



Specifications, Ordering Information
and Installation Instructions
for
MR398-JBPC Series
Fiber Optic Junction Boxes

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Revision: D1

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File Name

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Revision List

A	Initial Release	Feb 2013
B	Added Reference Drawings	March 2014
C	Added new Camarillo address and tel/fax	Oct 2015
D	Update style and product images	Dec 2015
D1	Updated company info for Micronor Sensors Inc.	May 2022

1. Description

The MICRONOR MR398 series fiber optic junction boxes are designed to join two fiber optic cables and environmentally protect the connection. The junction boxes are designed to seal the incoming cables while accommodating varying diameter of fiber cables that might be used in the field. The sealing is accomplished by building up the cable jacket to the desired 12.4mm of the cable glands employed. The through hole of the cable gland is sufficient to sleeve LC-Duplex or ST connectors through.

2. Ordering Information

Connector #1	Connector #2	Micronor Part Number
 Duplex-LC	 Duplex-LC	MR398-JBPC-CC
 Duplex-LC	 ODVA LC-Duplex	MR398-JBPC-CD
 ODVA LC-Duplex	 ODVA LC-Duplex	MR398-JBPC-DD

NOTE: For special housing requirements, please contact Micronor sales.

3. Specifications

Size MR398-JBPC-DD, MR398-JBPC-CD, MR398-JBPC-CC	4.53 x 3.54 x 2.17 in. 115.06 x 89.92 x 55.12 mm 6.73 x 4.76 x 2.17 in. 170.94 x 120.90 x 55.12 mm	
Weight MR398-JBPC-DD, MR398-JBPC-CD, MR398-JBPC-CC	0.4lbs, 0.2kg 0.7lbs, 0.35kg	
Housing	Impact-resistant UV Stabilized Polycarbonate, Silicon Gasket Grey	UL508-4X Listed UL94-HB Flame Rating
Temperature Range	-40°C to +120°C	Or as limited by fiber optic cable and connector used.
Ingress Protection	IP65 per IEC 529 NEMA 1, 2, 4, 4x, 12 and 13	With connectors attached and properly installed.

4. MR398-JBPC-CC (Duplex-LC to Duplex-LC)



Fiber Cable Input – Fiber Cable Output

QTY 1: Enclosure with cable glands mounted

QTY 1: MR320C, LC-Duplex Adapter

QTY 2: MR398-SLKT-36 Seals for 3mm and 6mm cable jacket

QTY 2: MR398-SLKT-08 Seal for 8mm cable jacket

QTY 2: MR398-SLKT-10 Seal for 10mm cable jacket

QTY 4: No. 8 x 5/8 Philips mounting screws

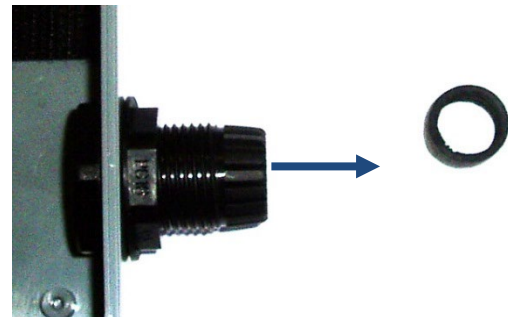
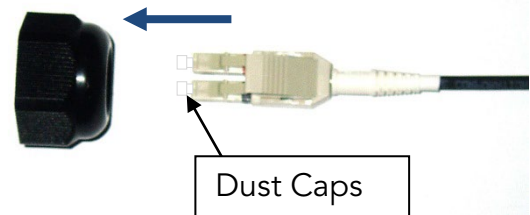
STEPS

Note: The following are instructions for MR398-SLKT-36.

4.1. Remove nut from cable gland mount

4.2. Feed LC connector through nut **KEEP DUST CAPS ON CONNECTORS UNTIL FINAL INSTALLATION**

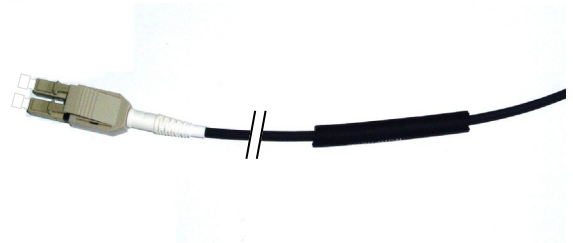
4.3. Remove rubber grommet from cable gland mount



4.4. Feed LC connector through grommet



4.5. Place 3mm sleeve onto fiber cable.



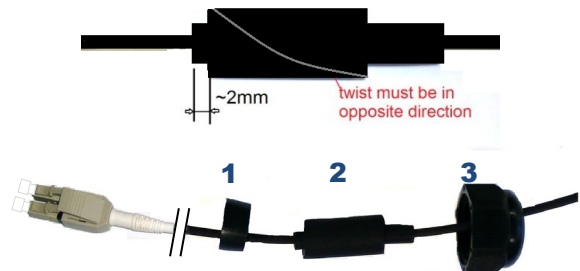
4.6. Place 6mm sleeve on top of 3mm sleeve.



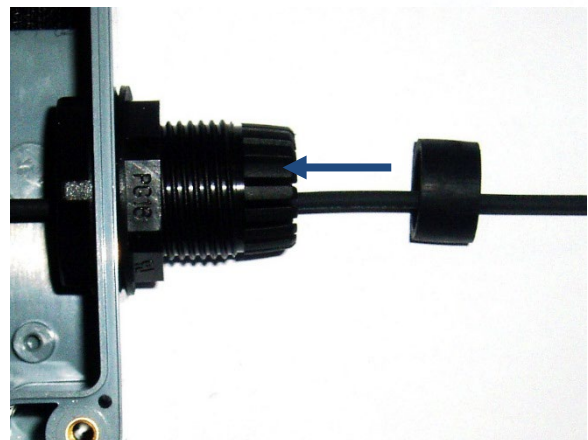
4.7. For highest strain relief place sleeves as shown.

Assembly Order:

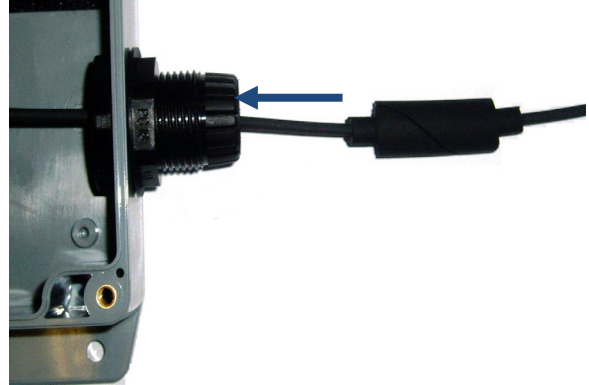
1. Grommet
2. Norprene® Sleeve(s)
3. Gland Nut



4.8. Feed fiber cable through cable gland mount, and place the grommet back into the gland mount.

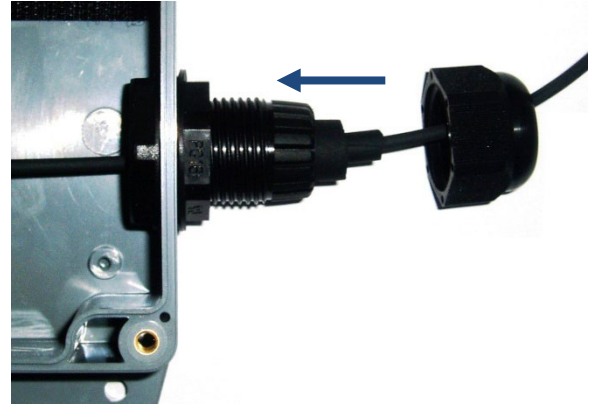


- 4.9. Feed through both 3mm and 6mm sleeves into grommet and cable gland mount.

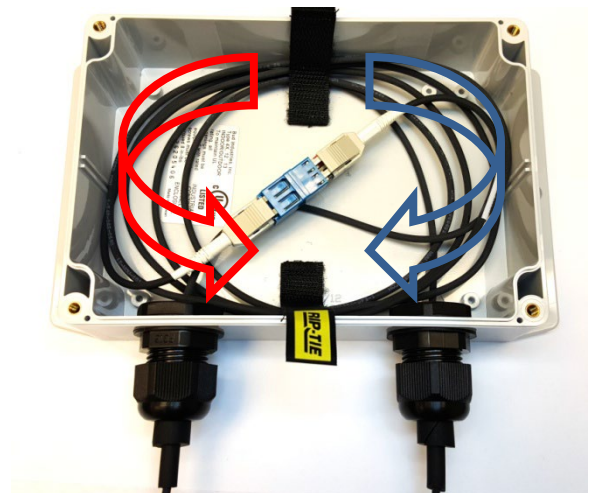


- 4.10. Place and hand tighten nut back onto cable gland mount.

Note: Do not over torque nut, may damage cable gland.



- 4.11. Repeat previous steps for remaining fiber cable.
- 4.12. Loosely coil excess fiber from each gland in opposite directions from each other, CCW & CW. Secure coil with provided Nylon Hook straps. For optimum signal strength, avoid sharp bends and asymmetrical coils.
- 4.13. Remove Dust Caps and connector with MR320C adapter. Allow connection to lie diagonally.



- 4.14. Retain remaining sleeve sizes for future use with varying cable diameters.
- 4.15. Place cover onto junction box and seal using the four captive screws.

5. MR398-JBPC-CD (Duplex-LC to IP-LC)



Fiber Cable Input – LC-Duplex Output

QTY 1: Enclosure with cable glands mounted

QTY 1: MR398-SLKT-36 Seals for 3mm and 6mm cable jacket

QTY 1: MR398-SLKT-08 Seal for 8mm cable jacket

QTY 1: MR398-SLKT-10 Seal for 10mm cable jacket

QTY 4: No. 8 x 5/8 Philips mounting screws

STEPS

- 5.1. Refer to [Steps 4.1-4.9](#) for fiber cable input.
- 5.2. Loosely coil excess fiber cable and secure coil with provided Nylon Hook straps.
- 5.3. Connect LC connector into ODVA connector housing as shown. For optimum signal strength, avoid sharp bends and asymmetrical coils.
- 5.4. Place cover onto junction box and seal using the four captive screws.



5.5. Insert ODVA LC-Duplex connector, twist clockwise and lock bayonet into place.



5.6. Connect open dust cap to free hanging junction box dust cap to prevent dust entering while in operation.



6. MR398-JBPC-DD (IP-LC to IP-LC)



LC-Duplex Input – LC-Duplex Output

QTY 1: Enclosure with 2 LC-Duplex receptacles mounted and connected internally with a 62.5/125µm MM fiber

QTY 4: No. 8 x 5/8 Philips mounting screws

STEPS

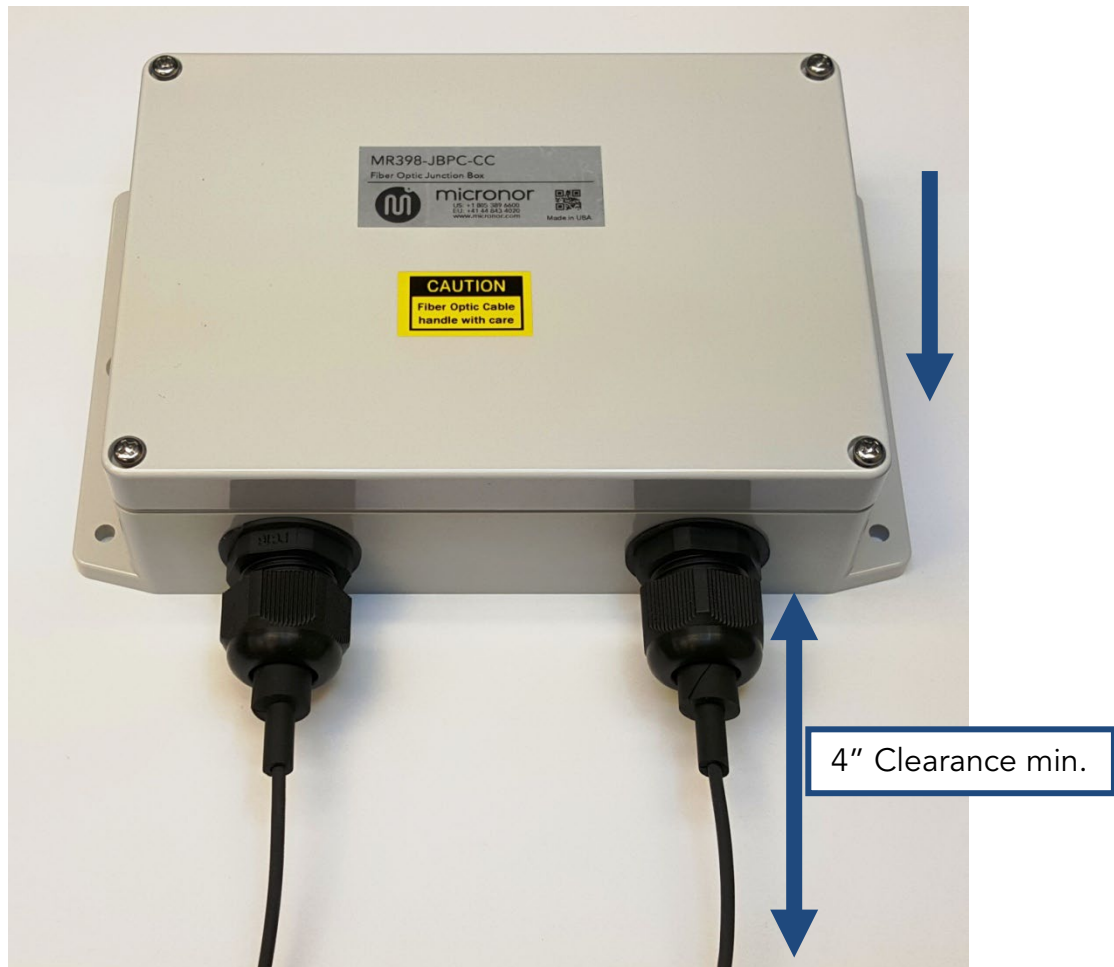
- 6.1. Insert ODVA LC-Duplex connector, twist clockwise and lock into place.
- 6.2. Repeat Step 6.1 for remaining ODVA fiber cable.
- 6.3. Connect open dust cap to free hanging junction box dust cap to prevent dust entering while in operation.



7. Mounting Information

7.1. MR398-JBPC-CC Housing

Recommended Mounting Orientation: MR398-JBC-CC



- Orient Junction box as shown, with fiber cables hanging freely downward.
- Provide at least 4 inches of clearance for fiber cable glands.

7.2. MR398-JBPC-CD Housing

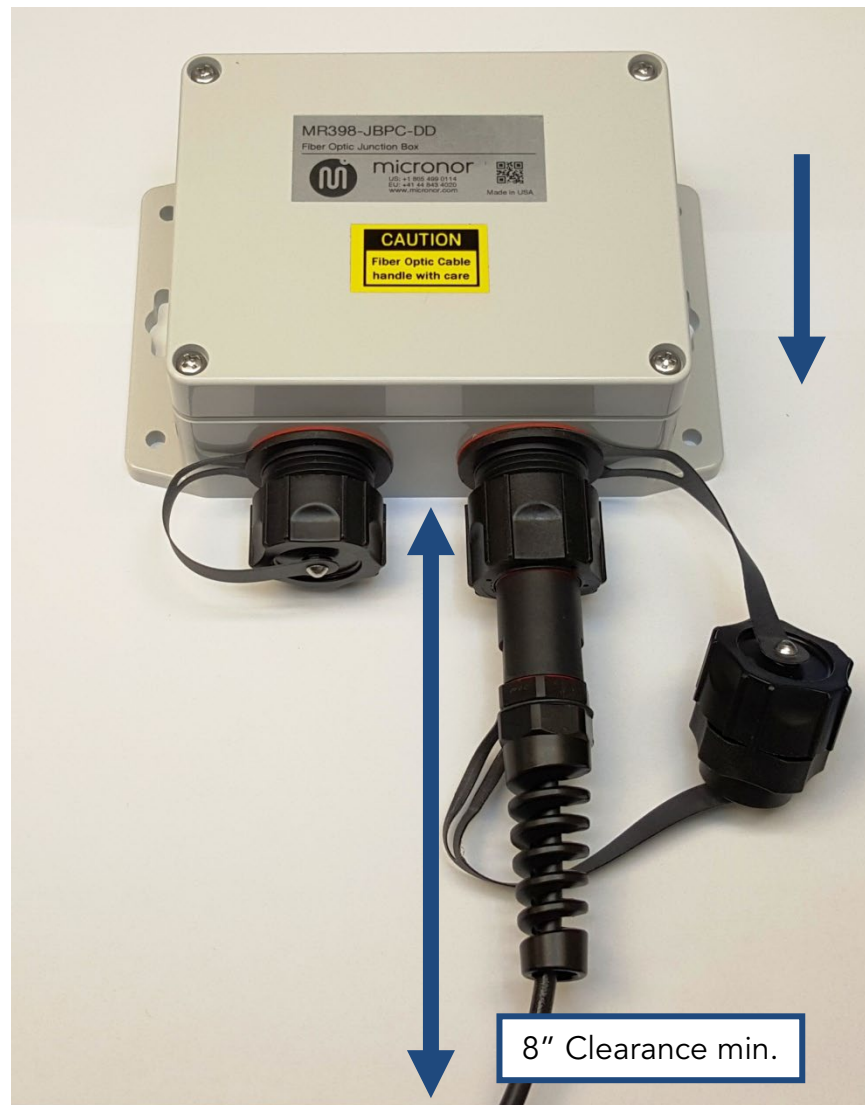
Recommended Mounting Orientation: MR398-JBPC-CD/DD



- Orient junction box as shown, with fiber cables hanging freely downward.
- Provide at least 8 inches of clearance for fiber cable connectors.

7.3. MR398-JBPC-DD Housing

Recommended Mounting Orientation: MR398-JBPC-DD



- Orient junction box as shown, with fiber cables hanging freely downward.
- Provide at least 8 inches of clearance for fiber cable connectors.

8. Reference Drawings

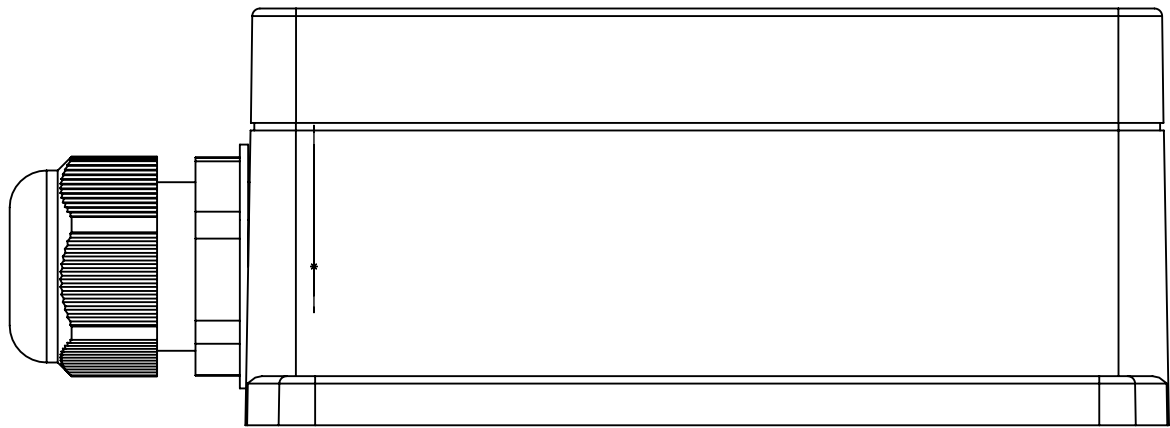
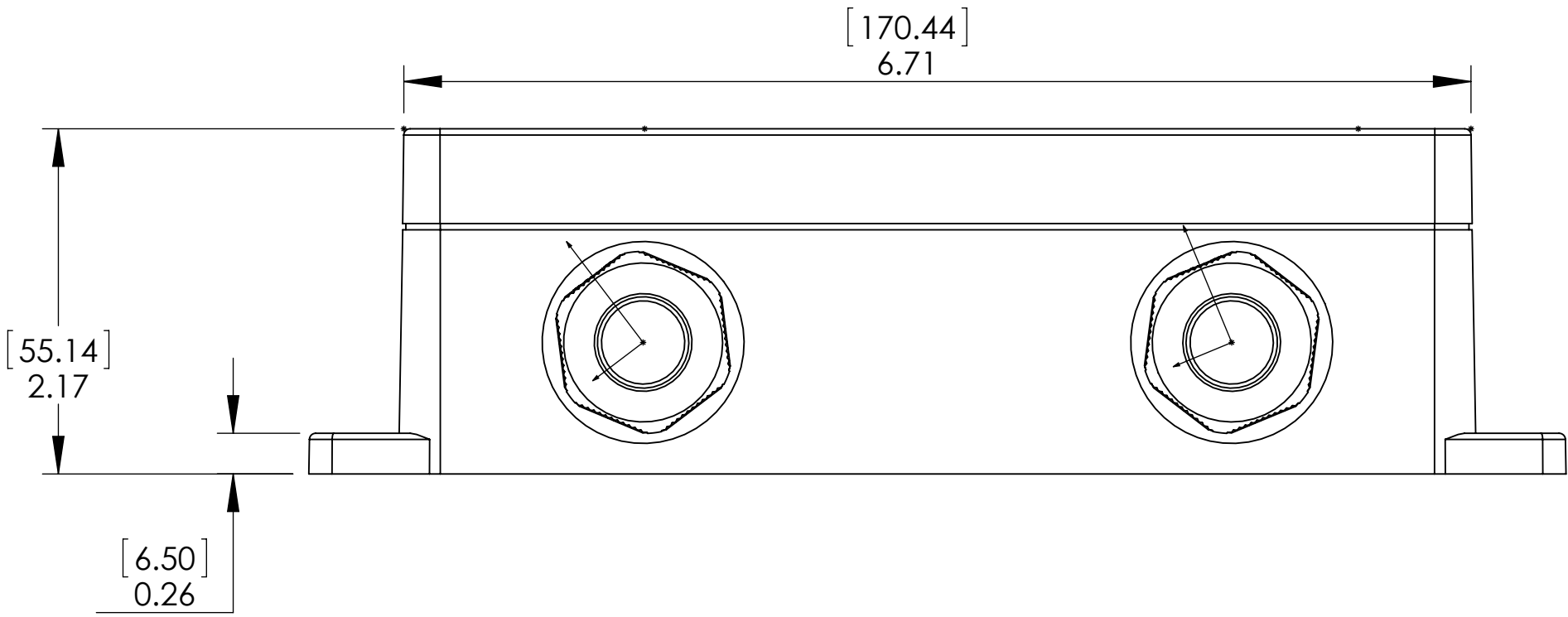
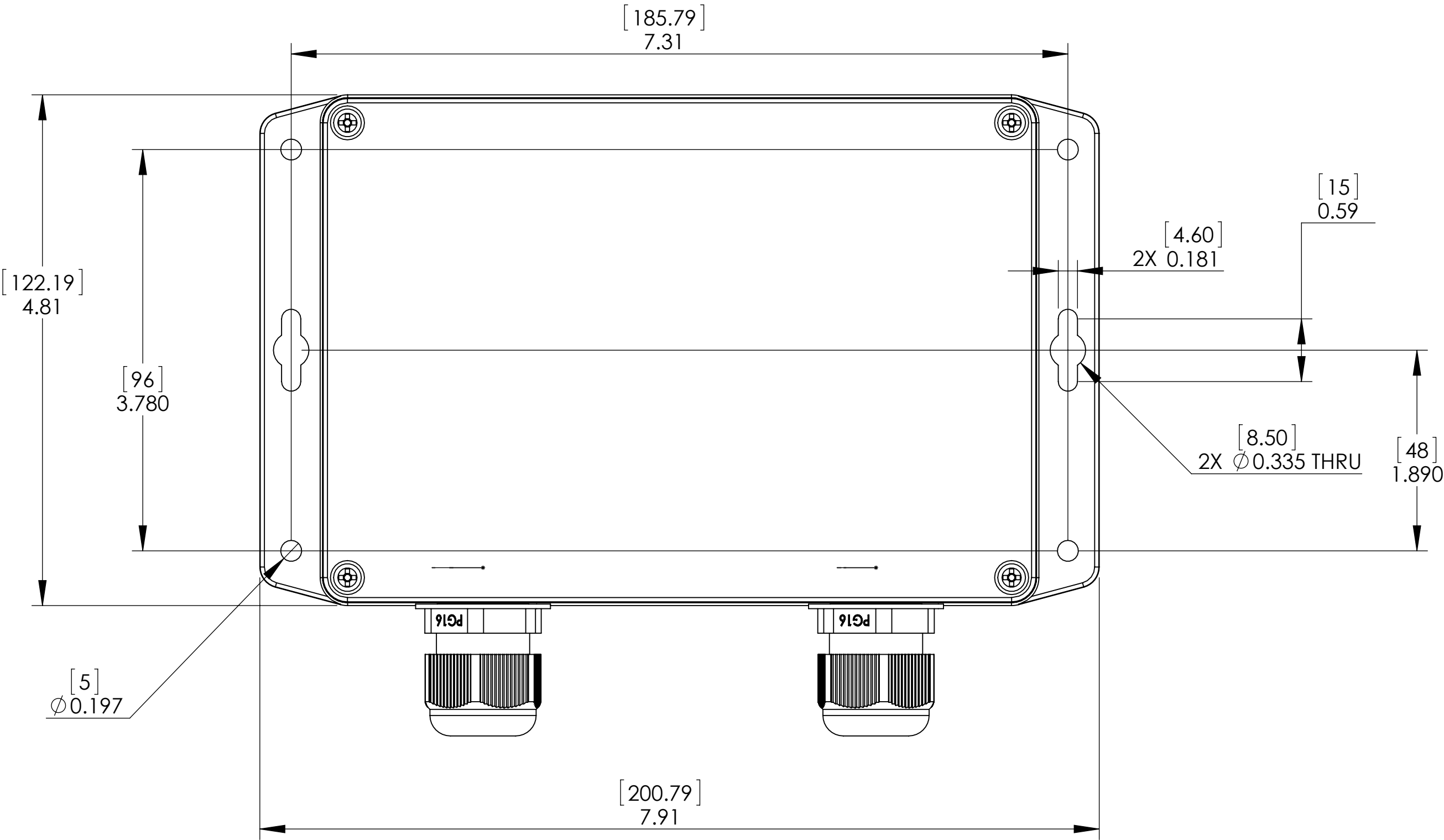
Following Reference Drawings follow on next pages.

8.1 MR398-JBPC-CC

8.2 MR398-JBPC-CD

8.3 MR398-JBPC-DD

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	NEW RELEASE	7-29-13	RGB



PART NUMBER ORDERING CODE

MR398-JBPC - C C

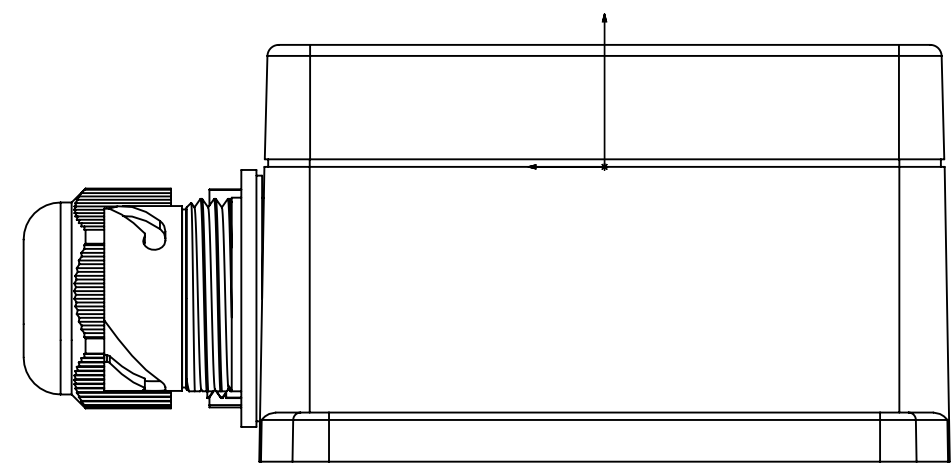
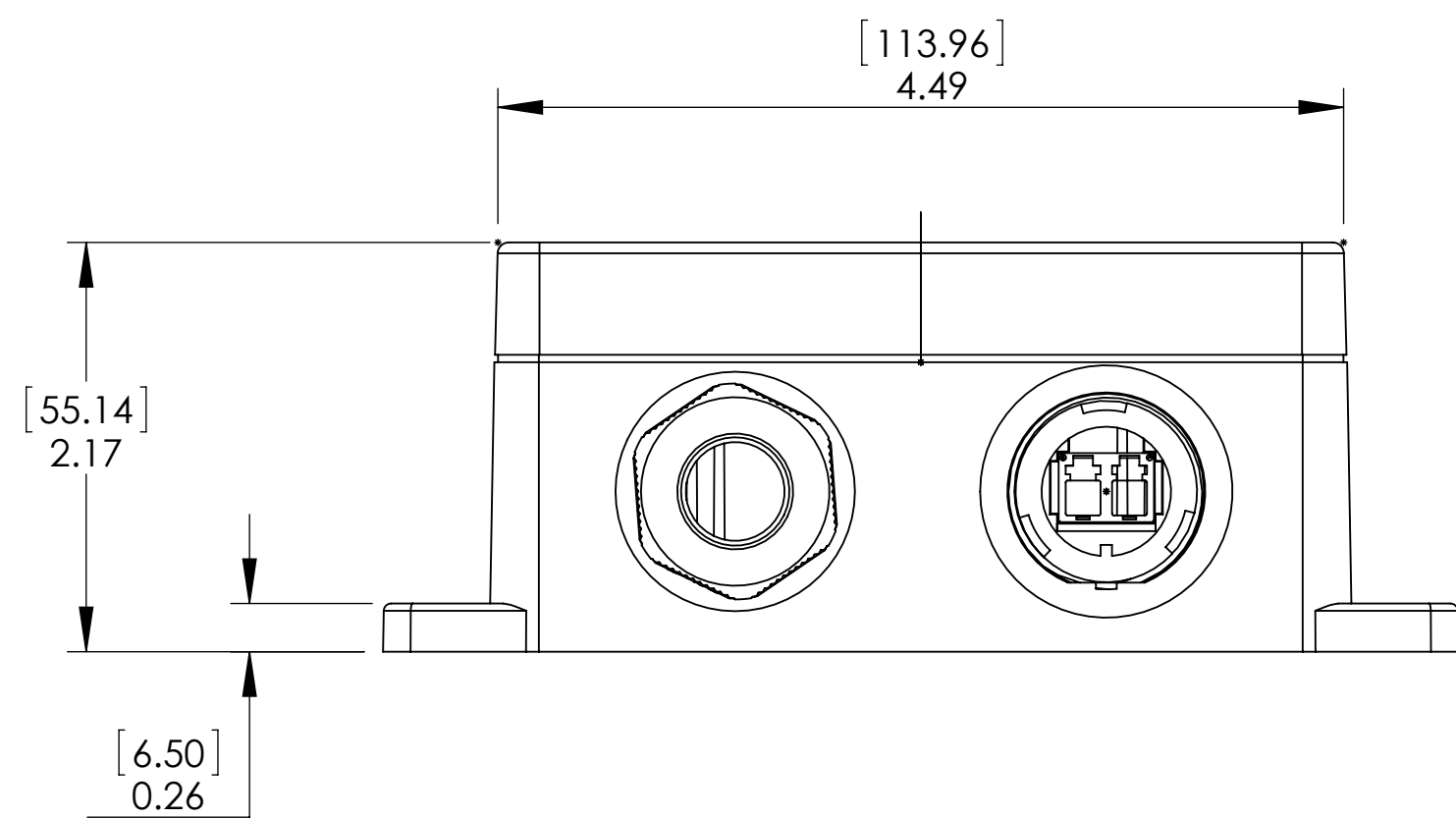
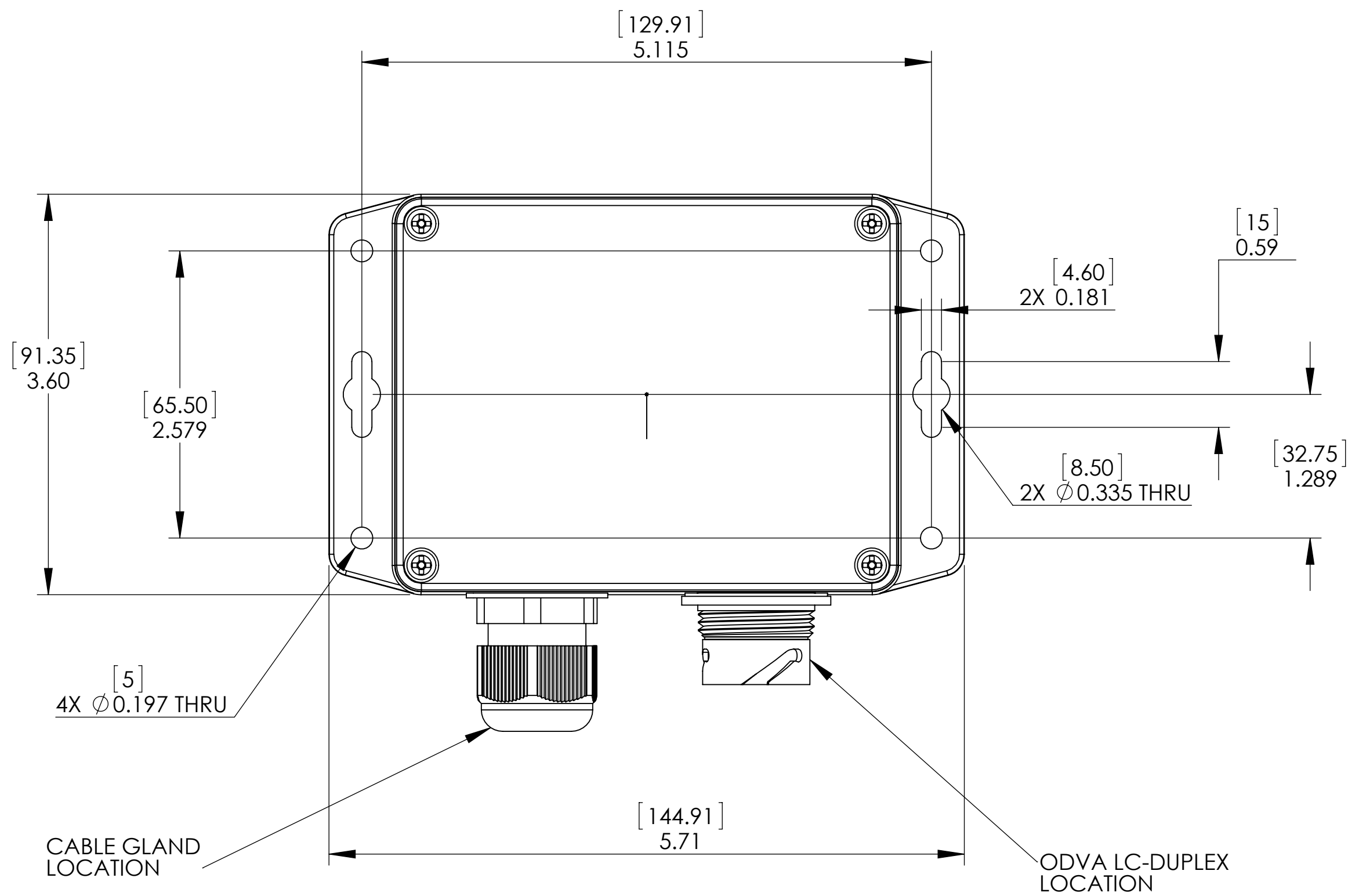
CONNECTOR TYPE
C - CABLE GLAND, I.D. .394-.512 [10.0-13.0]

1 WARNING: KEEP CONNECTOR COVERS IN PLACE DURING STORAGE, TO PROTECT FIBER OPTIC INTERFACES.

NOTES: UNLESS OTHERWISE SPECIFIED

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	DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: $\pm 5^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .005$ FOUR PLACE DECIMAL $\pm .0010$	DRAWN	R BOYER	7-29-13	TITLE: JUNCTION BOX, CABLE GLAND-CABLE GLAND			
		CHECKED						
		ENG APPR.						
		MFG APPR.						
		Q.A.						
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE	DWG. NO.	REV
	MATERIAL	C				MR398-CC	A	
	FINISH	SCALE: 1:1				WEIGHT:	SHEET 1 OF 1	
	DO NOT SCALE DRAWING							

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	NEW RELEASE	7-29-13	RGB



PART NUMBER ORDERING CODE

MR398-JBPC - C D

CONNECTOR TYPE
D - ODVA LC-DUPLEX

CONNECTOR TYPE
C - CABLE GLAND, I.D. .394-.512 [10.0-13.0]

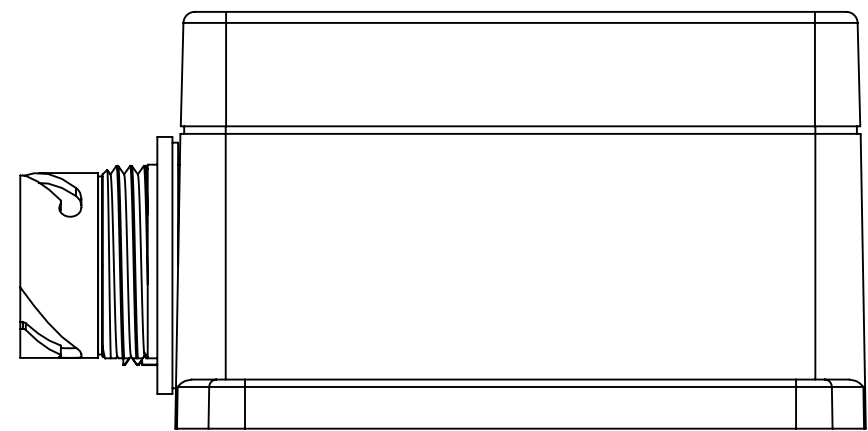
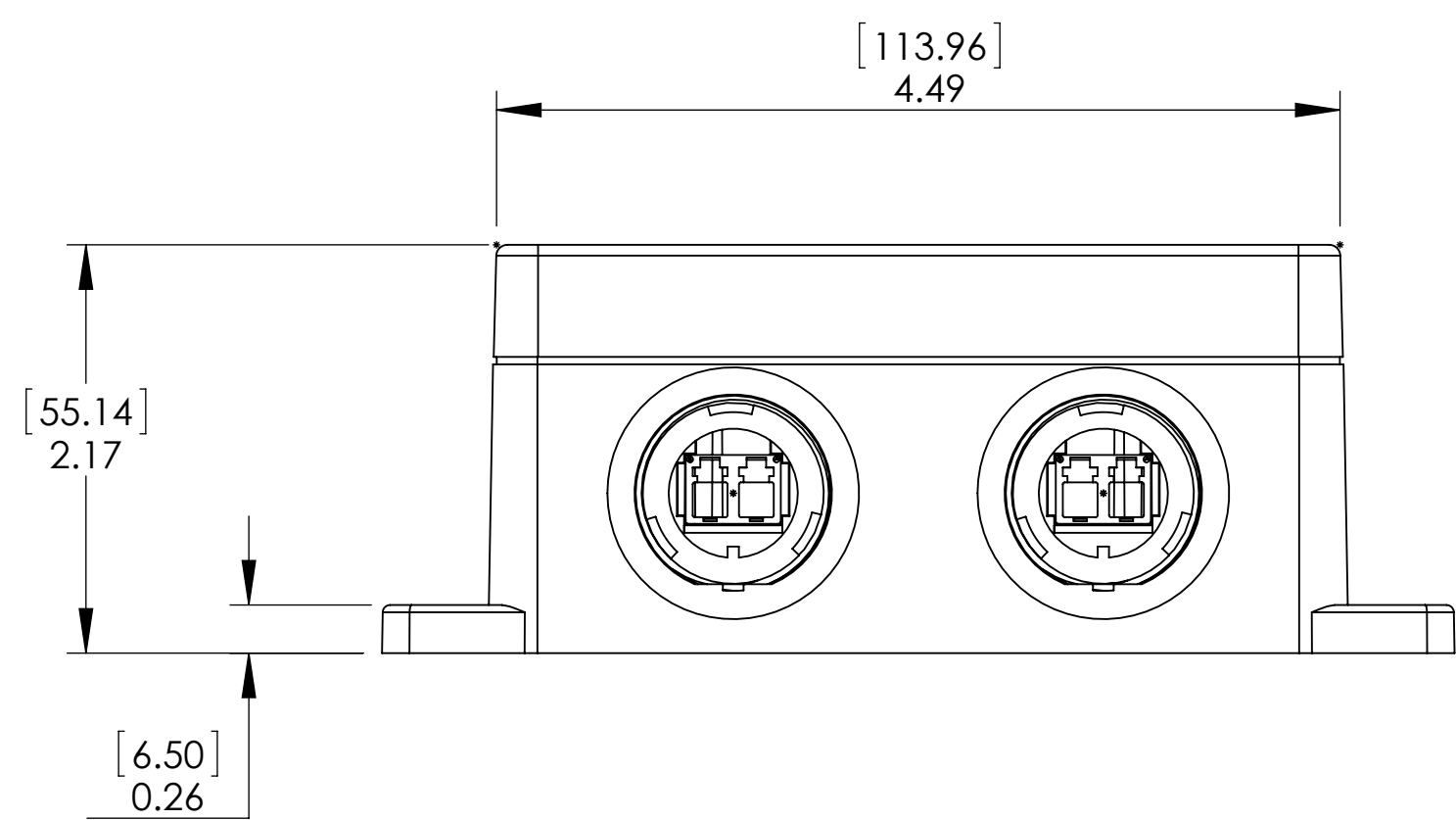
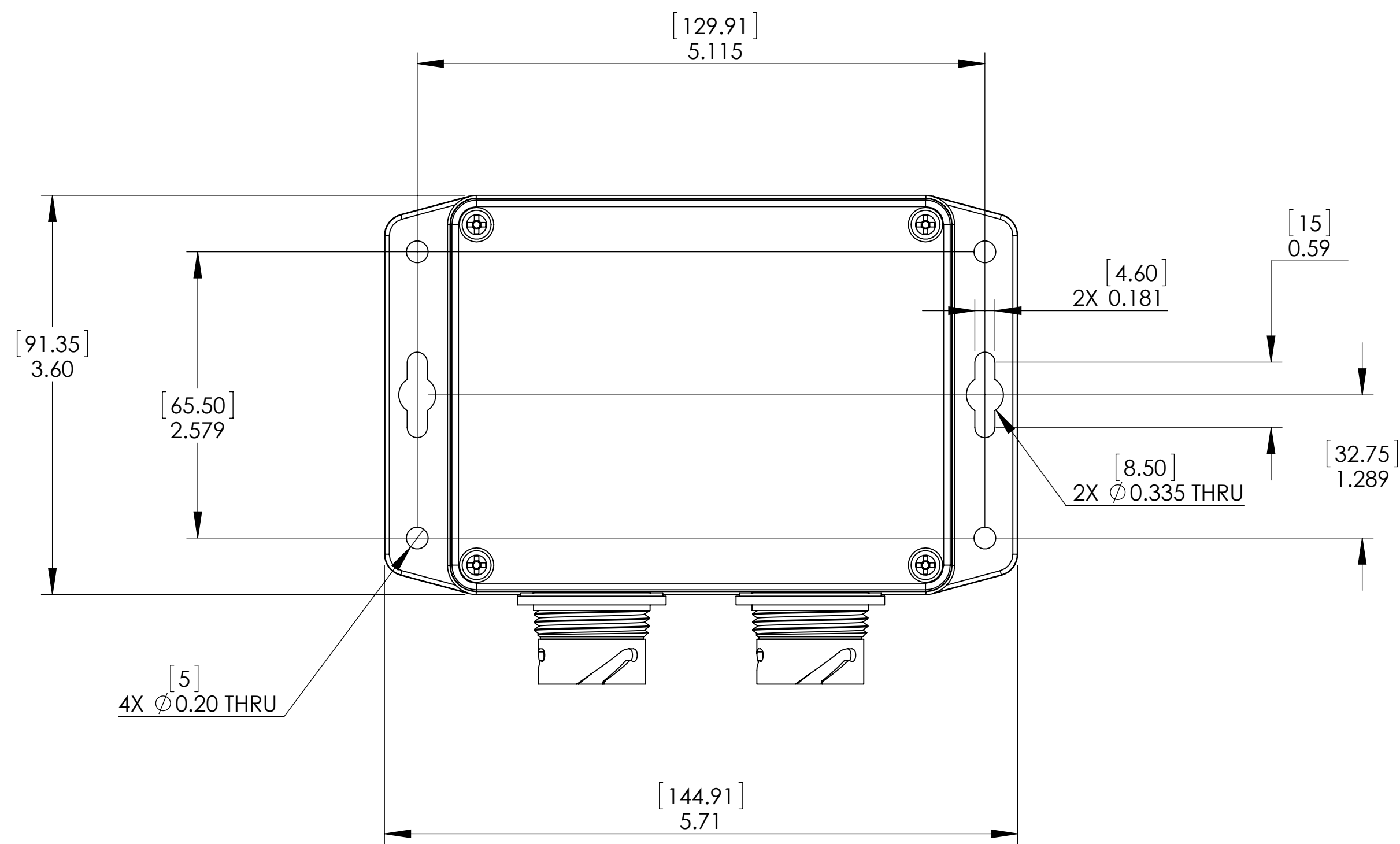
1 WARNING: KEEP CONNECTOR COVERS IN PLACE DURING STORAGE, TO PROTECT FIBER OPTIC INTERFACES.

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DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: $\pm .5^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .005$ FOUR PLACE DECIMAL $\pm .0010$	DRAWN	R BOYER	7-29-13	NEWBURY PARK, CA (805) 499-0114	
	CHECKED			TITLE:	
	ENG APPR.			JUNCTION BOX, ODVA-CABLE GLAND	
	MFG APPR.			SIZE DWG. NO. REV	
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.		C MR398-CD A	
MATERIAL		COMMENTS:		SCALE: 1:1 WEIGHT: SHEET 1 OF 1	
FINISH					
DO NOT SCALE DRAWING					

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	NEW RELEASE	7-29-13	RGB



PART NUMBER ORDERING CODE

MR398-JBPC - D D

CONNECTOR TYPE
D - ODVA LC-DUPLEX

1 WARNING: KEEP CONNECTOR COVERS IN PLACE DURING STORAGE, TO PROTECT FIBER OPTIC INTERFACES.

NOTES: UNLESS OTHERWISE SPECIFIED

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		DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: ± .5° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.005 FOUR PLACE DECIMAL ±.0010	DRAWN	R BOYER	7-29-13	TITLE: JUNCTION BOX, ODVA-ODVA	
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			ENG APPR.				
			MFG APPR.				
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		MATERIAL					
		FINISH					
		DO NOT SCALE DRAWING					
					SIZE	DWG. NO.	REV
				C	MR398-DD	A	
				SCALE: 1:1	WEIGHT:	SHEET 1 OF 1	