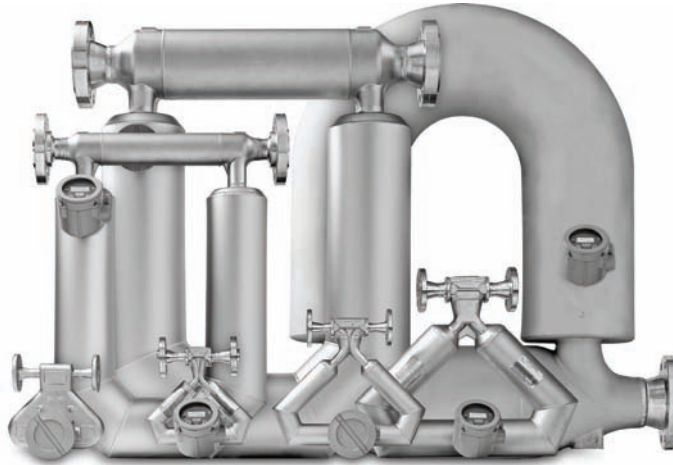


Product Data Sheet

PS-00374, Rev. I
August 2007

Micro Motion® ELITE® Coriolis Flow and Density Meters

Micro Motion® ELITE® Coriolis meters are the leading precision flow and density measurement solutions. ELITE meters offer the most accurate and repeatable measurement available for liquids, gases, or slurries.



Best precision flow and density measurement

- Unique design delivers unparalleled measurement sensitivity and stability
- Guarantees consistent, reliable performance over the widest flow range
- In-situ meter verification delivers fast, actionable, simplified performance checks

Superior performance in the most challenging applications

- Industry standard for custody transfer and critical process control
- Best two-phase flow capability for batching, loading, and entrained air applications
- Immune to fluid, process, or environmental effects for superb measurement confidence

ELITE® Peak performance Coriolis meter

F-Series High performance compact drainable Coriolis meter

H-Series Hygienic compact drainable Coriolis meter

T-Series Straight tube full-bore Coriolis meter

R-Series General purpose flow-only Coriolis meter

LF-Series Extreme low-flow Coriolis meter



Micro Motion ELITE flow and density meters

Micro Motion Coriolis meters meet a vast range of application needs, ranging from extreme low-flow up to high-flow, high-capacity lines. Cryogenic, hygienic, high-temperature, and high-pressure— Micro Motion meters can handle them all. Micro Motion meters are available with a variety of wetted parts to ensure the best material compatibility.

Coriolis meters. Coriolis meters offer dramatic benefits over traditional volumetric measurement technologies. Coriolis meters:

- Deliver accurate and repeatable process data over a wide range of flow rates and process conditions.
- Provide direct inline measurement of mass flow and density, and also measure volume flow and temperature—all from a single device.
- Have no moving parts, so maintenance costs are minimal.
- Have no requirements for flow conditioning or straight pipe runs, so installation is simplified and less expensive.
- Provide advanced diagnostic tools for both the meter and the process.

ELITE Coriolis meters. Micro Motion ELITE meters are the leading meters for precision flow and density measurement. ELITE meters offer the most accurate measurement available for virtually any process fluid, while exhibiting exceptionally low pressure drop. Every ELITE meter features standard secondary containment, and is available with stainless steel or nickel-alloy wetted parts and a wide variety of process connections to meet your every need.

Now with in-situ meter verification, ELITE delivers the best in measurement and ease of use for critical applications. ELITE meters offer the best measurement performance for mass, density, and volume, regardless of process or environmental conditions. ELITE meters provide measurement capability for two-phase flow, liquid, and gas custody transfer, and process conditions from $-400\text{ }^{\circ}\text{F}$ ($-240\text{ }^{\circ}\text{C}$) to $662\text{ }^{\circ}\text{F}$ ($350\text{ }^{\circ}\text{C}$).

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Micro Motion ELITE flow and density meters



Best precision flow and density measurement

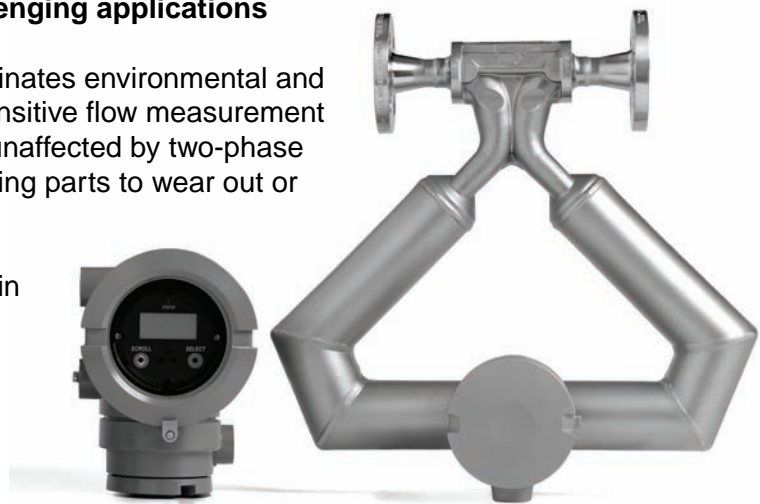
Micro Motion ELITE meters are the leading meters for precision flow and density measurement. ELITE meters are ideal for custody transfer and critical process control with unprecedented mass, volume, and density performance on liquids, gases, and slurries. ELITE meters have exceptional rangeability or turndown with a 20:1 flat spec at $\pm 0.05\%$ on liquid and $\pm 0.35\%$ on gas.

Broadest range of application coverage

ELITE meters are available to fit an extremely wide range of line sizes. Every ELITE meter features standard secondary containment, and is available with stainless steel or nickel alloy wetted parts and a wide variety of process connections to meet your process needs. The electronics options available with ELITE meters fit a wide range of control systems and installation needs—including 4–20 mA, HART, PROFIBUS, Modbus, Foundation fieldbus™, and more.

Superior performance in the most challenging applications

The robust design of the ELITE meter eliminates environmental and process effects while delivering the most sensitive flow measurement in the industry. Measurement accuracy is unaffected by two-phase flow or entrained air, and there are no moving parts to wear out or break down, which translates into minimal maintenance costs. Now with in-situ meter verification, ELITE meters deliver the best in measurement and ease of use for critical applications.



Liquid flow performance

		Mass		Volume ⁽¹⁾			
		lb/min	kg/h	gal/min	l/h	bbl/hr	m ³ /h
Maximum flow rate	CMF010	4	108	0.4	108		
	CMF025	80	2180	10	2180		
	CMF050	250	6800	30	6800		
	CMF100	1000	27,200	120	27,200		
	CMF200	3200	87,100	385	87,100	550	87
	CMF300	10,000	272,000	1200	272,000	1700	272
	CMF400	20,000	545,000	2400	545,000	3400	545
Mass and volume flow accuracy⁽²⁾⁽³⁾	Model 2400S transmitter or enhanced core processor	±0.05% of rate ⁽⁴⁾⁽⁵⁾					
	Transmitter with MVD technology	±0.10% of rate ⁽⁶⁾					
	All other transmitters	±0.10% ±[(zero stability / flow rate) × 100]% of rate					
Mass and volume flow repeatability	Model 2400S transmitter or enhanced core processor	±0.025% of rate ⁽⁴⁾⁽⁵⁾					
	Transmitter with MVD technology	±0.05% of rate ⁽⁶⁾					
	All other transmitters	±0.05% ±[½(zero stability / flow rate) × 100]% of rate					
Zero stability		lb/min	kg/h				
	CMF010	0.000075	0.002				
	CMF010P	0.00015	0.004				
	CMF025	0.001	0.027				
	CMF050	0.006	0.163				
	CMF100	0.025	0.680				
	CMF200	0.08	2.18				
	CMF300	0.25	6.80				
CMF400	1.50	40.91					

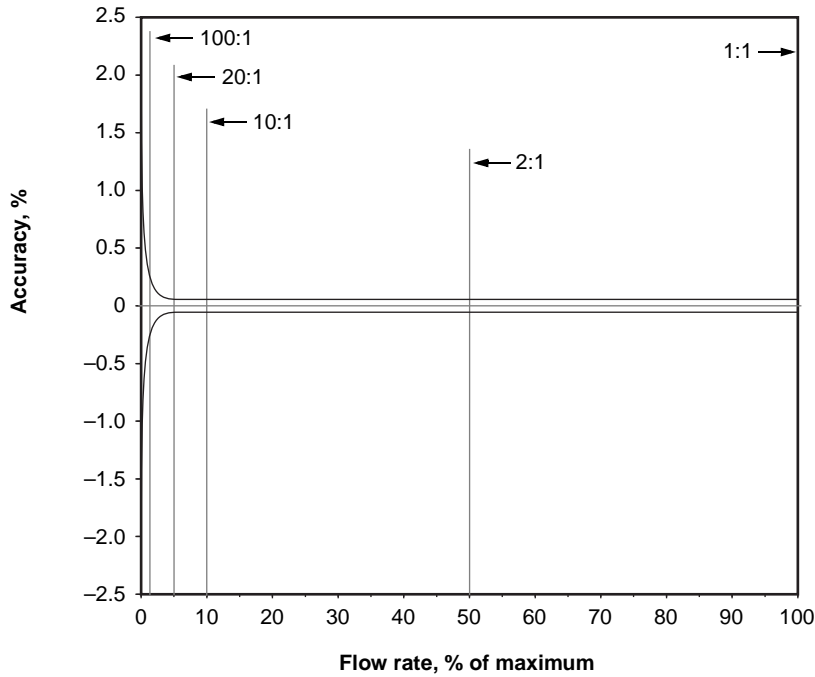
- (1) Specifications for volumetric flow rate are based on a process-fluid density of 1 g/cm³ (1000 kg/m³). For fluids with density other than 1 g/cm³ (1000 kg/m³), the volumetric flow rate equals the mass flow rate divided by the fluid's density.
- (2) Stated flow accuracy includes the combined effects of repeatability, linearity, and hysteresis. All specifications for liquids are based on reference conditions of water at 68 to 77 °F (20 to 25 °C) and 15 to 30 psig (1 to 2 bar), unless otherwise noted.
- (3) The calibration option for ±0.05% flow accuracy is not available with high-temperature sensor models.
- (4) When flow rate is less than zero stability / 0.0005, accuracy = ±[(zero stability / flow rate) × 100]% of rate, and repeatability = ±[½(zero stability / flow rate) × 100]%.
When flow rate is less than zero stability / 0.001, accuracy = ±[(zero stability / flow rate) × 100]% of rate, and repeatability = ±[½(zero stability / flow rate) × 100]%.
When flow rate is less than zero stability / 0.001, accuracy = ±[(zero stability / flow rate) × 100]% of rate and repeatability = ±[½(zero stability / flow rate) × 100]% of rate.
- (5) When ordered with the ±0.10% factory calibration option, accuracy on liquid = ±0.10% when flow rate ≥ zero stability / 0.001. When flow rate < zero stability / 0.001, accuracy = ±[(zero stability / flow rate) × 100]% of rate and repeatability = ±[½(zero stability / flow rate) × 100]% of rate.
- (6) When flow rate is less than zero stability / 0.001, accuracy = ±[(zero stability / flow rate) × 100]% of rate and repeatability = ±[½(zero stability / flow rate) × 100]% of rate.

Liquid flow performance *continued*

Typical accuracy, turndown, and pressure drop with CMF100 and 2400S transmitter or enhanced core processor

The graph below is an example of the relationship between accuracy, turndown, and pressure drop when measuring the flow of water with a Model CMF100 sensor and Model 2400S transmitter or enhanced core processor.

Actual pressure drop is dependent on process conditions. To determine accuracy, turndown, and pressure drop with your process variables, use the Micro Motion product selector, available at www.micromotion.com.



<i>Turndown from maximum flow rate</i>	<i>500:1</i>	<i>100:1</i>	<i>20:1</i>	<i>10:1</i>	<i>2:1</i>
Accuracy ($\pm\%$)	1.25	0.25	0.05	0.05	0.05
Pressure drop					
<i>psi</i>	~0	~0	0.2	0.7	13.5
<i>bar</i>	~0	~0	0.01	0.05	0.93

Gas flow performance

When selecting sensors for gas applications, measurement accuracy is a function of fluid mass flow rate independent of operating temperature, pressure, or composition. However, pressure drop through the sensor is dependent upon operating temperature, pressure, and fluid composition. Therefore, when selecting a sensor for any particular gas application, it is highly recommended that each sensor be sized using the Micro Motion product selector, available at www.micromotion.com.

	Mass		Volume ⁽¹⁾	
	lb/min	kg/h	SCFM	Nm ³ /h
Flow rates that produce approximately 10 psid (0.68 bar) pressure drop on air at 68 °F (20 °C) and 100 psi (6.8 bar)				
CMF010M, CMF010H	0.30	8	4	6
CMF010P	0.2	6	3	5
CMF025	4	110	60	90
CMF050	10	300	145	230
CMF100	50	1300	640	1000
CMF200	150	4000	2000	3100
CMF300	490	13,300	6500	10,300
CMF400	1250	34,000	16,600	26,250

Flow rates that produce approximately 50 psid (3.4 bar) pressure drop on natural gas (MW 16.675) at 68 °F (20 °C) and 500 psi (34.0 bar)

CMF010M, CMF010H	1	30	30	45
CMF010P	0.9	25	20	35
CMF025	16	450	380	600
CMF050	40	1140	970	1530
CMF100	185	5000	4300	6700
CMF200	560	15,200	13,000	20,500
CMF300	1850	50,500	43,000	68,000
CMF400	4700	128,000	109,000	172,000

Mass flow accuracy⁽²⁾	Transmitters with MVD technology (including Model 2400S)	±0.35% of rate ⁽³⁾
	All other transmitters	±0.50% of rate ±[(zero stability / flow rate) × 100]% of rate

Mass flow repeatability	Transmitters with MVD technology (including Model 2400S)	±0.20% of rate ⁽³⁾
	All other transmitters	±0.25% of rate ±[(zero stability / flow rate) × 100]% of rate

Zero stability Refer to liquid flow specifications on page 4.

(1) Standard (SCFM) reference conditions are 14.7 psia and 68 °F. Normal (Nm³/h) reference conditions are 1.013 bar and 0 °C.

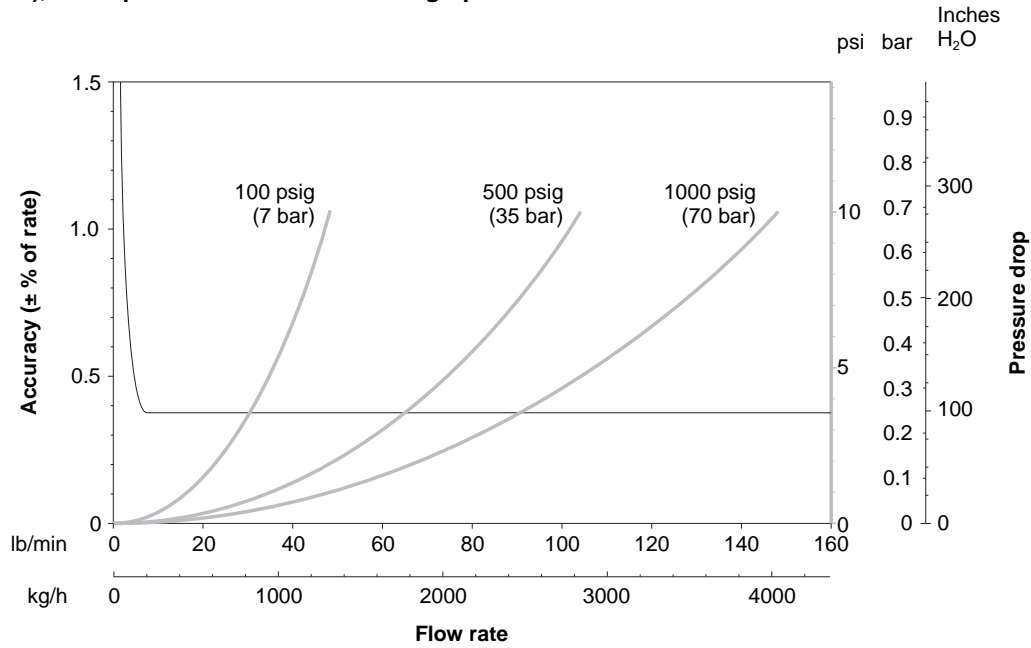
(2) Flow accuracy includes the combined effects of repeatability, linearity, and hysteresis.

(3) When flow rate is less than zero stability / 0.0035, accuracy equals ±[(zero stability / flow rate) × 100]% of rate and repeatability equals ±[½(zero stability / flow rate) × 100]% of rate.

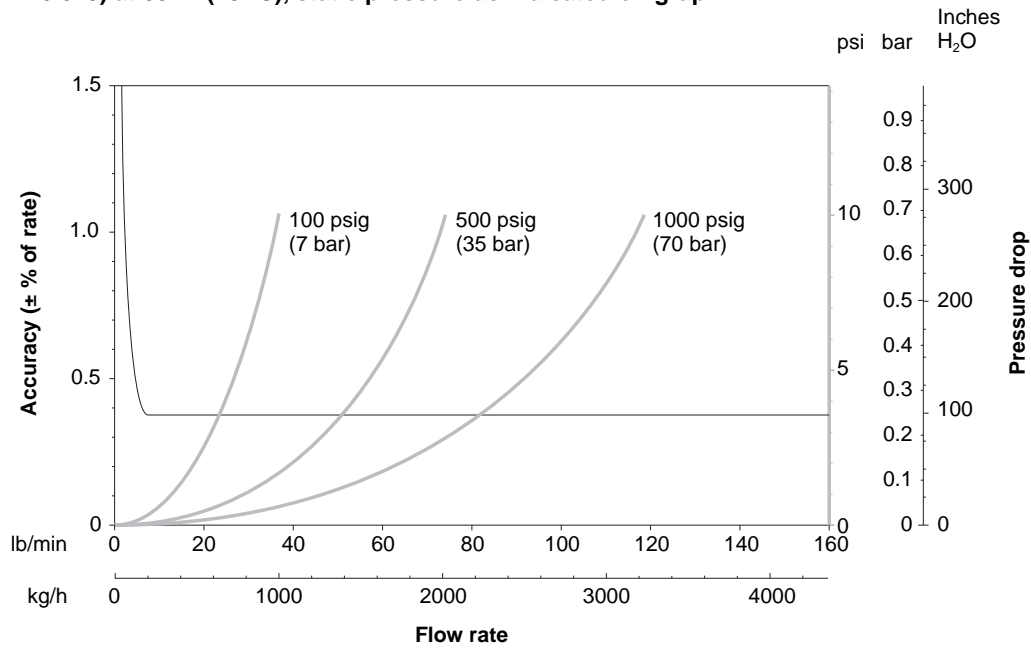
Gas flow performance *continued*

Typical mass flow accuracy and pressure drop with CMF100 and transmitter with MVD technology

Air at 68 °F (20 °C), static pressures as indicated on graph



Natural gas (MW 16.675) at 68 °F (20 °C), static pressure as indicated on graph



Standard or Normal Volumetric Capability

Standard and normal volumes are “quasi mass” flow units for any fixed composition fluid. Standard and normal volumes do not vary with operating pressure, temperature, or density. With knowledge of density at standard or normal conditions (available from reference sources), a Micro Motion meter can be configured to output in standard or normal volume units without the need for pressure, temperature, or density compensation. Contact your local sales representative for more information.

Density performance (liquid only)

		With 2400S transmitter or enhanced core processor		With transmitter with MVD technology (except Model 2400S), standard core processor, or RFT9739 transmitter		With IFT9701 transmitter	
		g/cm ³	kg/m ³	g/cm ³	kg/m ³	g/cm ³	kg/m ³
Accuracy⁽¹⁾	Model CMF010 and high-temperature models	±0.0005	±0.5	±0.0005 ⁽²⁾	±0.5 ⁽²⁾	±0.002 ⁽²⁾	±2.0 ⁽²⁾
	All other models	±0.0002	±0.2	±0.0005	±0.5	±0.002	±2.0
Repeatability	Model CMF010 and high-temperature models	±0.0002	±0.2	±0.0002 ⁽²⁾	±0.2 ⁽²⁾	±0.001 ⁽²⁾	±1.0 ⁽²⁾
	All other models	±0.0001	±0.1	±0.0002	±0.2	±0.001	±1.0
Range	All models	up to 5	up to 5000	up to 5	up to 5000	up to 5	up to 5000

(1) Accuracy includes the combined effects of repeatability, linearity, and hysteresis. Specifications for ±0.0002 g/cm³ (±0.2 kg/m³) density accuracy are based on reference conditions of water at 68 to 140 °F (20 to 60 °C) and 15 to 30 psig (1 to 2 bar). All other accuracy specifications are based on reference conditions of water at 68 to 77 °F (20 to 25 °C) and 15 to 30 psig (1 to 2 bar), unless otherwise noted.

(2) For these combinations of sensors and transmitters, density accuracy and repeatability differ slightly from standard meter performance. Contact Micro Motion for performance data.

Power consumption

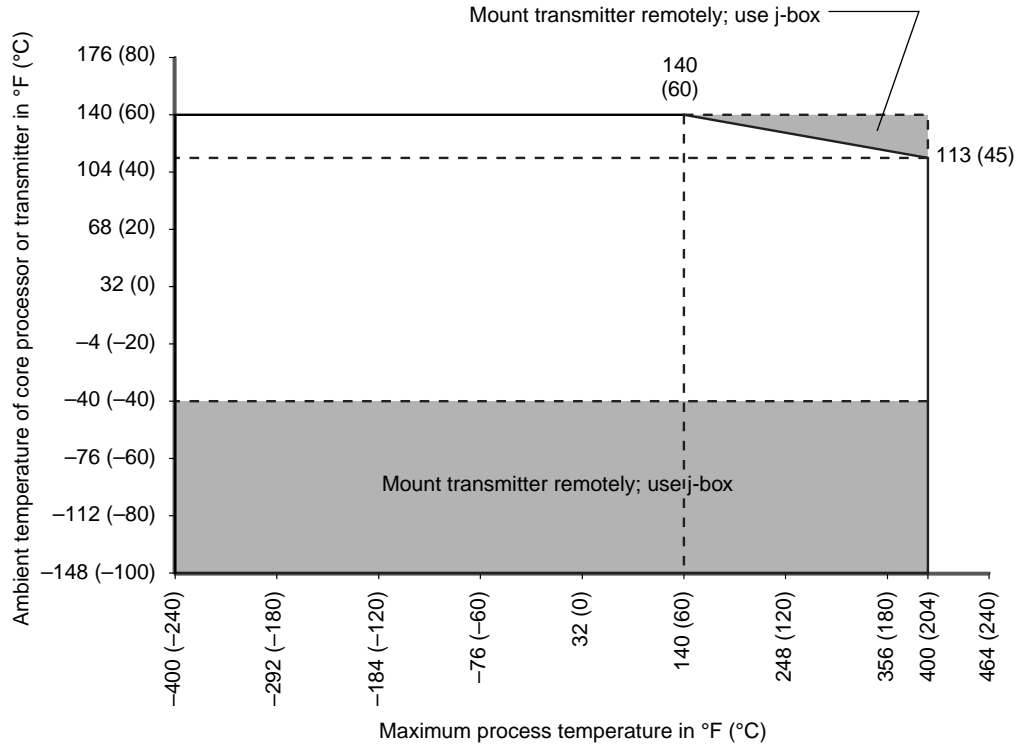
Meter with core processor	4 watts maximum
Meter with Model 2400S transmitter	7 watts maximum
Meter with Model 1700/2700 transmitter	Refer to transmitter documentation

Vibration limits

Meets IEC 68.2.6, endurance sweep, 5 to 2000 Hz, 50 sweep cycles at 1.0 g

Temperature specifications

Accuracy	All models	$\pm 1\text{ }^{\circ}\text{C} \pm 0.5\%$ of reading in $^{\circ}\text{C}$
Repeatability	All models	$\pm 0.2\text{ }^{\circ}\text{C}$
Temperature limits⁽¹⁾	All models except high-temperature models ⁽²⁾	



- * When ambient temperature is below $-40\text{ }^{\circ}\text{F}$ ($-40\text{ }^{\circ}\text{C}$), a core processor or Model 2400S transmitter must be heated to bring its local ambient temperature to between $-40\text{ }^{\circ}\text{F}$ ($-40\text{ }^{\circ}\text{C}$) and $+140\text{ }^{\circ}\text{F}$ ($+60\text{ }^{\circ}\text{C}$). Long-term storage of electronics at ambient temperatures below $-40\text{ }^{\circ}\text{F}$ ($-40\text{ }^{\circ}\text{C}$) is not recommended.
- * For the purposes of selecting electronics options, this graph should be used only as a general guide. If your process conditions are close to the gray areas, it may be inappropriate to use electronics options other than a junction box. Consult with your Micro Motion representative.

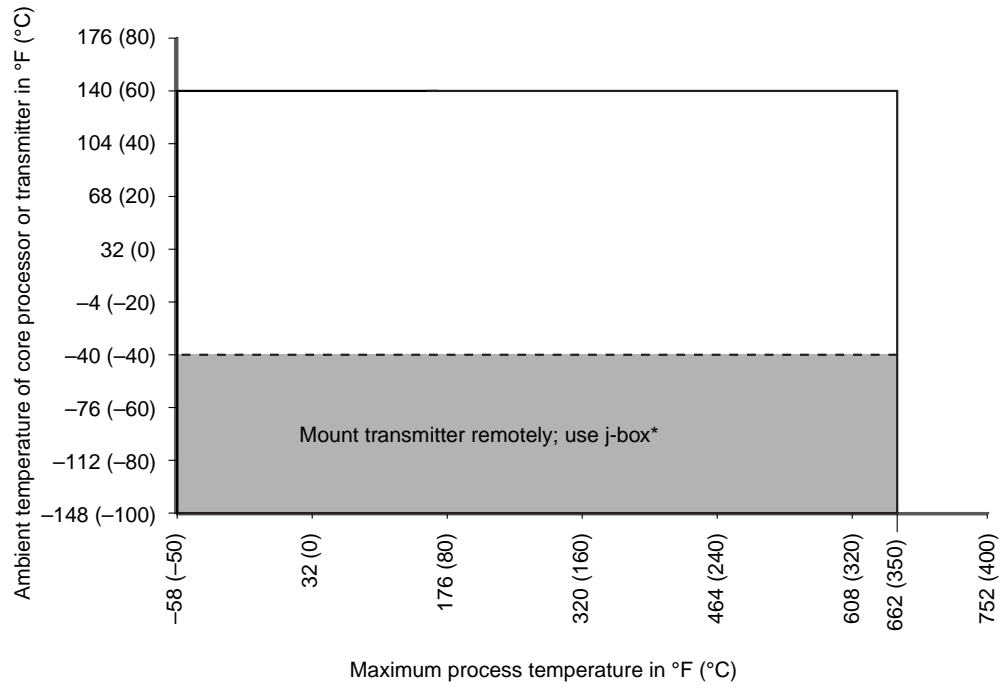
(1) Temperature limits may be further restricted by hazardous area approvals. See pages 13–17.

(2) The extended mount option allows the sensor case to be insulated without covering the transmitter, core processor, or junction box, but does not affect temperature ratings.

Temperature specifications *continued*

Temperature limits⁽¹⁾

High-temperature models



* When ambient temperature is below -40°F (-40°C), a core processor or Model 2400S transmitter must be heated to bring its local ambient temperature to between -40°F (-40°C) and $+140^{\circ}\text{F}$ ($+60^{\circ}\text{C}$). Long-term storage of electronics at ambient temperatures below -40°F (-40°C) is not recommended.

(1) Temperature limits may be further restricted by hazardous area approvals. See pages 13–17.

Pressure ratings

Sensor rating ⁽¹⁾	316L and 304L stainless steel		Hastelloy C-22		High pressure	
	psi	bar	psi	bar	psi	bar
	CMF010	1813	125	3263	225	6000
CMF025	1500	103	2755	190	—	—
CMF050	1500	103	2683	185	—	—
CMF100	1450	100	2465	170	—	—
CMF200	1580	108	2755	190	—	—
CMF300	1730	119	2683	185	—	—
CMF400	1500	103	2855	197	2973	205

PED compliance Sensors comply with council directive 97/23/EC of 29 May 1997 on Pressure Equipment

Housing rating	ASME B31.3 secondary containment rating ⁽²⁾		Burst pressure	
	psi	bar	psi	bar
	CMF010 ⁽³⁾	425	29	3042
CMF025	850	58	5480	377
CMF050	850	58	5286	364
CMF100	625	43	3299	227
CMF200	550	37	2786	192
CMF300	275	18	1568	108
CMF400	250	17	1556	107

(1) Process connection rating may differ from sensor rating. Please choose process connections accordingly.

(2) For operating temperatures above 300 °F (148 °C), pressure needs to be derated as follows. Linear interpolation may be used between values. Process connection derating may differ from sensor rating.

	Flow tubes			Housing
	316L sensors	304L sensors	Hastelloy C-22 sensors	All sensors
up to 300 °F (up to 148 °C)	None	None	None	None
at 400 °F (at 204 °C)	7.2% derating	5.4% derating	None	5.4% derating
at 500 °F (at 260 °C)	13.8% derating	11.4% derating	4.7% derating	11.4% derating
at 600 °F (at 316 °C)	19.2% derating	16.2% derating	9.7% derating	16.2% derating
at 650 °F (at 343 °C)	21.0% derating	18.0% derating	11.7% derating	18.0% derating
at 700 °F (at 371 °C)	22.8% derating	19.2% derating	13.7% derating	19.2% derating
at 750 °F (at 399 °C)	24.6% derating	20.4% derating	15.0% derating	20.4% derating
at 800 °F (at 427 °C)	25.7% derating	22.2% derating	16.3% derating	22.2% derating

(3) Optional rupture disks for high-pressure CMF010P will burst if pressure inside sensor housing reaches 400 psi (27 bar).

Environmental effects

Process temperature effect

Process temperature effect is defined as:

- For mass flow measurement, the worst-case zero offset due to process fluid temperature change away from the zeroing temperature.
- For density measurement, the maximum measurement offset due to process fluid temperature change away from the density calibration temperature.

	Process temperature effect		
	% of maximum flow rate per °C	density accuracy per °C ⁽¹⁾	
		g/cm ³	kg/m ³
CMF010	±0.0001875	±0.000015	±0.015
CMF025	±0.0001250	±0.000015	±0.015
CMF050	±0.0001250	±0.000015	±0.015
CMF100	±0.0001250	±0.000015	±0.015
CMF200	±0.0005000	±0.000015	±0.015
CMF300	±0.0005000	±0.000015	±0.015
CMF400	±0.0007500	±0.000015	±0.015

Pressure effect

Pressure effect is defined as the change in sensor flow and density sensitivity due to process pressure change away from the calibration pressure. Pressure effect can be corrected.

	Pressure effect on flow accuracy			
	% of rate per psi		% of rate per bar	
	<i>liquid</i>	<i>gas</i>	<i>liquid</i>	<i>gas</i>
CMF010	None	None	None	None
CMF025	None	None	None	None
CMF050	None	None	None	None
CMF100	-0.0002	None	-0.003	None
CMF200	-0.0008	-0.0004	-0.012	-0.006
CMF300	-0.0006	-0.0003	-0.009	-0.0045
CMF400	-0.001	-0.0005	-0.015	-0.0075

	Pressure effect on density accuracy	
	g/cm ³ per psi	kg/m ³ per bar
CMF010	None	None
CMF025	0.000004	0.058
CMF050	-0.000002	-0.029
CMF100	-0.000006	-0.087
CMF200	0.000001	0.0145
CMF300	0.0000002	0.0029
CMF400	-0.00001	-0.145

(1) For -100 °C and above.

Hazardous area classifications




UL⁽¹⁾

All models with core processor	Ambient temperature: –40 °F (–40 °C) to +104 °F (+40 °C) Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G
All models with junction box	Ambient temperature: +104 °F (+40 °C) maximum Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G

CSA and CSA C-US⁽²⁾

All models with Model 2400S transmitter	Ambient temperature: –40 °F (–40 °C) to +140 °F (+60 °C) Class I, Div 2, Groups A, B, C and D
All models with core processor or enhanced core processor	Ambient temperature: –40 °F (–40 °C) to +140 °F (+60 °C) Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G
All models with junction box	Ambient temperature: +140 °F (+60 °C) maximum Class I, Div. 1, Groups C and D Class I, Div. 2, Groups A, B, C, and D Class II, Div.1, Groups E, F, and G

ATEX, IECEx, and NEPSI

All models with Model 2400S transmitter	IECEx and NEPSI ATEX	Ex nA II T ⁽³⁾  II 3G Ex nA II T ⁽³⁾ °C II 3D IP65 T ⁽³⁾ °C
CMF010, CMF025, CMF050, and CMF100	IECEx and NEPSI ATEX	Ex ib IIC T ⁽³⁾  II 2G EEx ib IIC T ⁽³⁾ °C II 2D IP65 T ⁽³⁾ °C
CMF200, CMF300, and CMF400	IECEx and NEPSI ATEX	Ex ib IIB T ⁽³⁾  II 2G EEx ib IIB T ⁽³⁾ °C II 2D IP65 T ⁽³⁾ °C

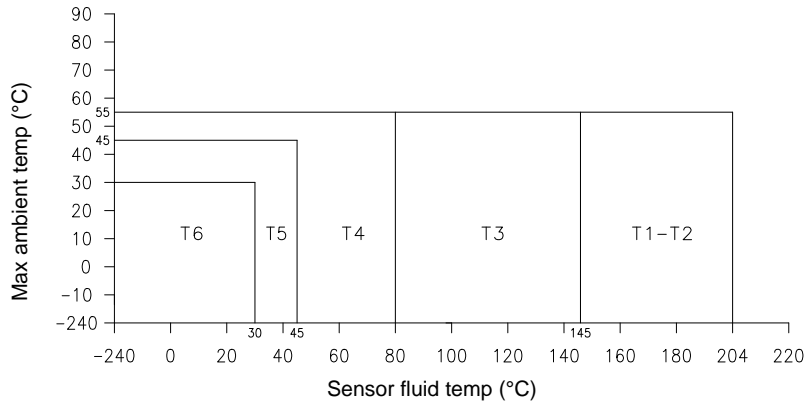
(1) The following products are not available with UL approval: sensors with enhanced core processor or Model 2400S transmitter; high-temperature sensors; extreme high-temperature sensors.

(2) The following products are available only with CSA C-US approval (i.e., not CSA): sensors with enhanced core processor or Model 2400S transmitter; high-temperature sensors; extreme high-temperature sensors.

(3) For ambient and process temperature limits, refer to the temperature graphs on pages 14–17.

Hazardous area classifications *continued*

CMF010, CMF025, or CMF050 with junction box connected to MVD transmitter

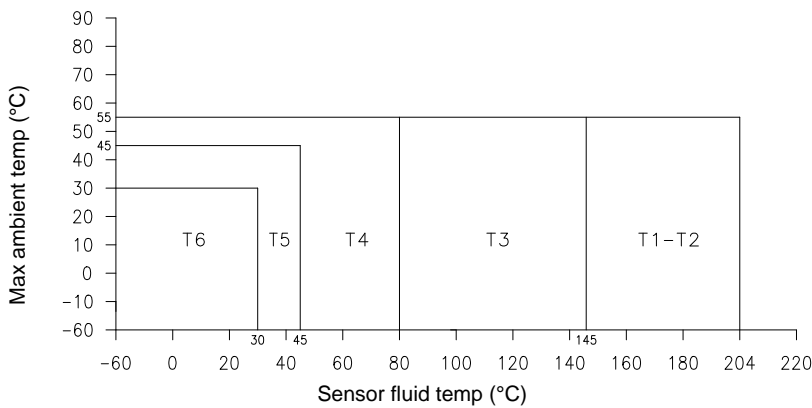


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C. The minimum ambient and process fluid temperature allowed for dust is -40 °C.

The use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range T_a -240 °C to +55 °C

CMF100 with junction box connected to MVD transmitter



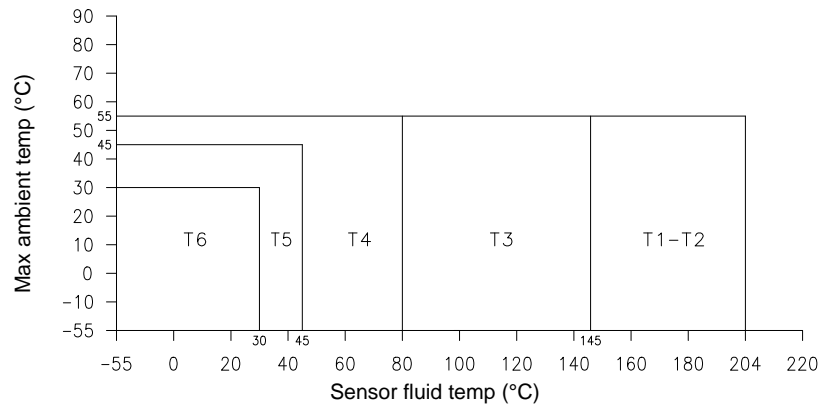
Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254 °C. The minimum ambient and process fluid temperature allowed for dust is -40 °C.

The use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range T_a -60 °C to +55 °C

Hazardous area classifications *continued*

CMF200 or CMF300 with junction box connected to MVD transmitter

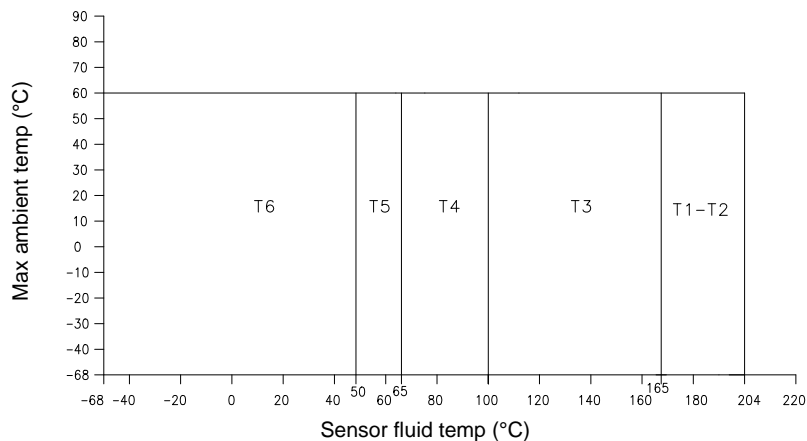


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2 to T1:T 254° C. The minimum ambient and process fluid temperature allowed for dust is -40 °C.

The use of the sensor at an ambient temperature higher than +55 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range T_a -55 °C to +55 °C

CMF400 with junction box connected to MVD transmitter



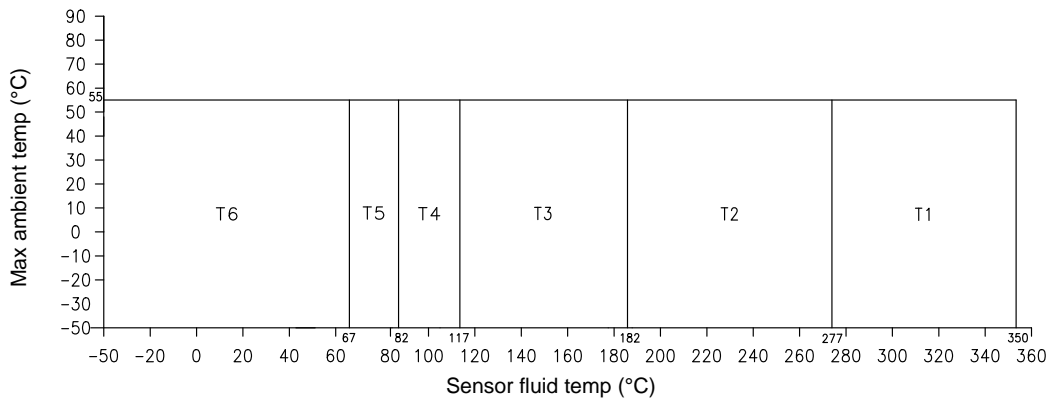
Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: to T1:T 234 °C. The minimum ambient and process fluid temperature allowed for dust is -40 °C.

The use of the sensor at an ambient temperature higher than +60 °C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range T_a -68 °C to +60 °C

Hazardous area classifications *continued*

CMF200A, CMF300A, or CMF400A with junction box connected to MVD transmitter

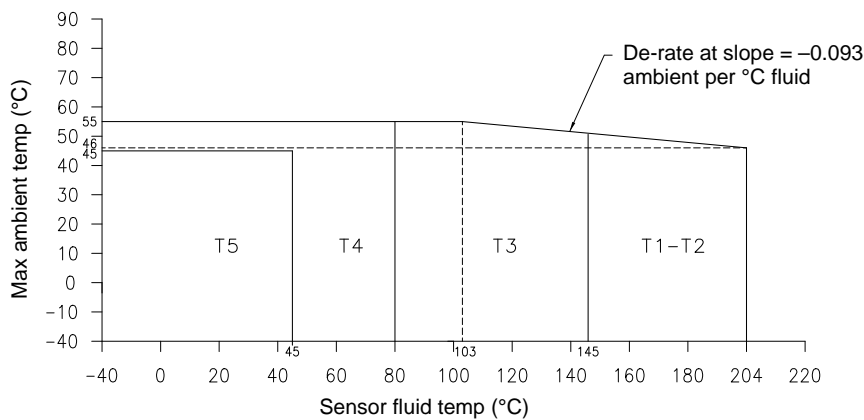


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T6:T 80 °C, T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2:T 290 °C, T1:T 363 °C. The minimum ambient and process fluid temperature allowed for dust is -40 °C.

The use of the sensor at an ambient temperature higher than +55°C is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range T_a -50 °C to +55 °C

CMF010, CMF025, CMF050, CMF100, CMF200 or CMF300 with core processor or enhanced core processor

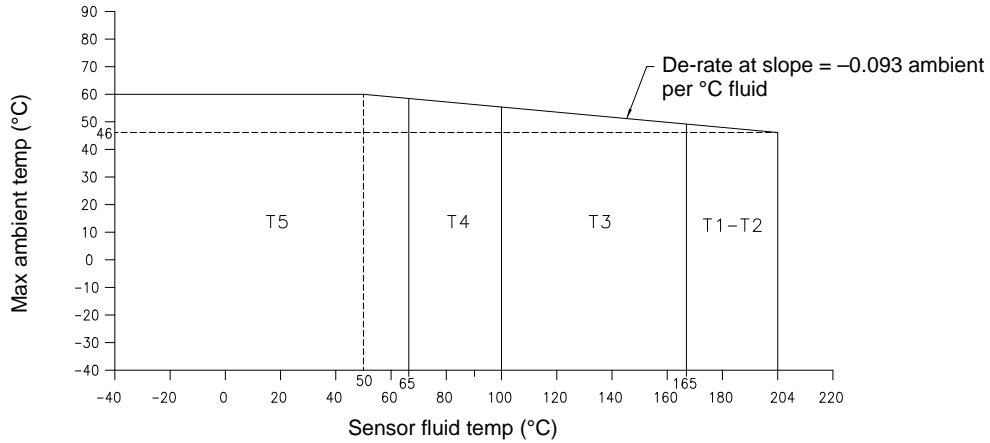


Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95°C, T4:T 130°C, T3:T 195°C, T2 to T1:T 254°C.

Ambient temperature range T_a -40 °C to +55 °C

Hazardous area classifications *continued*

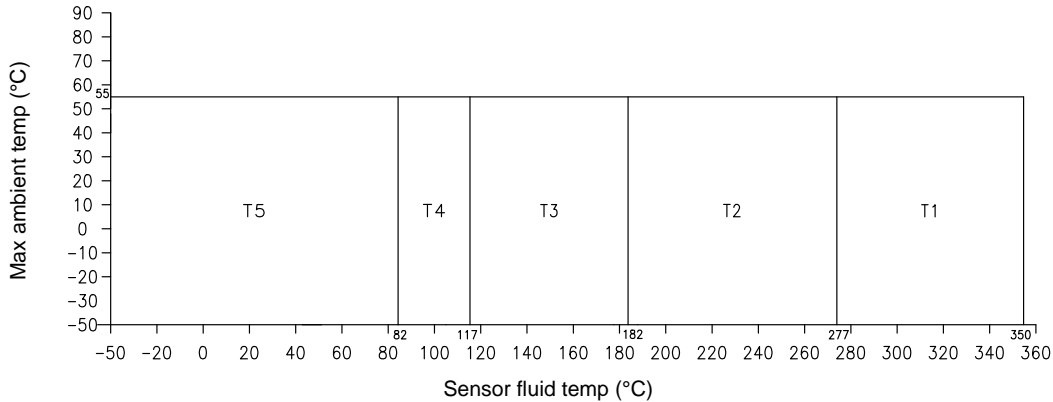
CMF400 with core processor or enhanced core processor



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95°C, T4:T 130°C, T3:T 195°C, T2 to T1:T 234°C.

Ambient temperature range T_a $-40\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$

CMF200A, CMF300A, or CMF400A with core processor, enhanced core processor, or Model 1700/2700 transmitter



Use the above graph to determine the temperature class for a given fluid and ambient temperature. The maximum surface temperature for dust is as follows: T5:T 95 °C, T4:T 130 °C, T3:T 195 °C, T2: T 290 °C, T1:T 363 °C. The minimum ambient and process fluid temperature allowed for dust is $-40\text{ }^{\circ}\text{C}$.

Since the electronics are mounted approx. 1 meter away from the sensor by means of a flexible stainless steel hose, the use of the sensor at an ambient temperature higher than $+55\text{ }^{\circ}\text{C}$ is possible, provided that the ambient temperature does not exceed the maximum temperature of the medium taking into account the temperature classification and the maximum operating temperature of the sensor.

Ambient temperature range T_a $-50\text{ }^{\circ}\text{C}$ to $+55\text{ }^{\circ}\text{C}$

Materials of construction

Wetted parts ⁽¹⁾	Stainless steel	Nickel alloy
All models ⁽²⁾	316L or 304L	Hastelloy C-22
Housing	304L stainless steel	
Junction box	300-series stainless steel ⁽³⁾ or polyurethane-painted aluminum; NEMA 4X (IP65)	
Core processor	300-series stainless steel ⁽³⁾ or polyurethane-painted aluminum; NEMA 4X (IP65)	
Model 2400S transmitter	Polyurethane-painted aluminum or 300-series stainless steel; NEMA 4X (IP65)	

- (1) General corrosion guides do not account for cyclical stress, and therefore should not be relied upon when choosing a wetted material for your Micro Motion sensor. Please refer to the Micro Motion corrosion guide for proper material compatibility information.
- (2) Models CMF010P and CMF400P have nickel alloy tubes and stainless steel fittings. Material compatibility is never better than 316L stainless steel. Refer to the Micro Motion Corrosion Guide for the Micro Motion policy on fixed bi-metallic sensor capability.
- (3) 316L stainless steel is available.

Weight

Weights provided are the weight of the flowmeter with 150 lb weld neck raised face flanges.

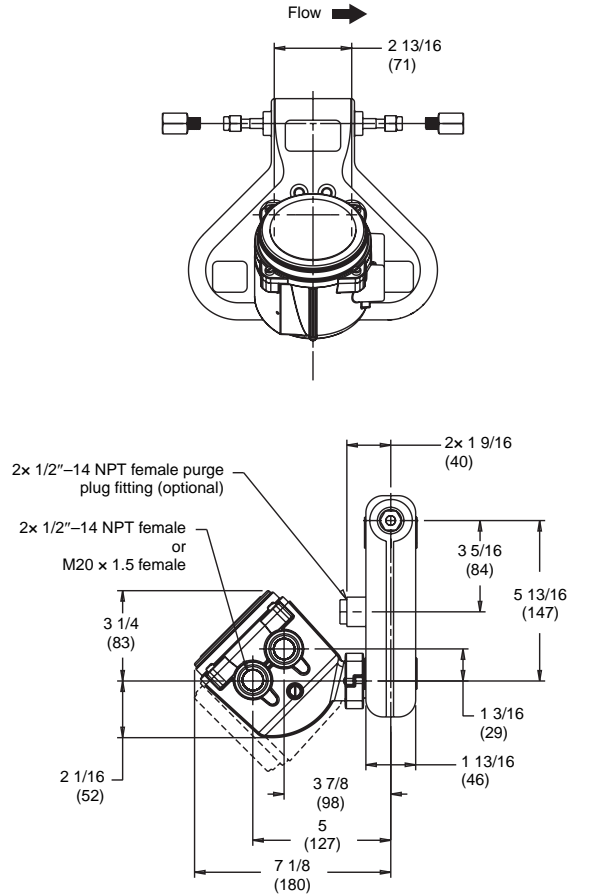
	With junction box		With core processor or Model 2400S transmitter	
	lb	kg	lb	kg
CMF010	14	7	19	9
CMF025	8	4	13	6
CMF050	12	6	17	8
CMF100	29	13	34	16
CMF200	63	29	68	31
CMF300	165	75	170	77
CMF400	441	200	446	202

Dimensions

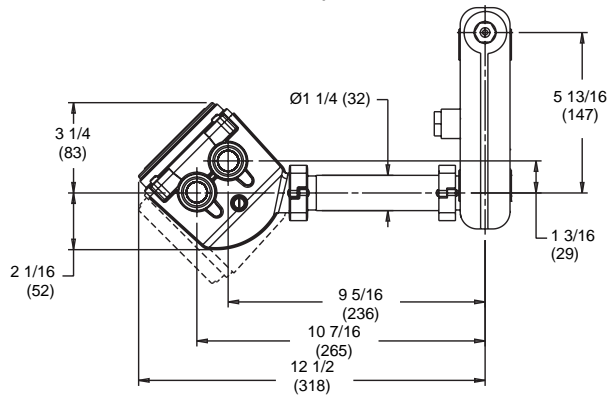
CMF010 with enhanced core processor or Model 2400S transmitter

Dimensions in *inches*
(*mm*)

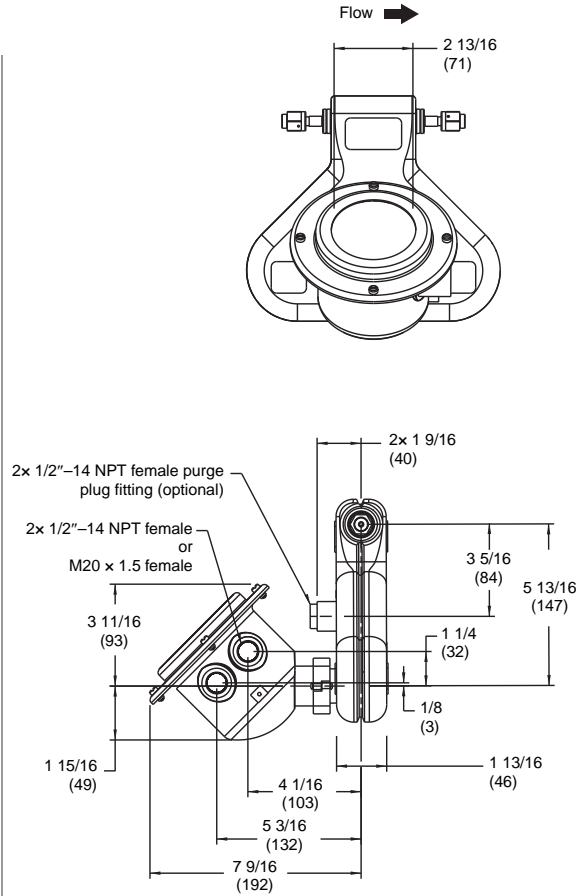
With painted aluminum housing



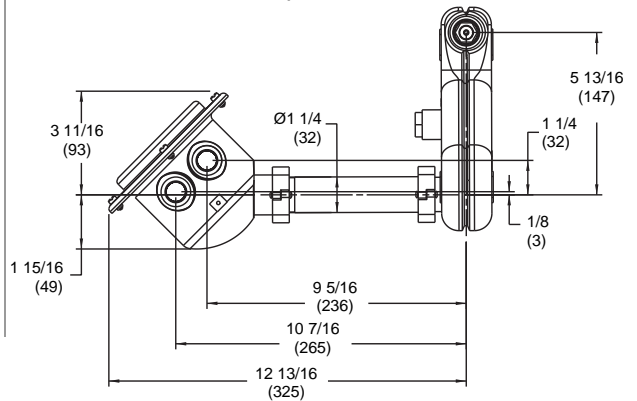
Extended mount option



With stainless steel housing



Extended mount option

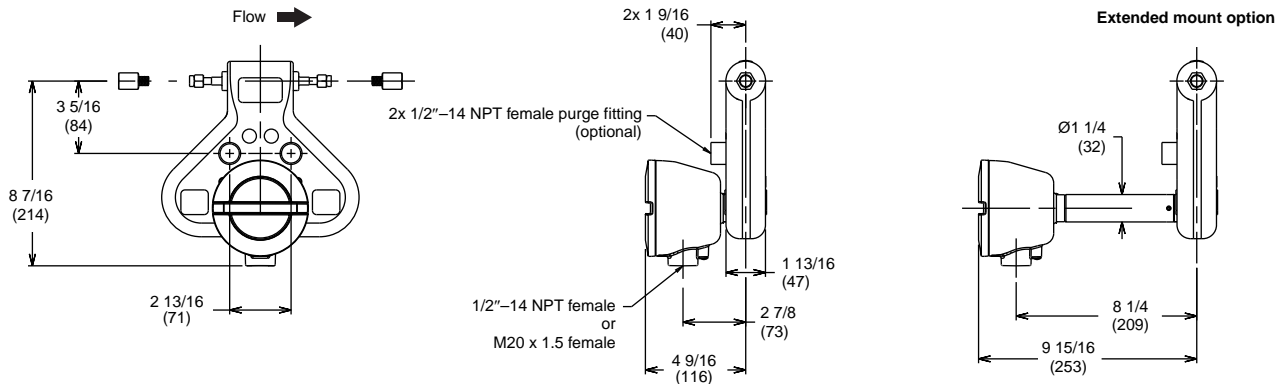


Refer to CMF010 drawings on page 20 for additional sensor dimensions. For CMF010 fitting options and dimensions, see page 42.

Dimensions *continued*

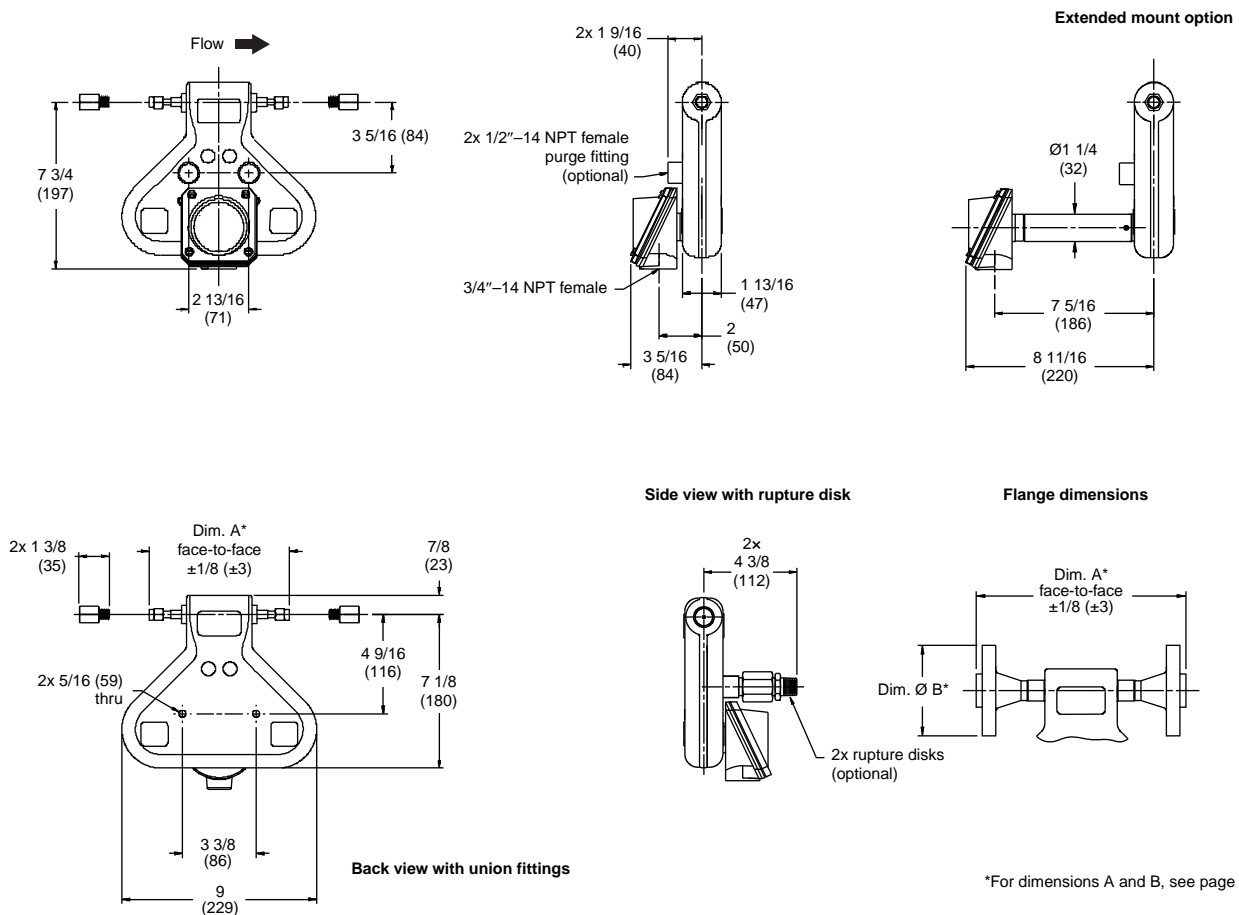
CMF010 with core processor

Dimensions in *inches*
(*mm*)



CMF010 with junction box

Dimensions in *inches*
(*mm*)

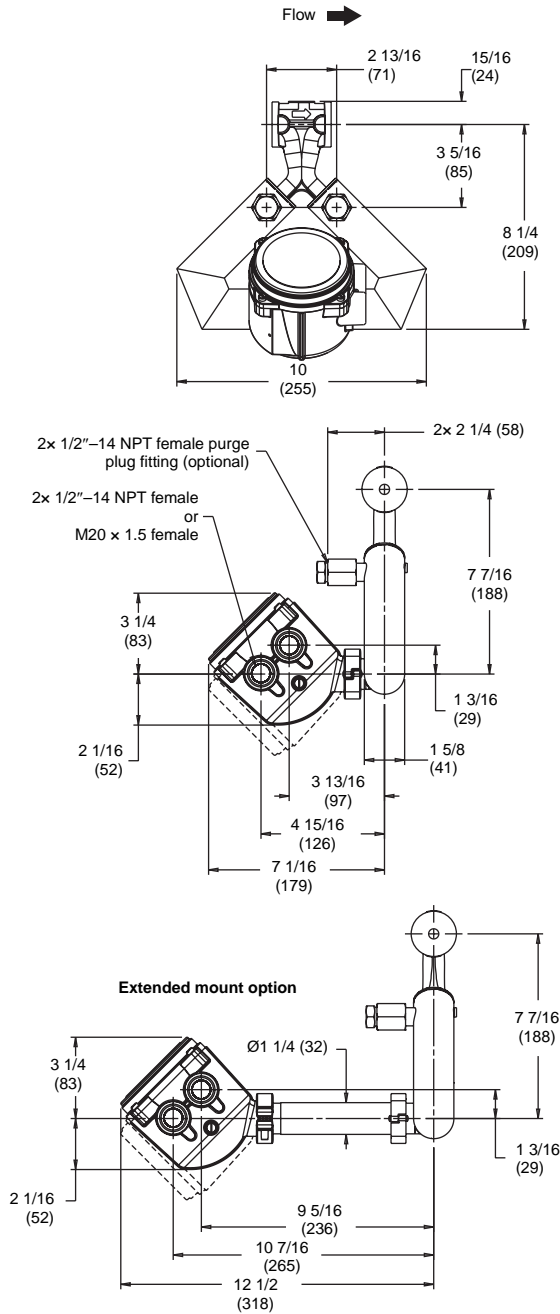


Dimensions *continued*

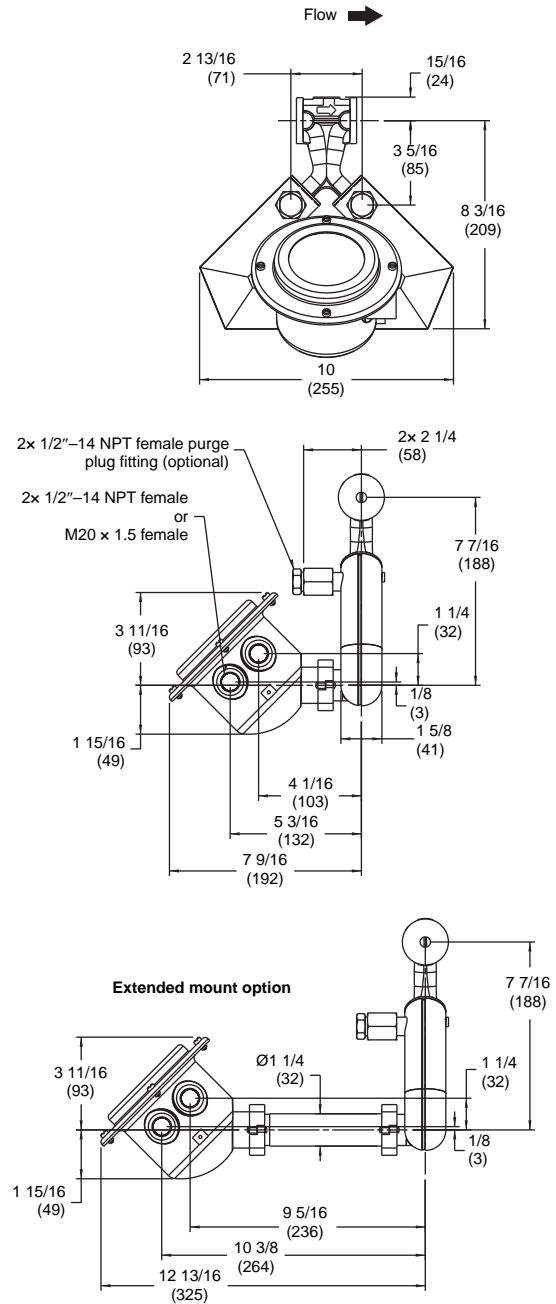
CMF025 with enhanced core processor or Model 2400S transmitter

Dimensions in *inches*
(*mm*)

With painted aluminum housing



With stainless steel housing

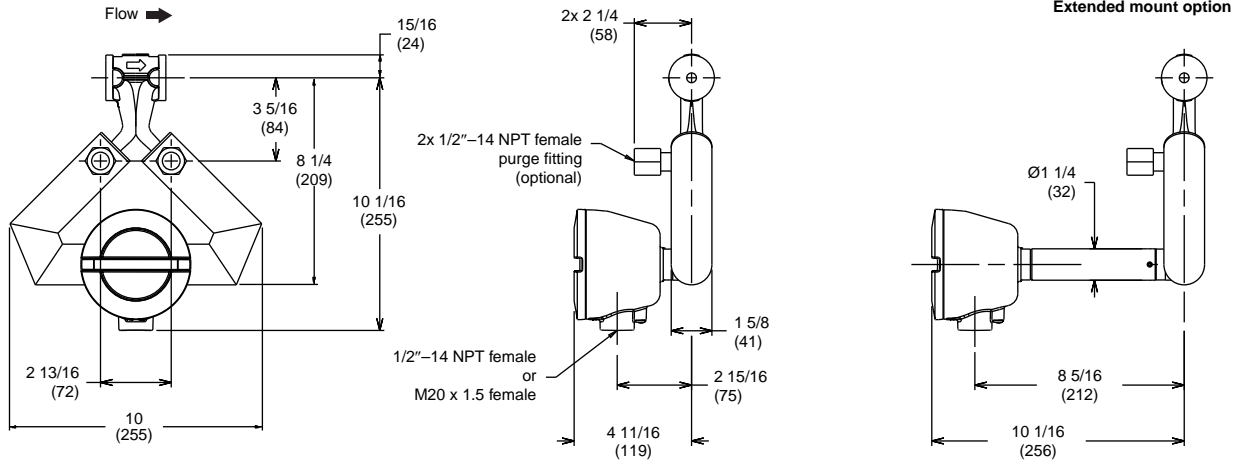


Refer to CMF025 drawings on page 22 for additional sensor dimensions. For CMF025 fitting options and dimensions, see page 43.

Dimensions *continued*

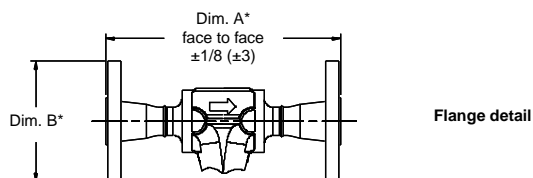
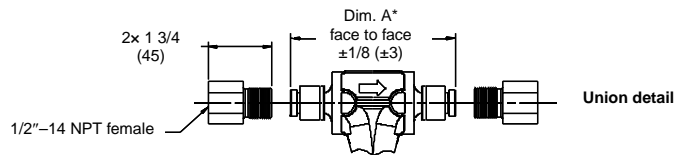
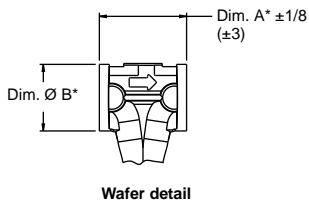
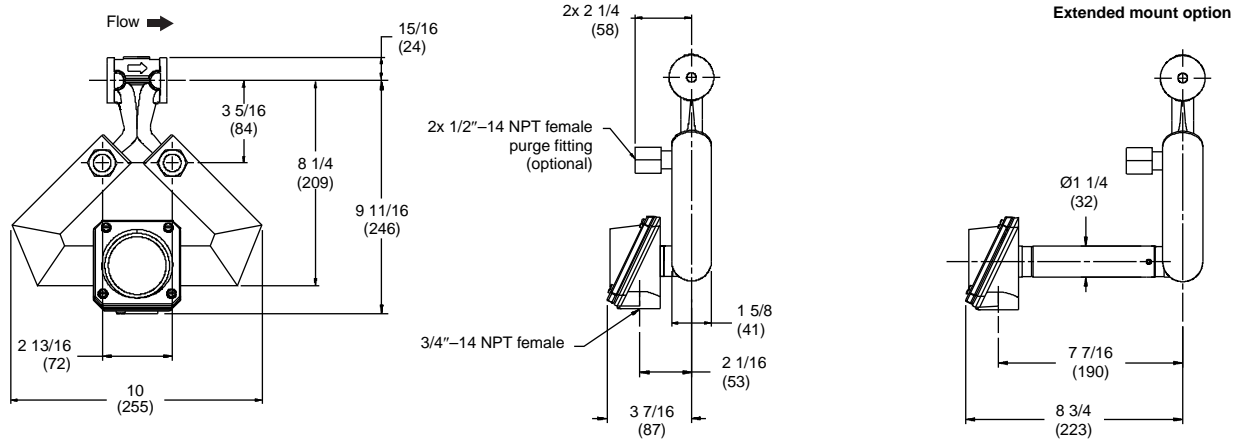
CMF025 with core processor

Dimensions in *inches*
(mm)



CMF025 with junction box

Dimensions in *inches*
(mm)



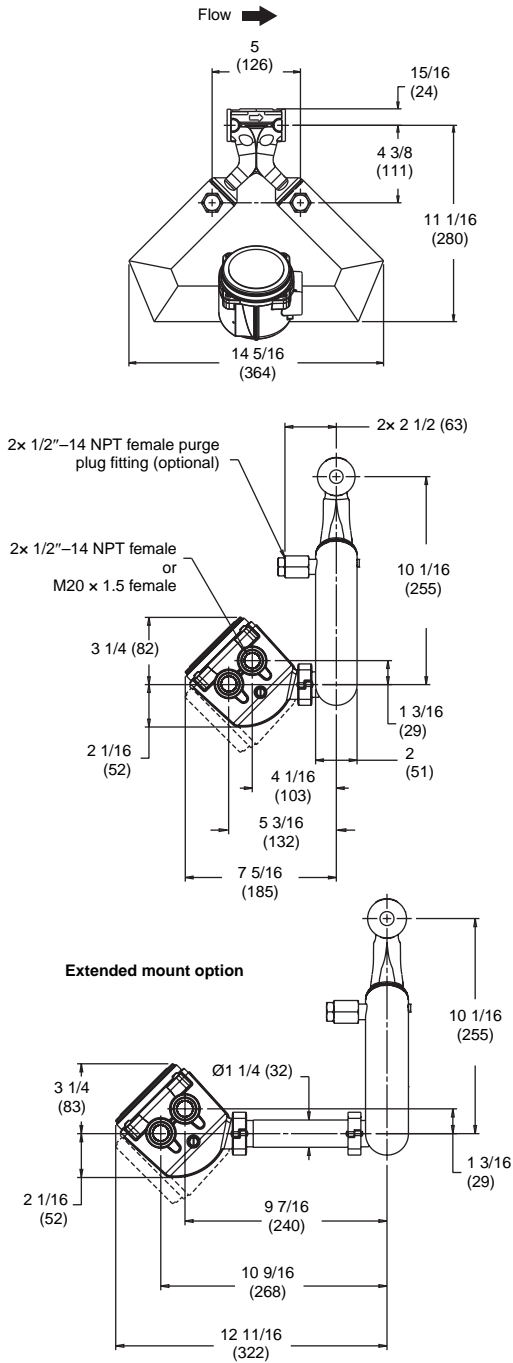
*For dimensions A and B, see page 43.

Dimensions *continued*

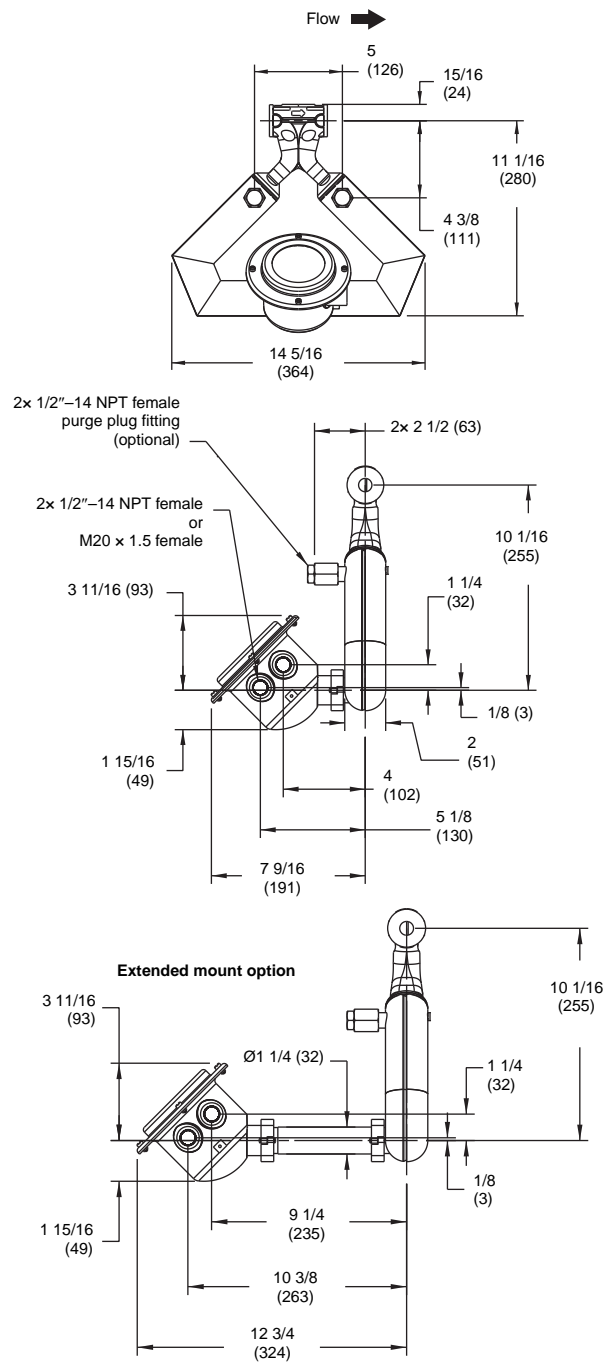
CMF050 with enhanced core processor or Model 2400S transmitter

Dimensions in *inches*
(*mm*)

With painted aluminum housing



With stainless steel housing

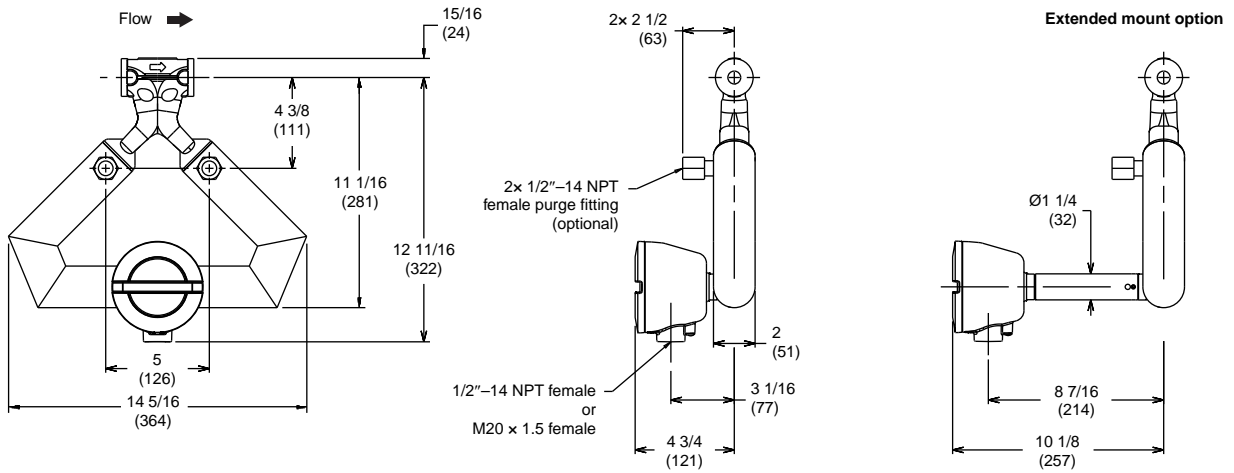


Refer to CMF050 drawings on page 24 for additional sensor dimensions. For CMF050 fitting options and dimensions, see page 44.

Dimensions *continued*

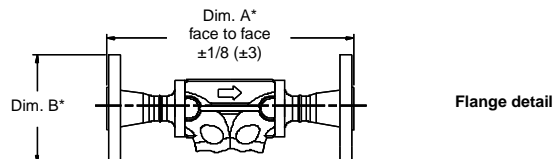
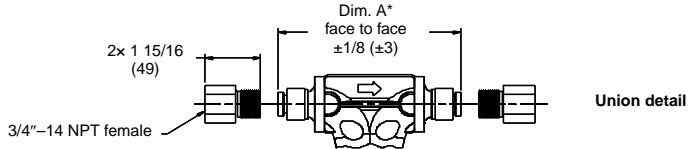
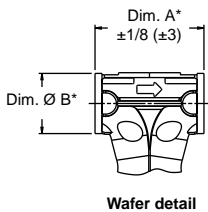
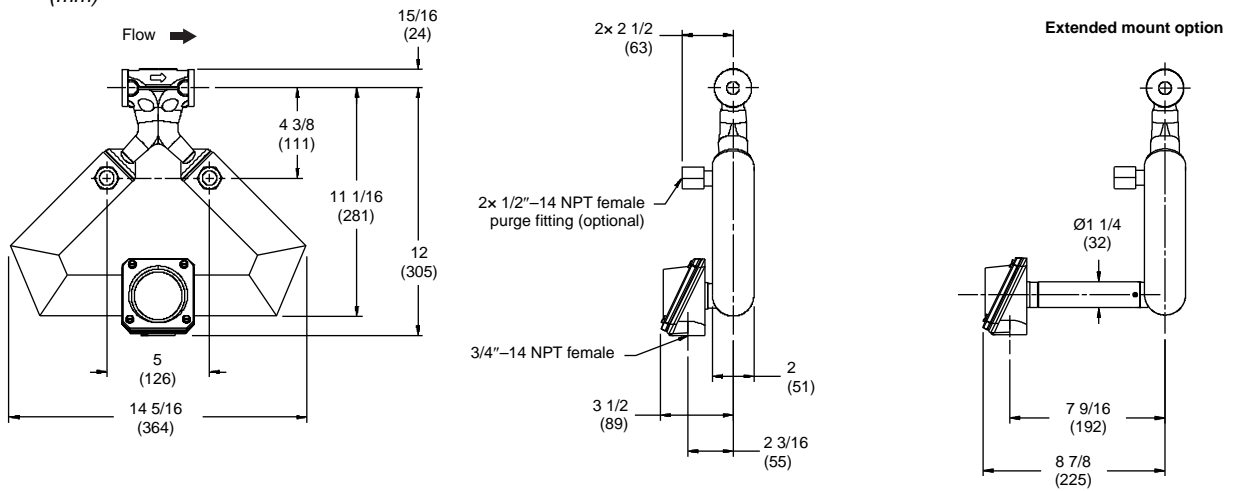
CMF050 with core processor

Dimensions in inches (mm)



CMF050 with junction box

Dimensions in inches (mm)

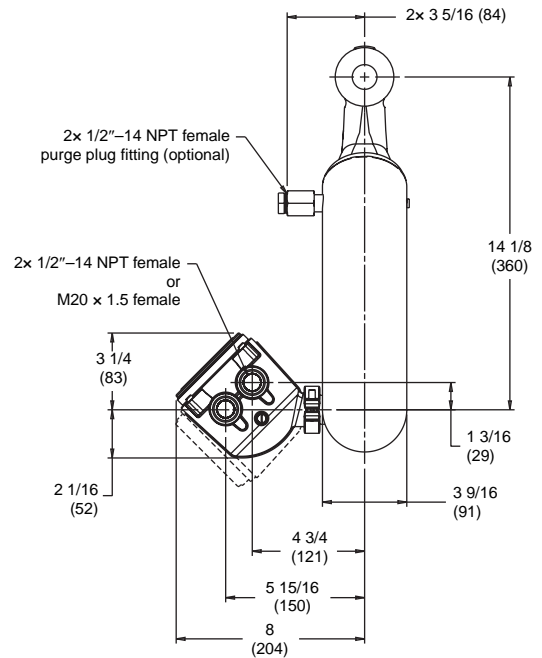
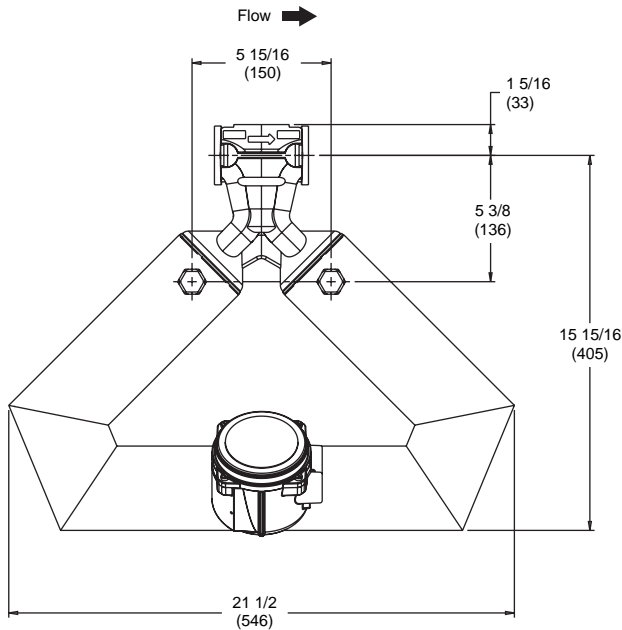


*For dimensions A and B, see page 44.

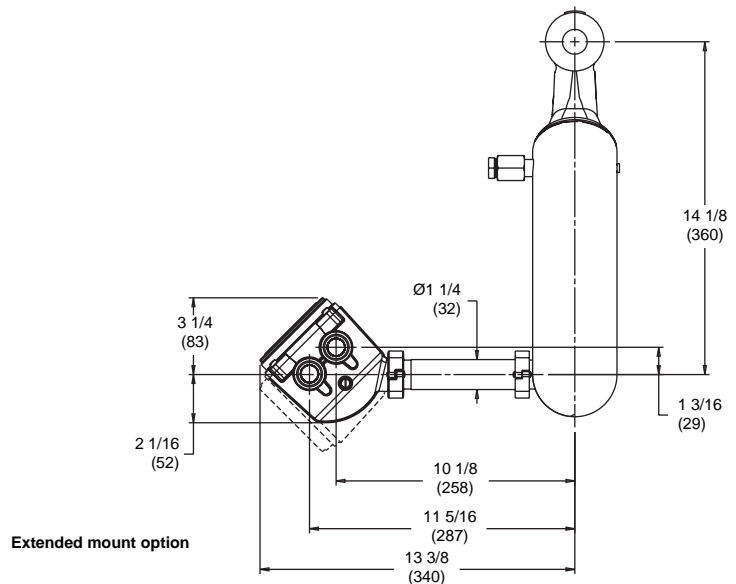
Dimensions *continued*

CMF100 with enhanced core processor or Model 2400S transmitter, painted aluminum housing

Dimensions in *inches*
(*mm*)



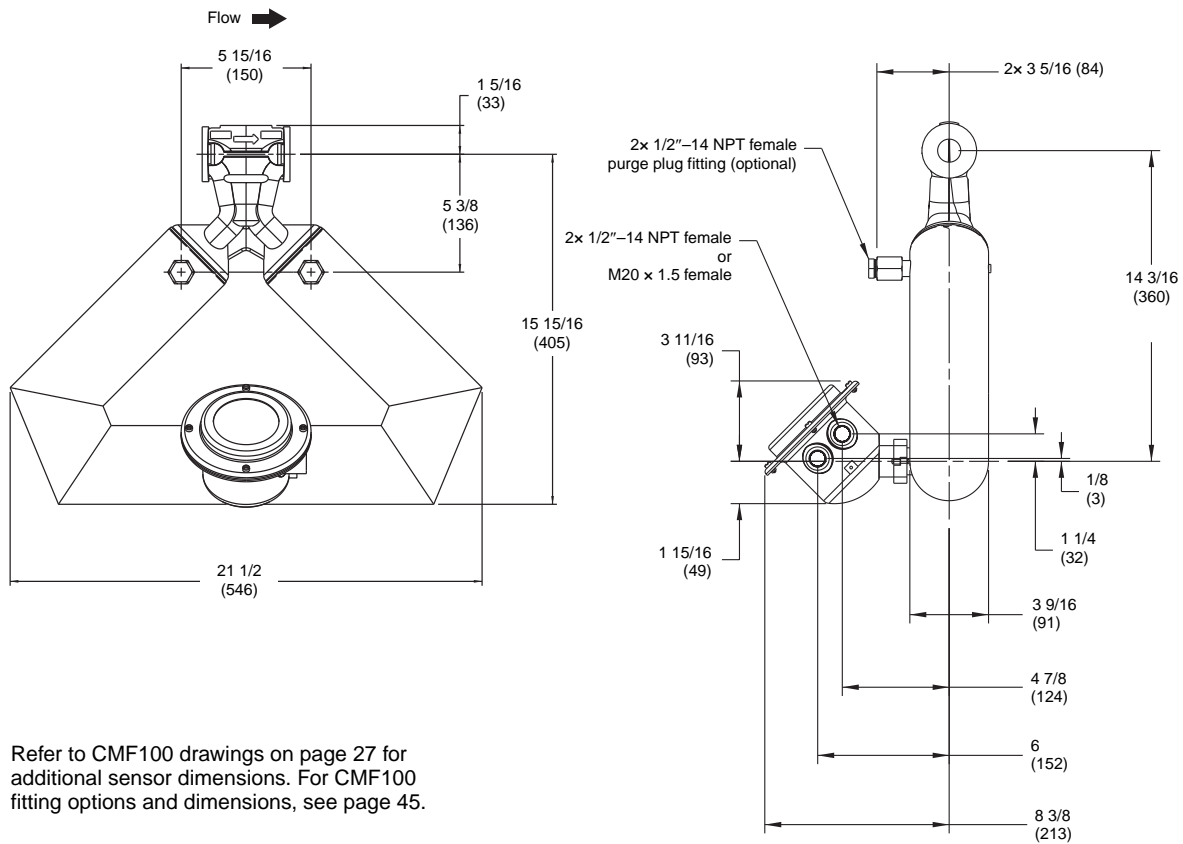
Refer to CMF100 drawings on page 27 for additional sensor dimensions. For CMF100 fitting options and dimensions, see page 45.



Dimensions *continued*

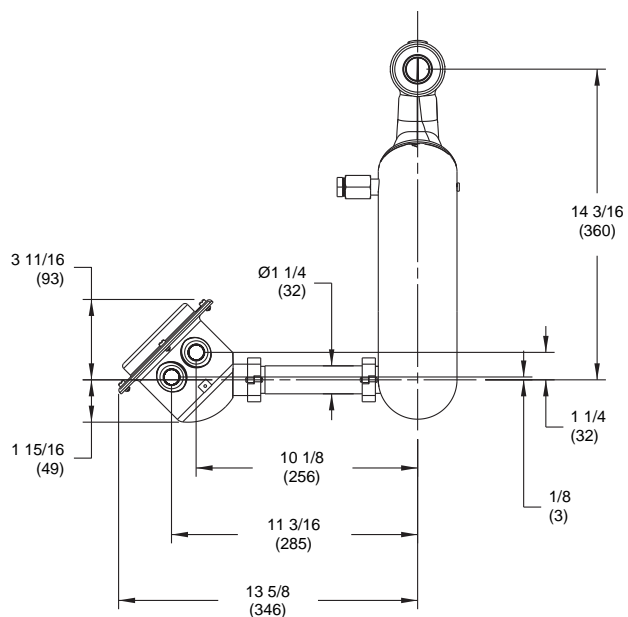
CMF100 with enhanced core processor or Model 2400S transmitter, stainless steel housing

Dimensions in *inches*
(*mm*)



Refer to CMF100 drawings on page 27 for additional sensor dimensions. For CMF100 fitting options and dimensions, see page 45.

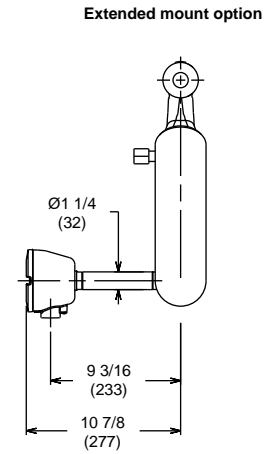
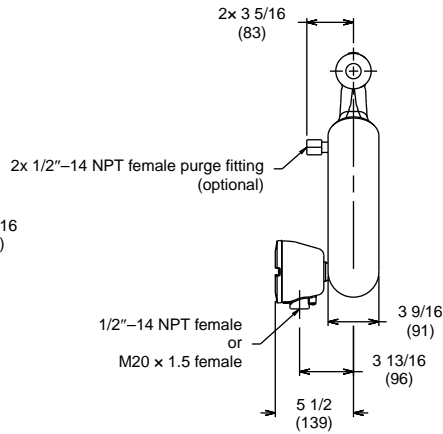
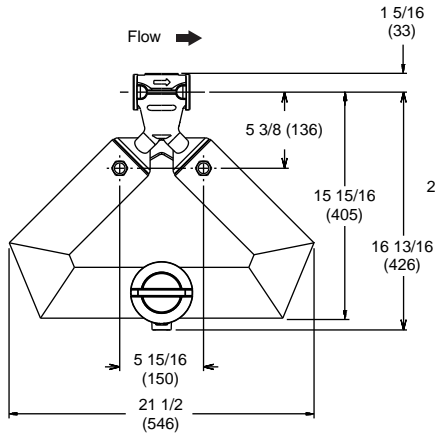
Extended mount option



Dimensions *continued*

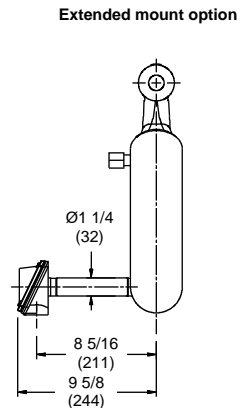
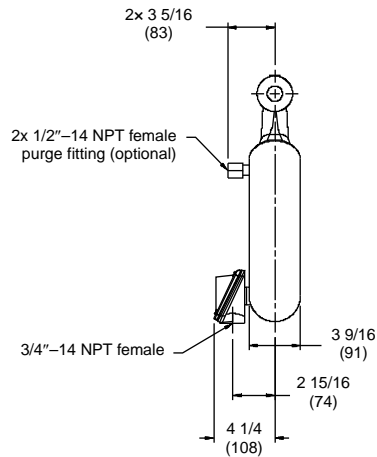
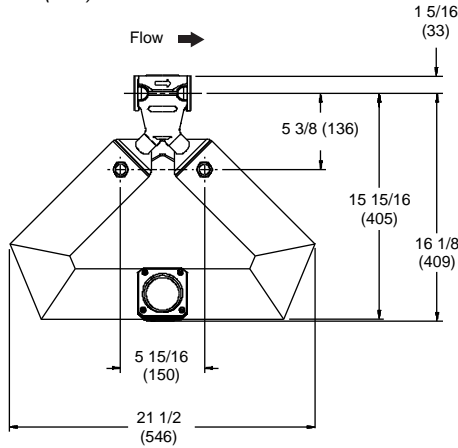
CMF100 with core processor

Dimensions in inches (mm)

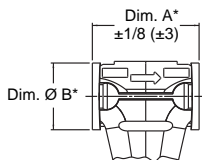


CMF100 with junction box

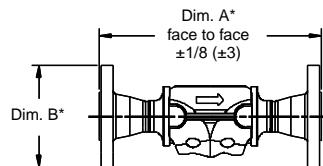
Dimensions in inches (mm)



Wafer detail



Flange detail

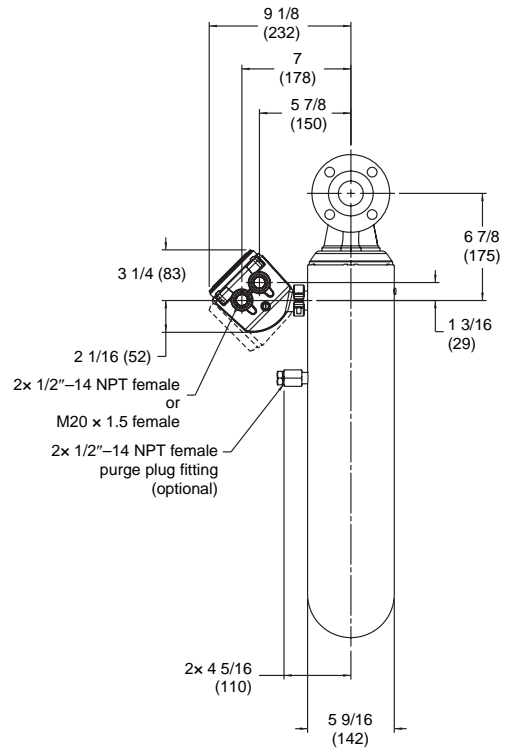
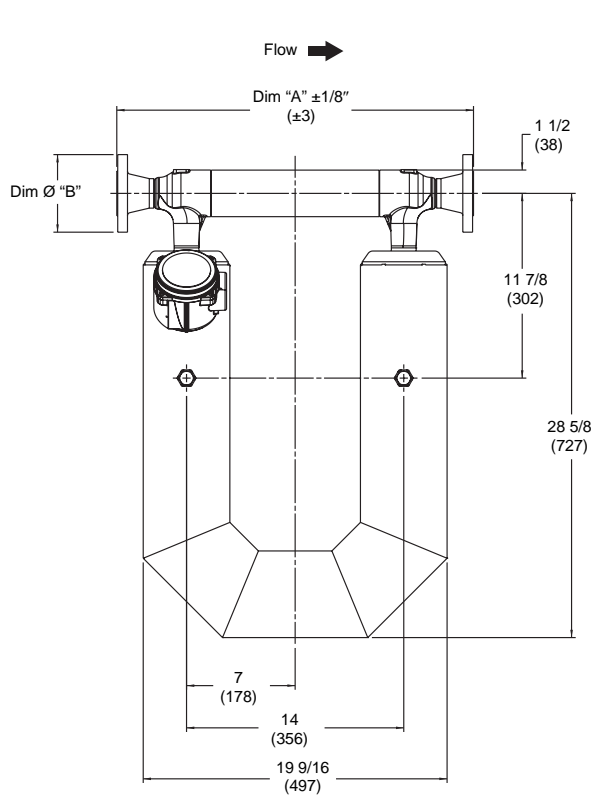


*For dimensions A and B, see page 45.

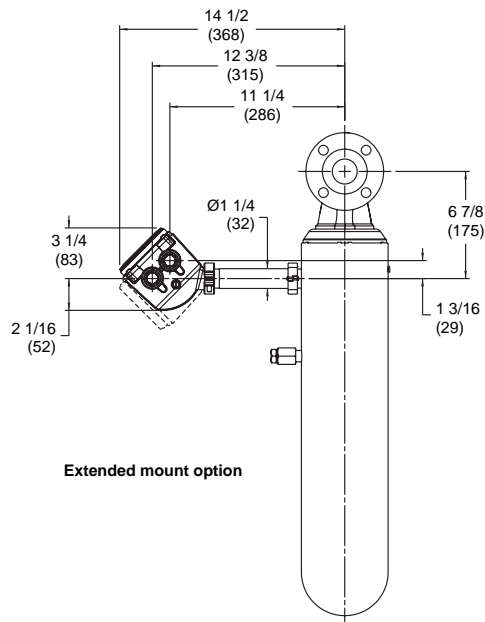
Dimensions *continued*

CMF200 with enhanced core processor or Model 2400S transmitter, painted aluminum housing

Dimensions in *inches*
(*mm*)



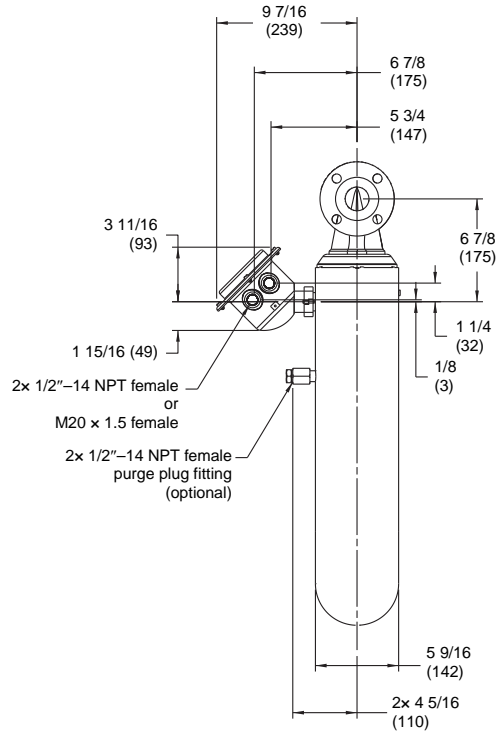
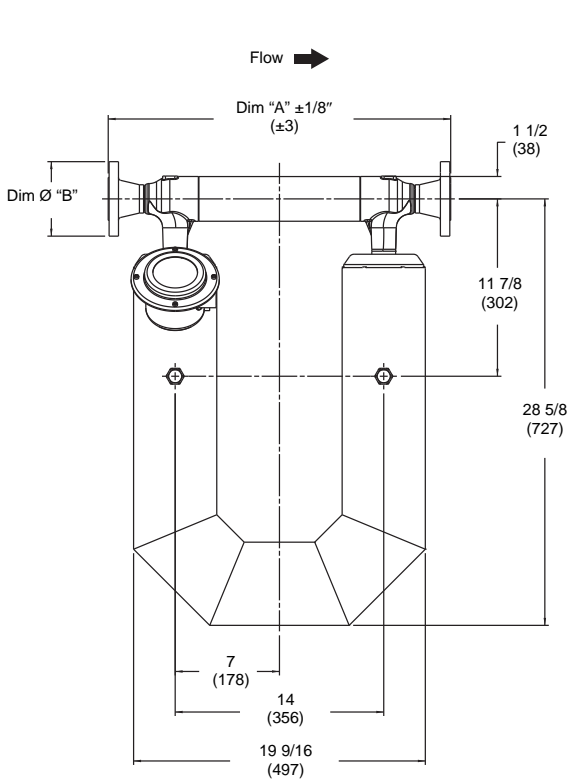
Refer to CMF200 drawings on page 30 for additional sensor dimensions. For dimensions A and B, see CMF200 fitting options and dimensions on page 46.



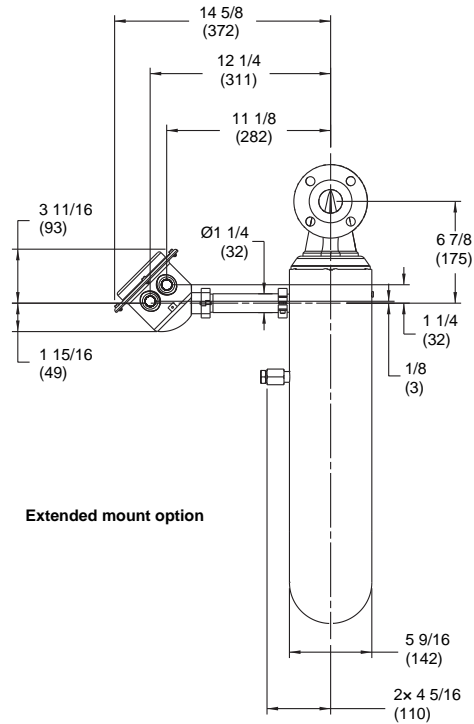
Dimensions *continued*

CMF200 with enhanced core processor or Model 2400S transmitter, stainless steel housing

Dimensions in *inches*
(*mm*)



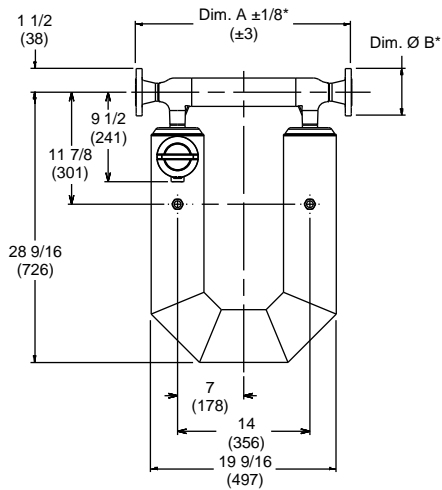
Refer to CMF200 drawings on page 30 for additional sensor dimensions. For dimensions A and B, see CMF200 fitting options and dimensions on page 46.



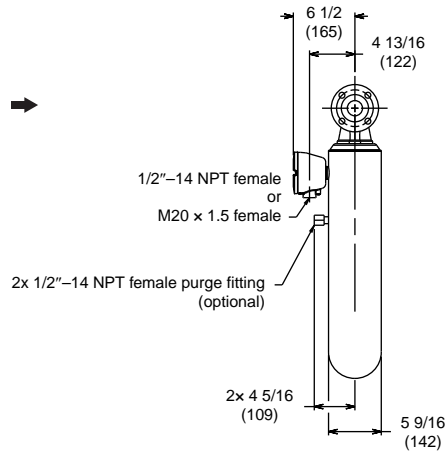
Dimensions *continued*

CMF200 with core processor

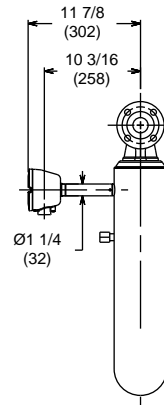
Dimensions in *inches*
(*mm*)



Flow →

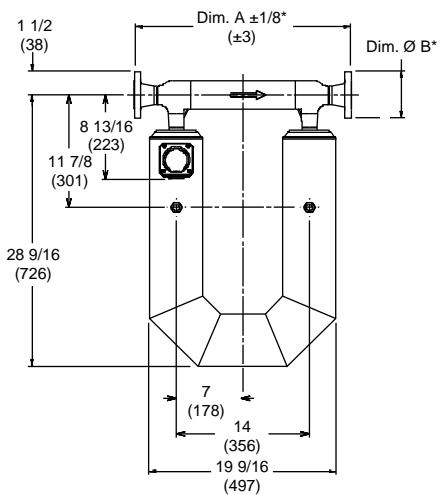


Extended mount option

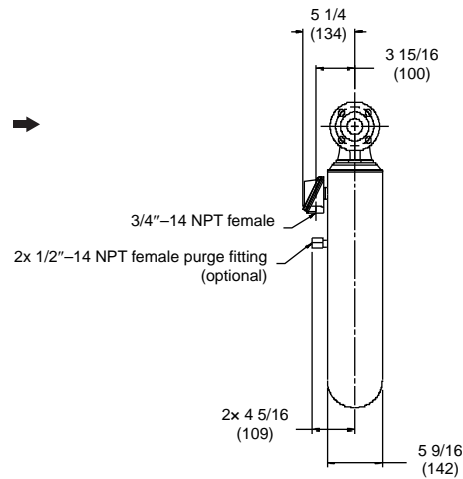


CMF200 with junction box

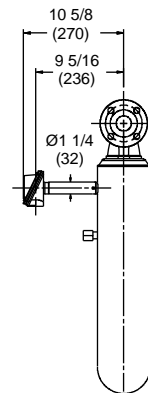
Dimensions in *inches*
(*mm*)



Flow →



Extended mount option

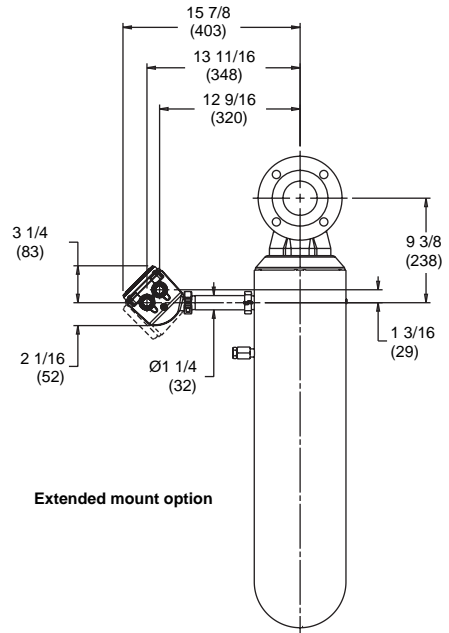
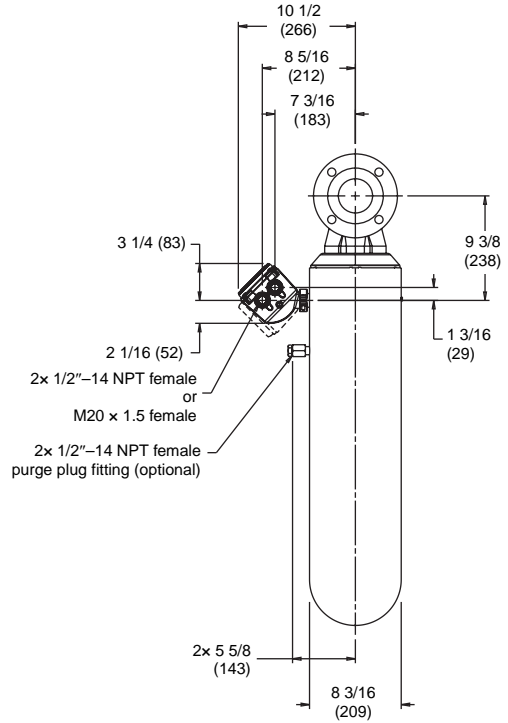
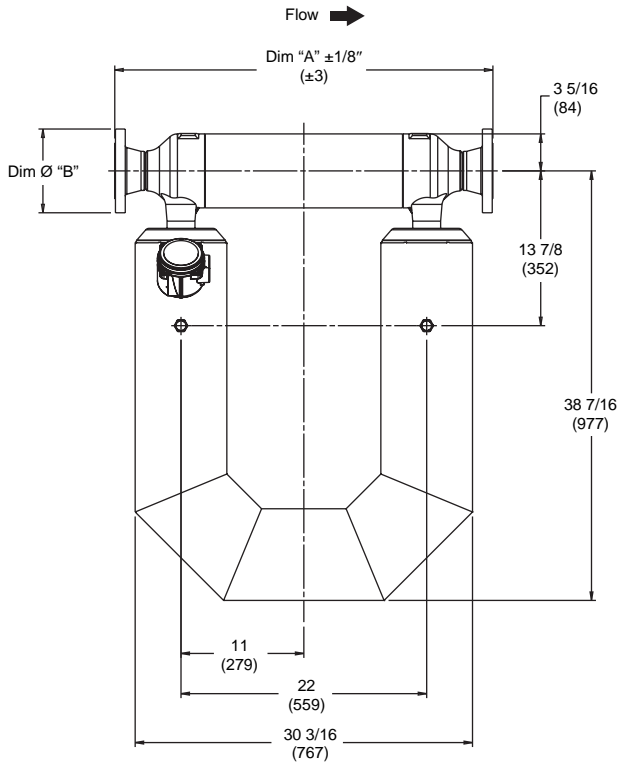


*For dimensions A and B, see page 46.

Dimensions *continued*

CMF300 with enhanced core processor or Model 2400S transmitter, painted aluminum housing

Dimensions in *inches*
(*mm*)

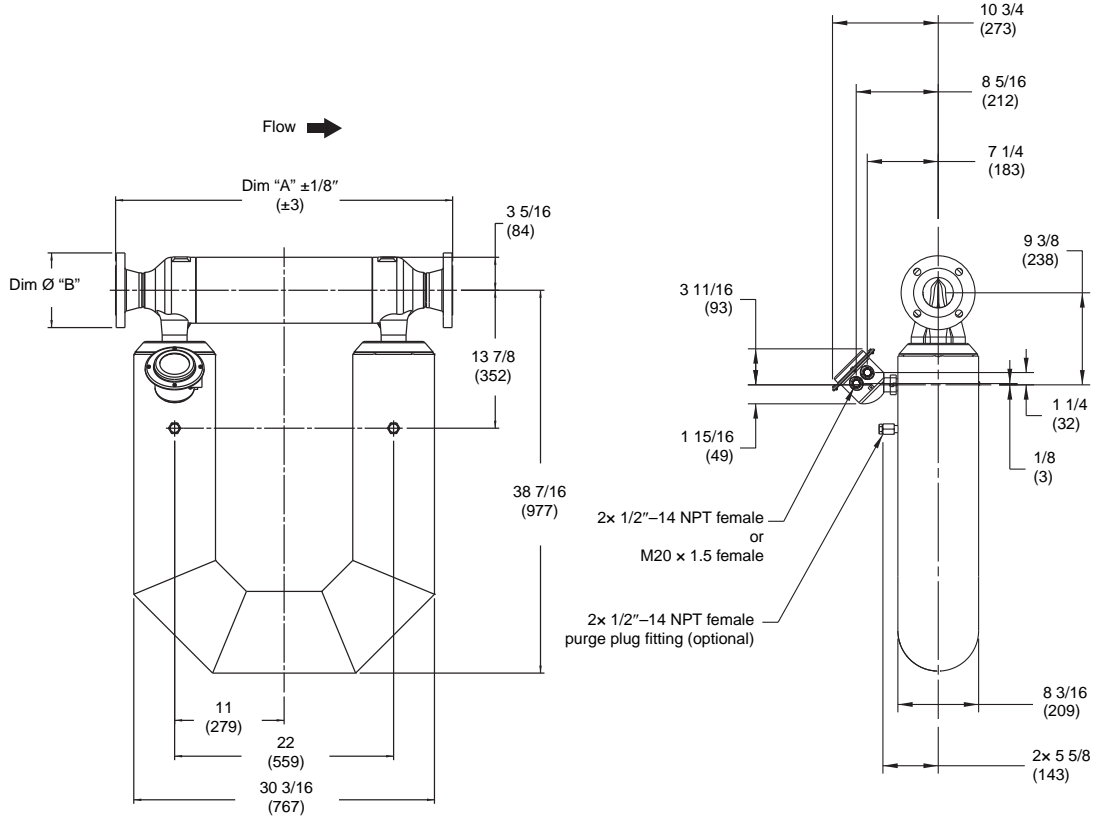


Refer to CMF300 drawings on page 33 for additional sensor dimensions. For dimensions A and B, see CMF300 fitting options and dimensions on page 48.

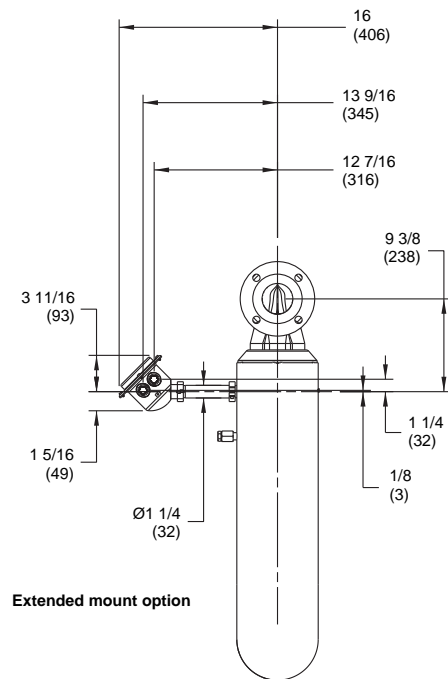
Dimensions *continued*

CMF300 with enhanced core processor or Model 2400S transmitter, stainless steel housing

Dimensions in *inches*
(*mm*)



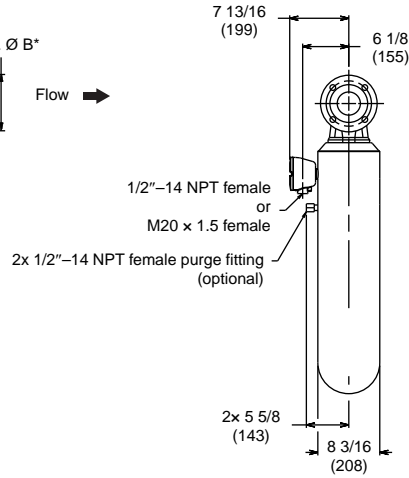
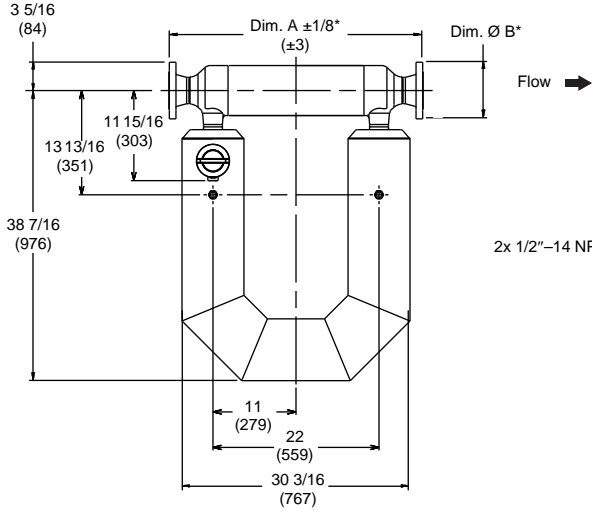
Refer to CMF300 drawings on page 33 for additional sensor dimensions. For dimensions A and B, see CMF300 fitting options and dimensions on page 48.



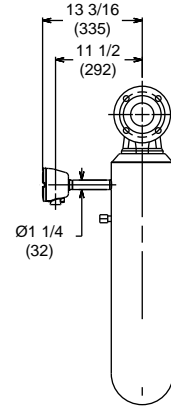
Dimensions *continued*

CMF300 with core processor

Dimensions in *inches*
(mm)

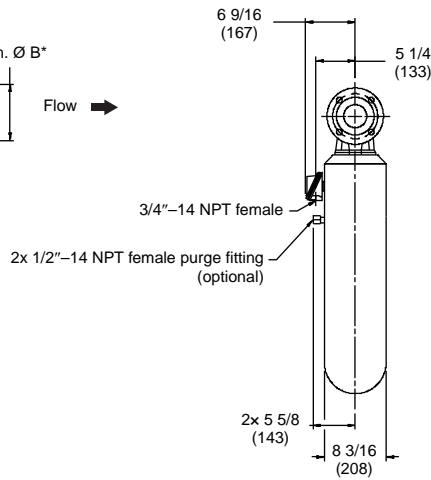
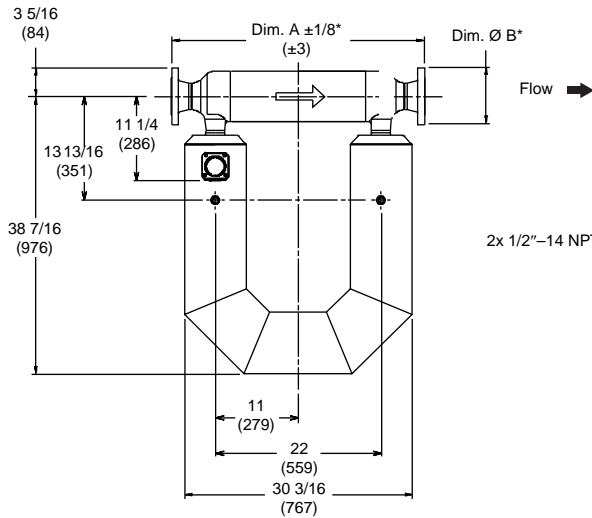


Extended mount option

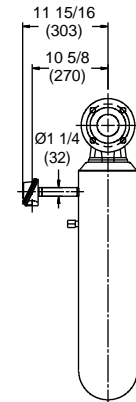


CMF300 with junction box

Dimensions in *inches*
(mm)



Extended mount option

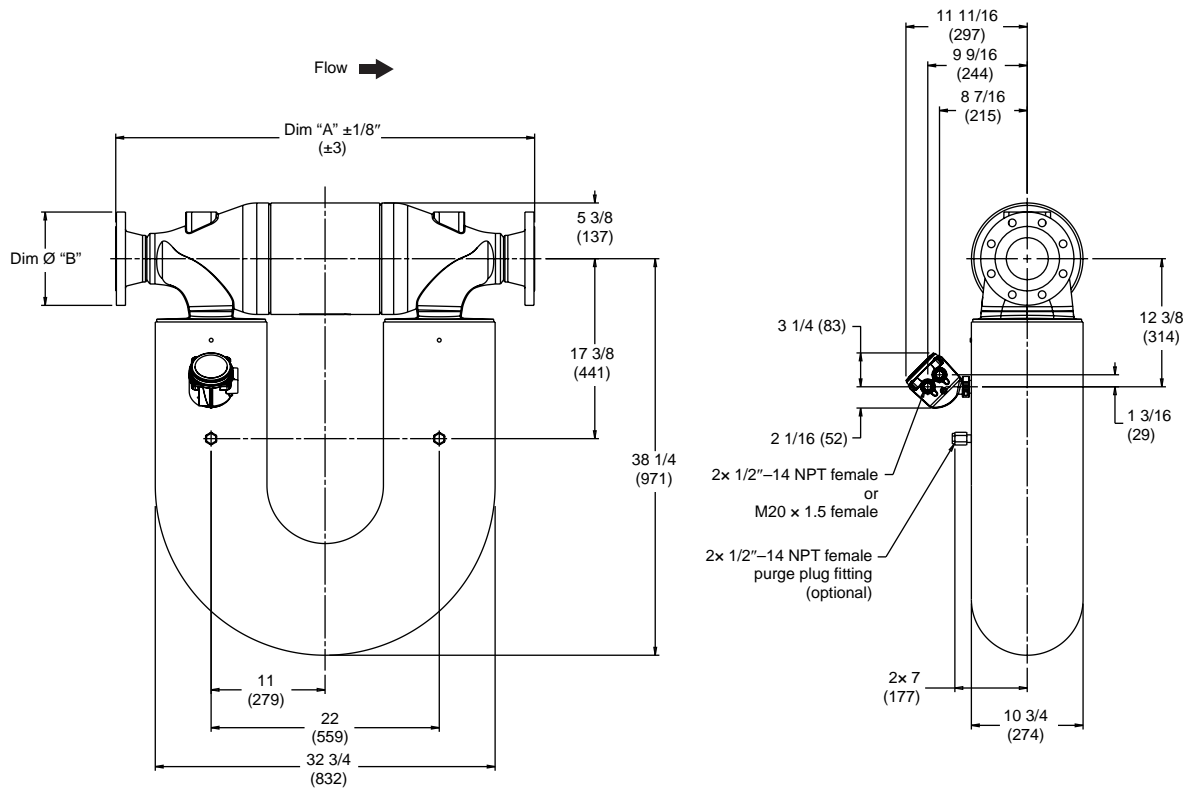


*For dimensions A and B, see page 48.

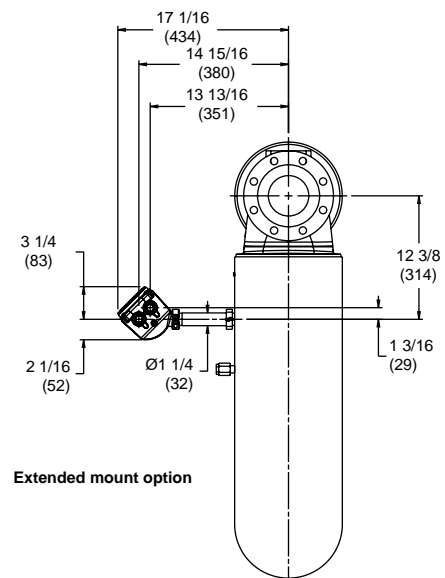
Dimensions *continued*

CMF400 with enhanced core processor or Model 2400S transmitter, painted aluminum housing

Dimensions in inches
(mm)



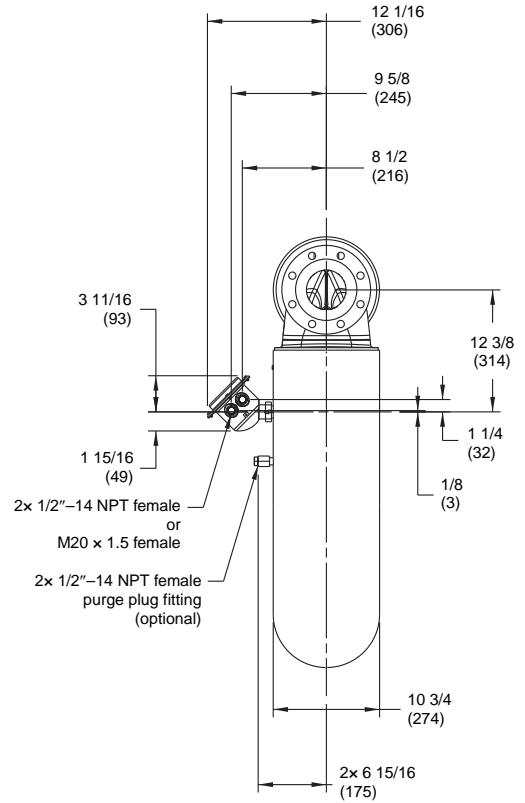
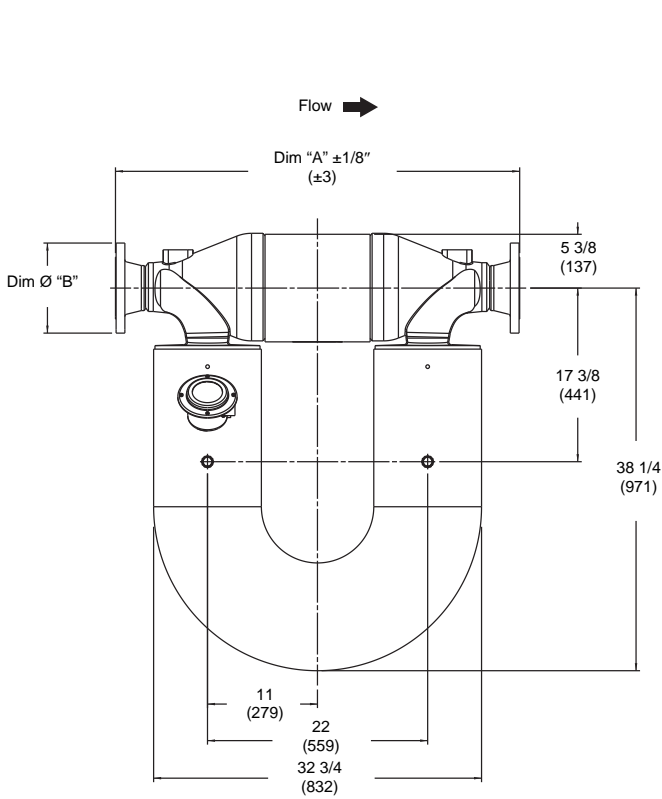
Refer to CMF400 drawings on page 36 for additional sensor dimensions. For dimensions A and B, see CMF400 fitting options and dimensions on page 49.



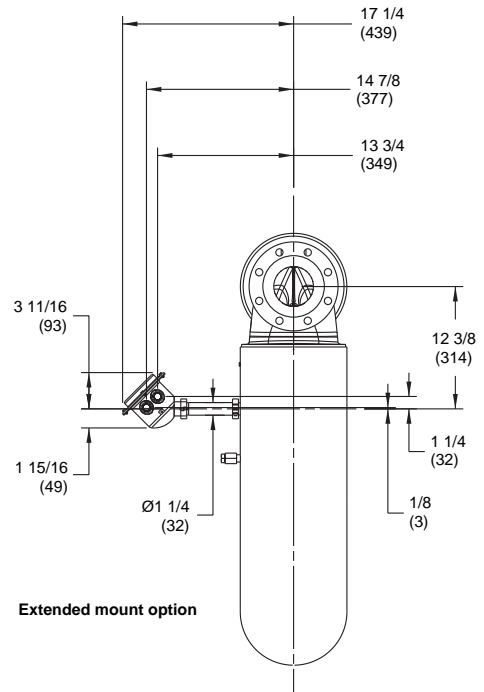
Dimensions *continued*

CMF400 with enhanced core processor or Model 2400S transmitter, stainless steel housing

Dimensions in inches
(mm)



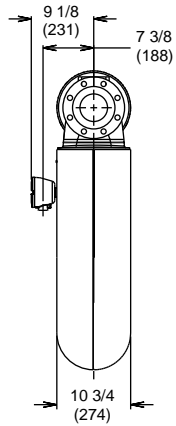
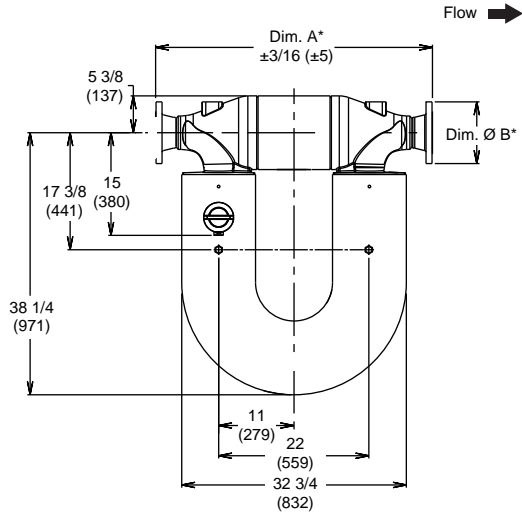
Refer to CMF400 drawings on page 36 for additional sensor dimensions. For dimensions A and B, see CMF400 fitting options and dimensions on page 49.



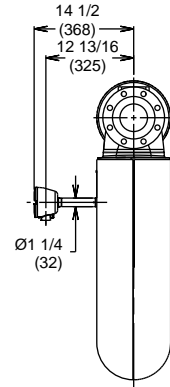
Dimensions *continued*

CMF400 with core processor

Dimensions in *inches*
(*mm*)

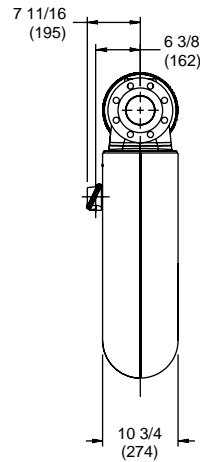
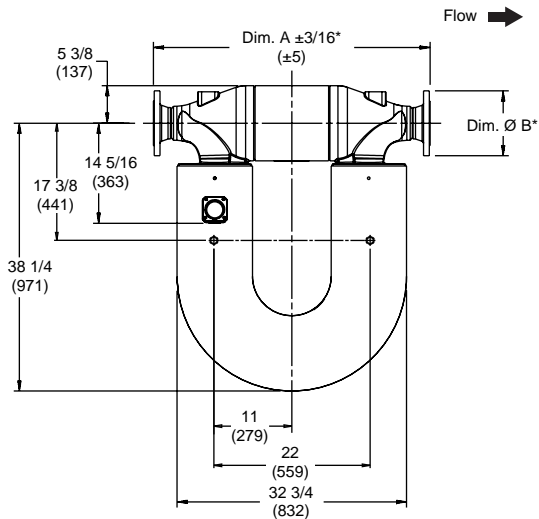


Extended mount option

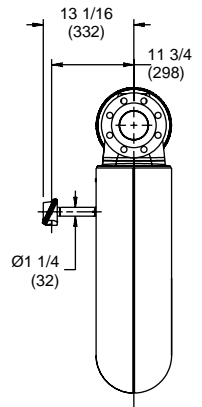


CMF400 with junction box

Dimensions in *inches*
(*mm*)



Extended mount option

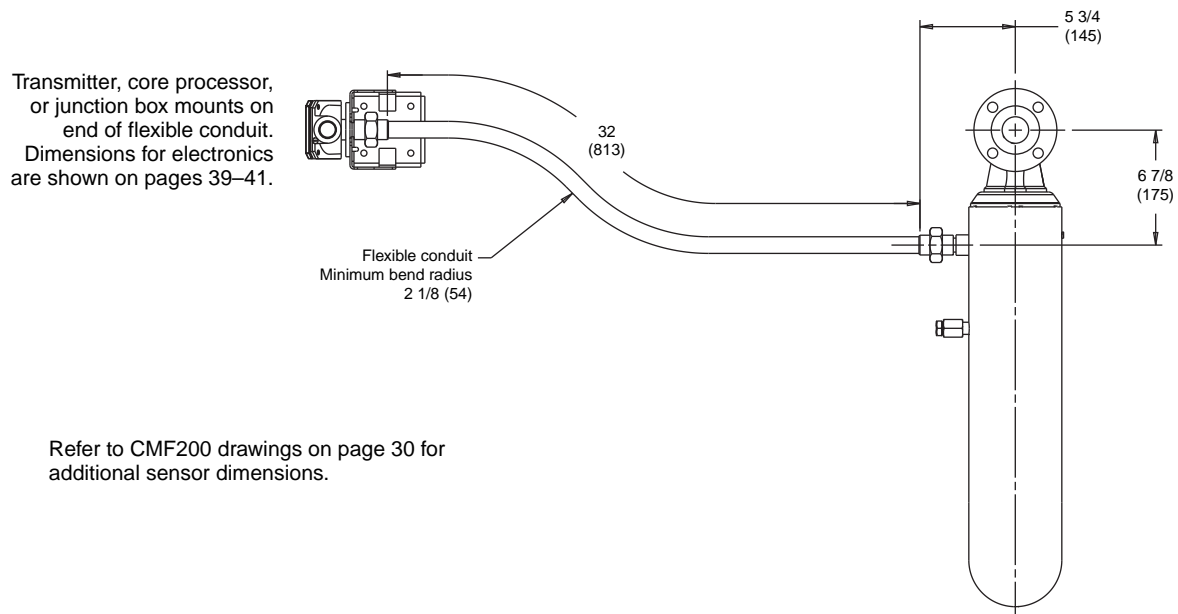


*For dimensions A and B, see page 49.

Dimensions *continued*

High-temperature CMF200A or CMF200B

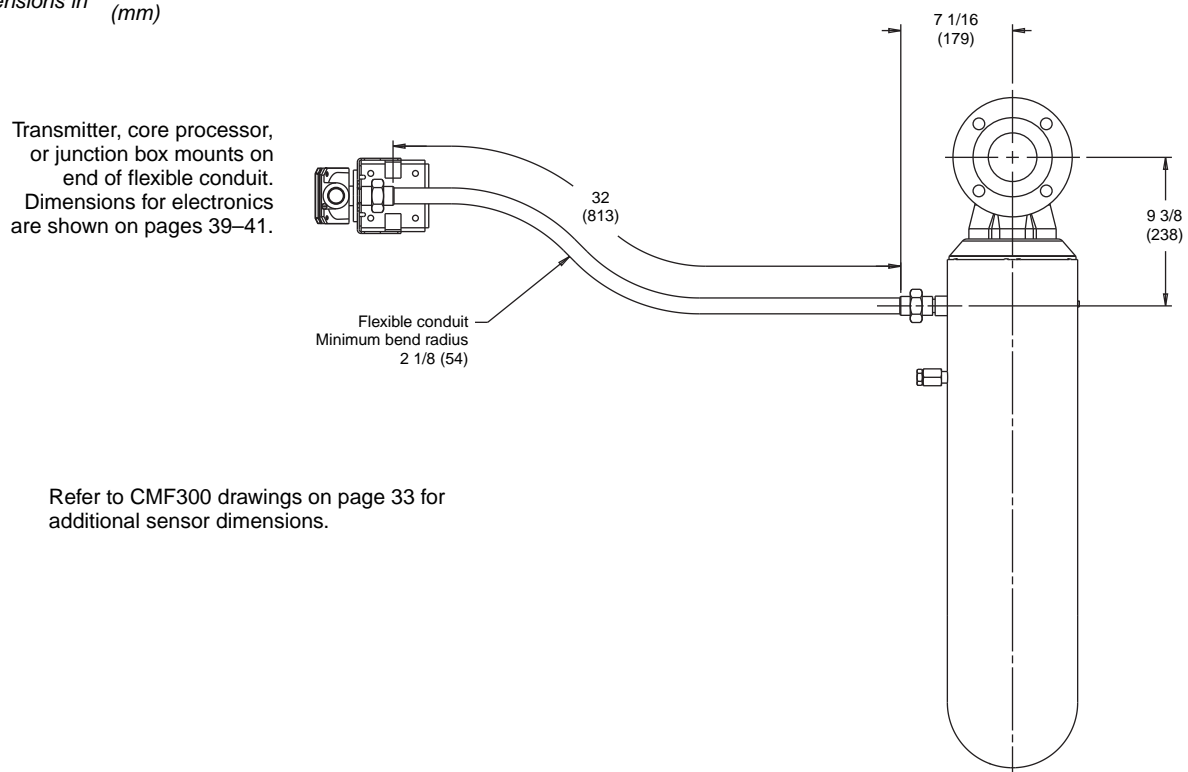
Dimensions in *inches*
(*mm*)



Refer to CMF200 drawings on page 30 for
additional sensor dimensions.

High-temperature CMF300A or CMF300B

Dimensions in *inches*
(*mm*)

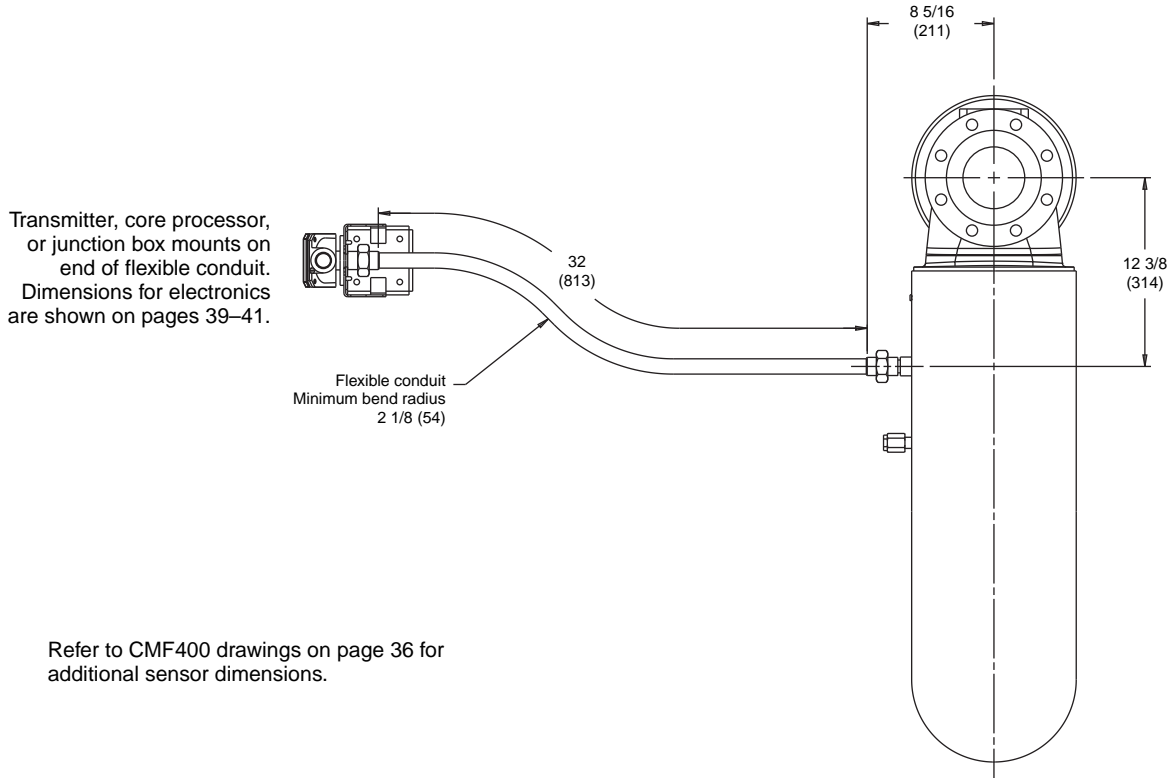


Refer to CMF300 drawings on page 33 for
additional sensor dimensions.

Dimensions *continued*

High-temperature CMF400A

Dimensions in *inches*
(*mm*)

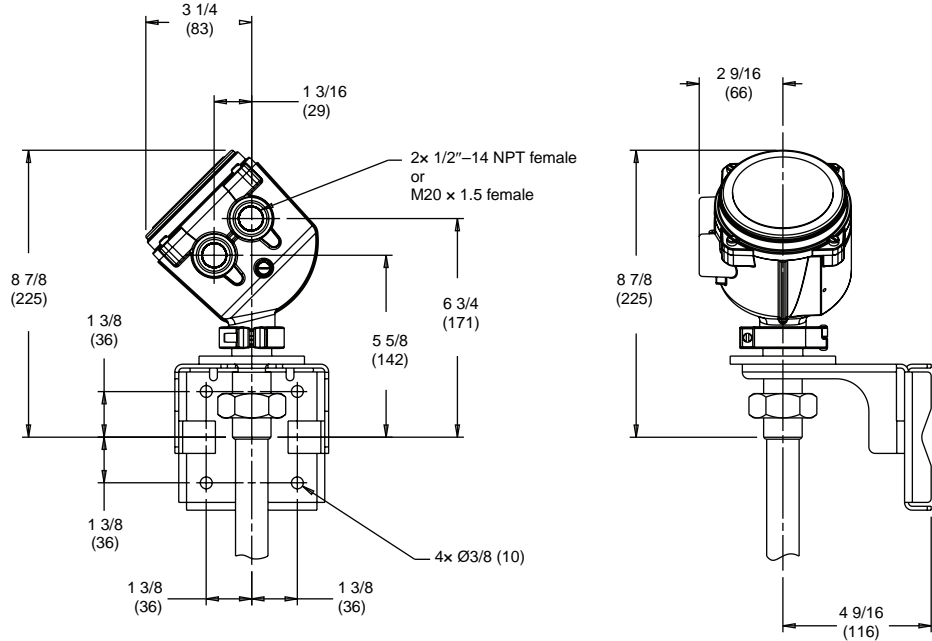


Refer to CMF400 drawings on page 36 for
additional sensor dimensions.

Dimensions *continued*

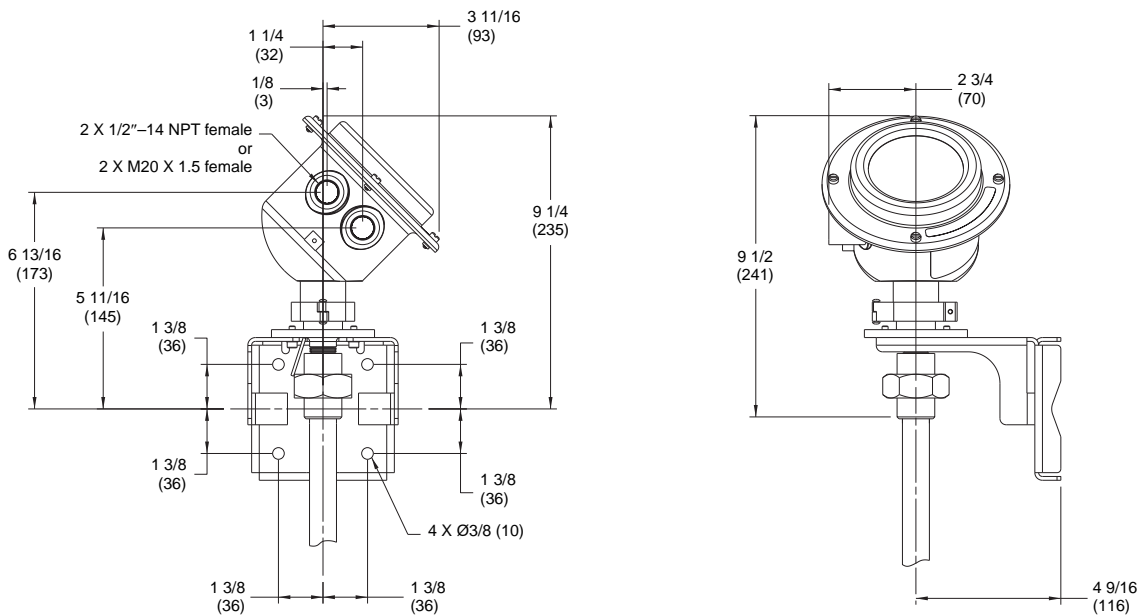
Enhanced core processor or Model 2400S transmitter mounted on high-temperature sensor flexible conduit, painted aluminum housing

Dimensions in inches (mm)



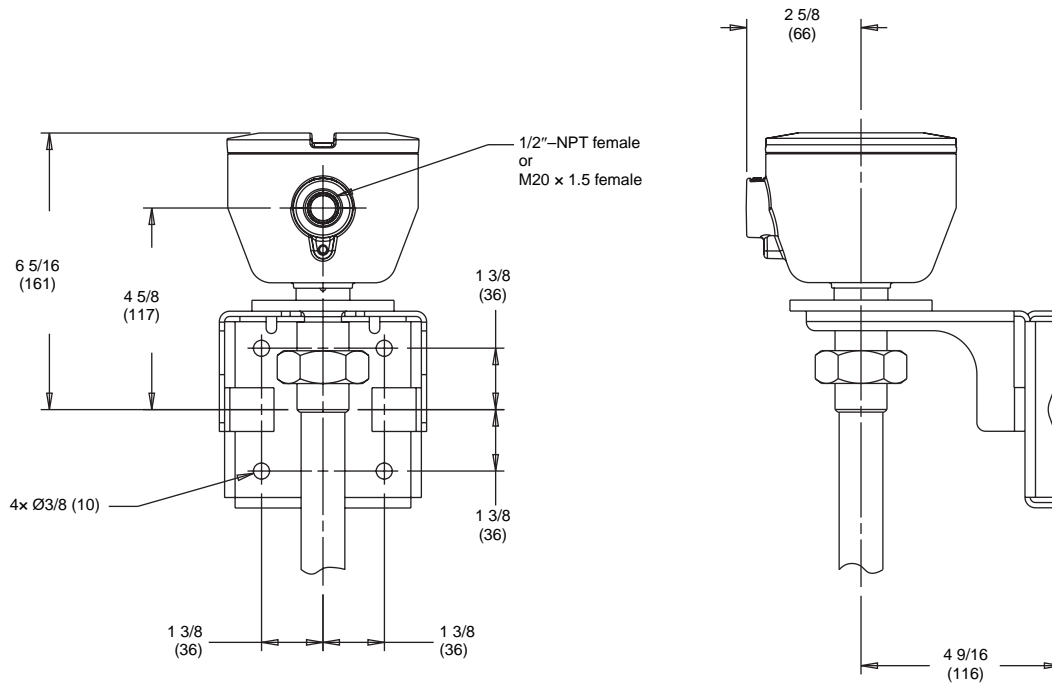
Enhanced core processor or Model 2400S transmitter mounted on high-temperature sensor flexible conduit, stainless steel housing

Dimensions in inches (mm)



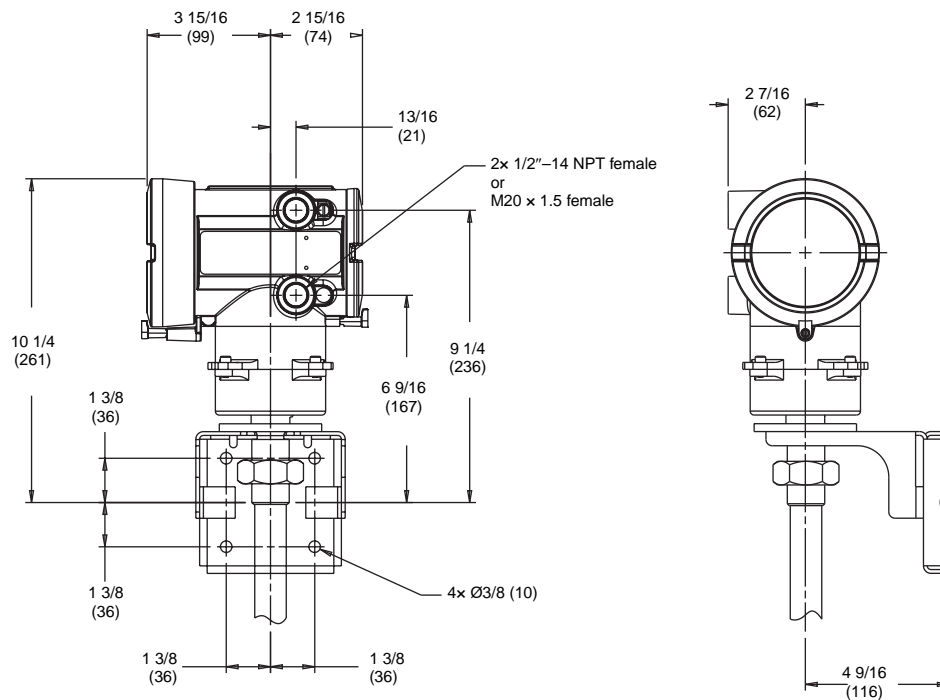
Dimensions *continued*

Core processor mounted on high-temperature sensor flexible conduit



Model 1700/2700 transmitter mounted on high-temperature sensor flexible conduit

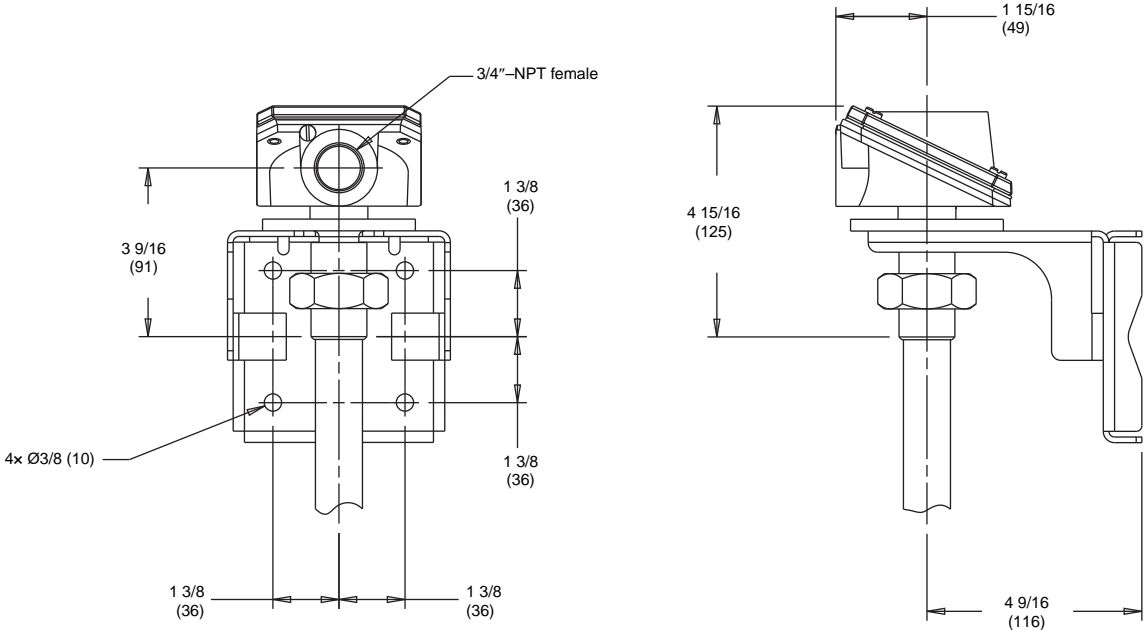
Dimensions in *inches*
(*mm*)



Dimensions *continued*

Junction box mounted on high-temperature sensor flexible conduit

Dimensions in inches
(mm)



Fitting options

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF010 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
1/2-inch ANSI CL150 weld neck raised face flange	313	7 7/8 (199)	3 1/2 (89)
1/2-inch ANSI CL300 weld neck raised face flange	314	8 3/16 (209)	3 3/4 (95)
1/2-inch ANSI CL600 weld neck raised face flange	315	8 11/16 (221)	3 3/4 (95)
1/2-inch sanitary fitting (Tri-Clamp compatible)	321	6 15/16 (177)	1 (25)
DN15 PN40 weld neck flange; DIN 2635 type C face	300	7 7/16 (189)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form B1	176	7 7/16 (189)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form D	310	7 7/16 (189)	3 3/4 (95)
DN15 PN100 weld neck flange; DIN 2637 type E face	302	8 (203)	4 1/8 (105)
DN15 PN100 weld neck flange; EN 1092-1 Form B2	177	8 (203)	4 1/8 (105)
DN15 PN100 weld neck flange; EN 1092-1 Form D	178	8 (203)	4 1/8 (105)
DN25 PN40 Weld Neck Flange; EN 1092-1 Form B1	172	7 9/16 (193)	4 1/2 (115)
DN25 PN40 Weld Neck Flange; EN 1092-1 Form D	183	7 9/16 (193)	4 1/2 (115)
JIS 15mm 10K weld neck raised face flange	304	7 3/16 (183)	3 3/4 (95)
JIS 15mm 20K weld neck raised face flange	305	7 3/16 (183)	3 3/4 (95)
1/4-inch NPT female Swagelok size 4 VCO fitting	323	6 7/16 (164)	—
1/4-inch tube compression fitting	324	6 7/16 (164)	—
6 mm tube compression fitting	325	6 7/16 (164)	—
<i>304L stainless steel sensors</i>			
1/2-inch ANSI CL150 weld neck raised face flange	413	7 7/8 (199)	3 1/2 (89)
1/2-inch ANSI CL300 weld neck raised face flange	414	8 3/16 (209)	3 3/4 (95)
DN15 PN40 weld neck flange; DIN 2526 type C face	423	7 7/16 (189)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form B1	421	7 7/16 (189)	3 3/4 (95)
<i>Nickel alloy sensors</i>			
1/2-inch ANSI CL150 lap joint flange	520	7 7/8 (199)	3 1/2 (89)
1/2-inch ANSI CL300 lap joint flange	521	8 3/16 (209)	3 3/4 (95)
DN15 PN40 lap joint flange; DIN 2656 type C face	523	9 7/16 (240)	3 3/4 (95)
DN15 PN40 lap joint flange; EN 1092-1 Form B1	524	9 7/16 (240)	3 3/4 (95)
JIS 15mm 10K lap joint flange	522	8 3/16 (208)	3 3/4 (95)
1/4-inch NPT female Swagelok size 4 VCO fitting	323	6 7/16 (164)	—
High-pressure CMF010P fitting options⁽¹⁾			
1/4-inch NPT female Swagelok size 4 VCO fitting	323	6 7/16 (164)	—
1/4-inch tube compression fitting	324	6 7/16 (164)	—
6 mm tube compression fitting	325	6 7/16 (164)	—

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF025 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
Wafer style; 1/2-inch ANSI (150 lb; 300 lb; 600 lb bolt kit)	009	2 3/8 (60)	1 13/16 (46)
Wafer style, 15mm DIN 2526; type C face (PN40 bolt kit)	016	2 3/8 (60)	1 13/16 (46)
Wafer style; 15mm DIN 2512; type N grooved face (PN40 bolt kit)	017	2 3/8 (60)	1 13/16 (46)
Wafer style; 15mm DIN 2526; type E face (PN100 bolt kit)	018	2 3/8 (60)	1 13/16 (46)
Wafer style; 15mm DIN 2512; type N grooved face (PN100 bolt kit)	019	2 3/8 (60)	1 13/16 (46)
Wafer style; 15mm; standard JIS facing (10K; 20K bolt kit)	029	2 3/8 (60)	1 13/16 (46)
1/2-inch ANSI CL150 weld neck raised face flange	313	6 3/4 (172)	3 1/2 (89)
1/2-inch ANSI CL300 weld neck raised face flange	314	7 1/8 (181)	3 3/4 (95)
1/2-inch ANSI CL600 weld neck raised face flange	315	7 5/8 (194)	3 3/4 (95)
1/2-inch NPT female Swagelok size 8 VCO fitting	319	4 11/16 (119)	—
1/2-inch sanitary fitting (Tri-Clamp compatible)	321	4 11/16 (119)	1 (25)
DN15 PN40 weld neck flange; DIN 2635 type C face	300	6 5/16 (160)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form B1	176	6 5/16 (160)	3 3/4 (95)
DN15 PN40 weld neck flange; DIN 2635 type N grooved face	301	6 5/16 (160)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form D	310	6 5/16 (160)	3 3/4 (95)
DN15 PN100 weld neck flange; DIN 2637 type E face	302	6 15/16 (176)	4 1/8 (105)
DN15 PN100 weld neck flange; EN 1092-1 Form B2	177	6 15/16 (176)	4 1/8 (105)
DN15 PN100 weld neck flange; DIN 2637 type N grooved face	303	6 15/16 (176)	4 1/8 (105)
DN15 PN100 weld neck flange; EN 1092-1 Form D	178	6 15/16 (176)	4 1/8 (105)
DN25 PN40 Weld Neck Flange; EN 1092-1 Form B1	172	6 7/16 (164)	4 1/2 (115)
DN25 PN40 Weld Neck Flange; EN 1092-1 Form D	183	6 7/16 (164)	4 1/2 (115)
JIS 15mm 10K weld neck raised face flange	304	6 1/8 (156)	3 3/4 (95)
JIS 15mm 20K weld neck raised face flange	305	6 1/8 (156)	3 3/4 (95)
<i>304L stainless steel sensors</i>			
1/2-inch ANSI CL150 weld neck raised face flange	413	6 3/4 (172)	3 1/2 (89)
1/2-inch ANSI CL300 weld neck raised face flange	414	7 1/8 (181)	3 3/4 (95)
DN15 PN40 weld neck flange; DIN 2526 type C face	423	6 5/16 (160)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form B1	421	6 5/16 (160)	3 3/4 (95)
<i>Nickel alloy sensors</i>			
1/2-inch ANSI CL150 lap joint flange	520	6 3/4 (172)	3 1/2 (89)
1/2-inch ANSI CL300 lap joint flange	521	7 1/8 (181)	3 3/4 (95)
DN15 PN40 lap joint flange; DIN 2656 type C face	523	7 5/16 (186)	3 3/4 (95)
DN15 PN40 lap joint flange; EN 1092-1 Form B1	524	7 5/16 (186)	3 3/4 (95)
JIS 15mm 10K lap joint flange	522	7 1/8 (181)	3 3/4 (95)

(1) *Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.*

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF050 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
Wafer style; 1/2-inch ANSI (150 lb; 300 lb; 600 lb bolt kit)	009	3 1/2 (89)	1 13/16 (46)
Wafer style; 15mm DIN 2526; type C face (PN40 bolt kit)	016	3 1/2 (89)	1 13/16 (46)
Wafer style; 15mm DIN 2512; type N grooved face (PN40 bolt kit)	017	3 1/2 (89)	1 13/16 (46)
Wafer style; 15mm DIN 2526; type E face (PN100 bolt kit)	018	3 1/2 (89)	1 13/16 (46)
Wafer style; 15mm DIN 2512; type N grooved face (PN100 bolt kit)	019	3 1/2 (89)	1 13/16 (46)
Wafer style; 15mm; standard JIS facing (10K; 20K bolt kit)	029	3 1/2 (89)	1 13/16 (46)
1/2-inch ANSI CL150 weld neck raised face flange	313	7 15/16 (202)	3 1/2 (89)
1/2-inch ANSI CL300 weld neck raised face flange	314	8 5/16 (211)	3 3/4 (95)
1/2-inch ANSI CL600 weld neck raised face flange	315	8 13/16 (224)	3 3/4 (95)
3/4-inch NPT female Swagelok size 12 VCO fitting	320	6 1/2 (165)	—
3/4-inch sanitary fitting (Tri-Clamp compatible)	322	6 1/2 (165)	1 (25)
DN15 PN40 weld neck flange; DIN 2635 type C face	300	7 1/2 (191)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form B1	176	7 1/2 (191)	3 3/4 (95)
DN15 PN40 weld neck flange; DIN 2635 type N grooved face	301	7 1/2 (191)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form D	310	7 1/2 (191)	3 3/4 (95)
DN15 PN100 weld neck flange; DIN 2637 type E face	302	8 1/16 (205)	4 1/8 (105)
DN15 PN100 weld neck flange; EN 1092-1 Form B2	177	8 1/16 (205)	4 1/8 (105)
DN15 PN100 weld neck flange; DIN 2637 type N grooved face	303	8 1/16 (205)	4 1/8 (105)
DN15 PN100 weld neck flange; EN 1092-1 Form D	178	8 1/16 (205)	4 1/8 (105)
DN25 PN40 Weld Neck Flange; EN 1092-1 Form B1	172	7 11/16 (195)	4 1/2 (115)
DN25 PN40 Weld Neck Flange; EN 1092-1 Form D	183	7 11/16 (195)	4 1/2 (115)
JIS 15mm 10K weld neck raised face flange	304	7 1/4 (184)	3 3/4 (95)
JIS 15mm 20K weld neck raised face flange	305	7 1/4 (184)	3 3/4 (95)
<i>304L stainless steel sensors</i>			
1/2-inch ANSI CL150 weld neck raised face flange	413	7 15/16 (202)	3 1/2 (89)
1/2-inch ANSI CL300 weld neck raised face flange	414	8 5/16 (211)	3 3/4 (95)
DN15 PN40 weld neck flange; DIN 2526 type C face	423	7 1/2 (191)	3 3/4 (95)
DN15 PN40 weld neck flange; EN 1092-1 Form B1	421	7 1/2 (191)	3 3/4 (95)
<i>Nickel alloy sensors</i>			
1/2-inch ANSI CL150 lap joint flange	520	7 15/16 (202)	3 1/2 (89)
1/2-inch ANSI CL300 lap joint flange	521	8 5/16 (211)	3 3/4 (95)
DN15 PN40 lap joint flange; DIN 2656 type C face	523	8 1/2 (216)	3 3/4 (95)
DN15 PN40 lap joint flange; EN 1092-1 Form B1	524	8 1/2 (216)	3 3/4 (95)
JIS 15mm 10K lap joint flange	522	8 1/4 (210)	3 3/4 (95)

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF100 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
Wafer style; 1-inch ANSI (150 lb bolt kit)	010	4 (102)	2 1/2 (64)
Wafer style; 1-inch ANSI (300 lb; 600 lb bolt kit)	011	4 (102)	2 1/2 (64)
Wafer style; 25mm type C face (PN40 bolt kit)	020	4 (102)	2 1/2 (64)
Wafer style; 25mm DIN 2512 type N grooved face (PN40 bolt kit)	021	4 (102)	2 1/2 (64)
Wafer style; 25mm type E face (PN100 bolt kit)	022	4 (102)	2 1/2 (64)
Wafer style; 25mm DIN 2512; type N grooved face (PN100 bolt kit)	023	4 (102)	2 1/2 (64)
Wafer style; 25mm; standard JIS face (10K; 20K; 30K bolt kit)	030	4 (102)	2 1/2 (64)
1-inch ANSI CL150 weld neck raised face flange	328	9 1/4 (235)	4 1/4 (108)
1-inch ANSI CL300 weld neck raised face flange	329	9 3/4 (248)	4 7/8 (124)
1-inch ANSI CL600 weld neck raised face flange	330	10 1/4 (260)	4 7/8 (124)
1 1/2-inch ANSI CL600 weld neck raised face flange	331	10 7/8 (276)	6 1/8 (156)
1-inch sanitary fitting (Tri-Clamp compatible)	339	8 3/8 (213)	2 (50)
DN25 PN40 weld neck flange; DIN 2635 type C face	306	8 5/16 (211)	4 1/2 (115)
DN25 PN40 weld neck flange; EN 1092-1 Form B1	179	8 5/16 (211)	4 1/2 (115)
DN25 PN40 weld neck flange; DIN 2635 type N grooved face	307	8 5/16 (211)	4 1/2 (115)
DN25 PN40 weld neck flange; EN 1092-1 Form D	311	8 5/16 (211)	4 1/2 (115)
DN25 PN100 weld neck flange; DIN 2637 type E face	308	9 11/16 (246)	5 1/2 (140)
DN25 PN100 weld neck flange; EN 1092-1 Form B2	180	9 11/16 (246)	5 1/2 (140)
DN25 PN100 weld neck flange; DIN 2637 type N grooved face	309	9 11/16 (246)	5 1/2 (140)
DN25 PN100 weld neck flange; EN 1092-1 Form D	181	9 11/16 (246)	5 1/2 (140)
JIS 25mm 10K weld neck raised face flange	317	8 5/16 (211)	4 15/16 (125)
JIS 25mm 20K weld neck raised face flange	318	8 5/16 (211)	4 15/16 (125)
<i>304L stainless steel sensors</i>			
1-inch ANSI CL150 weld neck raised face flange	415	9 1/4 (235)	4 1/4 (108)
1-inch ANSI CL300 weld neck raised face flange	416	9 3/4 (248)	4 7/8 (124)
DN25 PN40 weld neck flange; DIN 2526 type C face	424	8 9/16 (217)	4 1/2 (115)
DN25 PN40 weld neck flange; EN 1092-1 Form B1	422	8 9/16 (217)	4 1/2 (115)
<i>Nickel alloy sensors</i>			
1-inch ANSI CL150 lap joint flange	530	9 1/4 (235)	4 1/4 (108)
1-inch ANSI CL300 lap joint flange	531	9 3/4 (248)	4 7/8 (124)
DN25 PN40 lap joint flange; DIN 2656 type C face	533	9 9/16 (243)	4 1/2 (115)
DN25 PN40 lap joint flange; EN 1092-1 Form B1	534	9 9/16 (243)	4 1/2 (115)
JIS 25mm 10K lap joint flange	532	9 5/16 (237)	4 15/16 (125)

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF200 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
1 1/2-inch ANSI CL150 weld neck raised face flange	341	22 7/8 (581)	5 (127)
1 1/2-inch ANSI CL300 weld neck raised face flange	342	23 3/8 (594)	6 1/8 (156)
1 1/2-inch ANSI CL600 weld neck raised face flange	343	23 7/8 (606)	6 1/8 (156)
2-inch ANSI CL150 weld neck raised face flange	418	22 7/8 (581)	6 (152)
2-inch ANSI CL300 weld neck raised face flange	419	23 3/8 (594)	6 1/2 (165)
2-inch ANSI CL600 weld neck raised face flange	420	23 5/8 (600)	6 1/2 (165)
1 1/2-inch sanitary fitting (Tri-Clamp compatible) ⁽²⁾	351	21 3/8 (543)	2 (51)
2-inch sanitary fitting (Tri-Clamp compatible) ⁽²⁾	352	21 3/8 (543)	2 1/2 (64)
DN40 PN40 weld neck flange; DIN 2635 type C face	381	21 11/16 (551)	5 15/16 (150)
DN40 PN40 weld neck flange; EN 1092-1 Form B1	368	21 9/16 (547)	5 15/16 (150)
DN40 PN40 weld neck flange; DIN 2635 type N grooved face	383	21 11/16 (551)	5 15/16 (150)
DN40 PN40 weld neck flange; EN 1092-1 Form D	312	21 9/16 (547)	5 15/16 (150)
DN40 PN100 weld neck flange; DIN 2637 type E face	377	23 1/8 (587)	6 11/16 (170)
DN40 PN100 weld neck flange; EN 1092-1 Form B2	363	22 7/8 (580)	6 11/16 (170)
DN40 PN100 weld neck flange; DIN 2637 type N grooved face	379	23 1/8 (587)	6 11/16 (170)
DN40 PN100 weld neck flange; EN 1092-1 Form D	366	22 7/8 (580)	6 11/16 (170)
DN50 PN40 weld neck flange; DIN 2635 type C face	382	21 15/16 (557)	6 1/2 (165)
DN50 PN40 weld neck flange; EN 1092-1 Form B1	369	21 3/4 (553)	6 1/2 (165)
DN50 PN40 weld neck flange; DIN 2635 type N grooved face	384	21 15/16 (557)	6 1/2 (165)
DN50 PN40 weld neck flange; EN 1092-1 Form D	316	21 3/4 (553)	6 1/2 (165)
DN50 PN100 weld neck flange; DIN 2637 type E face	378	23 9/16 (598)	7 11/16 (195)
DN50 PN100 weld neck flange; EN 1092-1 Form B2	365	23 5/16 (593)	7 11/16 (195)
DN50 PN100 weld neck flange; DIN 2637 type N grooved face	380	23 9/16 (598)	7 11/16 (195)
DN50 PN100 weld neck flange; EN 1092-1 Form D	367	23 5/16 (593)	7 11/16 (195)
JIS 40mm 10K weld neck raised face flange	385	21 9/16 (548)	5 1/2 (140)
JIS 40mm 20K weld neck raised face flange	387	21 9/16 (548)	5 1/2 (140)
JIS 50mm 10K weld neck raised face flange	386	21 13/16 (554)	6 1/8 (156)
JIS 50mm 20K weld neck raised face flange	388	21 13/16 (554)	6 1/8 (156)

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

(2) Not available with high-temperature models CMF200A or CMF200B.

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF200 fitting options⁽¹⁾			
<i>304L stainless steel sensors</i>			
1 1/2-inch ANSI CL150 weld neck raised face flange	441	22 7/8 (581)	5 (127)
1 1/2-inch ANSI CL300 weld neck raised face flange	442	23 3/8 (594)	6 1/8 (156)
2-inch ANSI CL150 weld neck raised face flange	518	22 7/8 (581)	6 (152)
2-inch ANSI CL300 weld neck raised face flange	519	23 1/2 (597)	6 1/2 (165)
DN40 PN40 weld neck flange; DIN 2526 type C face	481	21 11/16 (551)	5 15/16 (150)
DN40 PN40 weld neck flange; EN 1092-1 Form B1	457	21 9/16 (547)	5 15/16 (150)
DN50 PN40 weld neck raised face flange; DIN 2526 type C face	482	21 15/16 (557)	6 1/2 (165)
DN50 PN40 weld neck raised face flange; EN 1092-1 Form B1	458	21 3/4 (553)	6 1/2 (165)
<i>Nickel alloy sensors</i>			
1 1/2-inch ANSI CL150 lap joint flange	540	22 7/8 (581)	5 (127)
1 1/2-inch ANSI CL300 lap joint flange	541	23 3/8 (594)	6 1/8 (156)
2-inch ANSI CL150 lap joint flange	544	22 7/8 (581)	6 (152)
2-inch ANSI CL300 lap joint flange	545	23 3/8 (594)	6 1/2 (165)
DN40 PN40 lap joint flange; DIN 2656 type C face	543	21 11/16 (551)	5 15/16 (150)
DN40 PN40 lap joint flange; EN 1092-1 Form B1	548	21 11/16 (551)	5 15/16 (150)
DN50 PN40 lap joint flange; DIN 2656 type C face	547	21 15/16 (557)	6 1/2 (165)
DN50 PN40 lap joint flange; EN 1092-1 Form B1	549	21 15/16 (557)	6 1/2 (165)
JIS 40mm 10K lap joint flange	542	21 9/16 (548)	5 1/2 (140)
JIS 50mm 10K lap joint flange	546	21 13/16 (554)	6 1/8 (155)

(1) *Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.*

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF300 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
3-inch ANSI CL150 weld neck raised face flange	355	33 11/16 (856)	7 1/2 (191)
3-inch ANSI CL300 weld neck raised face flange	356	34 7/16 (875)	8 1/4 (210)
3-inch ANSI CL600 weld neck raised face flange	357	35 3/16 (894)	8 1/4 (210)
4-inch ANSI CL150 weld neck raised face flange	425	34 1/16 (865)	9 (229)
4-inch ANSI CL300 weld neck raised face flange	426	35 (889)	10 (254)
4-inch ANSI CL600 weld neck raised face flange	427	36 11/16 (932)	10 3/4 (273)
3-inch sanitary fitting (Tri-Clamp compatible) ⁽²⁾	361	32 (813)	3 9/16 (90)
DN80 PN40 weld neck flange; DIN 2635 type C face	391	32 7/8 (835)	7 7/8 (200)
DN80 PN40 weld neck flange; EN 1092-1 Form B1	371	32 3/4 (832)	7 7/8 (200)
DN80 PN40 weld neck flange; DIN 2635 type N grooved face	393	32 7/8 (835)	7 7/8 (200)
DN80 PN40 weld neck flange; EN 1092-1 Form D	326	32 3/4 (832)	7 7/8 (200)
DN80 PN100 weld neck flange; DIN 2637 type E face	395	34 9/16 (878)	9 1/16 (230)
DN80 PN100 weld neck flange; EN 1092-1 Form B2	373	34 5/16 (872)	9 1/16 (230)
DN80 PN100 weld neck flange; DIN 2637 type N grooved face	397	34 9/16 (878)	9 1/16 (230)
DN80 PN100 weld neck flange; EN 1092-1 Form D	375	34 5/16 (872)	9 1/16 (230)
DN100 PN40 weld neck flange; DIN 2635 type C face	392	33 1/4 (845)	9 1/4 (235)
DN100 PN40 weld neck flange; EN 1092-1 Form B1	372	33 1/4 (845)	9 1/4 (235)
DN100 PN40 weld neck flange; DIN 2635 type N grooved face	394	33 1/4 (845)	9 1/4 (235)
DN100 PN40 weld neck flange; EN 1092-1 Form D	333	33 1/4 (845)	9 1/4 (235)
DN100 PN100 weld neck flange; DIN 2637 type E face	396	35 9/16 (903)	10 7/16 (265)
DN100 PN100 weld neck flange; EN 1092-1 Form B2	374	35 1/4 (896)	10 7/16 (265)
DN100 PN100 weld neck flange; DIN 2637 type N grooved face	398	35 9/16 (903)	10 7/16 (265)
DN100 PN100 weld neck flange; EN 1092-1 Form D	359	35 1/4 (896)	10 7/16 (265)
JIS 80mm 10K weld neck raised face flange	400	33 3/8 (848)	7 5/16 (186)
JIS 80mm 20K weld neck raised face flange	402	33 3/8 (848)	7 7/8 (200)
JIS 100mm 10K weld neck raised face flange	401	33 9/16 (853)	8 1/4 (210)
JIS 100mm 20K weld neck raised face flange	403	33 9/16 (853)	8 7/8 (225)
<i>304L stainless steel sensors</i>			
3-inch ANSI CL150 weld neck raised face flange	455	33 11/16 (856)	7 1/2 (191)
3-inch ANSI CL300 weld neck raised face flange	456	34 7/16 (875)	8 1/4 (210)
DN80 PN40 weld neck flange; DIN 2526 type C face	491	32 7/8 (835)	7 7/8 (200)
DN80 PN40 weld neck flange; EN 1092-1 Form B1	459	32 3/4 (832)	7 7/8 (200)
<i>Nickel alloy sensors</i>			
3-inch ANSI CL150 lap joint flange	550	33 11/16 (856)	7 1/2 (191)
3-inch ANSI CL300 lap joint flange	551	34 7/16 (875)	8 1/4 (210)
DN80 PN40 lap joint flange; DIN 2656 type C face	553	32 7/8 (835)	7 7/8 (200)
DN80 PN40 lap joint flange; EN 1092-1 Form B1	554	32 7/8 (835)	7 7/8 (200)
JIS 80mm 10K lap joint flange	552	33 3/8 (848)	7 5/16 (185)

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

(2) Not available with high-temperature models CMF300A or CMF300B.

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF400 fitting options⁽¹⁾			
<i>316L stainless steel sensors</i>			
4-inch ANSI CL150 weld neck raised face flange	435	40 3/16 (1021)	9 (229)
4-inch ANSI CL300 weld neck raised face flange	436	41 (1041)	10 (254)
4-inch ANSI CL600 weld neck raised face flange	437	42 11/16 (1084)	10 3/4 (273)
4-inch ANSI CL900 weld neck raised face flange ⁽²⁾	438	43 11/16 (1110)	11 1/2 (292)
6-inch ANSI CL150 weld neck raised face flange	451	40 5/16 (1024)	11 (279)
6-inch ANSI CL300 weld neck raised face flange	452	41 5/16 (1049)	12 1/2 (318)
6-inch ANSI CL600 weld neck raised face flange	453	43 1/2 (1105)	14 (356)
DN100 PN40 weld neck flange; DIN 2635 type C face	460	39 5/16 (999)	9 1/4 (235)
DN100 PN40 weld neck flange; EN 1092-1 Form B1	443	39 5/16 (999)	9 1/4 (235)
DN100 PN40 weld neck flange; DIN 2635 type N grooved face	462	39 5/16 (999)	9 1/4 (235)
DN100 PN40 weld neck flange; EN 1092-1 Form D	480	39 5/16 (999)	9 1/4 (235)
DN100 PN100 weld neck flange; DIN 2637 type E face	464	41 5/16 (1049)	10 7/16 (265)
DN100 PN100 weld neck flange; EN 1092-1 Form B2	445	41 5/16 (1049)	10 7/16 (265)
DN100 PN100 weld neck flange; DIN 2637 type N grooved face	466	41 5/16 (1049)	10 7/16 (265)
DN100 PN100 weld neck flange; EN 1092-1 Form D	447	41 5/16 (1049)	10 7/16 (265)
DN150 PN40 weld neck flange; DIN 2635 type C face	461	39 5/8 (1006)	11 13/16 (300)
DN150 PN40 weld neck flange; EN 1092-1 Form B1	444	40 1/16 (1018)	11 13/16 (300)
DN150 PN40 weld neck flange; DIN 2635 type N grooved face	463	39 5/8 (1006)	11 13/16 (300)
DN150 PN40 weld neck flange; EN 1092-1 Form D	478	40 1/16 (1018)	11 13/16 (300)
DN150 PN100 weld neck flange; DIN 2637 type E face	465	41 15/16 (1065)	14 (355)
DN150 PN100 weld neck flange; EN 1092-1 Form B2	446	43 1/4 (1099)	14 (355)
DN150 PN100 weld neck flange; DIN 2637 type N grooved face	467	41 15/16 (1065)	14 (355)
DN150 PN100 weld neck flange; EN 1092-1 Form D	448	43 1/4 (1099)	14 (355)
JIS 100mm 10K weld neck raised face flange	470	39 5/16 (999)	8 1/4 (210)
JIS 100mm 20K weld neck raised face flange	472	39 13/16 (1011)	8 7/8 (225)
JIS 150mm 10K weld neck raised face flange	471	39 5/8 (1006)	11 (280)
JIS 150mm 20K weld neck raised face flange	473	40 1/8 (1018)	12 (305)

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

(2) Available only with high-temperature model CMF400A.

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diameter inches (mm)
CMF400 fitting options⁽¹⁾			
<i>Nickel alloy sensors</i>			
4-inch ANSI CL150 lap joint	907	42 7/16 (1078)	9 (229)
DN100 PN40 weld neck flange; EN 1092-1 Form B1	906	39 5/16 (999)	9 1/4 (235)
DN100 PN100 weld neck flange; EN 1092-1 Form B2	908	41 1/4 (1048)	10 7/16 (265)
DN100 PN160 weld neck flange; EN 1092-1 Form B2	910	42 1/16 (1068)	10 7/16 (265)
4-inch ANSI CL150 weld neck raised face flange	911	40 3/16 (1021)	9 (229)
4-inch ANSI CL300 weld neck raised face flange	912	40 15/16 (1024)	10 (254)
4-inch ANSI CL600 weld neck raised face flange	913	42 11/16 (1084)	10 3/4 (273)
4-inch ANSI CL900 weld neck raised face flange	914	43 11/16 (1110)	11 1/2 (292)
High-pressure CMF400P fitting options⁽¹⁾			
JIS 100mm 20K weld neck raised face flange	472	39 13/16 (1011)	8 7/8 (225)
JIS 150mm 20K weld neck raised face flange	473	40 1/8 (1018)	12 (305)
4-inch ANSI CL600 weld neck raised face flange	437	42 11/16 (1084)	10 3/4 (273)
4-inch ANSI CL900 weld neck raised face flange	438	43 11/16 (1110)	11 1/2 (292)
4-inch ANSI CL1500 weld neck raised face flange	439	44 7/16 (1129)	12 1/4 (311)
6-inch ANSI CL600 weld neck raised face flange	453	43 1/2 (1105)	14 (356)
4-inch ANSI CL600 carbon steel/316L stainless steel lap joint flange	562	43 11/16 (1110)	10 3/4 (273)
4-inch ANSI CL900 carbon steel/316L stainless steel lap joint flange	563	43 11/16 (1110)	11 1/2 (292)

(1) Fittings listed here are standard options. Other types of fittings are available. The face to face dimensions for any custom fittings ordered using a 998 or 999 fitting code are not represented in this table. It is necessary to confirm face to face dimensions of these fittings at time of ordering. Contact your local Micro Motion representative.

Ordering information

Model	Product Description
Standard models	
CMF010M	Micro Motion Coriolis ELITE sensor; 1/10 to 1/4-inch (2.5 to 6 mm); 316L stainless steel
CMF010H	Micro Motion Coriolis ELITE sensor; 1/10 to 1/4-inch (2.5 to 6 mm); Hastelloy C-22
CMF010L	Micro Motion Coriolis ELITE sensor; 1/10 to 1/4-inch (2.5 to 6 mm); 304L stainless steel
CMF025M	Micro Motion Coriolis ELITE sensor; 1/4 to 1/2-inch (6 to 13 mm); 316L stainless steel
CMF025H	Micro Motion Coriolis ELITE sensor; 1/4 to 1/2-inch (6 to 13 mm); Hastelloy C-22
CMF025L	Micro Motion Coriolis ELITE sensor; 1/4 to 1/2-inch (6 to 13 mm); 304L stainless steel
CMF050M	Micro Motion Coriolis ELITE sensor; 1/2 to 1-inch (13 to 25 mm); 316L stainless steel
CMF050H	Micro Motion Coriolis ELITE sensor; 1/2 to 1-inch (13 to 25 mm); Hastelloy C-22
CMF050L	Micro Motion Coriolis ELITE sensor; 1/2 to 1-inch (13 to 25 mm); 304L stainless steel
CMF100M	Micro Motion Coriolis ELITE sensor; 1 to 2-inch (25 to 50 mm); 316L stainless steel
CMF100H	Micro Motion Coriolis ELITE sensor; 1 to 2-inch (25 to 50 mm); Hastelloy C-22
CMF100L	Micro Motion Coriolis ELITE sensor; 1 to 2-inch (25 to 50 mm); 304L stainless steel
CMF200M	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); 316L stainless steel
CMF200H	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); Hastelloy C-22
CMF200L	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); 304L stainless steel
CMF300M	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); 316L stainless steel
CMF300H	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); Hastelloy C-22
CMF300L	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); 304L stainless steel
CMF400M	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); 316L stainless steel
CMF400H	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); Hastelloy C-22
High-pressure models	
CMF010P	Micro Motion Coriolis ELITE sensor; 1/10 to 1/4-inch (2.5 to 6 mm); high pressure; nickel alloy with stainless steel fittings
CMF400P	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); high pressure; nickel alloy with stainless steel fittings
High-temperature models	
CMF200A	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); high temperature; 316L stainless steel
CMF200B	Micro Motion Coriolis ELITE sensor; 2 to 3-inch (50 to 75 mm); high temperature; Hastelloy C-22
CMF300A	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); high temperature; 316L stainless steel
CMF300B	Micro Motion Coriolis ELITE sensor; 3 to 4-inch (75 to 100 mm); high temperature; Hastelloy C-22
CMF400A	Micro Motion Coriolis ELITE sensor; 4 to 6-inch (100 to 150 mm); high temperature; 316L stainless steel
Code	Process Connections
###	See process fitting options on pages 42–49.
Code	Case Options
N	Standard pressure containment
P	Purge fittings (two 1/2-inch NPT female)
D	Rupture disks (two 400-psi [28 bar] disks) — Model CMF010P only
Continued on next page	

Ordering information *continued*

Code	Electronics Interface
For all models except high-temperature models	
0	Model 2400S transmitter
1	Extended mount Model 2400S transmitter
2	4-wire polyurethane-painted aluminum integral enhanced core processor for remote mount transmitters
3	4-wire stainless steel integral enhanced core processor for remote mount transmitters
4	4-wire polyurethane-painted aluminum integral extended mount enhanced core processor for remote mount transmitters
5	4-wire extended mount stainless steel integral enhanced core processor for remote mount transmitters
Q	4-wire polyurethane-painted aluminum integral core processor for remote mount transmitters
A	4-wire stainless steel integral core processor for remote mount transmitters
V	4-wire extended mount polyurethane-painted aluminum integral core processor for remote mount transmitters
B	4-wire extended mount stainless steel integral core processor for remote mount transmitters
W ⁽¹⁾	Polyurethane-painted aluminum integral core processor for MVD Direct Connect installation
D ⁽¹⁾	Stainless steel integral core processor for MVD Direct Connect installation
Y ⁽¹⁾	Polyurethane-painted aluminum extended core processor for MVD Direct Connect installation
E ⁽¹⁾	Stainless steel extended core processor for MVD Direct Connect installation
R	9-wire polyurethane-painted aluminum junction box
H	9-wire extended mount polyurethane-painted aluminum junction box
S	9-wire 316L stainless steel junction box
For high-temperature models	
0	Model 2400S transmitter
2	4-wire polyurethane-painted aluminum integral enhanced core processor for remote mount transmitters
3	4-wire stainless steel integral enhanced core processor for remote mount transmitters
Q	4-wire polyurethane-painted aluminum integral core processor for remote mount transmitters
A	4-wire stainless steel integral core processor for remote mount transmitters
C	Model 1700/2700 transmitter
W ⁽¹⁾	Polyurethane-painted aluminum integral core processor for MVD Direct Connect installation
D ⁽¹⁾	Stainless steel integral core processor for MVD Direct Connect installation
R	9-wire polyurethane-painted aluminum junction box
S	9-wire 316L stainless steel junction box
Continued on next page	

(1) When electronics interface code W, D, Y, or E is ordered with approval codes U, C, A, or Z, an MVD Direct Connect I.S. barrier is supplied. No barrier is supplied when ordered with approval codes M or N.

Ordering information *continued*

Code	Conduit Connections
	Electronics interface codes 0, 1, and C
A	Not applicable
	Electronics interface codes 2, 4, Q, A, V, B, W, D, Y and E
B	1/2-inch NPT — no gland
E	M20 — no gland
F	Brass/nickel cable gland (cable diameter 0.335 to 0.394 inches [8.5 to 10 mm])
G	Stainless steel cable gland (cable diameter 0.335 to 0.394 inches [8.5 to 10 mm])
	Electronics interface codes R, H, and S (9-wire junction box)
A	3/4-inch NPT — no gland
H	Brass nickel cable gland
J	Stainless steel cable gland
Code	Approvals
	Electronics interface codes 0 and 1
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
2	CSA C-US (US and Canada) Class I, Div. 2
V	ATEX — Equipment Category 3 (Zone 2) / PED compliant
3	IECEX Zone 2
	Electronics interface codes 2, 3, 4, and 5
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
A	CSA C-US (US and Canada)
Z	ATEX — Equipment Category 2 (Zone 1) / PED compliant
I	IECEX Zone 1
	Electronics interface codes Q, A, C, V, B, R, H, and S
M	Micro Motion Standard (no approval)
N	Micro Motion Standard / PED compliant
U	UL — Not available with electronics interface code C
C	CSA (Canada only) — Not available with electronics interface code C
A	CSA C-US (US and Canada)
Z	ATEX — Equipment Category 2 (Zone 1) / PED compliant
P ⁽¹⁾	NEPSI
I	IECEX Zone 1
	Electronics interface codes W, D, Y, and E (MVD Direct Connect with I.S. barrier)⁽²⁾
M	Micro Motion Standard (no approval, no barrier included)
N	Micro Motion Standard / PED compliant (no approval, no barrier included)
U	UL
C	CSA (Canada only)
A	CSA C-US (US and Canada)
Z	ATEX — Equipment Category 2 (Zone 1) / PED compliant
Continued on next page	

(1) Available only with language option M (Chinese).

(2) When electronics interface code W, D, Y, or E is ordered with approval codes U, C, A, or Z, an MVD Direct Connect I.S. barrier is supplied. No barrier is supplied when ordered with approval codes M or N.

Ordering information *continued*

Code	Language
A	Danish installation manual
D	Dutch installation manual
E	English installation manual
F	French installation manual
G	German installation manual
H	Finnish installation manual
I	Italian installation manual
J	Japanese installation manual
M	Chinese installation manual
N	Norwegian installation manual
O	Polish installation manual
P	Portuguese installation manual
S	Spanish installation manual
W	Swedish installation manual
C	Czech installation manual
B	Hungarian CE requirements document and English installation manual
K	Slovak CE requirements document and English installation manual
T	Estonian CE requirements document and English installation manual
U	Greek CE requirements document and English installation manual
L	Latvian CE requirements document and English installation manual
V	Lithuanian CE requirements document and English installation manual
Y	Slovenian CE requirements document and English installation manual
Code ⁽¹⁾	Calibration Options
Z	0.10% mass flow and 0.0005 g/cm ³ (0.5 kg/m ³) density
D	0.10% mass flow and 0.0002 g/cm ³ (0.2 kg/m ³) density
2	0.05% mass flow and 0.0005 g/cm ³ (0.5 kg/m ³) density
3	0.05% mass flow and 0.0002 g/cm ³ (0.2 kg/m ³) density
Code	Measurement Application Software
Z	No measurement application software
A ⁽²⁾	Petroleum measurement
Code	Factory Options
Z	Standard product
X	ETO product
Typical Model Number: CMF050M 313 N 2 B A E Z Z Z	

(1) Calibration options other than Z require electronics interface codes 0–5. In addition, for high-temperature models, **only** calibration option Z is available.

(2) Available with electronics interface code W, D, Y, and E. For electronics interface codes 0–5, Q, A, V, B, R, H, and S, select the transmitter's Petroleum Measurement software option.

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