Class II/III, Division 1, Groups E,F,G T6 Type 4X, IP66/67 Ta = -20°C to +55°C

Class I, Zone 1, AEx/Ex db IIB+H2 T6 Gb Ta = -20°C to +55°C, Type 4X, IP66/67

Zone 21, AEx/Ex tb IIIC T85°C Db Ta = -20°C to +55°C, Type 4X, IP66/67

CERT NO. FM18ATEX0057X & IECEx FMG 18.0020X

II 2 G Ex db IIB+H2 T6 Gb Ta =  $-20^{\circ}$ C to  $+55^{\circ}$ C, IP66/67

II 2 D Ex tb IIIC T85°C Db Ta = -20°C to +55°C, IP66/67



## **DOCUMENT SYMBOLS**



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.* 

Symbol	Label	Description
	WARNING:	Consists of conditions, practices, or procedures that must be observed to prevent personal injury and/or equipment damage.
4	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 in this manual using any of the following aids.





#### 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 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 appropriate use of the equipment described in this manual can lead to injury of personnel or equipment damage.



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



## General Safety and Operating Information:



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 "D" Series equipment. 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 is not permitted to repair. This will void all warranties and hazardous area certification(s) if non-authorized repair occurs.

#### **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.



#### **WARNING:**

The main housing is manufactured in a controlled environment that eliminates moister 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.

NEVER open the main housing of the "D" Series unless authorized and trained and certified to do so by the manufacturer



**CAUTION:** 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.



## General Safety and Operating Information:



#### **Electrical Power:**

The "D" Series IP cameras operate from a variety of power options including 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 "D" Series IP camera must be installed in a suitable location away from impacts, heavy vibration and extreme heat. The "D" Series camera must not be installed in an area classification for which it is not rated. The "D" Series camera must be attached securely and appropriately to a wall or supporting structure.



CAUTION: The electrical cover should never be removed unless power is removed (for at least 5 minutes) from the unit or the area is known not to contain explosive materials.



- 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 impacts, 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.



## General Safety and Operating Information:



#### Installation:

The installation must be realized in accordance with IEC/EN 60079-14 and/or in accordance with the national requirements. This equipment must be installed and used only by qualified personnel, having knowledge concerning electrical equipment for use in potentially explosive areas containing gas and/or dust. Qualified personnel must have knowledge regarding the types of explosion protection. This equipment is intended to be used in zone 1, 2, 21 and 22 for groups IIB+H2 and IIIC with temperature class T6 or T85°C, it is necessary to verify if this equipment is in accordance with the atmosphere where it is installed.

#### Connections:

Electric parameters power control unit Maximum supply voltage: POE+ IEEE 802.3at/af The terminals are suitable for solid and stranded wires.- \*See wiring Diagram Page

#### Cable Glands:

The cable entry must be made and installed properly in order not to alter the specific properties of terminal housing compartment. The connection to the external circuits must be realized by cable glands or pipe fittings covered by a separate certificate(s). If a cable gland is not used or an entry is open, the entry must be closed by a stopping plug covered by a separate certificate. The diameter of the cable gland is cylindrical ISO M20 x 1.5. This equipment can be used with different voltage and power, the nominal parameters are specified in the manual.

Cable: cable must be tested and certified for temperatures of 70°C or higher.

**Fiber Cable:** Use a suitably certified optical fiber cable and internal connections shall comply with requirements of IEC/EN 60079-15

## **Equipment Modifications:**

This equipment must be installed and used in strict accordance with the instructions given in the user documentation. This equipment contains no user-serviceable components. Unauthorized equipment changes or modifications will invalidate all applicable regulatory certifications and approvals.





#### CERTIFICATIONS of Model- D201-(1)-Q6055-E

CERT NO. FM17US0156 & FM18CA0103X

II 2 D Ex tb IIIC T85°C Db Ta = -20°C to +55°C, IP66/67

Class I Division 1 Groups B,C,D T6, Ta =  $-20^{\circ}$ C to  $+55^{\circ}$ C Type 4X, IP66/67 Class II/III, Division 1, Groups E,F,G T6 Type 4X, IP66/67 Ta =  $-20^{\circ}$ C to  $+55^{\circ}$ C Class I, Zone 1, AEx/Ex db IIB+H2 T6 Gb Ta =  $-20^{\circ}$ C to  $+55^{\circ}$ C, Type 4X, IP66/67 Zone 21, AEx/Ex tb IIIC T85°C Db Ta =  $-20^{\circ}$ C to  $+55^{\circ}$ C, Type 4X, IP66/67 CERT NO. FM18ATEX0057X & IECEx FMG 18.0020X II 2 G Ex db IIB+H2 T6 Gb Ta =  $-20^{\circ}$ C to  $+55^{\circ}$ C, IP66/67

#### Electrical Requirements- D201-(1)-Q6055-E

POWER INPUT/CONSUMPTION	Power consumption: typical 16W, max 60W
VOLTAGE	44-57 Vdc 60W over 4-pairs

# Environmental Conditions- D201-(1)-Q6055-E (Equipment must be powered)

#### **OPERATIONONAL CONDITIONS**

USE For indoor and outdoor use

## **SPECIFICATIONS**



D201-(1)-Q6055-E Series Casing Material Specifications			
Model	Material	Weight	
D201-S-Q6055	316L SS	28.12 kg (62 lb)	
D201-A-Q6055	ALUMINUM	14 kg (32 lb)	



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.

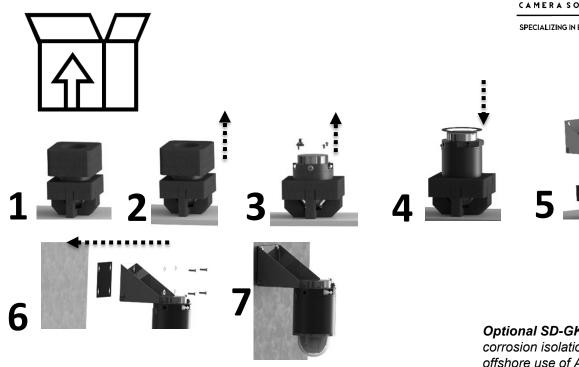
D201-(1)-Q6055-E Explosion Proof		
Camera Hazardous Area		
Voltage		
IEEE 802.3bt / PoE++ / 60W PoE Midspans/PoE Injectors		

Included power source specification for D201-(1)-Q6055-E

AXIS T8154 60 W SFP Midspan

### **UNBOXING**





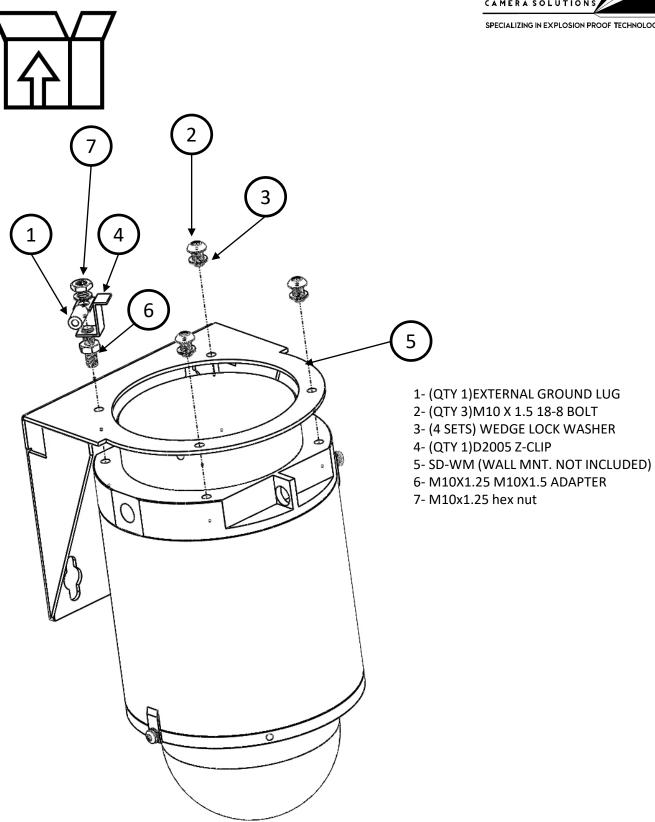
**Optional SD-GK** Anti-Galvanic corrosion isolation gasket kit for offshore use of Aluminum version



- 1. Place camera on tabletop with dome facing down
- 2. Remove rear (Terminal Housing) foam packaging to reveal hardware
- 3. Remove hardware
- 4. Install ring Gasket on terminal Housing \*Optional SD-GK Aluminum version only
- 5. Install wall mount with hardware removed from step 3 (Note: Apply Anti-seize to bolts.)
- 6. Install wall mount gasket and hardware to secure mount to wall.\*SD-GK
- 7. Remove foam and protective blue film (Note: Apply Anti-seize to bolts.)

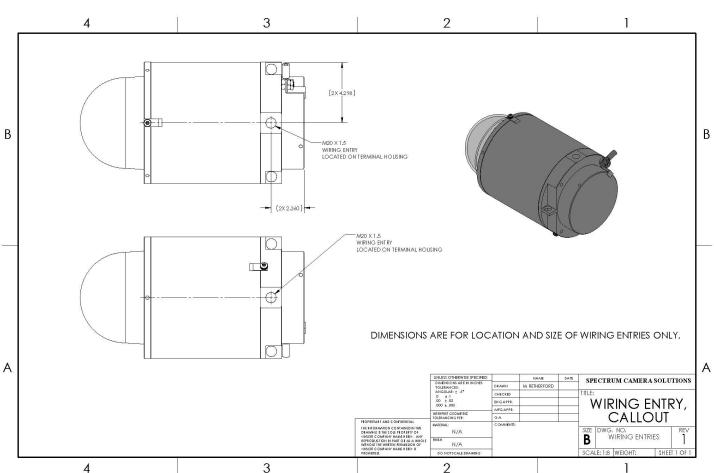
## HARDWARE BOM





## WIRING ENTRIES





Conduit Entries are M20 x 1.5 Use appropriate adapter with nylon Washer or O-ring to keep ingress protection level.



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





Ensure that power is off before attempting to connect and wire the camera

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

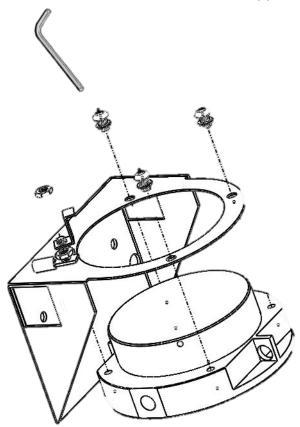


Figure 1. wall bracket installation

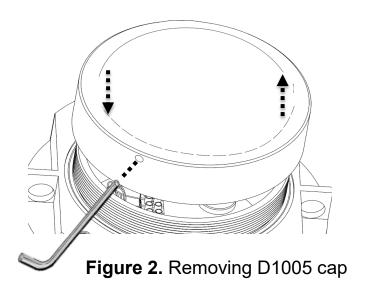
- 2. Make sure threads on camera and M10x 1.5 are free of dirt and debris. Place mount on camera and align holes and tighten bolts \*add anti-seize for offshore installation
- 3. Attach the camera with wall mount to mounting surface. Use only installation methods and materials capable of supporting four times the maximum specified load of the system



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



4. Use supplied M5 supplied Hex tool to loosen D1005 end cap by turning counterclockwise



- 5. Set D1005 terminal cap in safe place
- 6. Route cable(s) into D1006 terminal housing junction box through user-supplied cable gland and seal using the recommended gland installation practices. There are two conduit entries on models without the-BD Breather drain option.



Conduit Entries are M20 x 1.5 Use appropriate Adapter with <u>Nylon Washer</u> or <u>O-ring</u> to keep ingress protection follow guidelines of the manufacturer of gland or adapter



7. Connect the wiring using small screwdriver to push the open terminal block contact. Insert wires and remove screwdriver. Adhere to local electrical codes/laws.

Table 1.

Power Connection To "D" 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		

Figure 5. Wire/Cable Connections

Internal Ground

8. Connect ground to equipment before powering. For U.S. zones, the internal grounding connection shall be used, and the external grounding connection shall be a supplemental ground connection. The internal bonding screw is M5 x 15mm. The external ground can

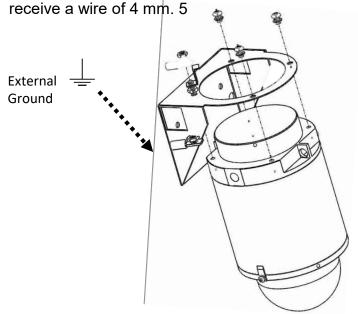
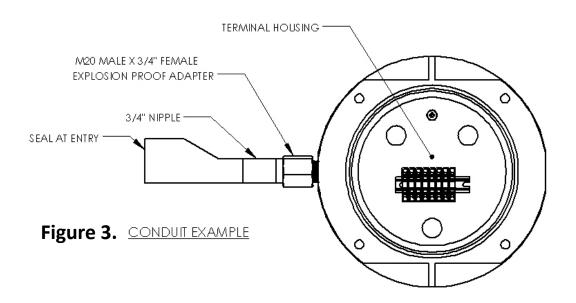


Figure 6. Grounding

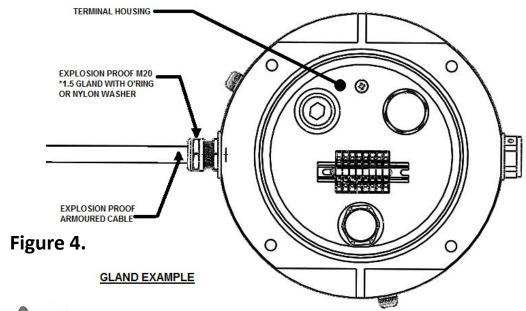








Conduit Entries are M20 x 1.5 Use appropriate Adapter With Nylon Washer or O-ring to keep ingress protection





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



- 9. Ensure threads & gasket on D1005 cap and D1006 Terminal housing are free of dirt and debris.
- 10. Reinstall D1005 end cap using supplied M5 supplied Hex tool to tighten by turning clockwise until hand tight and gasket is seated

Figure 7. Installing D1005 cap

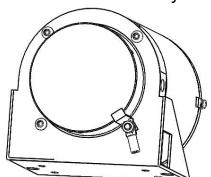


11. In the following order install D2005 housing retainer clip, wedge lock washers, and nut. Ground lug is at bottom of thread adapter See figure 8-9

Figure 8. Retaining clip order



Figure 9. Final assembly



- 12. Remove protective film after installation. If protective film is not removed in timely manor damage to dome is likely to occur with UV exposure.
- 13. Apply power. For internal equipment startup procedures, setting changes, and troubleshooting guides reference the camera manufacturer's manual included with the "D" Series Cameras. If the included copy is lost, please contact <a href="https://www.spectrumcamera.com/support">https://www.spectrumcamera.com/support</a> for a PDF copy.



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

# Dimensional General Assembly:

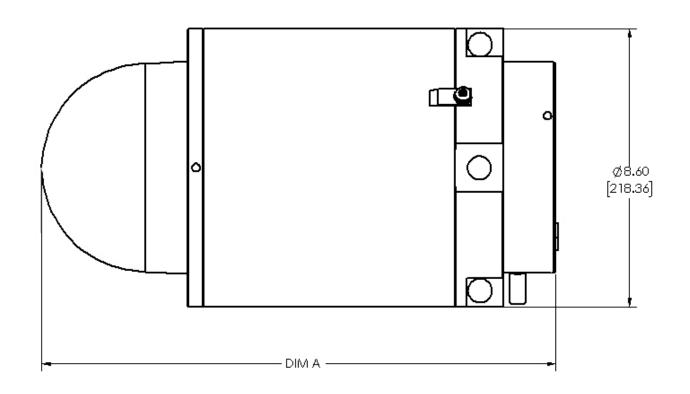


#### SPECIFICATION TABLE:

MODEL NUMBER	DIM A (mm)	HOUSING LENGTH (mm)	OPTION 'A' VARIABLE: N
D100	11.5 (292)	3.32 (84)	1
D200	15.9 (404)	7.75 (196)	2
D300	12.7 (323)	4.50 (114)	3
D400	13.2(335)	5.00 (127	4
D500	13.7 (348)	5.50 (140)	5

#### SPECIFICATION TABLE:

Model number	DIM A, mm	HOUSING LENGTH, mm	OPTION 'B' VARIABLE:
D084	292	84	084
D196	404	196	196
DMMM	208 + MMM	MMM	MMM



#### **DISMANTLING & MAINTENANCE**



# Dismantling:

It is not recommended to open the main camera housing. All repairs of explosion-proof equipment must be made according the specified criteria of IEC/EN 60079-19 rule by qualified personnel, having knowledge concerning electrical equipment for potentially explosive areas containing gas and/or dust. Qualified personnel must have knowledge regarding the types of explosion protection.

#### Maintenance:

The maintenance must be realized in accordance with IEC/EN 60079-17 and/or in accordance with the national requirements. Contact Spectrum Camera for training program to properly open and close the main camera housing.

<u>Cleaning lens-</u> Washdown dome with distilled water first to avoid partials scratching the surface. Clean lens with damp microfiber cloth with mild dish soap and water. Lastly, apply coating of Repel (by Unelko corporation) surface cleaner. Never use harsh chemicals or abrasive towels.

Replacing the battery—The Axis Q6055-E product uses a 3.0 V CR2032 lithium battery Lithium primary battery composed of cathode from carbon monofluoride anode from lithium and electrolyte from organic solvent and lithium salt as the power supply for its internal real-time clock (RTC). Under normal conditions this battery will last for a minimum of five years. Low battery power affects the operation of the RTC, causing it to reset at every power-up. When the battery needs replacing, a log message will appear in the product's server report. For more information about the server report, see the product's setup pages or contact Spectrum support. The battery should not be replaced unless required. If required contact support@spectrumcamera.com



Doc No. Dxx-100107152019 2014/34/EU

# **EU Declaration of Conformity Spectrum Camera Solutions,** LLC

Spectrum Camera Solutions declares that under our sole responsibility that the product (s) listed below conform to the relevant provisions of 2014/34/EU of August 29, 2018

**Notified Body** FM Approvals Ltd. 1 Windsor Dials,

Windsor, Berkshire, UK. SL4 1RS

Product(s) Network Ethernet Cameras

Model numbers **D** Series

Dab-c-d-e. Network Ethernet Camera.

a = Housing length 1, 2, 3, 4 or 5 (or any three digits from 084 to 196 representing custom housing lengths in mm).

b = Camera manufacturer code (two digits) 01 to 99.

c = Material A or S.

d = Several characters representing the camera manufacturer's part number (may contain additional

e = Optional breather/drain BLANK or BD. (IP67 is not applicable when supplied with optional

breather/drain).

II 2 G Ex db IIB+H2 T6 Gb Ta = -20°C to +55°C

II 2 D Ex tb IIIC T85°C Db Ta = -20°C to +55°C

The D Series Network Ethernet Cameras can be supplied with a variety of cameras (in accordance with EN 60950 or EN 62368) complying with the IEEE 802.3af, 802.3at, 802.3at++ or 802.3bt PoE (Power over Ethernet) standard (57Vdc max). Voltage and wattage shall not exceed the maximum tested configuration of 57Vdc (60W). The D Series Network Ethernet Cameras are rated for use in an ambient temperature range of -20°C to +55°C and are IP66/67 (IP67 is not applicable when supplied with optional breather/drain). The camera within the enclosure may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided each area has a minimum dimension in any direction of 12.5mm.

Compliance with the Essential **Health and Safety Requirements** has been assessed by reference to the following Standards

EN 60079-0:2012 + A11:2013, EN 60079-1:2014, EN 60079-31:2014,

EN 60529:1991 + A1:2000 + A2:2013

Factory/Manufacturing Location 8935 Almeda Genoa Rd. Building B Houston Texas 77075

Conformity has been demonstrated with reference to the following documentation:

EU Type Examination Certificate (FM18ATEX0057X - 1)

**Quality Assurance Notification** 

FM19ATEXQ0130

H. Lee Rice II

CEO

Markings

Ratings

Date: July 15, 2019

Doc No. Dxx-100107152019 2014/34/EU

# Attestation of Conformity Spectrum Camera Solutions, LLC

Spectrum Camera Solutions declares that under our sole responsibility that the product (s) listed below conform to the relevant provisions of 2014/34/EU of August 29, 2018

Notified Body FM Approvals Ltd. 1 Windsor Dials,

Windsor, Berkshire, UK. SL4 1RS

Product(s) Network Ethernet Cameras

Model numbers D Series

Dab-c-d-e. Network Ethernet Camera.

a = Housing length 1, 2, 3, 4 or 5 (or any three digits from 084 to 196 representing custom housing

lengths in mm).

b = Camera manufacturer code (two digits) 01 to 99.

c = Material A or S.

d = Several characters representing the camera manufacturer's part number (may contain additional

shes).

e = Optional breather/drain BLANK or BD. (IP67 is not applicable when supplied with optional

breather/drain).

Markings (Ex) II 2 G Ex db IIB+H2 T6 Gb Ta = -20°C to +55°C

II 2 D Ex tb IIIC T85°C Db Ta = -20°C to +55°C

with EN 60950 or EN 62368) complying with the IEEE 802.3af, 802.3at, 802.3at++ or 802.3bt PoE (Power over Ethernet) standard (57Vdc max). Voltage and wattage shall not exceed the maximum tested configuration of 57Vdc (60W). The D Series Network Ethernet Cameras are rated for use in an ambient temperature range of -20°C to +55°C and are IP66/67 (IP67 is not applicable when supplied with optional breather/drain). The camera within the enclosure may be placed in any arrangement provided that an area of at least 40% of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided each area has a minimum dimension in any direction of 12.5mm.

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Factory/Manufacturing Location

8935 Almeda Genoa Rd. Building B Houston Texas 77075

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**Quality Assurance Notification** 

FM19ATEXQ0130

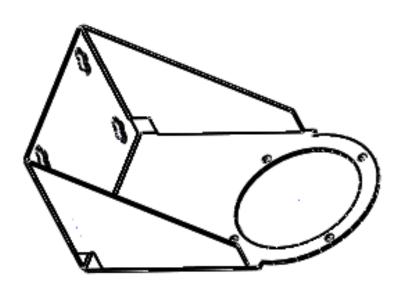
H. Lee Rice II

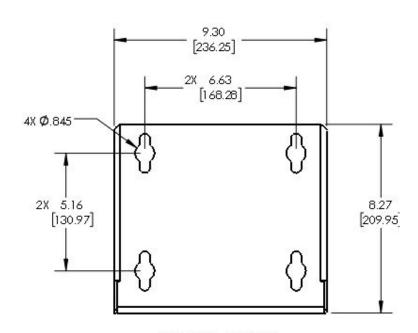
CEO

Ratings

Date: July 15, 2019







MOUNTING FEATURES

WEIGHT: 5.54 LBS (2.51 kg)

## SD-PMA POLE MOUNT ADAPTER



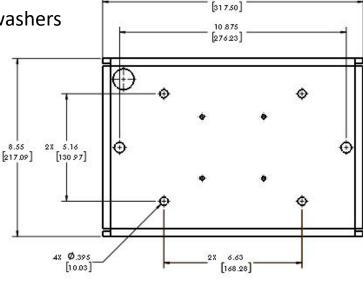
12.50

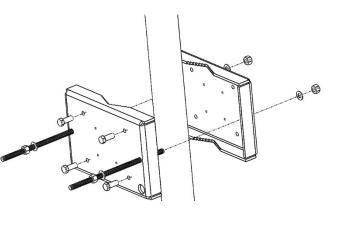
#### **HARDWARE**

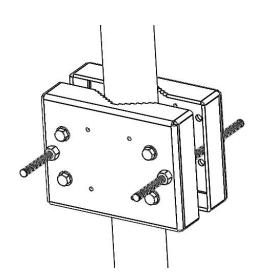
QTY 4 7/8-20 18-8 Bolts

QTY 2 12in all thread with nuts and washers

QTY 2 A1612 sides



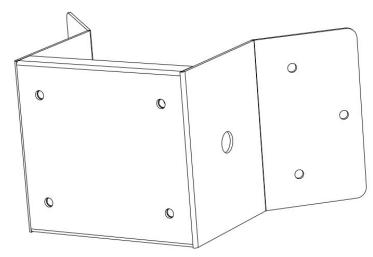


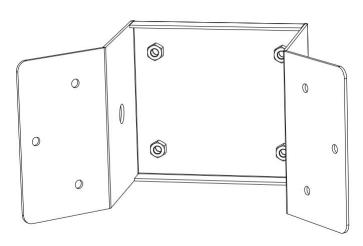


# **SD-CM CORNER MOUNT**



HARDWARE-QTY 4 7/8-20 18-8 Bolts

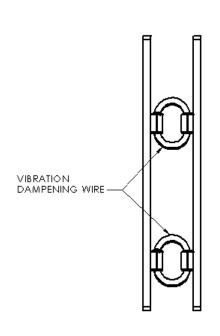


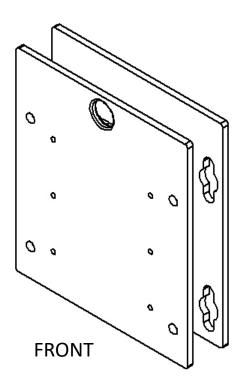


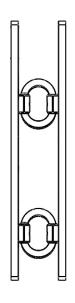
# **SD-VM VIBRATION MOUNT**



# HARDWARE-QTY 4 7/8-20 18-8 Bolts



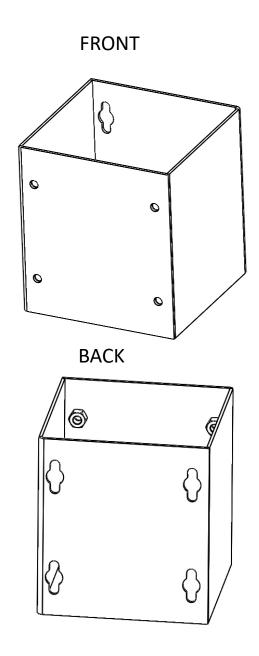




# SD-SO STANDOFF MOUNT

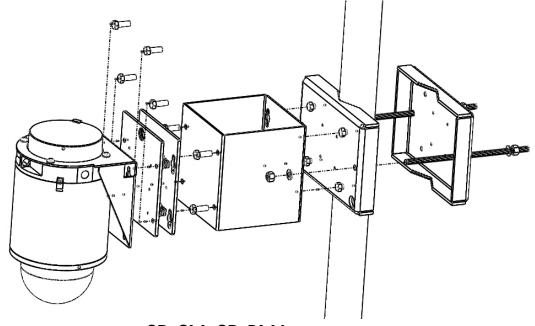


HARDWARE-QTY 4 7/8-20 18-8 Bolts





## SD-CM+SD-VM+SD-SO+ SD-PMA



SD-CM+SD-PMA

