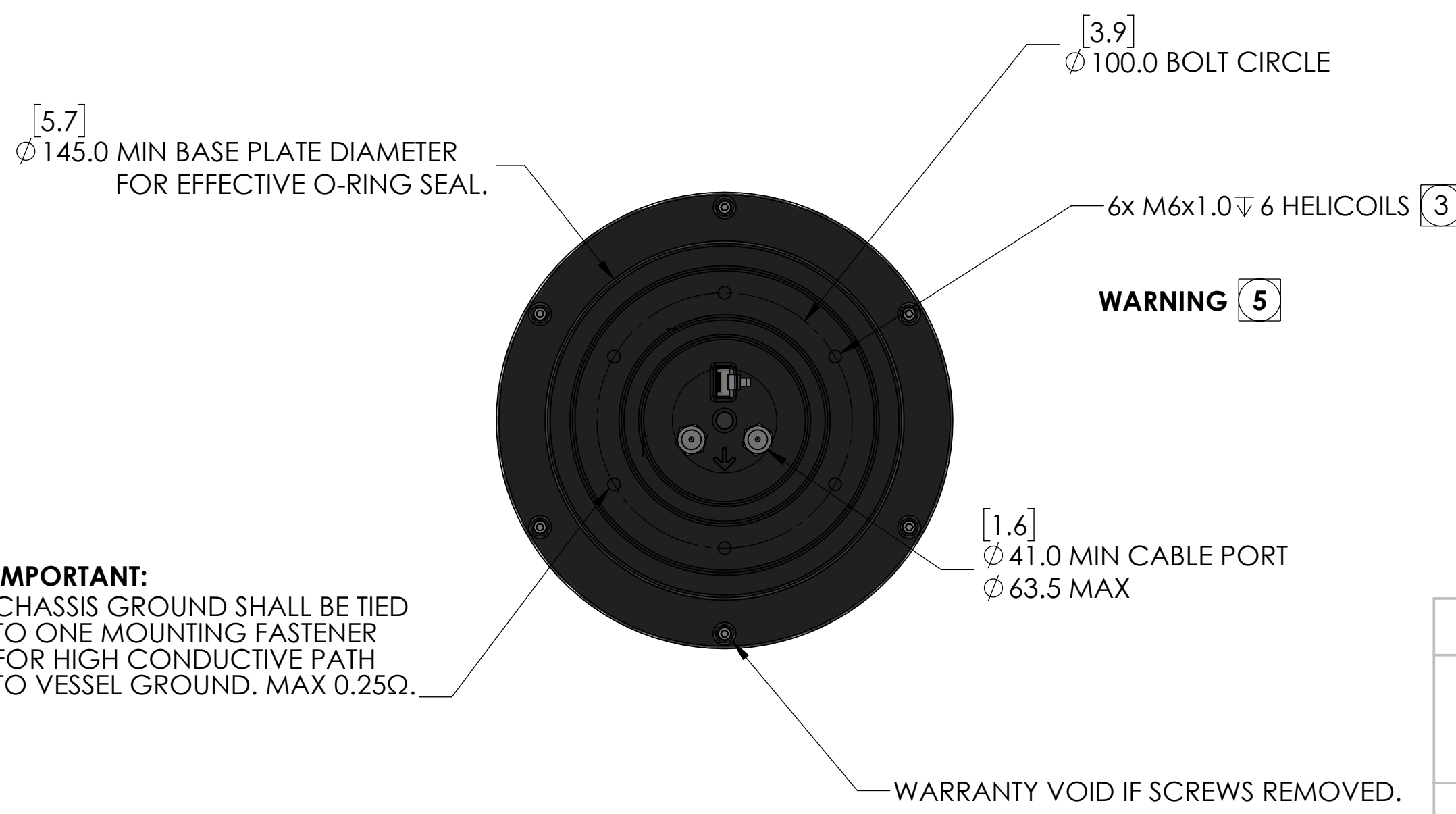
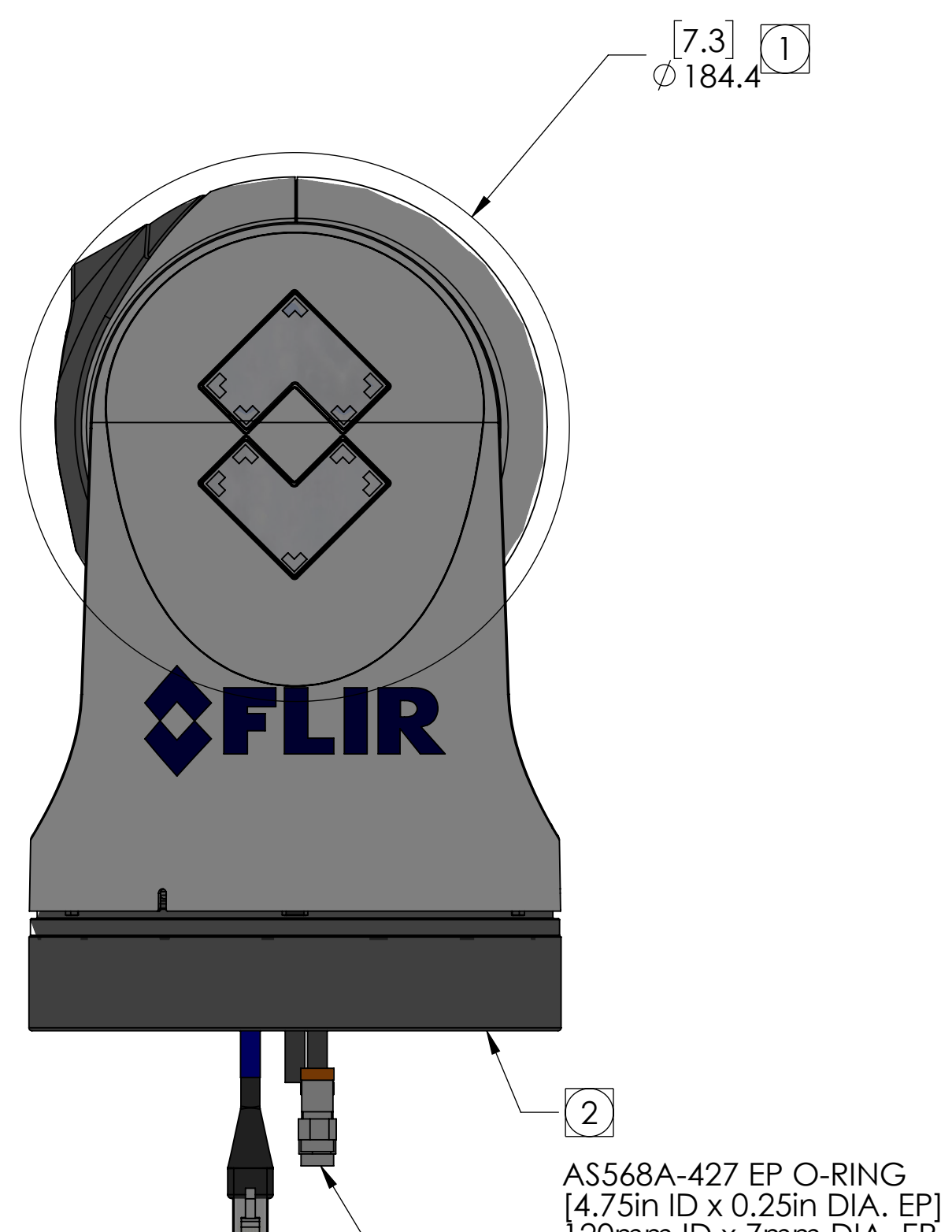
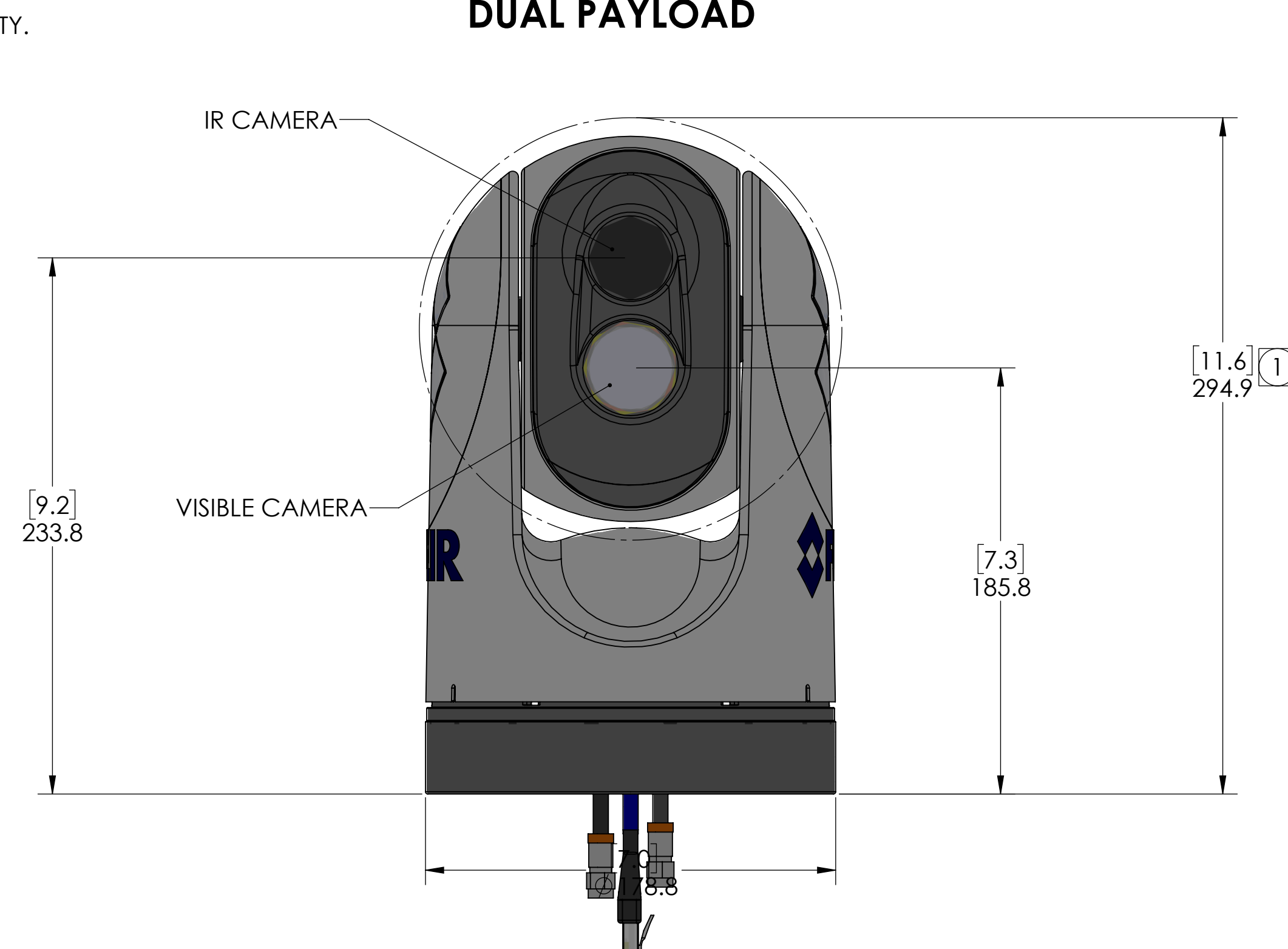


NOTES: UNLESS OTHERWISE SPECIFIED

- 1 CLEARANCE REQUIRED FOR FREE MOTION OF SYSTEM.
- 2 O-RING USED FOR SEALING SYSTEM TO MOUNTING STRUCTURE. STANDALONE UNIT MEETS IPX6 SEALING SPECIFICATION. MINIMUM MOUNTING SURFACE FLATNESS OF 1.5mm [0.60in] OVER SYSTEM DIAMETER REQUIRED FOR O-RING USE. WHEN MOUNTING TO IRREGULAR SURFACES, USE OF BEDDING COMPOUND RECOMMENDED.
- 3 USE WITH FLIR MOUNTING HARDWARE KITS: 4115301 HARDWARE KIT - M-SERIES BASIC MOUNT 500-0399-00 TOP DOWN RISER INSTALLATION KIT
- 4 USE LOCTITE 242 WITH ALL METAL TO METAL THREADED CONNECTIONS.
- 5 **WARNING**
DO NOT BOTTOM FASTENERS IN BASE.
BOLT LENGTH NOT TO EXCEED 6mm INTO BASE
ELECTRONICS WILL BE DAMAGED BY BASE PENETRATION - VOIDING WARRANTY.
BOLT TORQUE NOT TO EXCEED 9.5 N-m [7 LB-ft].

M-SERIES DUAL PAYLOAD



- AS568A-427 EP O-RING [4.75in ID x 0.25in DIA. EP] 120mm ID x 7mm DIA. EP
- AS568A-334 EP O-RING [2.63in ID x 0.19in DIA. EP] 67mm ID x 5mm DIA. EP
- CABLES SHOWN FOR REFERENCE ONLY. NOT TO SCALE, NOR CORRECT LENGTH.
- 381 ± 25mm [15 ± 1in] POWER CABLE, UNTERMINATED TINNED 18AWG WIRE.
- 457 ± 25mm [18 ± 1in] NETWORK CABLE, RJ45 T568B, MALE.
- 533 ± 25mm [21 ± 1in] IR VIDEO CABLE, F-TYPE MALE.
- 584 ± 25mm [23 ± 1in] SWITCHED (IR OR VIS) VIDEO CABLE, F-TYPE MALE.

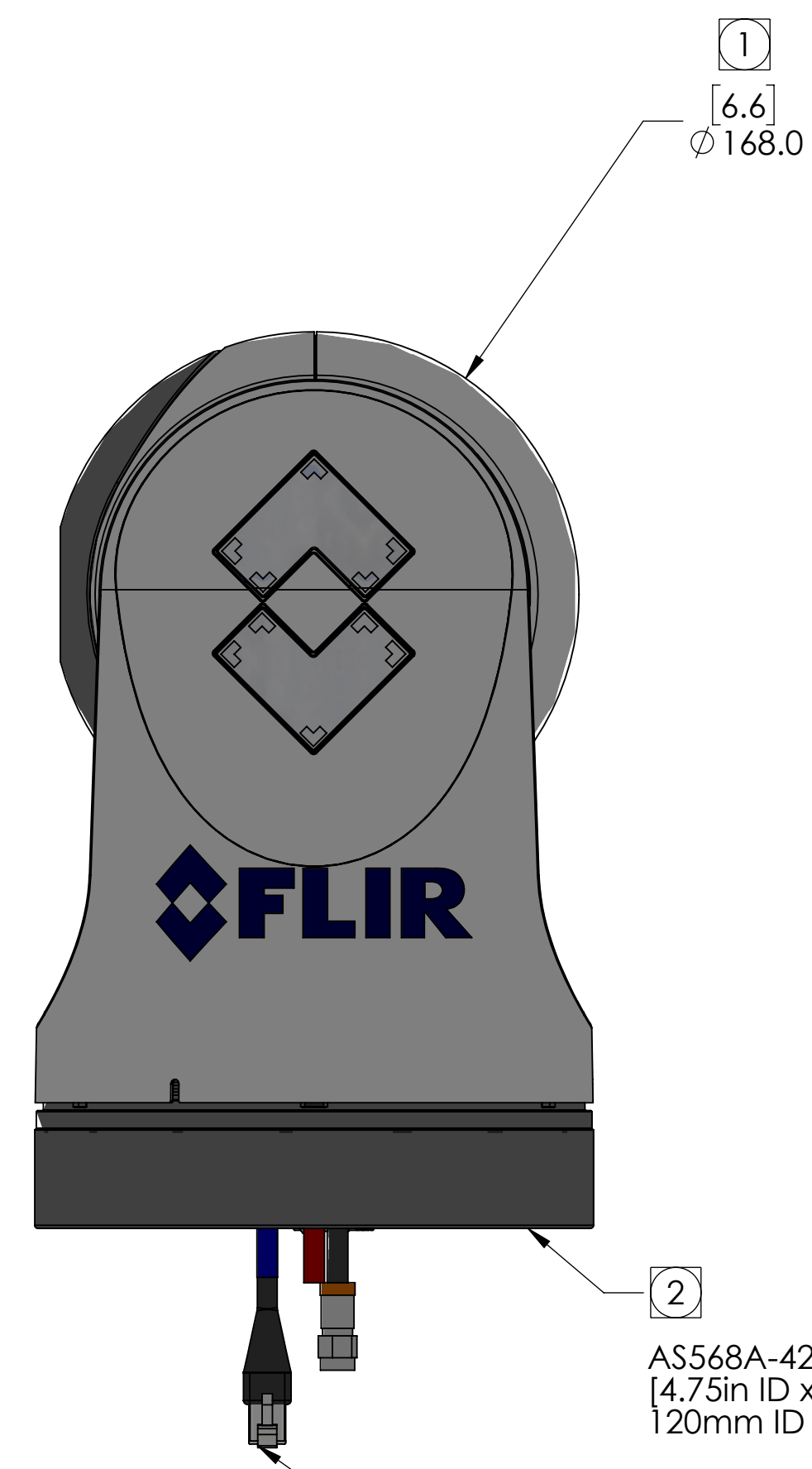
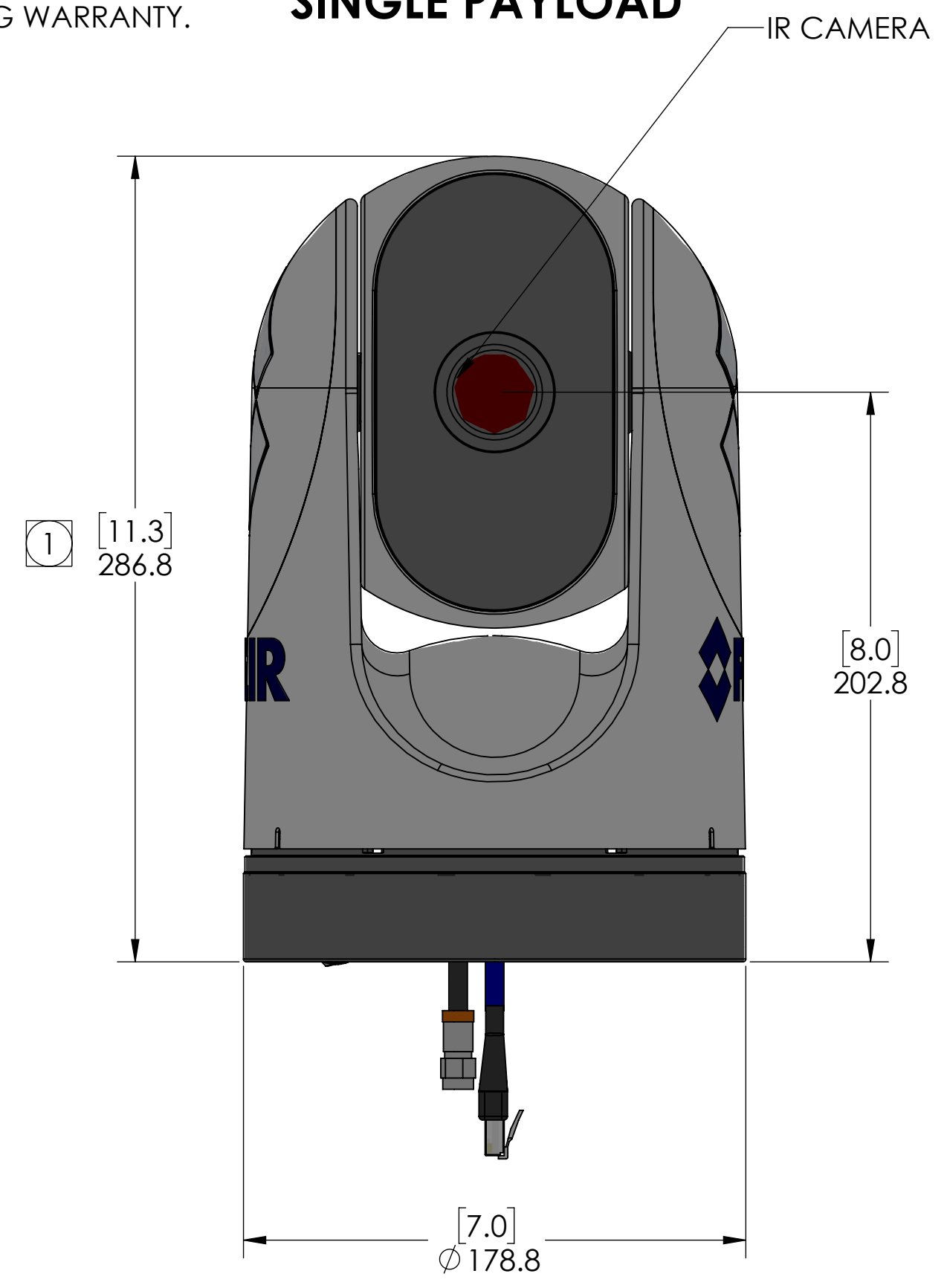
THIRD ANGLE PROJECTION		PROPRIETARY - FLIR SYSTEMS, INC.			
		THIS DOCUMENTATION CONTAINS PROPRIETARY INFORMATION TO FLIR SYSTEMS, INC. THIS INFORMATION MUST BE MAINTAINED IN CONFIDENCE AND USED ONLY IN A MANNER CONSISTENT WITH THE DOCUMENTATION AND ANY EXECUTED NON DISCLOSURE AGREEMENT, AND MAY NOT BE DISCLOSED TO ANY THIRD PARTIES WITHOUT FLIR'S WRITTEN CONSENT.			
METRIC		MATERIAL		PROJECT NO.	
INTERPRET DRAWING PER ASME Y14.5M-1994		N/A		APPROVALS	
UNLESS OTHERWISE SPECIFIED SURFACE ROUGHNESS 0.8um		N/A		DATE	
X = ± .25		DWN M. COSLEY		05/09/2017	
XX = ± .13		CHK			
ANGULAR = ± .5°		DIGN M. COSLEY		05/09/2017	
FILLET RADII = .13 MAX		ENG			
		APP			
CALC WT: 6362.667 GRAMS		UNLESS OTHERWISE SPECIFIED ALL MEASUREMENTS ARE IN MM. ALL DIMENSIONS IN () ARE INCHES. DO NOT SCALE DRAWING.		SIZE D	
		CAGE 064Y2		DWG NO. 432-0003-XX-19 REV B	
		SCALE 1:5		PRINTED: 5/25/2017 SHEET 1 OF 11	

NOTES: UNLESS OTHERWISE SPECIFIED

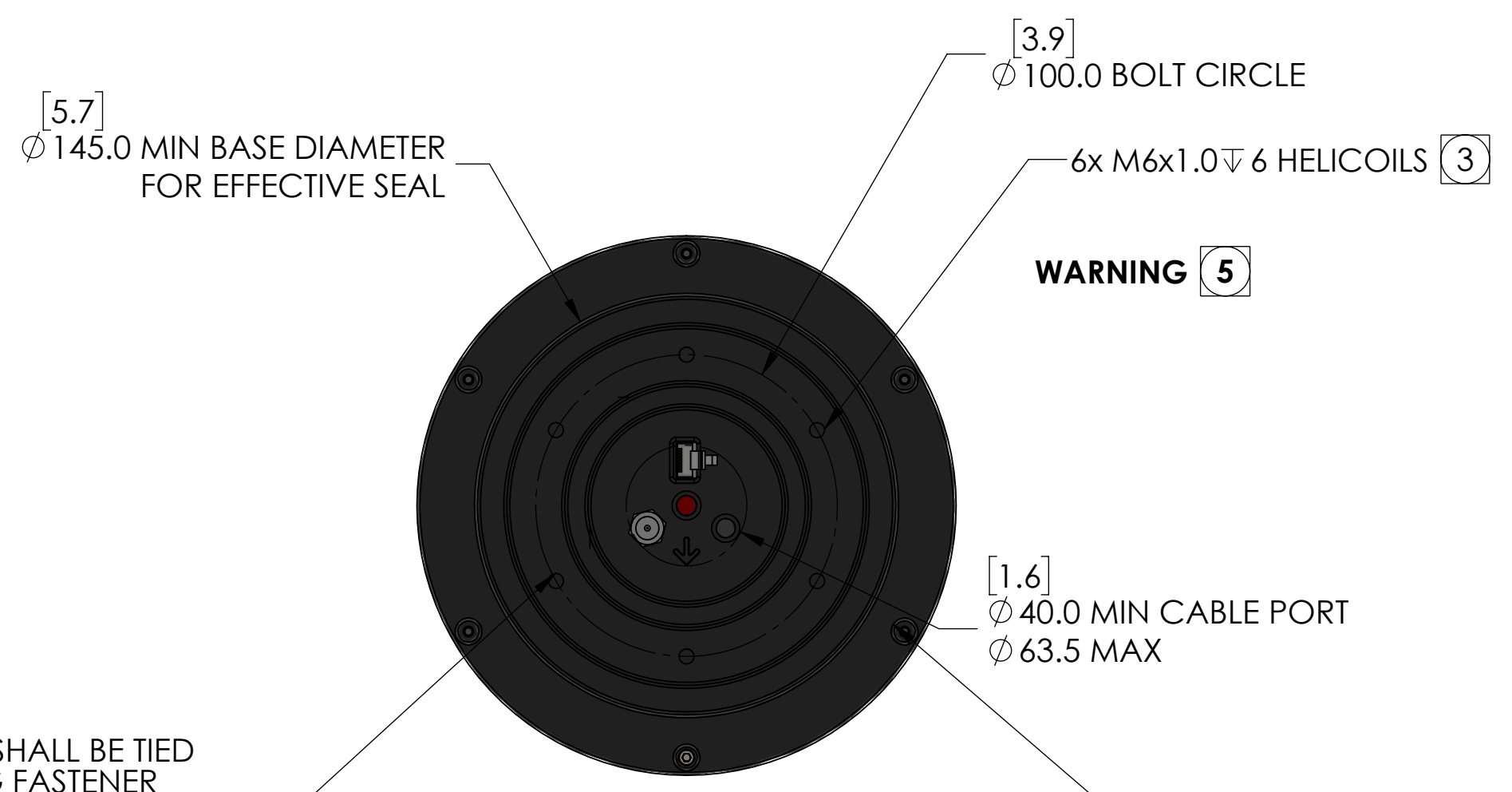
- 1 CLEARANCE REQUIRED FOR FREE MOTION OF SYSTEM.
- 2 O-RING USED FOR SEALING SYSTEM TO MOUNTING STRUCTURE. STANDALONE UNIT MEETS IPX6 SEALING SPECIFICATION. MINIMUM MOUNTING SURFACE FLATNESS OF 1.5mm [0.60in] OVER SYSTEM DIAMETER REQUIRED FOR O-RING USE. WHEN MOUNTING TO IRREGULAR SURFACES, USE OF BEDDING COMPOUND RECOMMENDED.
- 3 USE WITH FLIR MOUNTING HARDWARE KITS:
4115301 HARDWARE KIT - M-SERIES BASIC MOUNT
500-0399-00 TOP DOWN RISER INSTALLATION KIT
- 4 USE LOCTITE 242 WITH ALL METAL TO METAL THREADED CONNECTIONS.

5 **WARNING**
DO NOT BOTTOM FASTENERS IN BASE.
BOLT LENGTH NOT TO EXCEED 6mm INTO BASE
ELECTRONICS WILL BE DAMAGED BY BASE PENETRATION - VOIDING WARRANTY.
BOLT TORQUE NOT TO EXCEED 9.5 N-m [7 LB-f].

M-SERIES SINGLE PAYLOAD



- AS568A-427 EP O-RING [4.75in ID x 0.25in DIA. EP] 120mm ID x 7mm DIA. EP
- AS568A-334 EP O-RING [2.63in ID x 0.19in DIA. EP] 67mm ID x 5mm DIA. EP
- CABLES SHOWN FOR REFERENCE ONLY. NOT TO SCALE, NOR CORRECT LENGTH.
- 381 ± 25mm [15 ± 1in] POWER CABLE, UNTERMINATED TINNED 18AWG WIRE.
- 457 ± 25mm [18 ± 1in] NETWORK CABLE, RJ45 T568B, MALE.
- 533 ± 25mm [21 ± 1in] IR VIDEO CABLE, F-TYPE MALE.
- 584 ± 25mm [23 ± 1in] SWITCHED (IR OR VIS) VIDEO CABLE, F-TYPE MALE.



IMPORTANT:
CHASSIS GROUND SHALL BE TIED TO ONE MOUNTING FASTENER FOR HIGH CONDUCTIVE PATH TO VESSEL GROUND. MAX 0.25Ω.

WARRANTY VOID IF SCREWS REMOVED.

M-SERIES ICD, SINGLE / DUAL PAYLOAD

METRIC



FLIR Systems, Inc.
70 Castilian Drive
Goleta, CA 93117

SIZE D

CAGE 064Y2

PIECE PART 432-0003-XX-19

REV B

SCALE 1:33.3 PRINTED: 5/25/2017 SHEET 2 OF 11
SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload MODEL REVISION: B

IMPORTANT NOTE:

PAPER SIZE: 11x17in
TEMPLATE SHOULD PRINT 1:1

DUE TO VARIATION IN SOFTWARE AND
PRINTERS, PLEASE VERIFY SCALE BELOW
BEFORE MODIFYING MOUNTING SURFACE.

D

D

C

C

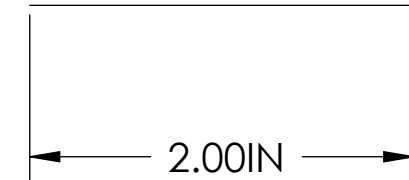
B

B

A

A

[0.3]
6x ϕ 6.4 THRU HOLE
EQUALLY SPACED ON
 ϕ 100 [3.94] BOLT CIRCLE



ϕ 40.0 [1.57] MIN CABLE PORT.
 ϕ 63.5 [2.50] MAX

[7.1]
 ϕ 179.4 M-SERIES O.D.

MOUNTING TEMPLATE
M-SERIES GIMBAL

PROPRIETARY - FLIR SYSTEMS, INC.

SIZE B	CAGE 064Y2	DWG NO. 432-0003-XX-19	REV A
SCALE 1:1	PRINTED: 5/25/2017	SHEET 3 OF 11	

D

D

C

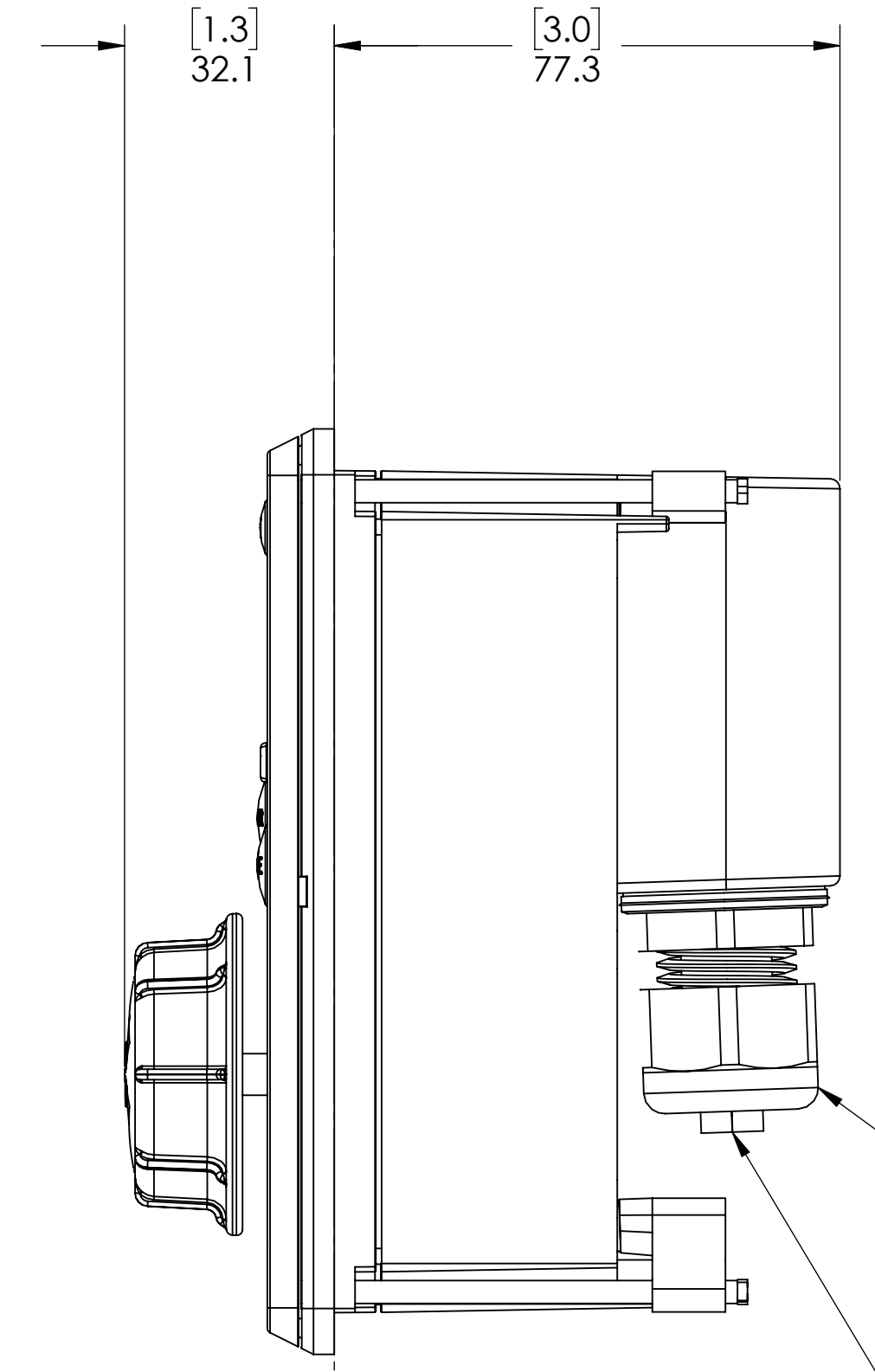
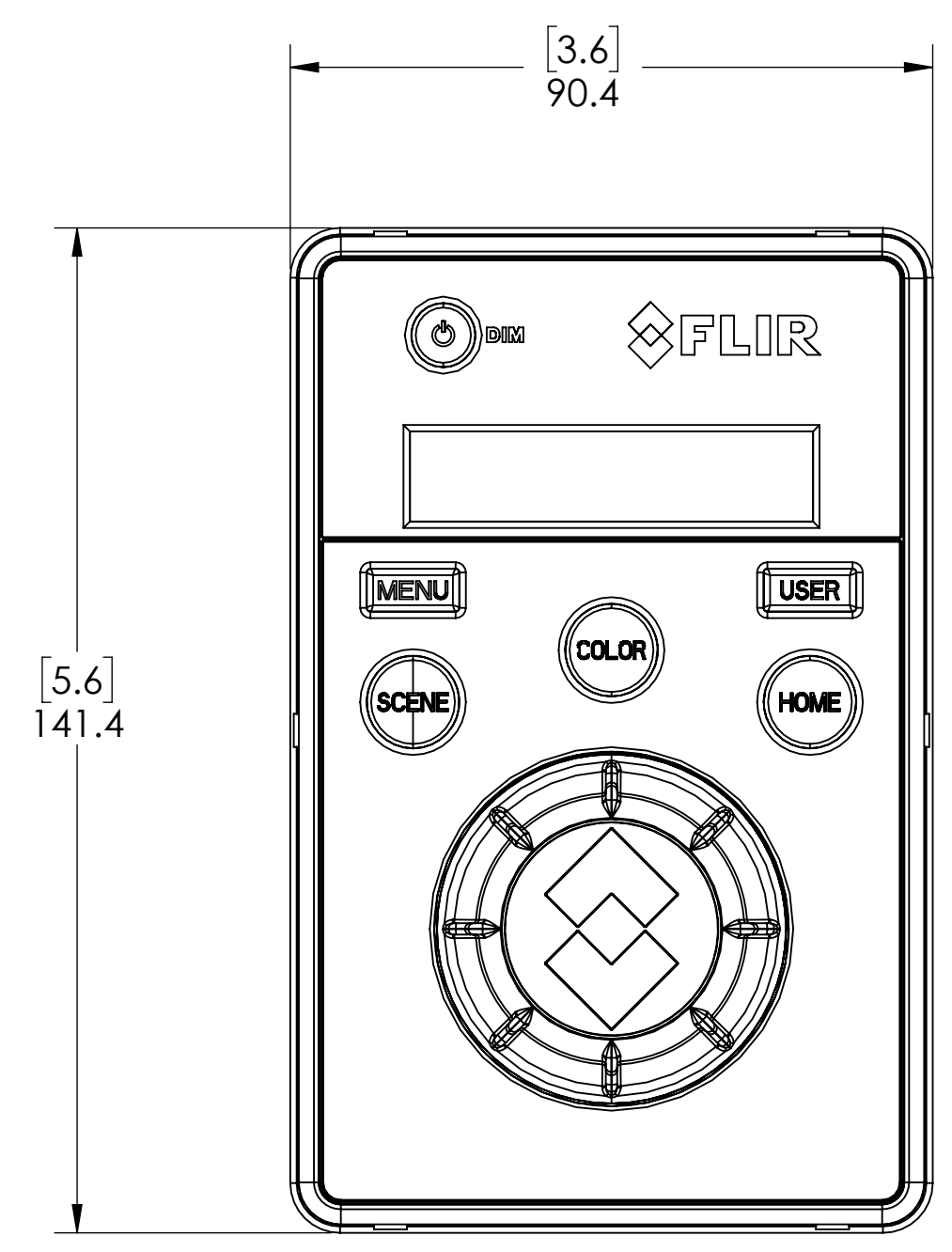
C

B

B

A

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IP66 RATED IN FRONT OF GASKET.

IP64 RATED BEHIND GASKET.

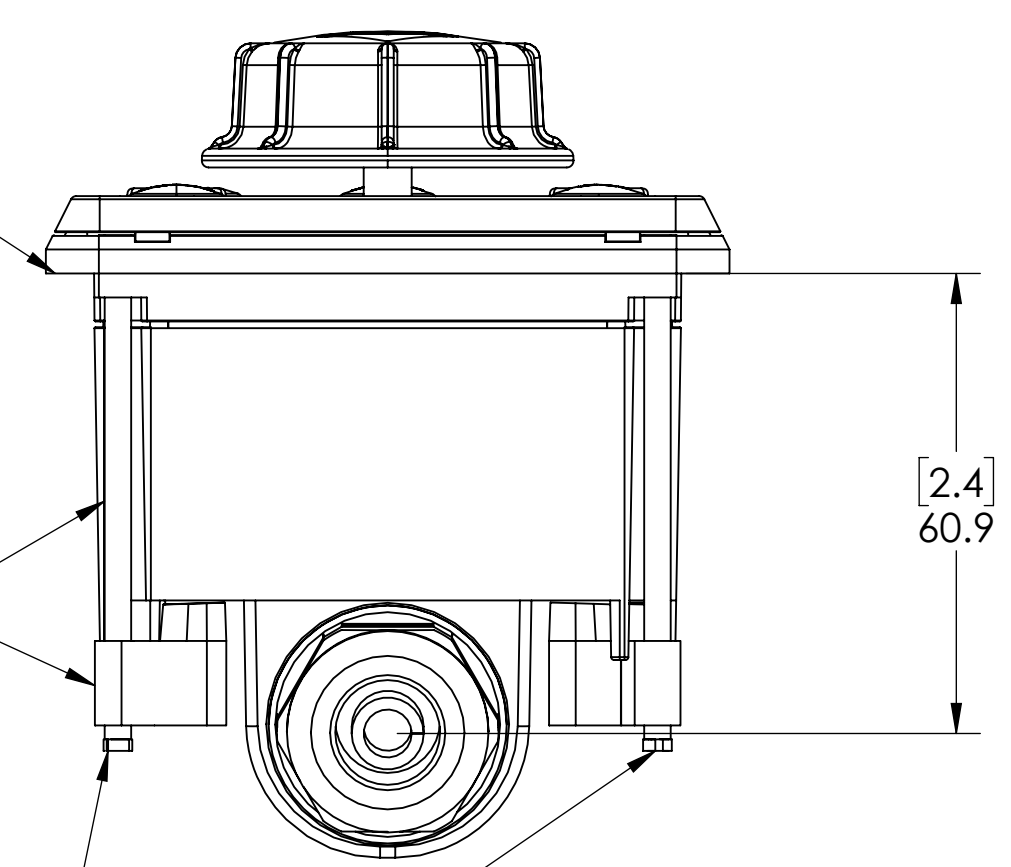
WITH CABLE INSTALLED, TURN NUT 1/4 TURN BEYOND HAND TIGHT.

GLAND SEAL DESIGNED FOR USE WITH DOUBLE SHIELDED CAT 5 ETHERNET CABLE. USE OF SINGLE SHIELDED CABLE MAY REQUIRE THE USE OF ADDITIONAL SEALANT SUCH AS SILICON OR RTV TO ENSURE SEALING OF ENCLOSURE.

INSERT NETWORK CABLE RJ45 THROUGH GLAND NUT AND SEAL BEFORE INSTALLING.

APPLY ADHESIVE SIDE OF GASKET TO JCU BODY.

MOUNTING PANEL THICKNESS RANGE 1.6-45 [0.063-1.750]. WHEN MOUNTING TO PANELS LESS THAN 6.3 [0.25] REVERSE PADDLES AS ILLUSTRATED.



DURING INITIAL TIGHTENING, ENSURE MOUNTING TABS ON SCREWS SWING FREE OF REAR HOUSING. WITH TABS RUN UP AGAINST REAR OF INSTRUMENT PANEL, TIGHTEN 1/4-1/2 TURN BEYOND HAND TIGHT.

JOYSTICK CONTROL UNIT - MARITIME, MULTI

METRIC



FLIR Systems, Inc.
70 Castilian Drive
Goleta, CA 93117

SIZE D

CAGE 064Y2

PIECE PART 432-0003-XX-19 REV B

SCALE 1:1 PRINTED: 5/25/2017 SHEET 4 OF 11
SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload MODEL REVISION: B

IMPORTANT NOTE:

PAPER SIZE: 11x17in
TEMPLATE SHOULD PRINT 1:1

DUE TO VARIATION IN SOFTWARE AND
PRINTERS, PLEASE VERIFY SCALE BELOW
BEFORE MODIFYING MOUNTING SURFACE.

FITS JCU P.N. 500-0385-00

D

D

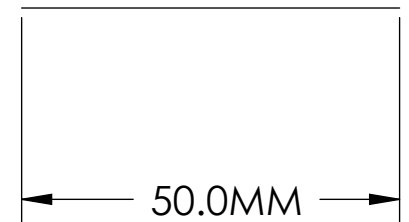
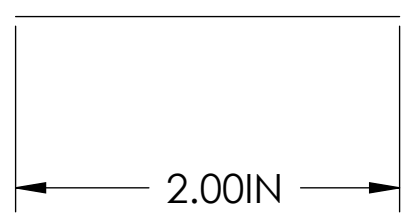
CORNERS SHALL
BE SHARP.

[2.8]
72.3
OPTIONAL
DRILL GUIDE

[4.8]
123.1
OPTIONAL
DRILL GUIDE

[5.1±0.05]
129.54±1.25
CUTOUT

[5.6]
141.4
OUTSIDE
OF JCU



[0.25]
∅ 6.4

[3.1±0.05]
78.74±1.25
CUTOUT

[3.6]
90.4
OUTSIDE
OF JCU

C

C

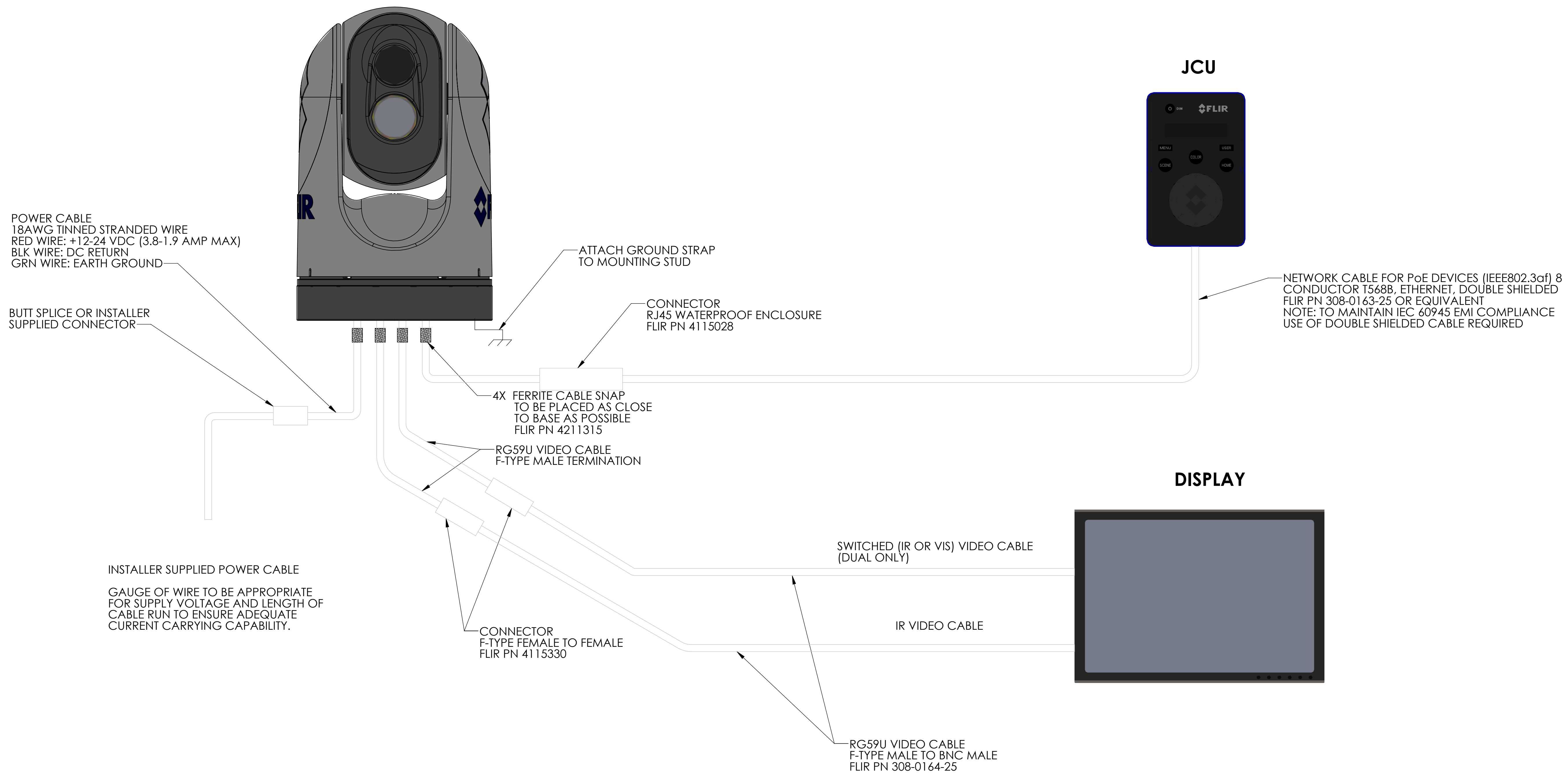
B

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M-SERIES SINGLE / DUAL PAYLOAD



INTERCONNECT DIAGRAM SINGLE JCU

METRIC

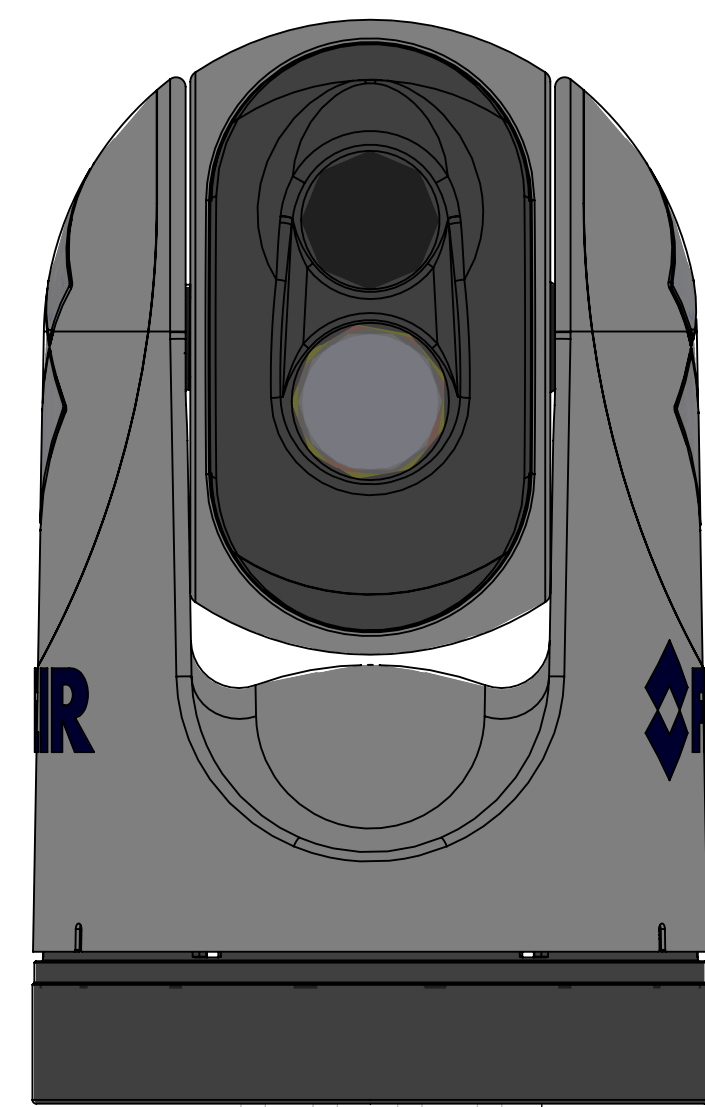


FLIR Systems, Inc.
70 Castilian Drive
Goleta, CA 93117

SIZE D	CAGE 064Y2	PIECE PART 432-0003-XX-19	REV B
SCALE 1:2		PRINTED: 5/25/2017	SHEET 6 OF 11

SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload
MODEL REVISION: B

M-SERIES SINGLE / DUAL PAYLOAD



POWER CABLE
18AWG TINNED STRANDED WIRE
RED WIRE: +12-24 VDC (3.8-1.9 AMP MAX)
BLK WIRE: DC RETURN
GRN WIRE: EARTH GROUND

BUTT SPLICE OR INSTALLER
SUPPLIED CONNECTOR

INSTALLER SUPPLIED POWER CABLE
GAUGE OF WIRE TO BE APPROPRIATE FOR
SUPPLY VOLTAGE AND LENGTH OF CABLE
RUN TO ENSURE ADEQUATE CURRENT
CARRYING CAPABILITY.

ATTACH GROUND STRAP
TO MOUNTING STUD

CONNECTOR RJ45
WATERPROOF
ENCLOSURE
FLIR PN 4115028

4X FERRITE CABLE SNAP
TO BE PLACED AS CLOSE
TO BASE AS POSSIBLE
FLIR PN 4211315

RG59U VIDEO CABLE
F-TYPE MALE TERMINATION

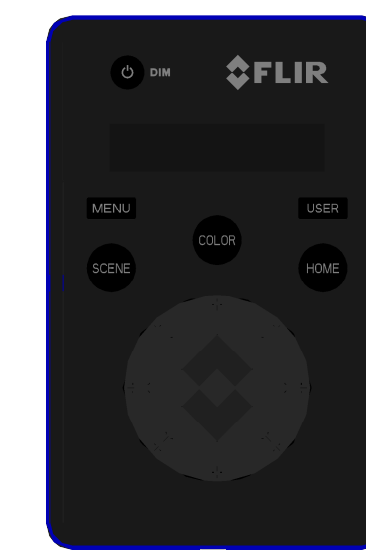
CONNECTOR
F-TYPE FEMALE TO FEMALE
FLIR PN 4115330

RG59U VIDEO CABLE
F-TYPE MALE TO BNC MALE
FLIR PN 308-0164-25

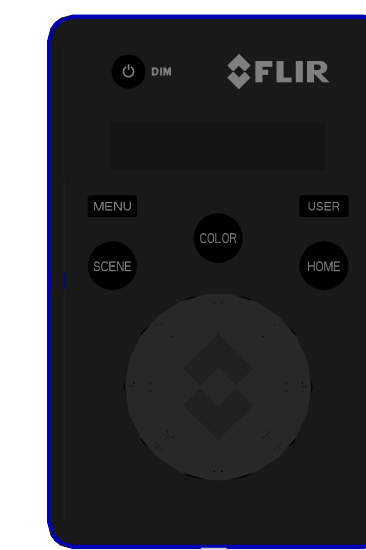
MANUFACTURER SPECIFIC ENVIRONMENTAL
EXPOSURE RATINGS APPLY

POE NETWORK SWITCH
IEEE802.3af, T568B COMPLIANT
FLIR PN 4141042

JCU 1



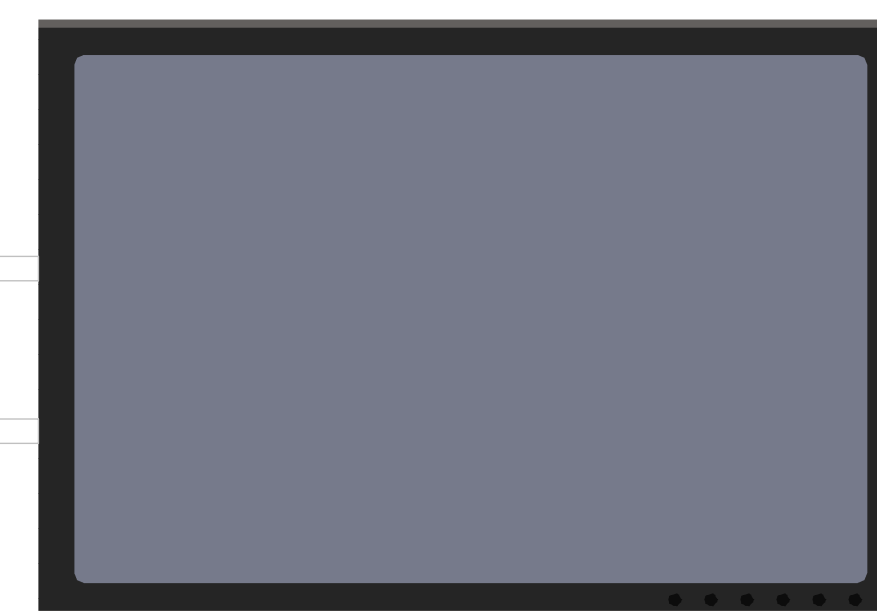
JCU 2



FLIR PN 500-0385-00

NETWORK CABLE FOR PoE DEVICES (IEEE802.3af)
8 CONDUCTOR T568B, ETHERNET, DOUBLE SHIELDED
FLIR PN 308-0163-25 OR EQUIVALENT
NOTE: TO MAINTAIN IEC 60945 EMI COMPLIANCE,
USE OF DOUBLE SHIELDED CABLE REQUIRED.

DISPLAY



SWITCHED (IR OR VIS)
VIDEO CABLE
(DUAL ONLY)

IR VIDEO CABLE

INTERCONNECT DIAGRAM MULTIPLE JCU - POE SWITCH

METRIC



FLIR Systems, Inc.
6769 Hollister Ave.
Goleta, CA 93117

SIZE D

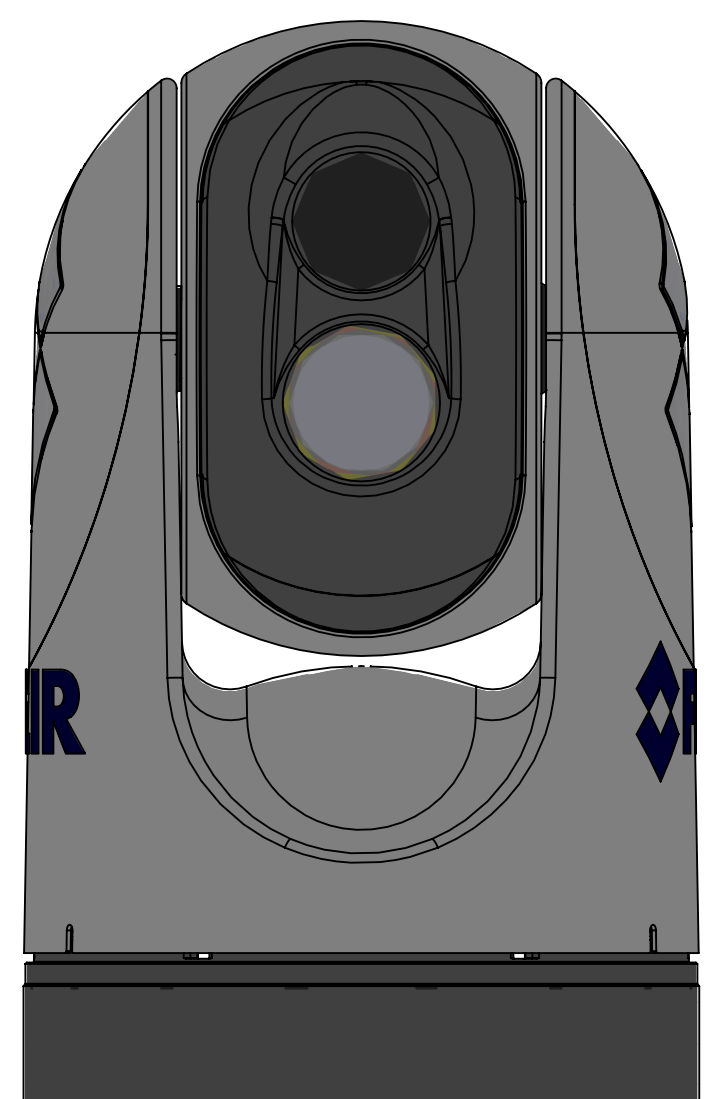
CAGE 064Y2

PIECE PART 432-0003-XX-19

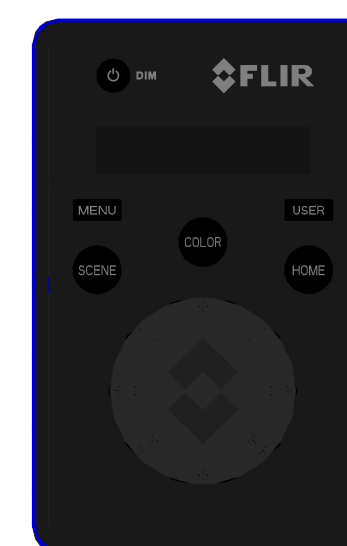
REV B

SCALE 1:2 PRINTED: 5/25/2017 SHEET 7 OF 11
SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload
MODEL REVISION: B

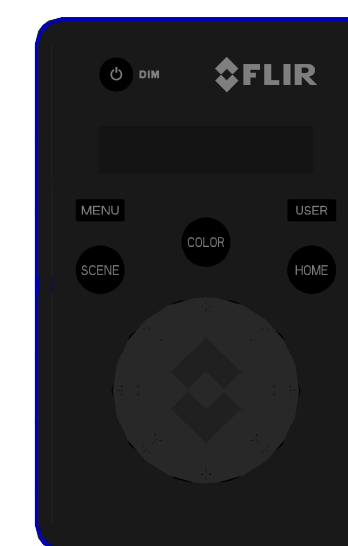
M-SERIES SINGLE / DUAL PAYLOAD



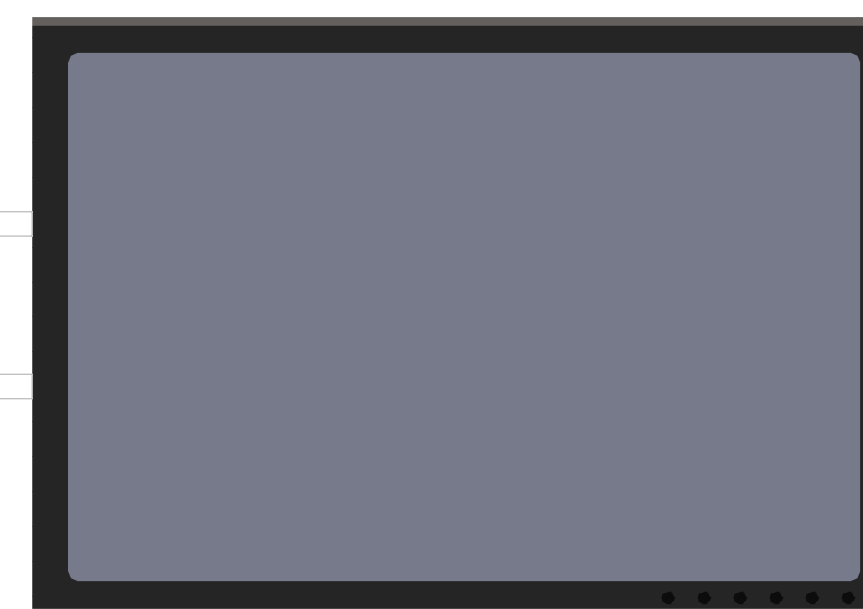
JCU 1



JCU 2



DISPLAY



POWER CABLE
18AWG TINNED STRANDED WIRE
RED WIRE: +12-24 VDC (3.8-1.9 AMP MAX)
BLK WIRE: DC RETURN
GRN WIRE: EARTH GROUND

BUTT SPLICE OR INSTALLER
SUPPLIED CONNECTOR

INSTALLER SUPPLIED POWER CABLE
GAUGE OF WIRE TO BE APPROPRIATE
FOR SUPPLY VOLTAGE AND LENGTH
OF CABLE RUN TO ENSURE ADEQUATE
CURRENT CARRYING CAPABILITY.

ATTACH GROUND STRAP
TO MOUNTING STUD

CONNECTOR
RJ45 WATERPROOF
ENCLOSURE
FLIR PN 4115028

4X FERRITE CABLE SNAP
TO BE PLACED AS CLOSE
TO BASE AS POSSIBLE
FLIR PN 4211315

RG59U VIDEO CABLE
F-TYPE MALE TERMINATION

CONNECTOR
F-TYPE FEMALE TO FEMALE
FLIR PN 4115330

RG59U VIDEO CABLE
F-TYPE MALE TO BNC MALE
FLIR PN 308-0164-25

MANUFACTURER SPECIFIC ENVIRONMENTAL
EXPOSURE RATINGS APPLY

NETWORK SWITCH, NON PoE
INSTALLER SUPPLIED

POE INJECTOR
IP20, RJ45 FEMALE
FLIR PN 4113746

POE INJECTOR POWER REQUIREMENT
+9-36VDC (12V/1.85A - 24V/0.90A)

NETWORK CABLE FOR PoE DEVICES (IEEE802.3af)
8 CONDUCTOR T568B, ETHERNET, DOUBLE SHIELDED
FLIR PN 308-0163-25 OR EQUIVALENT
NOTE: TO MAINTAIN IEC 60945 EMI COMPLIANCE,
USE OF DOUBLE SHIELDED CABLE REQUIRED.

SWITCHED (IR OR VIS)
VIDEO CABLE
(DUAL ONLY)

IR VIDEO CABLE

INTERCONNECT DIAGRAM MULTIPLE JCU - POE INJECTOR

METRIC



FLIR Systems, Inc.
6769 Hollister Ave.
Goleta, CA 93117

SIZE
D

CAGE
064Y2

PIECE PART
432-0003-XX-19

REV
B

SCALE 1:2 PRINTED: 5/25/2017 SHEET 8 OF 11

SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload
MODEL REVISION: B

D

C

B

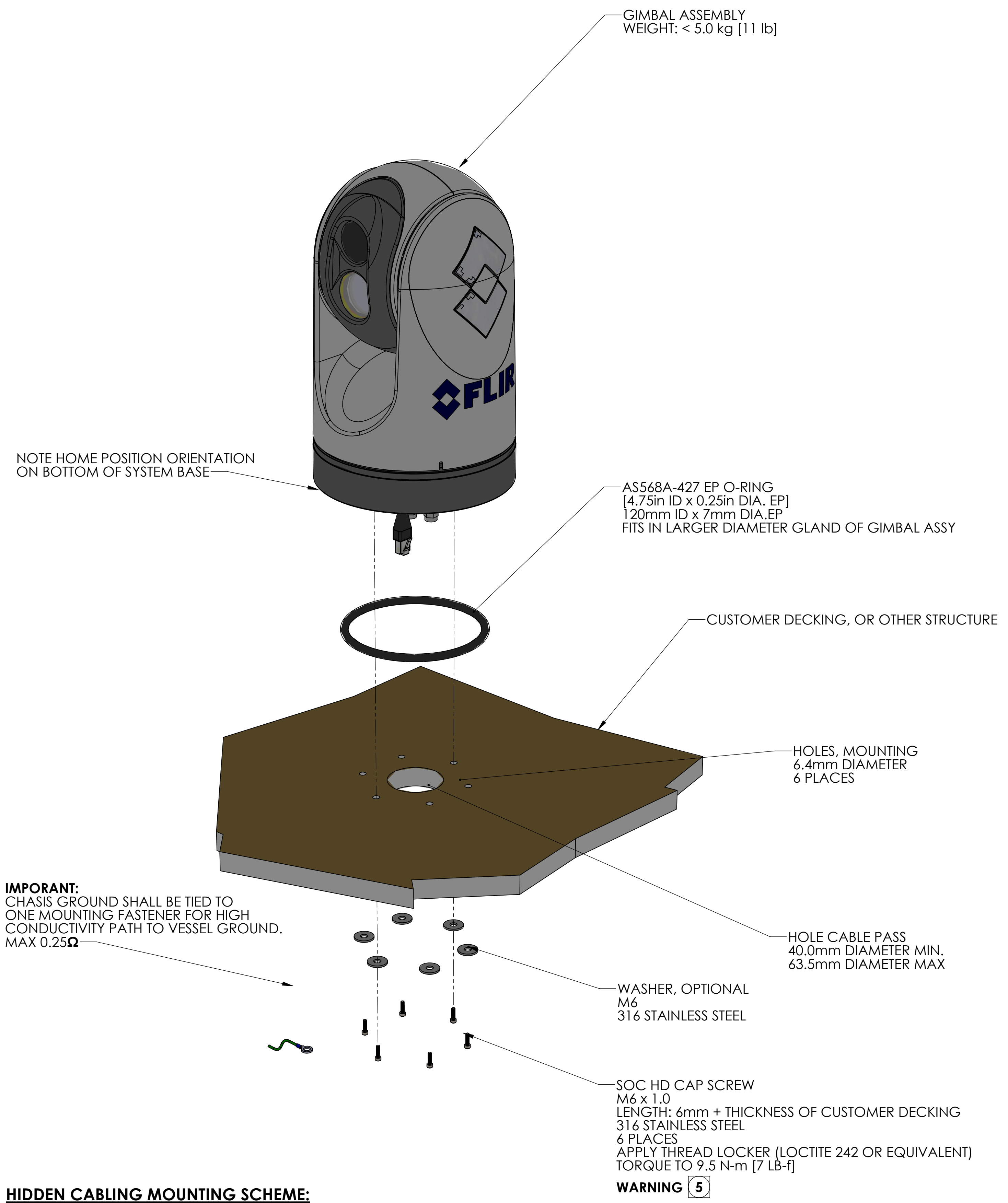
A

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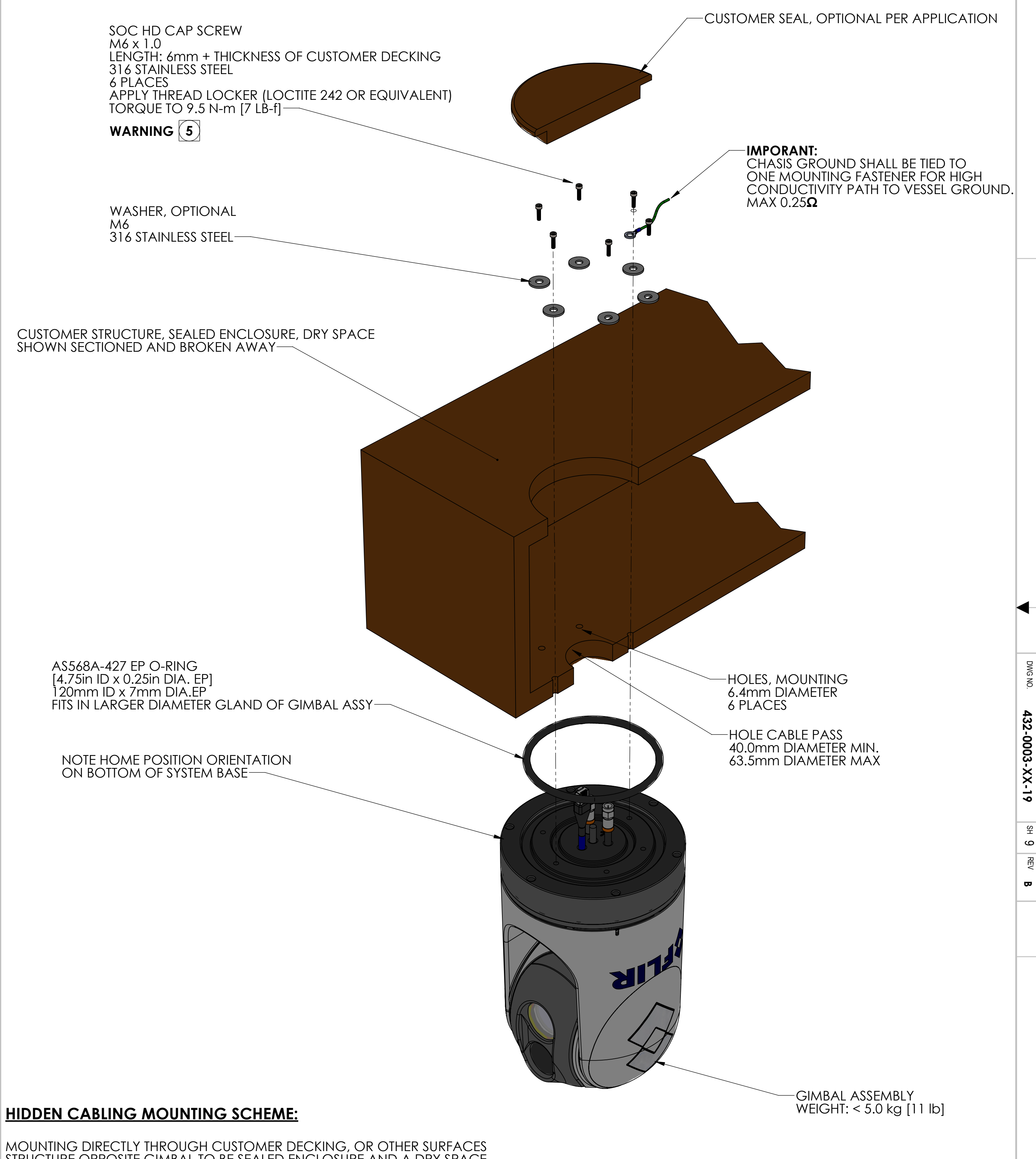
B

A



HIDDEN CABLING MOUNTING SCHEME:
MOUNTING DIRECTLY THROUGH CUSTOMER DECKING, OR OTHER SURFACES
STRUCTURE OPPOSITE GIMBAL TO BE SEALED ENCLOSURE AND A DRY SPACE
CAMERA BALL UP CONFIGURATION

ENTIRE ASSEMBLY CAN BE ROTATED 180° FOR BALL DOWN INSTALLATION
HOME DIRECTION ZERO CAN BE SET FROM MENU.



HIDDEN CABLING MOUNTING SCHEME:
MOUNTING DIRECTLY THROUGH CUSTOMER DECKING, OR OTHER SURFACES
STRUCTURE OPPOSITE GIMBAL TO BE SEALED ENCLOSURE AND A DRY SPACE
CAMERA BALL UP CONFIGURATION

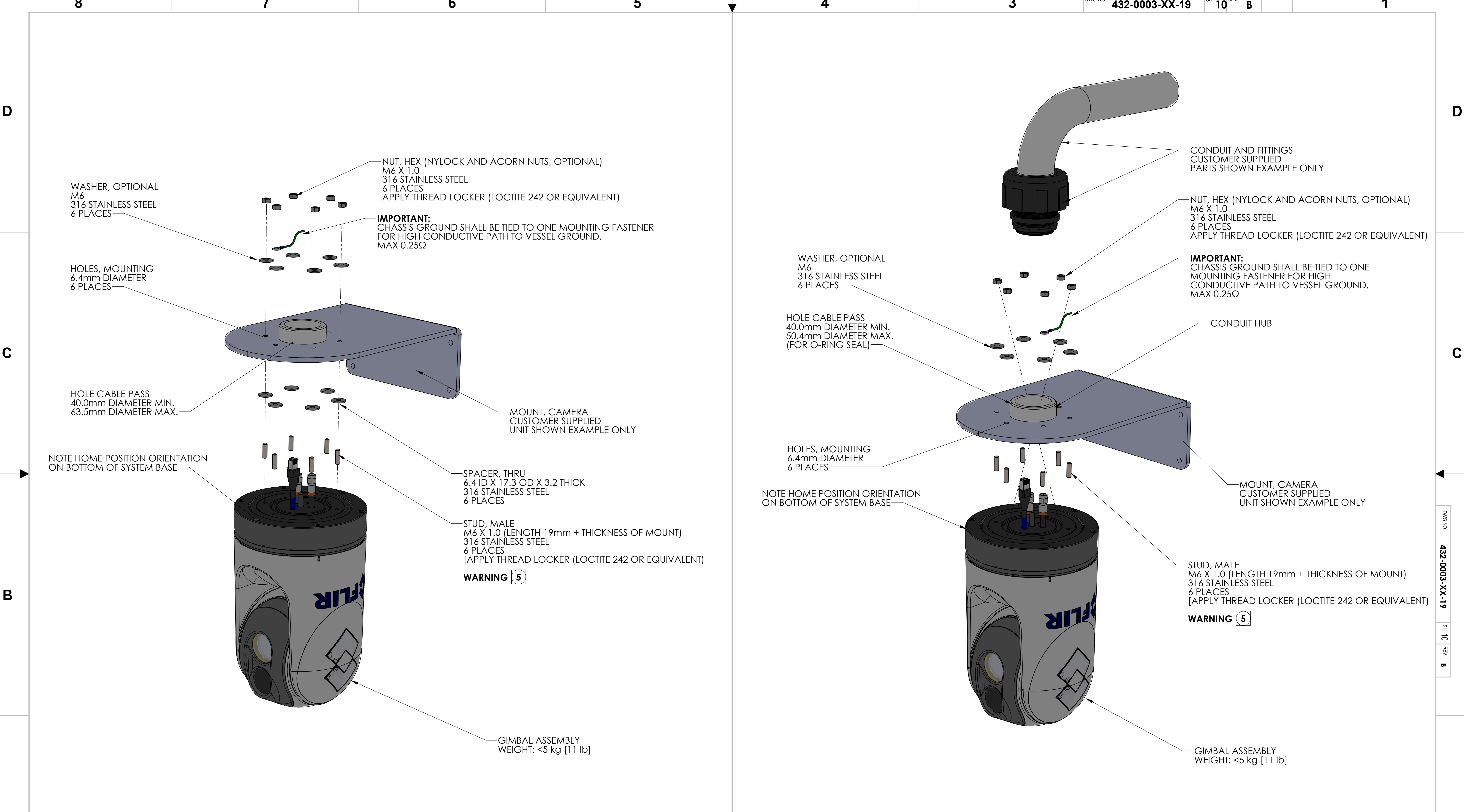
ENTIRE ASSEMBLY CAN BE ROTATED 180° FOR BALL UP INSTALLATION
HOME DIRECTION ZERO CAN BE SET FROM MENU.

SCALE 1/2

DWG NO. 432-0003-XX-19
SH 9
REV B

METRIC

FLIR				FLIR Systems, Inc. 6769 Hollister Ave. Goleta, CA 93117		SIZE D	CAGE 064Y2	PIECE PART 432-0003-XX-19	REV B
SCALE 1:5		PRINTED: 5/25/2017		SHEET 9 OF 11					



EXPOSED CABLING MOUNTING SCHEME:

CUSTOMER PROVIDED MOUNTING BRACKET / SURFACE CAMERA BALL DOWN CONFIGURATION
 ENTIRE ASSEMBLY CAN BE ROTATED 180° FOR BALL UP INSTALLATION
 HOME DIRECTION ZERO CAN BE SET FROM MENU.

EXPOSED CABLING MOUNTING SCHEME:

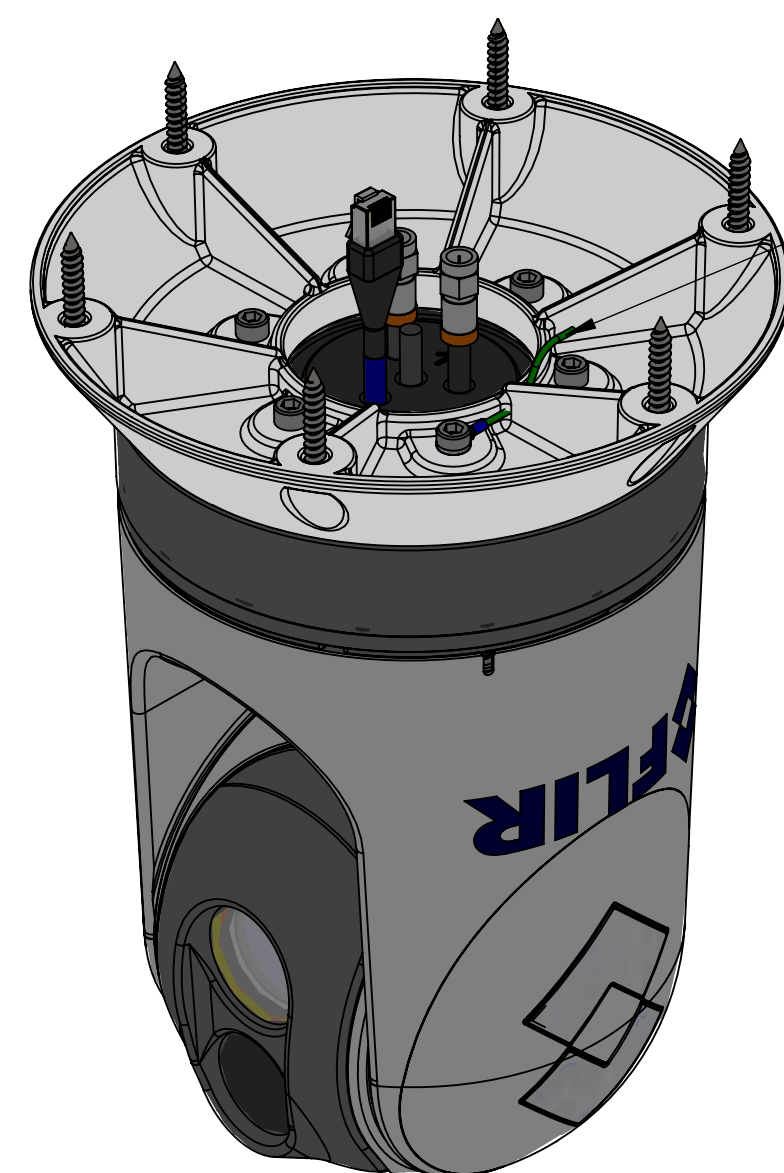
CUSTOMER PROVIDED MOUNTING BRACKET / SURFACE CAMERA BALL UP CONFIGURATION
 ENTIRE ASSEMBLY CAN BE ROTATED 180° FOR BALL UP INSTALLATION
 HOME DIRECTION ZERO CAN BE SET FROM MENU.

METRIC

PROPRIETARY - FLIR SYSTEMS, INC.

	FLIR Systems, Inc. 6769 Hollister Ave. Goleta, CA 93117	SIZE D	CAGE 064Y2	PIECE PART 432-0003-XX-19	REV B
	SCALE 1:2 PRINTED: 5/25/2017 SHEET 10 OF 11		SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload MODEL REVISION: B		

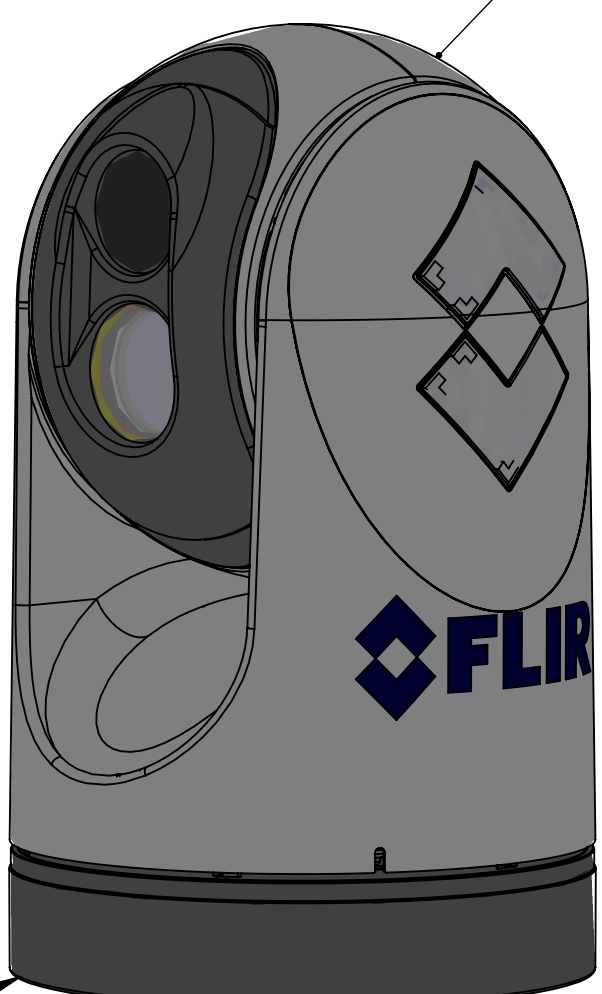
DWG NO. 432-0003-XX-19 SH 10 REV B



CHASSIS GROUND SHALL BE TIED TO MOUNTING FASTENER FOR HIGH CONDUCTIVE PATH TO VESSEL GROUND. MAX 0.25Ω (CUSTOMER SUPPLIED)

GROUNDING SCHEME

GIMBAL ASSEMBLY WEIGHT: <5.0 kg [11 lb]



AS568A-427 EP O-RING [4.75in ID x 0.25in DIA. EP] 120mm ID x 7mm DIA. EP FITS IN LARGER DIAMETER GLAND OF GIMBAL ASSY

M6 SCREWS, FLAT HEAD SOC CAP OR, 1/4"-20 SCREWS, FLAT HEAD SOC CAP OR, #14 X 1.5 SCREWS, FLAT HEAD PHILLIPS SHEET METAL TYPE AND LENGTH DEPENDANT ON MOUNTING SURFACE 316 STAINLESS STEEL 6 PLACES APPL THREAD LOCKER (LOCTITE 242 OR EQUIVALENT)

NOTE HOME POSITION ORIENTATION ON BOTTOM OF SYSTEM BASE

TOP DOWN BASE FLIR PN 500-0399-00 TOP DOWN RISER INSTALLATION KIT

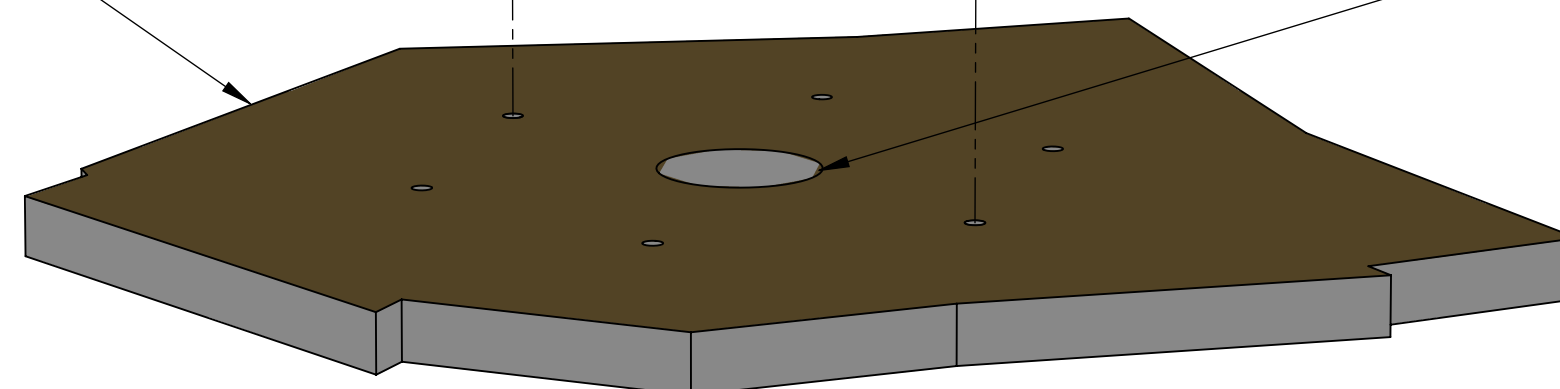
CHASSIS GROUND

SOC HD CAP SCREW M6 X 1.0 X 10 mm LONG 316 STAINLESS STEEL 6 PLACES APPLY THREAD LOCKER [LOCTITE 242 OR EQUIVALENT] TORQUE TO 9.5 N-m [7 LB-f]

WARNING 5

HOLE CABLE PASS 40.0 mm DIAMETER MIN. 63.5 mm DIAMETER MAX.

CUSTOMER DECKING, OR OTHER STRUCTURE



HIDDEN CABLING MOUNTING SCHEME

FLIR PROVIDED MOUNTING BRACKET(S) CAMERA BALL UP CONFIGURATION
 ENTIRE ASSEMBLY VIEW CAN BE ROTATED 180° FOR BALL DOWN INSTALLATION
 HOME DIRECTION ZERO CAN BE SET FROM MENU.
 SCALE 1/2

DWG NO. 432-0003-XX-19 SH 11 REV B

METRIC



FLIR Systems, Inc. 6769 Hollister Ave. Goleta, CA 93117

SIZE D	CAGE 064Y2	PIECE PART 432-0003-XX-19	REV B
SCALE 1:2	PRINTED: 5/25/2017	SHEET 11 OF 11	

SOLIDWORKS MODEL: 432-0003-XX-YY Pelagic M-Series ICD, Single and Dual Payload MODEL REVISION: B