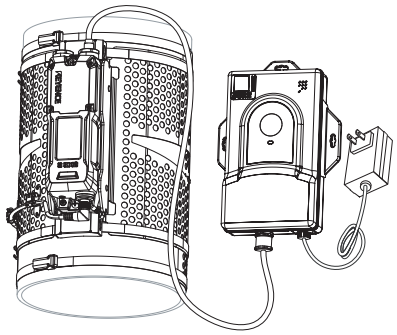
Location:

SYMMONS® Evolution



EVOFR200KIT, EVOFR300KIT, EVOFR500KIT, EVOFR800KIT
Evolution Flow Sensor Module, Clamp-on Meter
Installation Guide

Model Numbers

☐	**EVOFR200KIT**	FLOW SENSOR, Clamp-on Meter, 1-1/2 to 2"
☐	**EVOFR300KIT**	FLOW SENSOR, Clamp-on Meter, 2-1/2 to 3"
☐	**EVOFR500KIT**	FLOW SENSOR, Clamp-on Meter, 4" to 5"
☐	**EVOFR800KIT**	FLOW SENSOR, Clamp-on Meter, 6" to 8"

Repair Parts

☐	**EVOAPWR24**	Replacement Power Supply 24VDC

Feature Highlights

- Flow Sensor Meter
- 24V DC Power Supply 60"
- 30 Foot M12 Cable
- Clamp-On Meter - Pipe Sizes ranging from 1-1/2" to 8" - Please see "Supported Pipe Diameter" Chart on dimension page for appropriate sizing.

Warranty

Limited Lifetime - to the original end purchaser in consumer/residential installations.
10 Years - for commercial/industrial installations. Refer to www.symmons.com/warranty for complete warranty information.

Compliance

- IC: 24889-WW08189
- FCC ID: 2ASQP-WW08189

This device complies with part 15 of the FCC Rules.

Architectural/ Engineering Specification

Symmons Evolution EVOFR200KIT, EVOFR300KIT, EVOFR500KIT, EVOFR800KIT Includes flow sensor module, 24 V DC power supply, 30 foot M12 cable, and clamp-on meter (pipe sizes ranging from 1-1/2” to 8”). 10 Year Commercial Warranty. FCC rules compliant.

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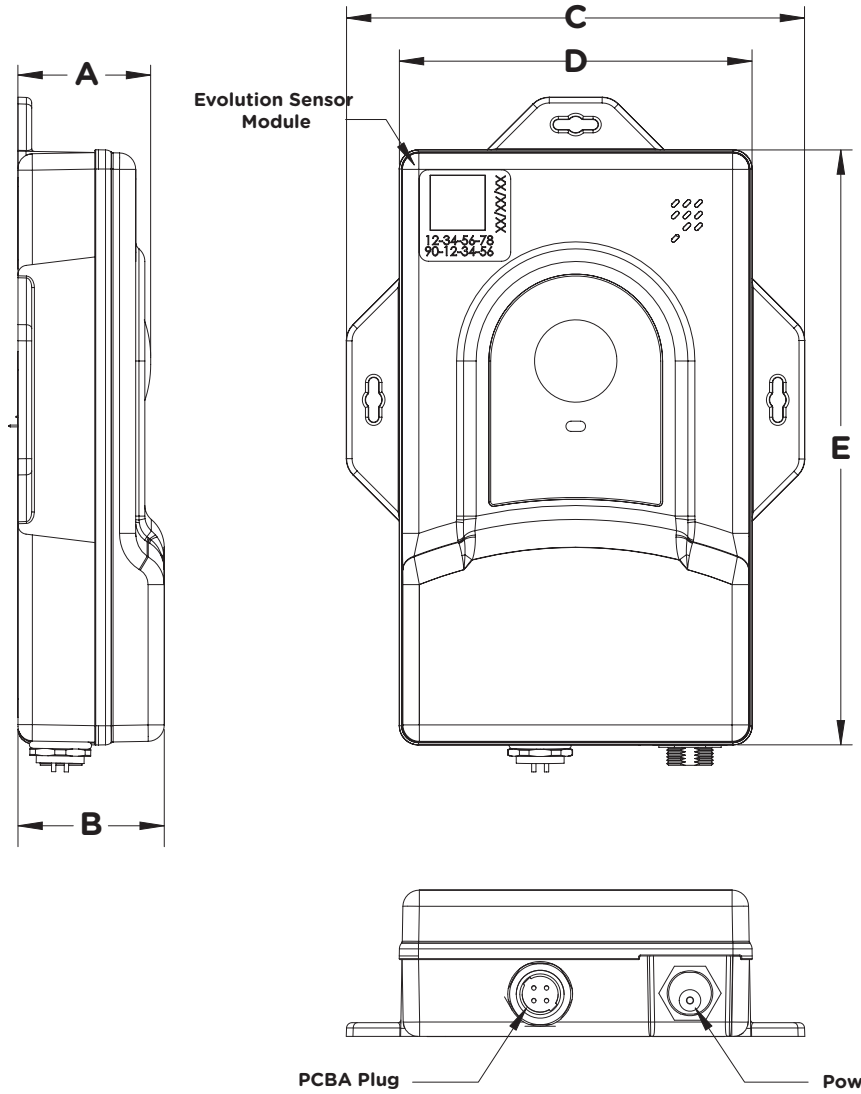
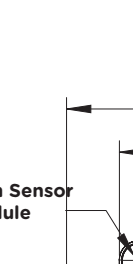
SYMMONS® Evolution

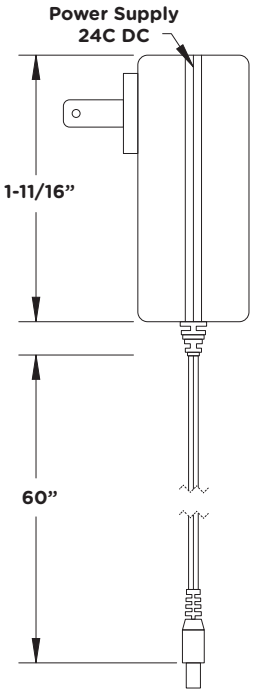
EVOFR200KIT, EVOFR300KIT, EVOFR500KIT, EVOFR800KIT

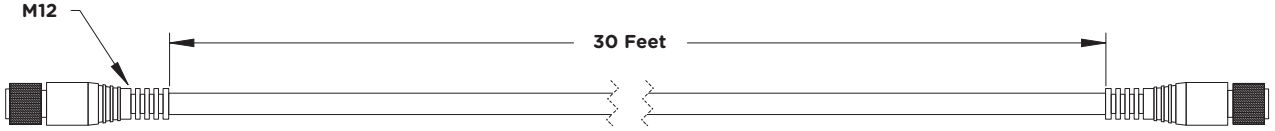
Dimensions - Flow Sensor (Included in Kit)

Measurement	
A	1-7/16″
B	1-5/8″
C	5″
D	3-7/8″
E	6-1/2″









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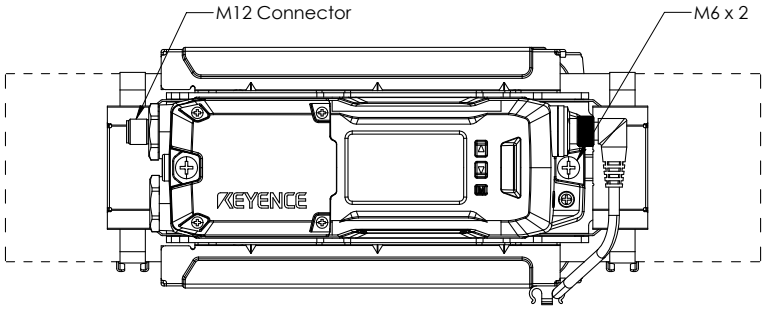
SYMMONS® Evolution

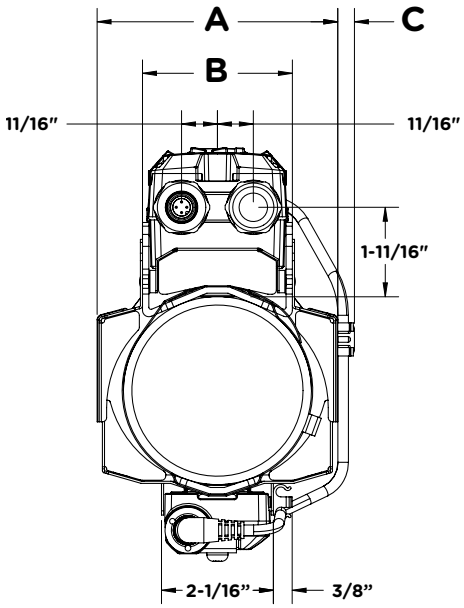
EVOFR200KIT, EVOFR300KIT, EVOFR500KIT,
EVOFR800KIT

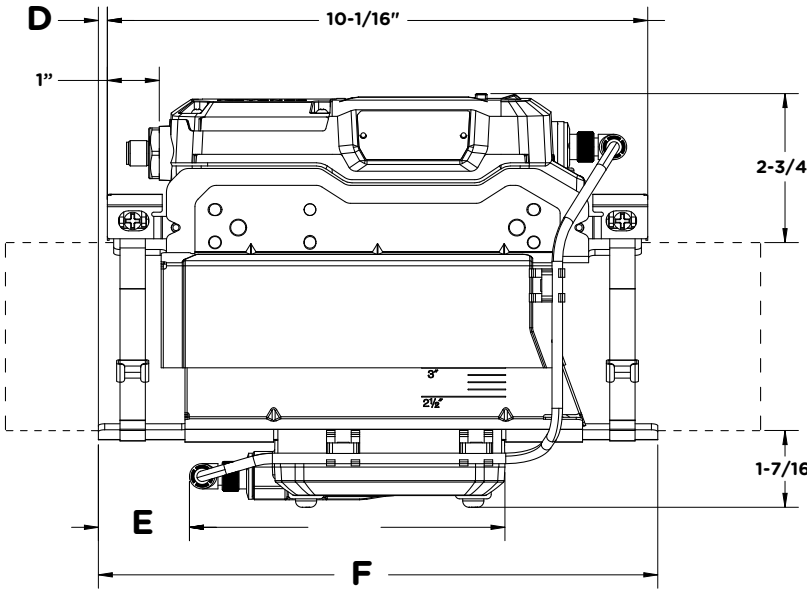
Dimensions - EVOFR200KIT & EVOFR300KIT Clamp On Meter (Included in Kit)

Clamp on Meter Dimensions (mm)						
Model	**A**	**B**	**C**	**D**	**E**	**F**
EVOFR200KIT	76mm	71mm	0mm	-7.9 to -1.1 1-1/2″ (40A): -2.6 2″ (50A): -6.7	(4.4)	247mm
EVOFR300KIT	114mm	73mm	7.9mm	-1.6 to 14.1 2-1/2″ (65A): 9.3 3″ (80A): 4.3	(43.2)	265mm

* The Correct Orientation is one in which the upper bracket is to the right of the lower bracket







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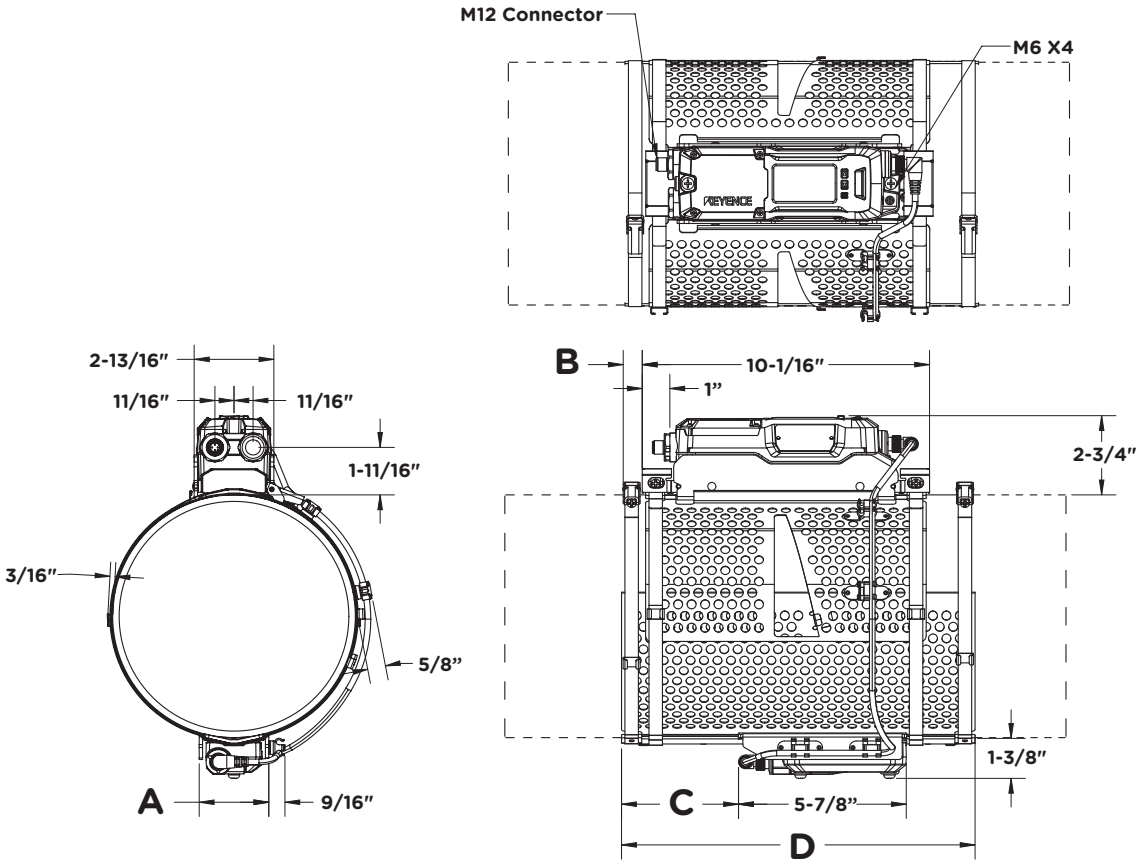
SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT,
EVOFR800KIT

Dimensions - EVOFR500KIT & EVOFR800KIT Clamp On Meter (Included in Kit)

Clamp on Meter Dimensions (mm)				
Model	**A**	**B**	**C**	**D**
EVOFR500KIT	57mm	14.1 to 34.6 4″ (100A): 29 5″ (125A): 19	76.9mm	306mm
EVOFR800KIT	62mm	17.1 to 42.9 6″ (150A): 37.6 8″ (200A): 18.5	56mm	315mm

* The Correct Orientation is one in which the upper bracket is to the right of the lower bracket



Supported Pipe Diameter								
Model	**EVOFR200KIT**		**EVOFR300KIT**		**EVOFR500KIT**		**EVOFR800KIT**	
Outer Diameter (mm)	Ø44 to Ø55	Ø55 to Ø64	Ø64 to Ø83	Ø83 to Ø100	Ø100 to Ø127	Ø127 to Ø152	Ø152 to Ø191	Ø191 to Ø220
NPS (Nominal Pipe Size)	1-1/2″	2″	2-1/2″	3″	4″	5″	6″	8″
DN (Diameter Nominal)	40 A	50 A	65 A	80 A	100 A	125 A	150 A	200 A

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SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT,
EVOFR800KIT

Installation Training Checklist

Install Gateway

1. Open the Box and Find a location to plug in the Gateway
2. Unpack, assemble, and plug Gateway to 120VAC Supply

Setup Custom on Evolution App

3. Creates and Configure Customer Property
4. Creates Customer account and send Email Invitation
5. Customer Logs into water.symmons.com
6. Download the Evolution App for iOS or Android and Sign-In
7. Scan Gateway QR Code and Complete App Steps

Install Temperature Sensor

8. Plug a Temperature Probe into a Sensor Module and Turn ON
9. Install Temperature Sensor
10. Scan Temperature Sensor Module and Complete App Steps

Install Pipe Clamp-On Flow Sensor

11. Plug Clamp-on Keyence Sensor Probe into Sensor Module and plug power supply into a 120VAC outlet
12. Install Clamp-on Flow Sensor onto pipe
13. Scan Sensor Module and Complete App Steps

Configure System

14. Setup Other Users
15. Configure Alerts
16. Set Meeting for System follow-up (1-2 weeks from Training)

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SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT, EVOFR800KIT

Install Gateway

1. Location

Find a central location for the Gateway. Location should be a secure area not enclosed in metal. Recommended locations include:

Mechanical Room

Admin. Office

Front Desk

1. Connect Gateway Hardware

A. Locate Gateway, Power Adapter, (1x) Thin Antenna, (2x) Wide Antennas

B. Connect Antennas and Power Adapter to the back of the Gateway

Note: After plugging the Gateway power adapter into an outlet, it could take a few minutes to boot up.

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SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT,
EVOFR800KIT

Customer App Setup

1. Create and Configure Customer Property
2. Create Customer account & send Email Invitation
3. Customer Logs into water.symmons.com
4. Download the Evolution App for iOS or Android and Sign-In

Scan the Provided QR Code with your Smartphone or camera to download the evolution App.

5. Scan Gateway QR Code and Complete In-app Steps

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SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT, EVOFR800KIT

Installation - Pipe Clamp-On Flow Sensor

Tools Required

- Philips-head screwdriver
- The pipe measuring kit include in welcome pack
- Measuring tape to check mounting clearances

1. Setup Custom on Evolution App

A. Determine which sensor for your pipe size,

Supported Pipe Diameter								
Model	**EVOFR200KIT**		**EVOFR300KIT**		**EVOFR500KIT**		**EVOFR800KIT**	
Outer Diameter (mm)	Ø44 to Ø55	Ø55 to Ø64	Ø64 to Ø83	Ø83 to Ø100	Ø100 to Ø127	Ø127 to Ø152	Ø152 to Ø191	Ø191 to Ø220
NPS (Nominal Pipe Size)	1-1/2″	2″	2-1/2″	3″	4″	5″	6″	8″
DN (Diameter Nominal)	40 A	50 A	65 A	80 A	100 A	125 A	150 A	200 A

2. Find the best location to mount.

A. The sensor connects to the module box with either a 10-foot or 30-foot cable and the module box has a 4-foot power cable that must be plugged into an electrical outlet.

B. Select a section of a straight pipe that is clean with no insulation, rust, or seams. If there is insulation on the pipe, cut away a space slightly larger then the sensor.

C. Look for a pipe that is horizontal or is vertical with an upward flow

D. There are two different types of brackets. FD-Q for smaller pipes and FD-R for larger pipes.

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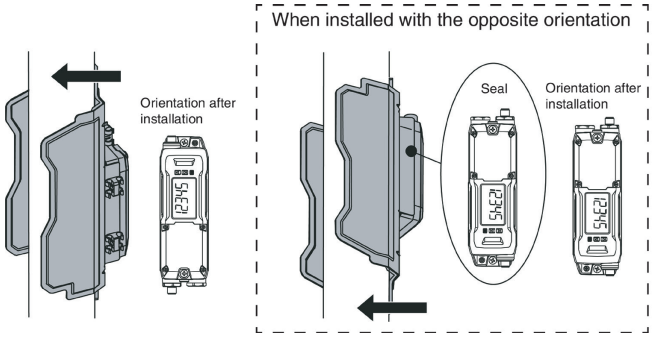
SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT,
EVOFR800KIT

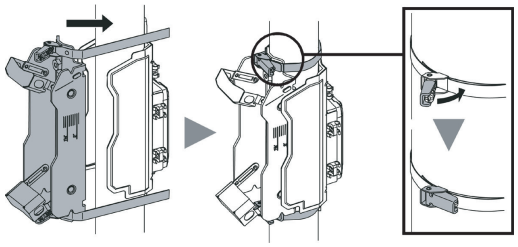
Installation - Pipe Clamp-On Flow Sensor EVOFR200KIT & EVODFR300KIT

3. Mounting EVOFR200KIT and EVOFR300KIT

A. Determine the installation orientation of the lower bracket. The orientation of the main unit's display is determined by the installation orientation of the lower bracket.

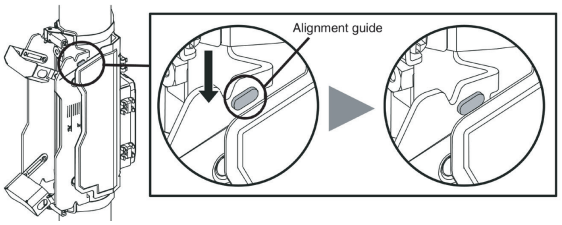


B. Attach the lower bracket and the upper bracket so that they are pressed against the pipe, and then use the metal belts to lightly fix these brackets in place.

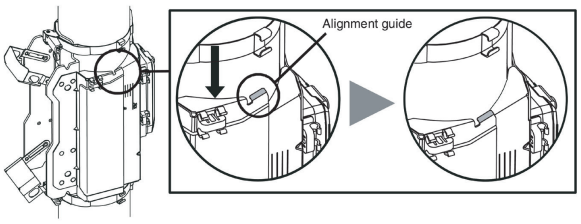


C. Adjust the position of the upper bracket to align the alignment guide with the lower bracket.

- **FD-R50**

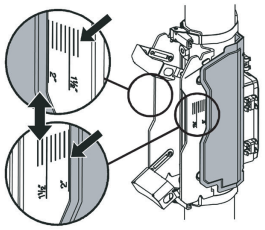


- **FD-R80**

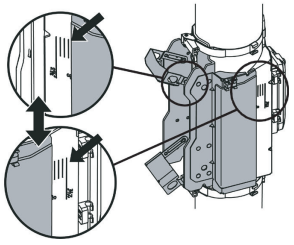


D. Adjust the position of the upper bracket so that the scale position is the same on the left and right.

- **FD-R50**



- **FD-R80**



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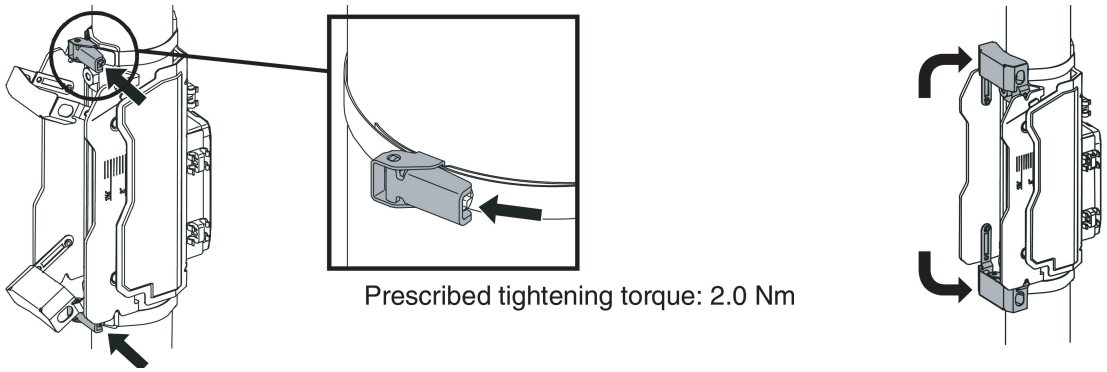
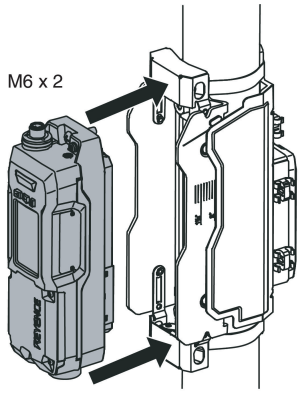
Installation - Pipe Clamp-On Flow Sensor EVOFR200KIT & EVODFR300KIT (Cont'd)

E. Firmly tighten the metal belt screws and close the screw covers

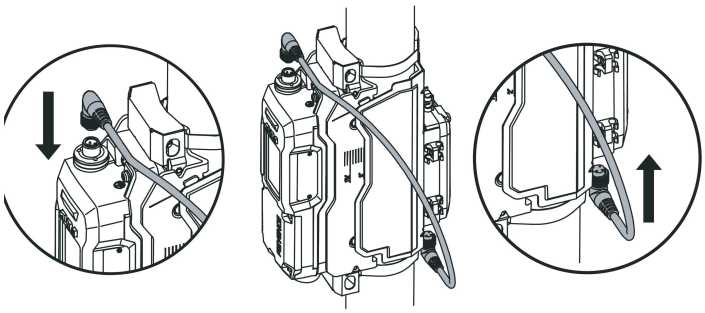


F. Fix the main unit in place on the upper bracket.



Prescribed tightening torque: 2.0 Nm

G. Connect the unit connection cable to the main unit and subunit. Fix the unit connection cable to the cable holders.



Recommended tightening torque: 0.8 Nm

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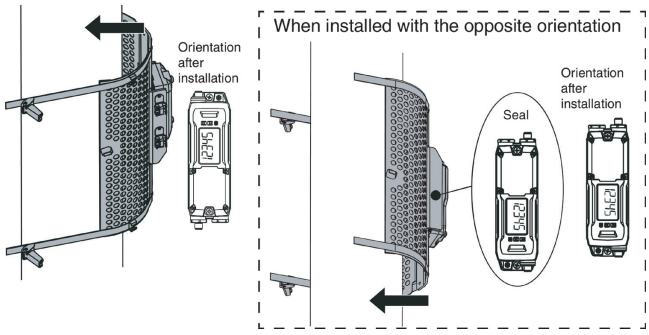
SYMMONS® Evolution

EVOFR200KIT, EVOFR300KIT, EVOFR500KIT,
EVOFR800KIT

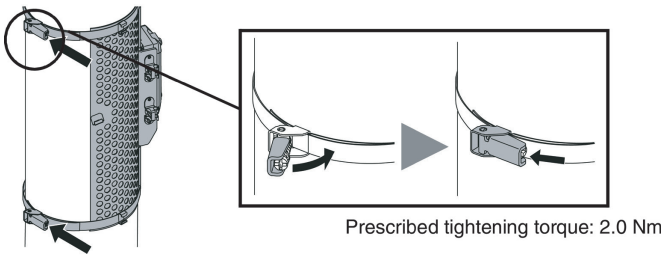
Installation - Pipe Clamp-On Flow Sensor EVOFR500KIT & EVODFR800KIT

3. Mounting EVOFR500KIT and EVOFR800KIT

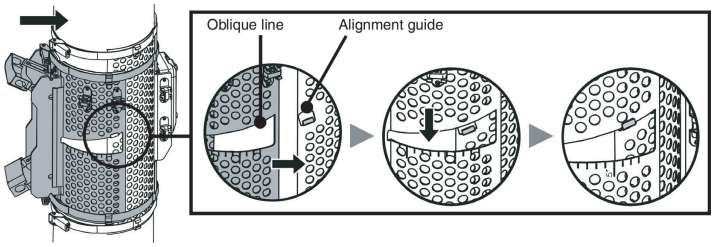
A. Determine the installation orientation of the lower bracket. The orientation of the main unit's display is determined by the installation orientation of the lower bracket.



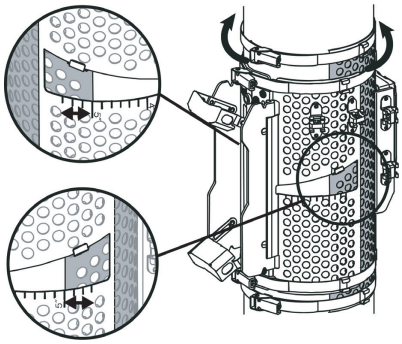
B. Use the metal belt to attach the lower bracket to the pipe.

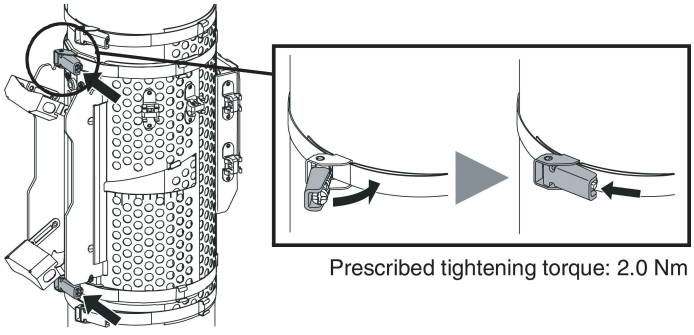


C. Attach the upper bracket so that the left and right alignment guides are aligned with the upper bracket.



D. Adjust the position of the upper bracket so that the scale position is the same on the left and right. Firmly tighten the metal belt screws





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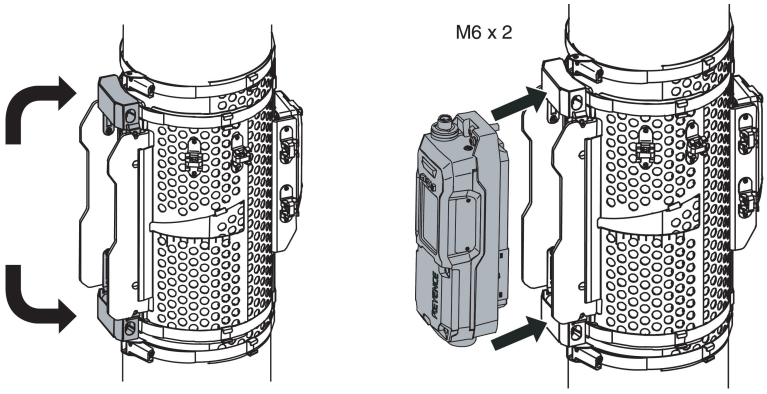
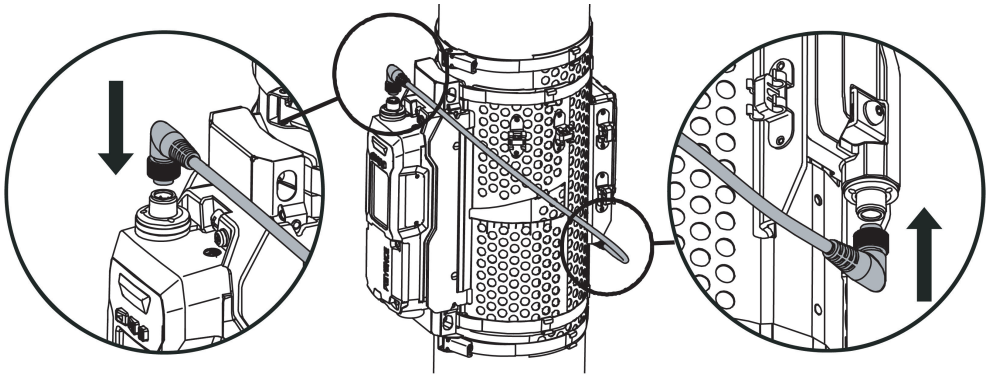
Installation - Pipe Clamp-On Flow Sensor EVOFR500KIT & EVODFR800KIT (Cont'd)

E. Close the screw covers and fix the main unit in place on the upper bracket.



Prescribed
tightening torque: 2.0 Nm

F. Connect the unit connection cable to the main unit and sub unit and fix the cable to the cable holders.



Recommended tightening torque: 0.8 Nm

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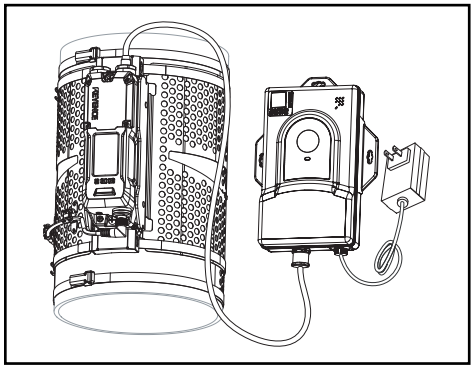
Installation - Pipe Clamp-On Flow Sensor & Module (Cont'd II)

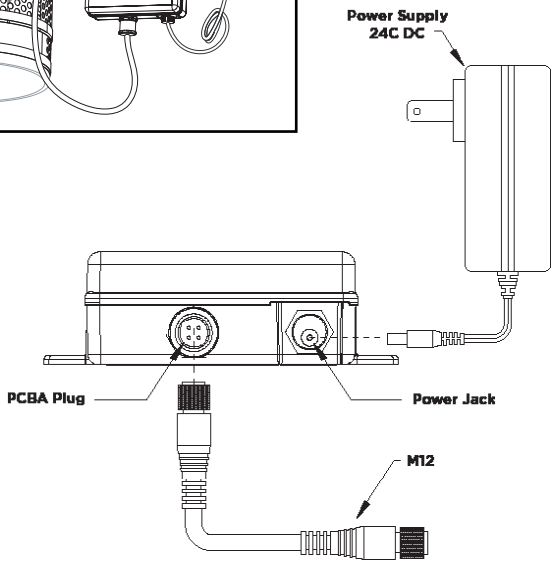
4. Mounting Sensor Module

A. These modules have a 4-foot power cord so find a location that is within reach where the box will be accessible and visible. The boxes are splash proof but not waterproof so find a dry place.

B. The modules can be mounted by either screwing it into a wall or but using cable ties to attach them to an insulated pipe, bracket, or hanger.

C. Plug the cable from the flow sensor into the sensor module. Once the connector is plugged in, spinning the locking ring until it locks into place.

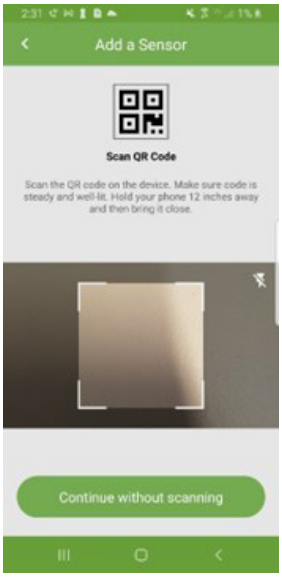




4. Sensor Module App Setup

A. Scan Sensor Module QR Code

B. Complete App Steps



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