

Product Data Sheet

PS-00374

December 2002

# Micro Motion ELITE® Mass Flow and Density Meters

Available with MVD™ Technology!



**MVD**™ technology



[www.micromotion.com](http://www.micromotion.com)



# Micro Motion® ELITE® meters

**Experience the most accurate Coriolis meters available today.**

Micro Motion® ELITE® meters are the leading flowmeters for precision flow measurement. And with good reason. ELITE meters offer the most accurate measurement available for virtually any process fluid, while exhibiting exceptionally low pressure drop.

Seven sizes of ELITE meters offer direct mass flow, volume flow, density, and temperature measurement of liquids, gases, and slurries — without the need for additional equipment, manual calculations, or estimations.

Micro Motion ELITE meters are designed for unsurpassed performance in even the most harsh operating environments. They have no moving parts, and no special mounting or flow conditioning requirements. 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. And they require no maintenance — saving you money over the course of their lifetime by helping you make the most of your time, people, and materials.

ELITE meters carry hazardous area approvals for the U.S.A. and in Canada, Europe, Australia, Japan and other areas in the Asia-Pacific region.

## Special applications

Several ELITE meters have been designed for special applications. The CMF010 is our smallest meter, designed for remarkably high performance in low-flow applications. It features a single, continuous flow tube, and is also available in a high-pressure model, for applications up to 6000 psi (413 bar).

Much larger in size is our CMF400. This 4-inch meter offers the most accurate measurement available in a high-capacity meter.

The 3-inch CMF300A is a high-temperature meter. It provides the same accuracy and measurement capabilities as our other ELITE meters, at temperatures up to 650 °F (343 °C).

Our CMF025, CMF050, and CMF100 meters are available with optional flangeless, wafer-style process connections.

## MVD™ Technology

Micro Motion ELITE meters are available with MVD Technology — an innovative, multivariable, digital signal processing capability. A core processor, integrally mounted on the ELITE sensor, works with 4-wire transmitters to improve ease of use, reduce downtime, and lower your flow metering costs. Meters with MVD Technology provide cleaner, noise-free digital signals. Digital signal processing means faster response times, enhanced diagnostic capabilities, higher accuracy, and better repeatability.

## System integration

Micro Motion offers a variety of microprocessor-based transmitters, any of which can be connected to our ELITE sensors. Depending on the transmitter model, features include milliampere and frequency/pulse outputs, transmitter and process control functions in a single device, and Petroleum Measurement outputs for crude oil and other hydrocarbon fluids.

Other options include transmitters that can be installed in instrument racks or panels, or housed in NEMA or explosion-proof enclosures. Sensors and explosion-proof transmitters can be installed in the same hazardous area.

Micro Motion ELITE meters can be installed as part of a Bell 202 multidrop network, an RS-485 digital communications network, or a Profibus-PA or FOUNDATION™ Fieldbus system.

Transmitters feature HART®, Modbus®, FOUNDATION Fieldbus, Profibus-PA, and other communication protocols. And all our transmitters support Emerson Process Management's PlantWeb® field-based architecture, which uses the power of intelligent, interoperable field devices to improve plant performance.

Micro Motion is known worldwide for increasing plant efficiency, production, and profitability. More than 400,000 Micro Motion meters are installed and working in processes just like yours. Contact us and discover the best precision flowmeters available today — Micro Motion ELITE meters.

# Liquid performance specifications

Liquid flow		Mass		Volume	
<b>Nominal flow range<sup>(1)</sup></b>		<b>lb/min</b>	<b>kg/h</b>	<b>gal/min</b>	<b>l/h</b>
	CMF010	0 to 3	0 to 82	0 to 0.4	0 to 82
	CMF025	0 to 40	0 to 1090	0 to 5	0 to 1090
	CMF050	0 to 125	0 to 3400	0 to 15	0 to 3400
	CMF100	0 to 500	0 to 13,600	0 to 60	0 to 13,600
	CMF200	0 to 1600	0 to 43,550	0 to 192	0 to 43,550
	CMF300	0 to 5000	0 to 136,080	0 to 600	0 to 136,080
	CMF400	0 to 15,000	0 to 409,000	0 to 1800	0 to 409,000
<b>Maximum flow rate</b>		<b>lb/min</b>	<b>kg/h</b>	<b>gal/min</b>	<b>l/h</b>
	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
	CMF300	10,000	272,160	1200	272,160
	CMF400	20,000	545,500	2400	545,500
<b>Mass flow accuracy<sup>(2)</sup></b>	Transmitters with MVD Technology	±0.10% of rate <sup>(3)</sup>			
	All other transmitters	±0.10% ± $\left[ \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$ % of rate			
<b>Mass flow repeatability<sup>(2)</sup></b>	Transmitters with MVD Technology	±0.05% of rate <sup>(3)</sup>			
	All other transmitters	±0.05% ± $\left[ \frac{1}{2} \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$ % of rate			
<b>Zero stability</b>		<b>lb/min</b>	<b>kg/h</b>		
	CMF010	0.000075	0.002		
	High-pressure 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		

<sup>(1)</sup> Micro Motion has adopted the terminology "nominal flow range." The upper limit of this range is the flow rate at which water at reference conditions causes approximately 15 psid (1 bar) of pressure drop for ELITE sensors.

<sup>(2)</sup> 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.

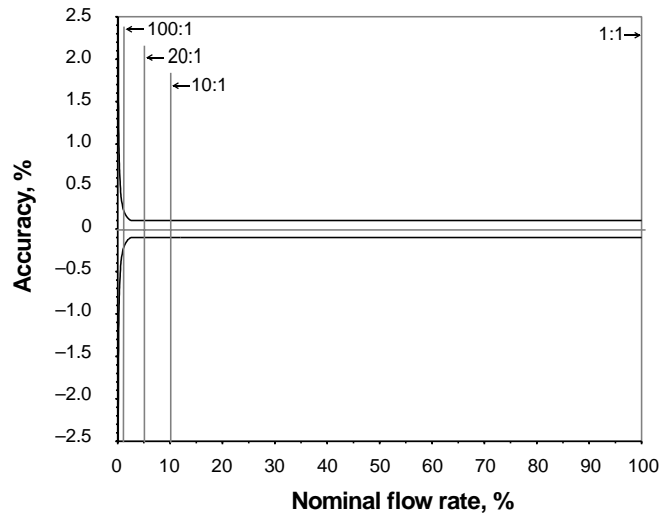
<sup>(3)</sup> When flow rate is less than  $\frac{\text{zero stability}}{0.001}$ , accuracy equals  $\pm \left[ \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$  % of rate and repeatability equals  $\pm \left[ \frac{1}{2} \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$  % of rate.

# Liquid performance specifications *continued*

## Typical mass accuracy, turndown, and pressure drop with transmitter with MVD Technology<sup>(1)</sup>

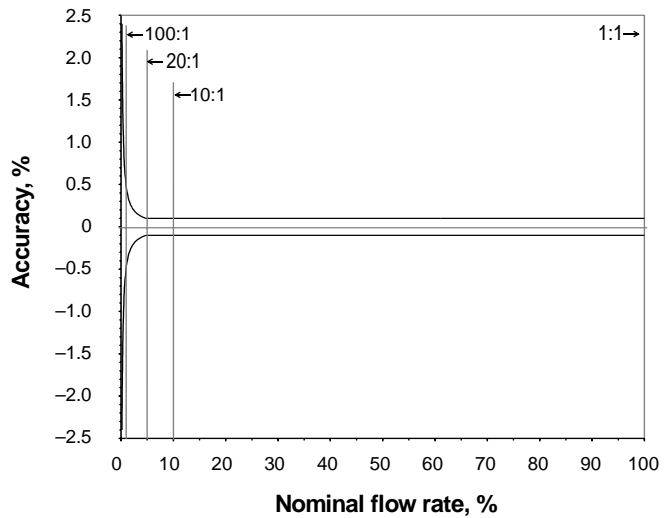
CMF010N, CMF010M, CMF025

Turndown	500:1	100:1	20:1	10:1	1:1
Accuracy (±%)					
liquid	1.25	0.25	0.10	0.10	0.10
Pressure drop					
liquid (psi)	~0	~0	0.1	0.2	14.5
liquid (bar)	~0	~0	0.01	0.01	1.0



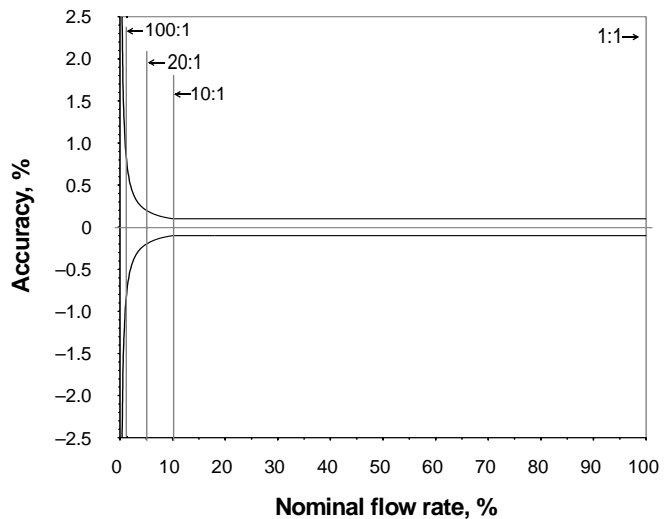
CMF010P, CMF050, CMF100, CMF200, CMF300

Turndown	500:1	100:1	20:1	10:1	1:1
Accuracy (±%)					
liquid	2.40	0.50	0.10	0.10	0.10
Pressure drop					
liquid (psi)	~0	~0	0.1	0.2	13.5
liquid (bar)	~0	~0	0.01	0.01	0.93



CMF400

Turndown	500:1	100:1	20:1	10:1	1:1
Accuracy (±%)					
liquid	5	1.0	0.20	0.10	0.10
Pressure drop					
liquid (psi)	~0	~0	~0	0.2	14.1
liquid (bar)	~0	~0	<0.01	0.01	1.0



<sup>(1)</sup> To determine accuracy, turndown, and pressure drop using your process variables, use Micro Motion's product selector at [www.micromotion.com](http://www.micromotion.com).

# Gas performance specifications

## Flow specifications

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 Micro Motion's product selector, available at [www.micromotion.com](http://www.micromotion.com).

### Typical flow rates

#### Mass

#### Volume at reference conditions<sup>(1)</sup>

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).

Sensor	lb/min	kg/hr	scfm	Nm <sup>3</sup> /h
CMF010	0.3	8	4	6
CMF025	4	116	57	90
CMF050	11	297	145	229
CMF100	48	1313	642	1015
CMF200	147	4005	1957	3094
CMF300	488	13,289	6493	10,268
CMF400	1248	33,976	16,601	26,252

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)

Sensor	lb/min	kg/hr	scfm	Nm <sup>3</sup> /h
CMF010	1	32	28	44
CMF025	16	445	378	598
CMF050	42	1135	965	1526
CMF100	184	5016	4263	6741
CMF200	560	15,239	12,950	20,478
CMF300	1856	50,500	42,913	67,861
CMF400	4698	127,864	108,654	171,822

### Accuracy<sup>(2)</sup>

Transmitters with MVD Technology	±0.35% of rate <sup>(3)</sup>
All other transmitters	±0.50% of rate ± $\left[ \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$ % of rate

### Repeatability<sup>(2)</sup>

Transmitters with MVD Technology	±0.20% of rate <sup>(3)</sup>
All other transmitters	±0.25% of rate ± $\left[ \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$ % of rate

### Zero stability

	lb/min	kg/h
CMF010	0.000075	0.002
High-pressure 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

<sup>(1)</sup> Standard (scfm) reference conditions are 14.7 psia and 68 °F. Normal (Nm<sup>3</sup>/h) reference conditions are 1.013 bar-a and 0 °C.

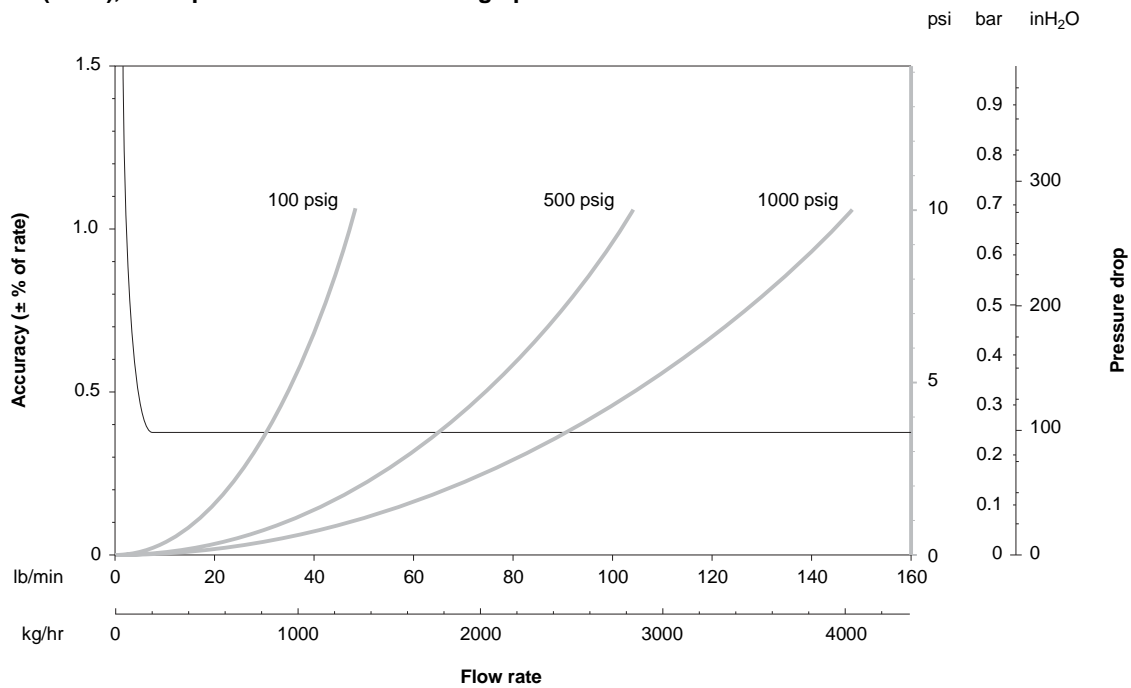
<sup>(2)</sup> Flow accuracy includes the combined effects of repeatability, linearity, and hysteresis.

<sup>(3)</sup> When flow rate is less than  $\frac{\text{zero stability}}{0.0035}$ , accuracy equals  $\pm \left[ \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$  % of rate and repeatability equals  $\pm \left[ \frac{1}{2} \left( \frac{\text{zero stability}}{\text{flow rate}} \right) \times 100 \right]$  % of rate.

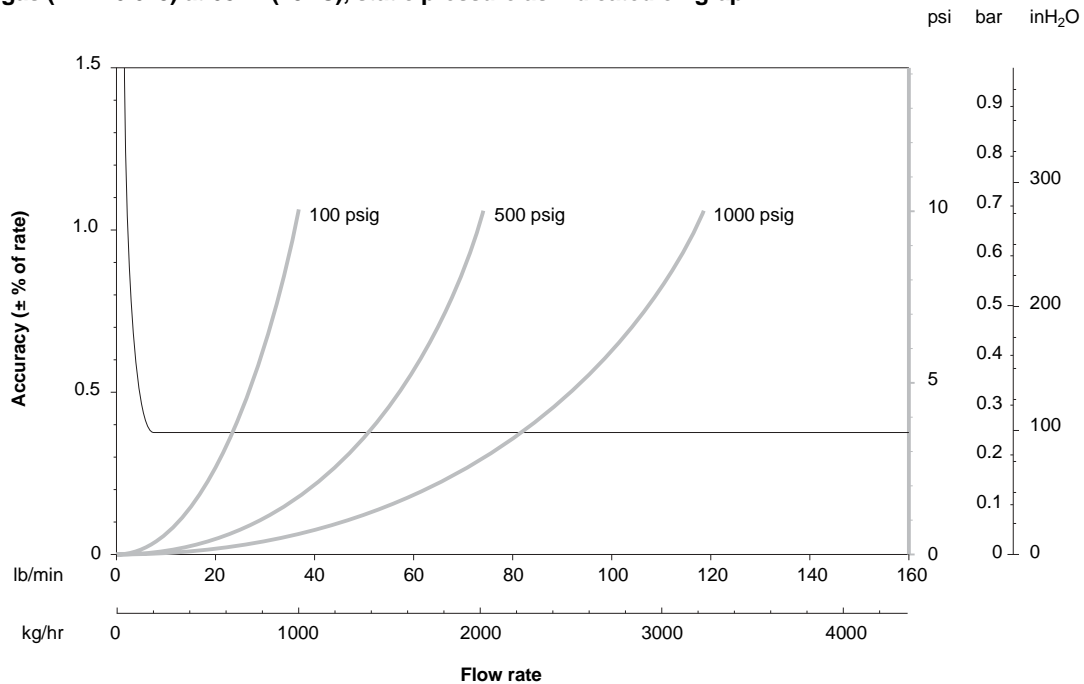
# Gas performance specifications *continued*

## Typical 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. Please reference EXPERT<sub>2</sub><sup>™</sup>, available at [www.micromotion.com](http://www.micromotion.com), or your local sales representative for more information.

# Performance specifications *continued*

Density			with Model 2700, 3500, 3700, or RFT9739 transmitter		with IFT9701 transmitter	
			g/cc	kg/m <sup>3</sup>	g/cc	kg/m <sup>3</sup>
<b>Accuracy<sup>(1)</sup></b>	High-pressure CMF010P	liquid	±0.002	±2.0	±0.008	±8.0
	All other models	liquid	±0.0005	±0.5	±0.002	±2.0
<b>Repeatability<sup>(1)</sup></b>	High-pressure CMF010P	liquid	±0.001	±1.0	±0.004	±4.0
	All other models	liquid	±0.0002	±0.2	±0.001	±1.0
<b>Range</b>	All models		0 to 5	0 to 5000	0 to 5	0 to 5000
<b>Temperature</b>						
<b>Accuracy</b>	All models		±1 °C ± 0.5% of reading in °C			
<b>Repeatability</b>	All models		±0.2 °C			
<b>Range<sup>(2)</sup></b>	CMF010, CMF025, CMF050, CMF100, CMF200, CMF300M, CMF300H, CMF400 <sup>(3)(4)</sup>	with core processor	°F	–60 to 257	°C	–50 to 125 process fluid
		with junction box		–400 to 400		–240 to 204 process fluid
		with core processor on extended mount		–60 to 400		–50 to 204 process fluid
	High-temperature CMF300A <sup>(3)</sup>	sensor		32 to 650		0 to 343 process fluid
		junction box		–40 to 248		–40 to 120 ambient

<sup>(1)</sup> 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.

<sup>(2)</sup> For ATEX-compliant sensors, the "T" rating and hazardous area classification depend on the maximum process fluid and ambient temperature. See page 12.

<sup>(3)</sup> For ATEX-compliant sensors, the maximum ambient temperature is 55 °C (60 °C for CMF400 sensors). Use of sensors with a junction box above this temperature is acceptable, provided the ambient temperature does not exceed the "T" rating listed on page 12 for temperature of the fluid.

<sup>(4)</sup> For ATEX-compliant sensors, the minimum process fluid and ambient temperature is –20 °C (–50 °C for CMF400 sensors). If the process fluid remains at or above 0 °C, ambient temperature below –20 °C (CMF400 sensors, min. ambient temp. is –50 °C) is acceptable for sensors with a junction box. For sensors with a core processor, an ambient temperature of –40 °C is allowed.



# Performance specifications *continued*

## Pressure ratings

<b>Flow tube rating<sup>(1)</sup></b>		
	<b>psi</b>	<b>bar</b>
Stainless steel sensors	1450	100
Nickel-alloy sensors	2160	148
High-pressure CMF010P	6000	413
<b>PED compliance</b> Sensors comply with council directive 97/23/EC of 29 May 1997 on Pressure Equipment		
<b>Housing rating<sup>(1)</sup></b>		
	<b>psi</b>	<b>bar</b>
CMF010 <sup>(2)</sup>	725	29
CMF025	850	59
CMF050	850	59
CMF100	625	43
CMF200	550	38
CMF300	275	18
CMF400	250	17
<b>Short-term housing rating<sup>(1)(3)</sup></b>		
	<b>psi</b>	<b>bar</b>
CMF010 <sup>(2)</sup>	565	38
CMF025	1130	78
CMF050	1130	78
CMF100	830	57
CMF200	730	50
CMF300	365	25
CMF400	325	22

<sup>(1)</sup> Pressure ratings at 77 °F (25 °C), according to ASME B31.3. For higher operating temperatures, pressure needs to be derated as follows:

		<b>Flow tubes 316L sensors</b>	<b>Flow tubes nickel alloy sensors</b>	<b>Housing all sensors</b>
<i>All sensors</i>	201 to 300 °F (94 to 148 °C)	none	2% derating	none
	301 to 400 °F (149 to 204 °C)	7.2% derating	9.2% derating	7.2% derating
<i>High-temperature CMF300A</i>	401 to 500 °F (205 to 260 °C)	13.8% derating	not applicable	11.4% derating
	501 to 600 °F (261 to 316 °C)	19.2% derating	not applicable	16.2% derating
	601 to 650 °F (317 to 343 °C)	20.1% derating	not applicable	18.0% derating

<sup>(2)</sup> Optional rupture disks for high-pressure CMF010 will burst if pressure inside sensor housing reaches 400 psi (27 bar).

<sup>(3)</sup> Housing pressure rating for 10 hours or less, according to ASME B31.3.

# Functional specifications

## Environmental effects

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**Process temperature effect** Process temperature effect is defined as the worst-case zero offset due to process fluid temperature change away from the zeroing temperature for flow rate and calibration temperature for density.

### Process temperature effect

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	<i>% of nominal flow rate per °C<sup>(1)</sup></i>	<i>density accuracy per °C<sup>(2)</sup></i>
CMF010	±0.00025	±0.000015 g/cc
CMF025	±0.00025	±0.000015 g/cc
CMF050	±0.00025	±0.000015 g/cc
CMF100	±0.00025	±0.000015 g/cc
CMF200	±0.001	±0.000015 g/cc
CMF300	±0.001	±0.000015 g/cc
CMF400	±0.001	±0.000015 g/cc

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

### Pressure effect on flow accuracy

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	<i>% of rate per psi</i>	<i>% of rate per bar</i>
CMF010	none	none
CMF025	none	none
CMF050	none	none
CMF100	-0.0002	-0.003
CMF200	-0.0008	-0.012
CMF300	-0.0006	-0.009
CMF400	-0.001	-0.015

## Power consumption

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**All meters with core processor** 3 watts

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<sup>(1)</sup> Nominal flow rate is the upper limit of the nominal flow range.

<sup>(2)</sup> For -100 °C and above.

# Functional specifications *continued*

## Hazardous area classifications

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UL is a U.S.A. approvals agency. CSA is a Canadian approvals agency that provides approvals accepted both in the U.S.A. and in Canada. ATEX is a European standards organizations, and SAA is an Australian approvals agency. (ATEX approval data is shown on page 12.)

**UL and CSA**

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

**SAA**

CMF025	Ex ib IIC T5
CMF050	Ex ib IIC T5
CMF100	Ex ib IIC T6
CMF200	Ex ib IIB T6
CMF300	Ex ib IIB T6
CMF400	<i>SAA approval not available</i>

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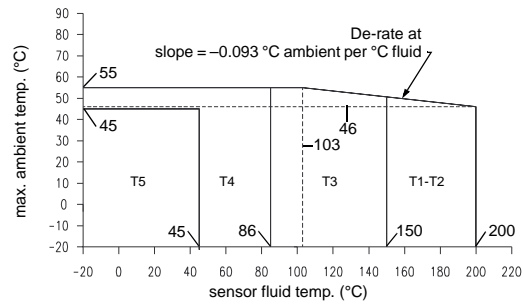
# Functional specifications *continued*

ATEX<sup>(1)</sup>

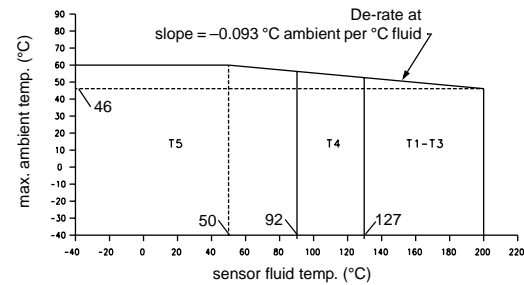
## Sensors with core processor

CMF010, CMF025, CMF050, CMF100  
CE 0575 II 2G EEx ib IIC T1...T5

CMF200, CMF300  
CE 0575 II 2G EEx ib IIB T1...T5



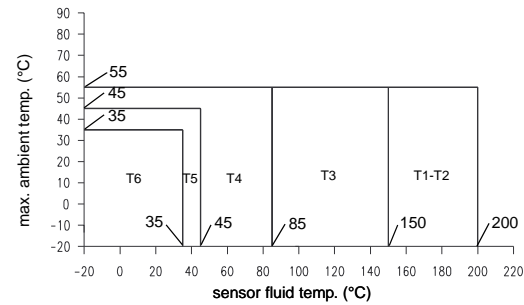
CMF400  
CE 0575 II 2G EEx ib IIB T1...T5



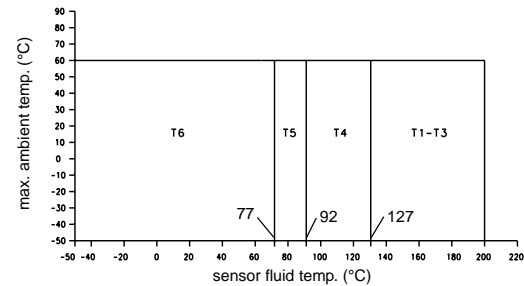
## Sensors with junction box, except CMF300A

CMF010, CMF025, CMF050, CMF100  
CE 0575 II 2G EEx ib IIC T1...T6

CMF200, CMF300  
CE 0575 II 2G EEx ib IIB T1...T6

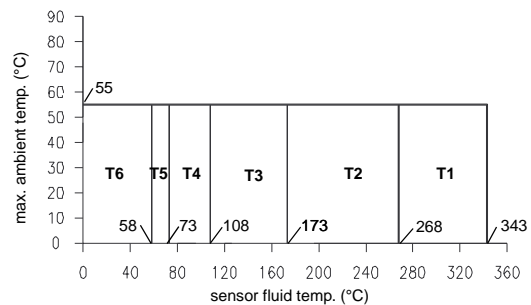


CMF400  
CE 0575 II 2G EEx ib IIB T1...T6



## CMF300A

CE 0575 II 2G EEx ib IIB T1...T6



<sup>(1)</sup>ATEX "T" rating depends on the maximum temperature shown in the graphs above.

# Physical specifications

## Materials of construction

<b>Wetted parts<sup>(1)</sup></b>		<b>Stainless steel</b>	<b>Nickel alloy</b>
	CMF010 <sup>(2)</sup>	316L or 304L	Inconel® alloy 686
	CMF025	316L or 304L	Hastelloy® C-22
	CMF050	316L or 304L	Hastelloy C-22
	CMF100	316L or 304L	Hastelloy C-22
	CMF200	316L or 304L	Hastelloy C-22
	CMF300	316L or 304L	Hastelloy C-22
	High-temperature CMF300A	316L	not available
	CMF400	316L	not available
<b>Housing</b>	304L stainless steel		
<b>Junction box</b>	Epoxy-coated aluminum		
<b>Core processor</b> <i>not available with CMF300A</i>	316L stainless steel or epoxy-coated aluminum		

## Weight<sup>(3)</sup>

	<b>With junction box</b>		<b>With core processor</b>	
	<b>lb</b>	<b>kg</b>	<b>lb</b>	<b>kg</b>
CMF010	14	7	17	8
CMF025	8	4	11	5
CMF050	12	6	15	7
CMF100	29	13	32	15
CMF200	63	29	66	30
CMF300	165	75	168	76
CMF400	441	200	444	201

<sup>(1)</sup> 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 Micro Motion's corrosion guide for proper material compatibility information.

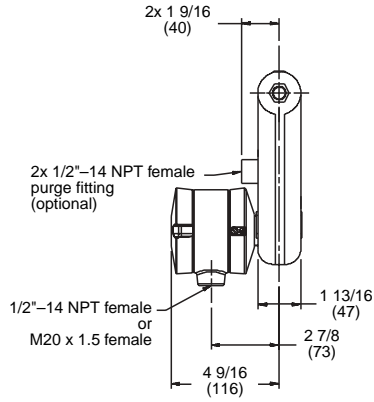
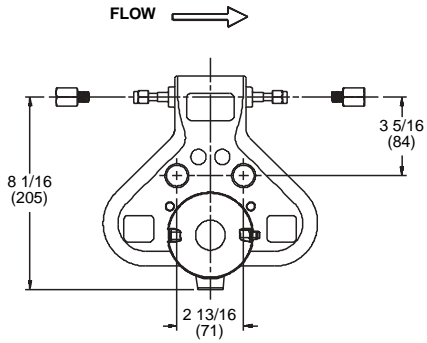
<sup>(2)</sup> The CMF010P has nickel alloy tubes and SST fittings.

<sup>(3)</sup> Weight of sensor with ANSI 150 lb weld neck raised face flanges.

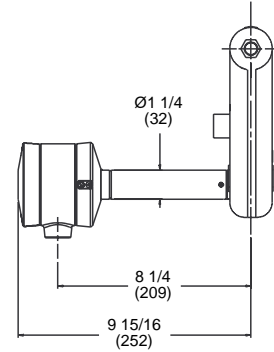
# CMF010 dimensions

Dimensions in *inches*  
(mm)

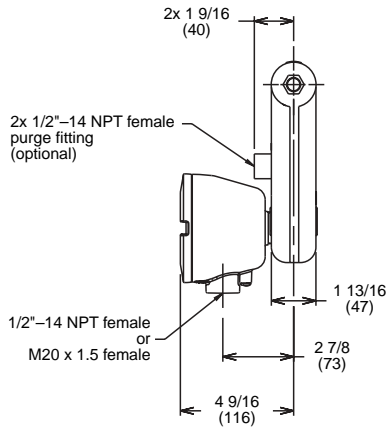
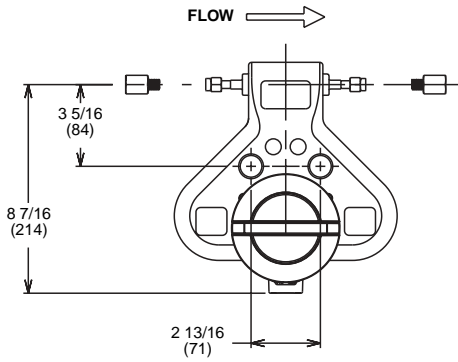
## CMF010 with stainless steel core processor



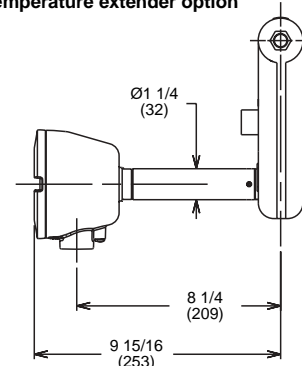
### Temperature extender option



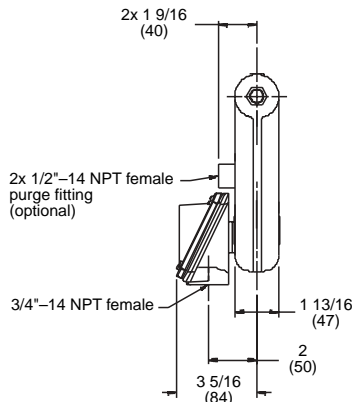
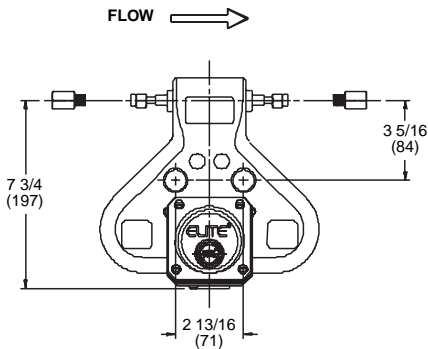
## CMF010 with aluminum core processor



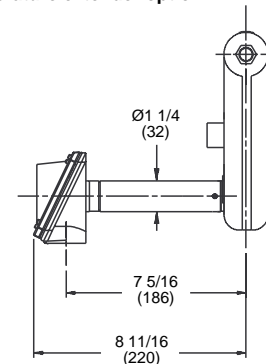
### Temperature extender option



## CMF010 with junction box

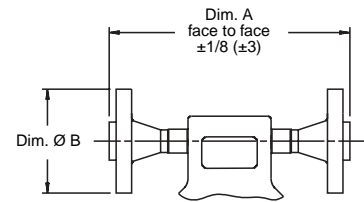
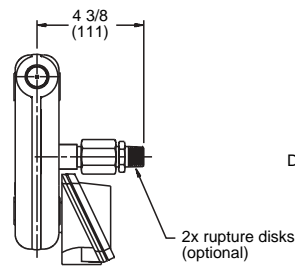
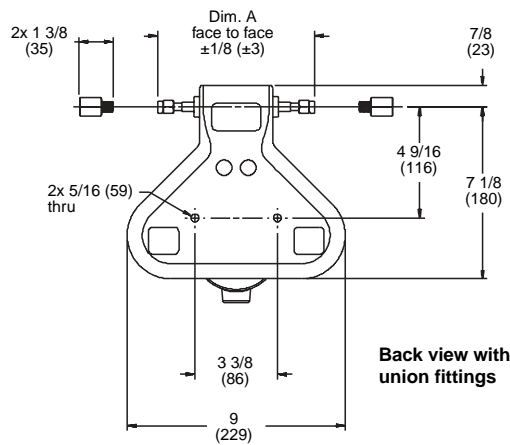


### Temperature extender option



# CMF010 dimensions *continued*

Dimensions in *inches*  
(mm)



## CMF010 process fittings

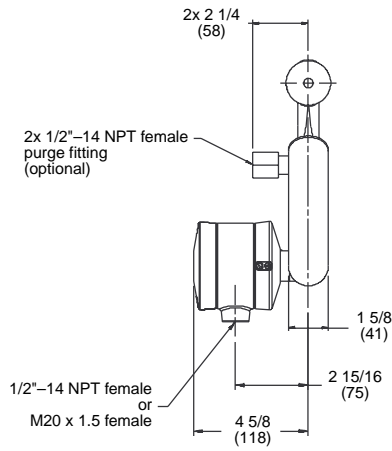
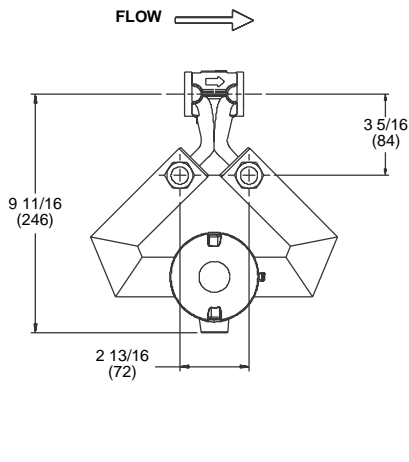
	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
<b>Fittings for 316L stainless steel sensors<sup>(1)</sup></b>			
1/2-inch 150 lb ANSI weld neck raised face flange	313	7 7/8 (199)	3 1/2 (89)
1/2-inch 300 lb ANSI weld neck raised face flange	314	8 3/16 (209)	3 3/4 (95)
1/2-inch 600 lb ANSI weld neck raised face flange	315	8 11/16 (221)	3 3/4 (95)
1/2-inch sanitary fitting	321	6 15/16 (177)	1 (25)
15 mm DIN PN40 weld neck, DIN 2635, type C face	300	7 7/16 (189)	3 3/4 (95)
15 mm DIN PN100 weld neck, DIN 2637, type E face	302	8 (203)	4 1/8 (105)
15 mm JIS 10K weld neck	304	7 3/16 (183)	3 3/4 (95)
15 mm JIS 20K weld neck	305	7 3/16 (183)	3 3/4 (95)
1/4-inch NPT female union 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)	---
<b>Fittings for 304L stainless steel sensors<sup>(1)</sup></b>			
1/2-inch 150 lb ANSI weld neck raised face flange	413	7 7/8 (199)	3 1/2 (89)
1/2-inch 300 lb ANSI weld neck raised face flange	414	8 3/16 (209)	3 3/4 (95)
15 mm DIN PN40 weld neck, DIN 2635 type C face	423	7 7/16 (189)	3 3/4 (95)
<b>Fittings for nickel alloy sensors<sup>(1)</sup></b>			
1/2-inch 150 lb ANSI lap joint flange	520	7 7/8 (199)	3 1/2 (89)
1/2-inch 300 lb ANSI lap joint flange	521	8 3/16 (209)	3 3/4 (95)
15 mm DIN PN40 lap joint, DIN 2656	523	9 7/16 (240)	3 3/4 (95)
15 mm JIS 10K lap joint flange	522	8 3/16 (208)	3 3/4 (95)
1/4-inch NPT female union fitting	323	6 7/16 (164)	---
<b>Fittings for high-pressure sensors<sup>(1)</sup></b>			
1/4-inch NPT female union 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)	---

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

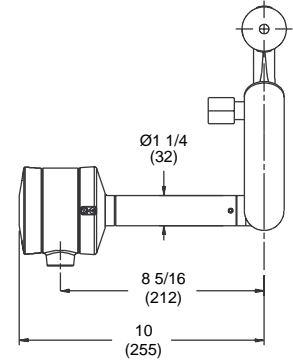
# CMF025 dimensions

Dimensions in inches  
(mm)

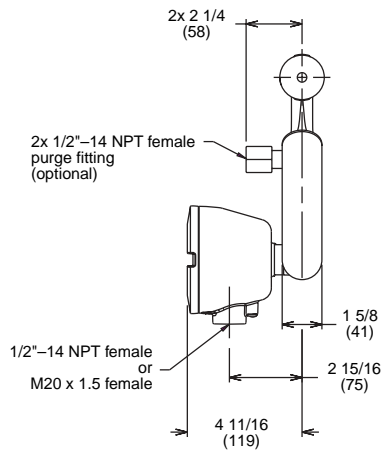
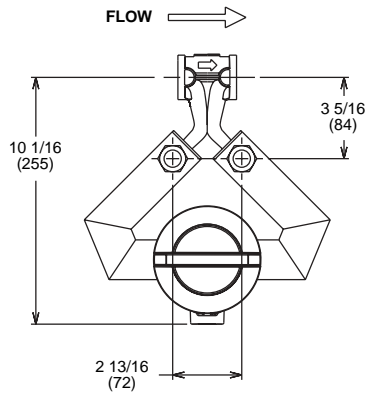
## CMF025 with stainless steel core processor



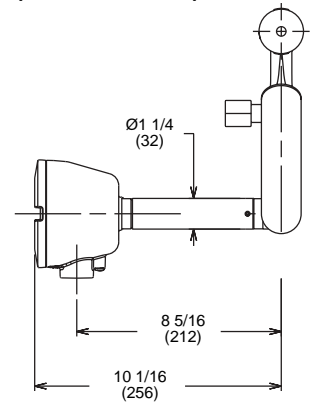
### Temperature extender option



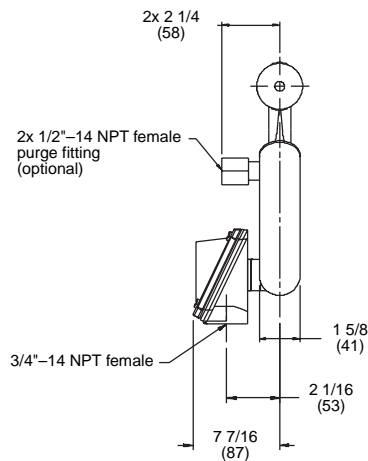
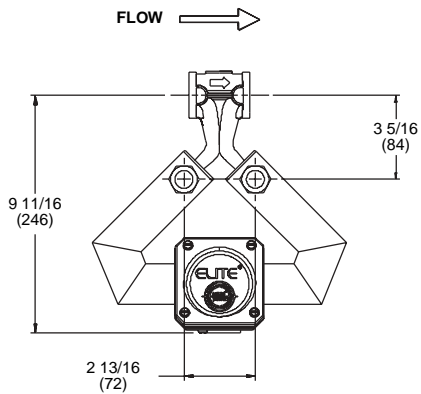
## CMF025 with aluminum core processor



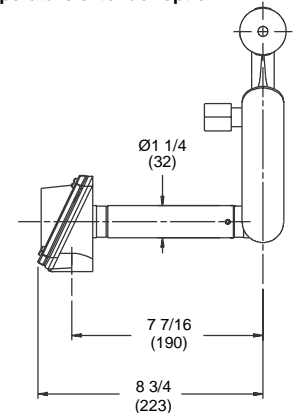
### Temperature extender option



## CMF025 with junction box



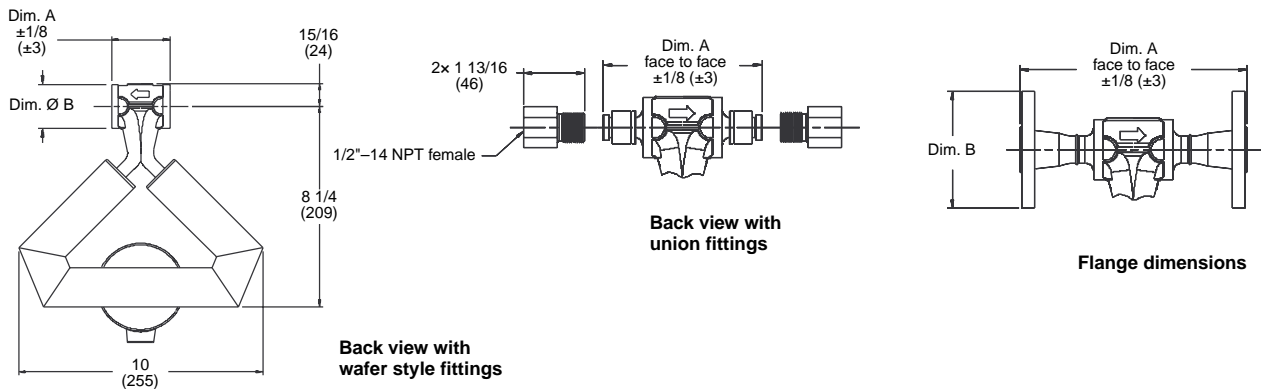
### Temperature extender option





# CMF025 dimensions *continued*

Dimensions in *inches*  
(mm)



## CMF025 process fittings

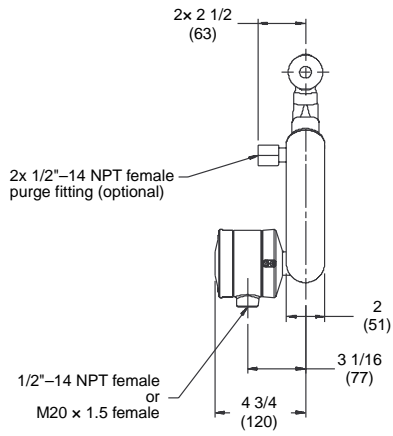
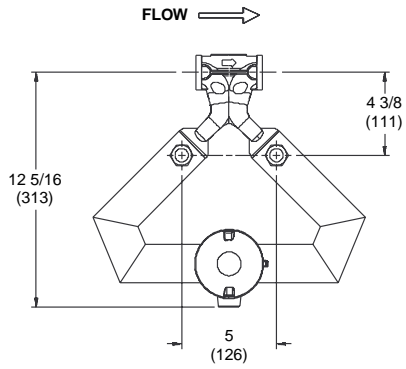
	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
<b>Fittings for 316L stainless steel sensors<sup>(1)</sup></b>			
Wafer style, 1/2" ANSI (150 lb, 300 lb, 600 lb bolt kit)	009	2 3/8 (60)	1 13/16 (46)
Wafer style, 15 mm DIN 2635, type C facing (PN40 bolt kit)	016	2 3/8 (60)	1 13/16 (46)
Wafer style, 15 mm DIN 2635, type N grooved facing (PN40 bolt kit)	017	2 3/8 (60)	1 13/16 (46)
Wafer style, 15 mm DIN 2637, type E facing (PN100 bolt kit)	018	2 3/8 (60)	1 13/16 (46)
Wafer style, 15 mm DIN 2637, type N grooved facing (PN100 bolt kit)	019	2 3/8 (60)	1 13/16 (46)
Wafer style, 15 mm, standard JIS facing (10K, 20K bolt kit)	029	2 3/8 (60)	1 13/16 (46)
1/2" ANSI 150 lb weld neck raised face flange	313	6 3/4 (172)	3 1/2 (89)
1/2" ANSI 300 lb weld neck raised face flange	314	7 1/8 (181)	3 3/4 (95)
1/2" ANSI 600 lb weld neck raised face flange	315	7 5/8 (194)	3 3/4 (95)
1/2" NPT female union fitting	319	4 11/16 (119)	----
1/2" sanitary fitting	321	4 11/16 (119)	1 (25)
15 mm DIN PN40 weld neck, DIN 2635, type C facing	300	6 5/16 (160)	3 3/4 (95)
15 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	301	6 5/16 (160)	3 3/4 (95)
15 mm DIN PN100 weld neck, DIN 2637, type E facing	302	6 15/16 (176)	4 1/8 (105)
15 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	303	6 15/16 (176)	4 1/8 (105)
15 mm JIS 10K weld neck	304	6 1/8 (156)	3 3/4 (95)
15 mm JIS 20K weld neck	305	6 1/8 (156)	3 3/4 (95)
<b>Fittings for 304L stainless steel sensors<sup>(1)</sup></b>			
1/2" ANSI 150 lb weld neck raised face flange	413	6 3/4 (172)	3 1/2 (89)
1/2" ANSI 300 lb weld neck raised face flange	414	7 1/8 (181)	3 3/4 (95)
15 mm DIN PN40 weld neck, DIN 2635 type C face	423	6 5/16 (160)	3 3/4 (95)
<b>Fittings for nickel alloy sensors<sup>(1)</sup></b>			
1/2" ANSI 150 lb lap joint flange	520	6 3/4 (172)	3 1/2 (89)
1/2" ANSI 300 lb lap joint flange	521	7 1/8 (181)	3 3/4 (95)
15 mm DIN PN40 lap joint flange, DIN 2626	523	7 5/16 (186)	3 3/4 (95)
15 mm JIS 10K lap joint flange	522	7 1/8 (181)	3 3/4 (95)

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

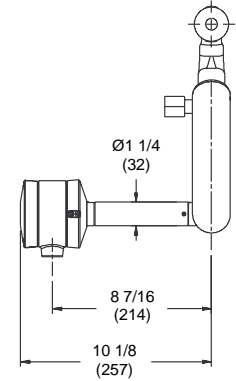
# CMF050 dimensions

Dimensions in inches  
(mm)

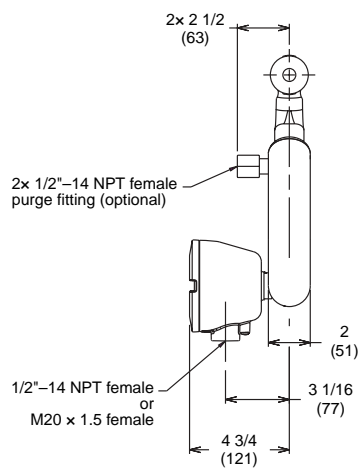
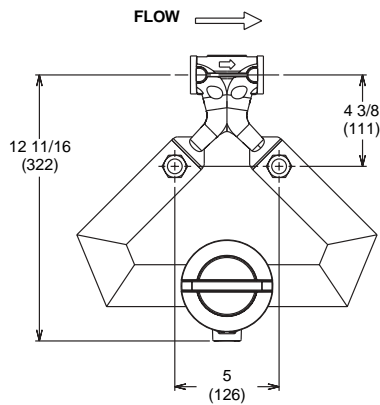
## CMF050 with stainless steel core processor



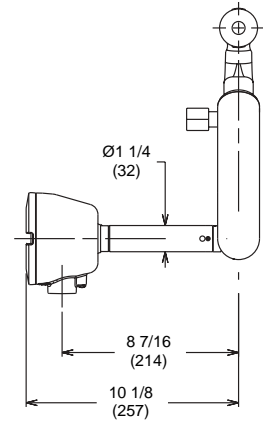
### Temperature extender option



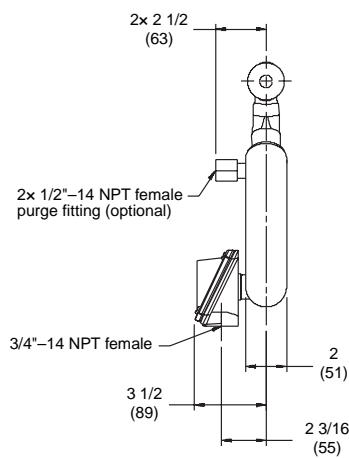
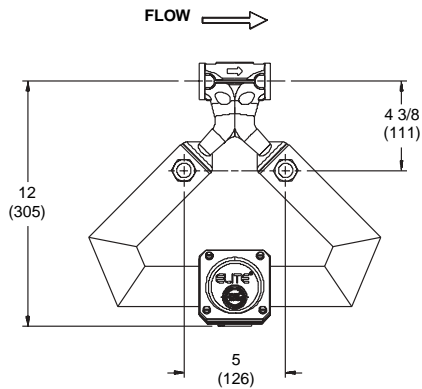
## CMF050 with aluminum core processor



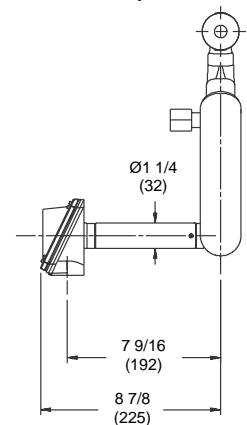
### Temperature extender option



## CMF050 with junction box

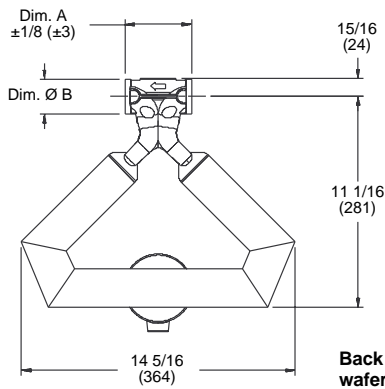


### Temperature extender option

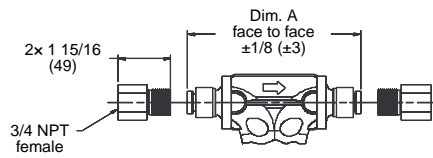


# CMF050 dimensions *continued*

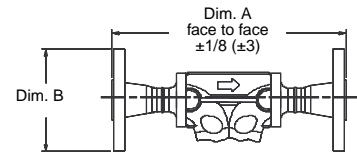
Dimensions in *inches*  
(mm)



Back view with wafer style fittings



Back view with union fittings



Flange dimensions

## CMF050 process fittings

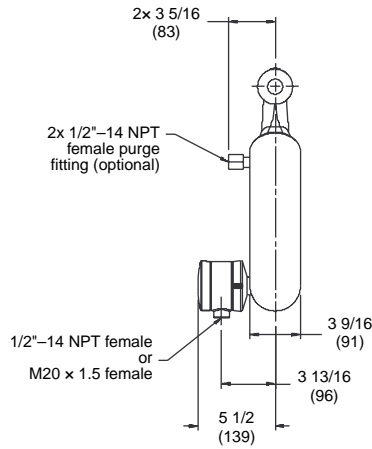
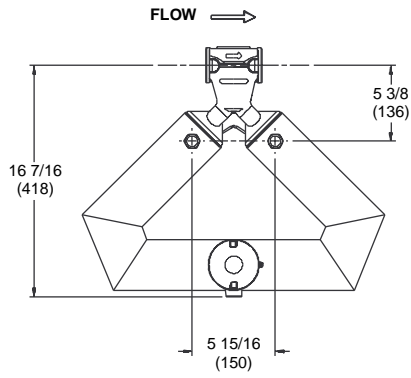
	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
<b>Fittings for 316L stainless steel sensors<sup>(1)</sup></b>			
Wafer style, 1/2" ANSI (150 lb, 300 lb, 600 lb bolt kit)	009	3 1/2 (89)	1 13/16 (46)
Wafer style, 15 mm DIN 2635, type C facing (PN40 bolt kit)	016	3 1/2 (89)	1 13/16 (46)
Wafer style, 15 mm DIN 2635, type N grooved facing (PN40 bolt kit)	017	3 1/2 (89)	1 13/16 (46)
Wafer style, 15 mm DIN 2637, type E facing (PN100 bolt kit)	018	3 1/2 (89)	1 13/16 (46)
Wafer style, 15 mm DIN 2637, type N grooved facing (PN100 bolt kit)	019	3 1/2 (89)	1 13/16 (46)
Wafer style, 15 mm (10K, 20K bolt kit)	029	3 1/2 (89)	1 13/16 (46)
1/2" ANSI 150 lb weld neck raised face flange	313	7 15/16 (202)	3 1/2 (89)
1/2" ANSI 300 lb weld neck raised face flange	314	8 5/16 (211)	3 3/4 (95)
1/2" ANSI 600 lb weld neck raised face flange	315	8 13/16 (224)	3 3/4 (95)
3/4" NPT female union fitting	320	6 1/2 (165)	----
3/4" sanitary fitting	322	6 1/2 (165)	1 (25)
15 mm DIN PN40 weld neck, DIN 2635, type C facing	300	7 1/2 (191)	3 3/4 (95)
15 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	301	7 1/2 (191)	3 3/4 (95)
15 mm DIN PN100 weld neck, DIN 2637, type E facing	302	8 1/16 (205)	4 1/8 (105)
15 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	303	8 1/16 (205)	4 1/8 (105)
15 mm JIS 10K weld neck	304	7 1/4 (184)	3 3/4 (95)
15 mm JIS 20K weld neck	305	7 1/4 (184)	3 3/4 (95)
<b>Fittings for 304L stainless steel sensors<sup>(1)</sup></b>			
1/2" ANSI 150 lb weld neck raised face flange	413	7 15/16 (202)	3 1/2 (89)
1/2" ANSI 300 lb weld neck raised face flange	414	8 5/16 (211)	3 3/4 (95)
15 mm DIN PN40 weld neck, DIN 2635 type C face	423	7 1/2 (191)	3 3/4 (95)
<b>Fittings for nickel alloy sensors<sup>(1)</sup></b>			
1/2" ANSI 150 lb lap joint flange	520	7 15/16 (202)	3 1/2 (89)
1/2" ANSI 300 lb lap joint flange	521	8 5/16 (211)	3 3/4 (95)
15 mm DIN PN40 lap joint flange, DIN 2626	523	8 1/2 (216)	3 3/4 (95)
15 mm JIS 10K lap joint flange	522	8 1/4 (210)	3 3/4 (95)

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

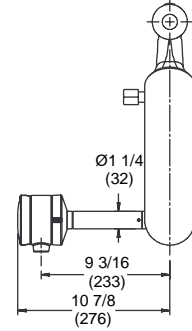
# CMF100 dimensions

Dimensions in inches  
(mm)

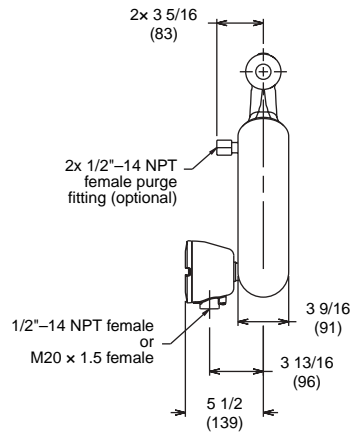
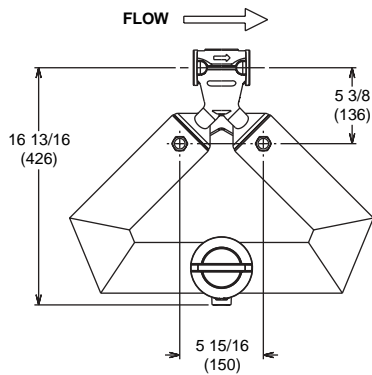
## CMF100 with stainless steel core processor



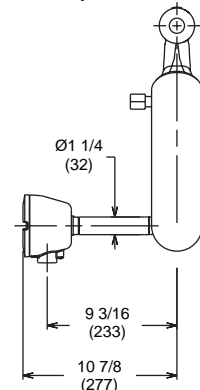
## Temperature extender option



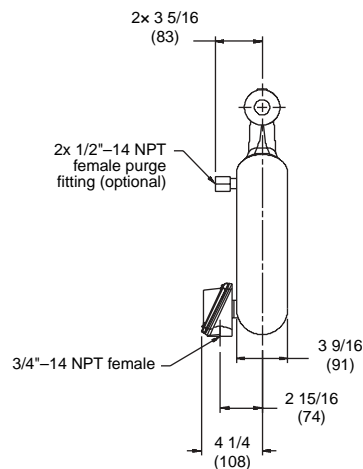
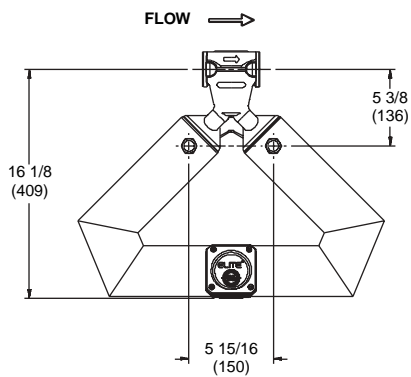
## CMF100 with aluminum core processor



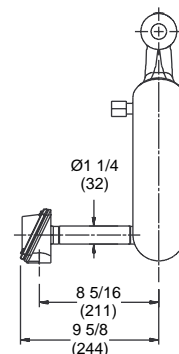
## Temperature extender option



## CMF100 with junction box

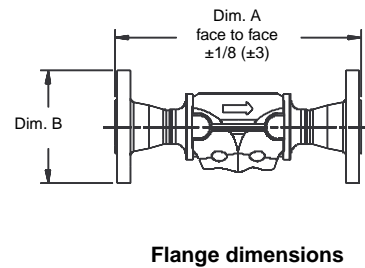
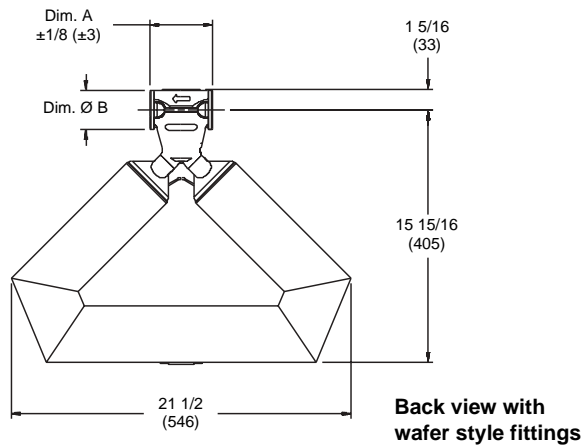


## Temperature extender option



## CMF100 dimensions *continued*

Dimensions in *inches*  
(mm)



## CMF100 process fittings

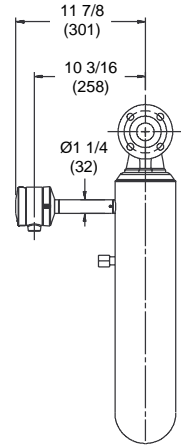
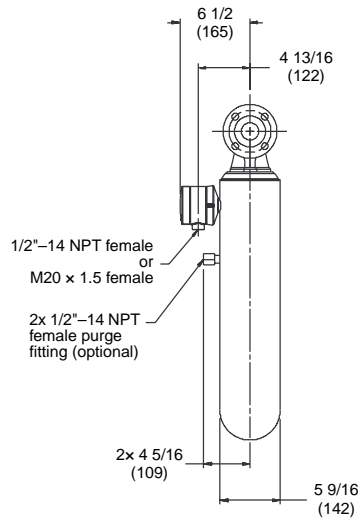
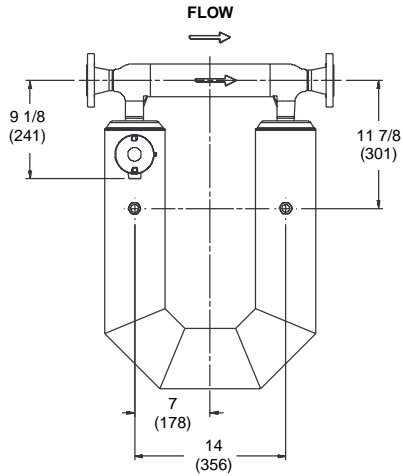
	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
<b>Fittings for 316L stainless steel sensors<sup>(1)</sup></b>			
Wafer style, 1" ANSI (150 lb bolt kit)	010	4 (102)	2 1/2 (64)
Wafer style, 1" ANSI (300 lb, 600 lb bolt kit)	011	4 (102)	2 1/2 (64)
Wafer style, 25 mm DIN 2635, type C facing (PN40 bolt kit)	020	4 (102)	2 1/2 (64)
Wafer style, 25 mm DIN 2635, type N grooved facing (PN40 bolt kit)	021	4 (102)	2 1/2 (64)
Wafer style, 25 mm DIN 2637, type E facing (PN100 bolt kit)	022	4 (102)	2 1/2 (64)
Wafer style, 25 mm DIN 2637, type N grooved facing (PN100 bolt kit)	023	4 (102)	2 1/2 (64)
Wafer style, 25 mm (10K, 20K, 30K bolt kit)	030	4 (102)	2 1/2 (64)
1" ANSI 150 lb weld neck raised face flange	328	9 1/4 (235)	4 1/4 (108)
1" ANSI 300 lb weld neck raised face flange	329	9 3/4 (248)	4 7/8 (124)
1" ANSI 600 lb weld neck raised face flange	330	10 1/4 (260)	4 7/8 (124)
1 1/2" ANSI 600 lb weld neck raised face flange	331	10 7/8 (276)	6 1/8 (156)
1" sanitary fitting	339	8 3/8 (213)	2 (50)
25 mm DIN PN40 weld neck, DIN 2635, type C facing	306	8 5/16 (211)	4 1/2 (115)
25 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	307	8 5/16 (211)	4 1/2 (115)
25 mm DIN PN100 weld neck, DIN 2637, type E facing	308	9 11/16 (246)	5 1/2 (140)
25 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	309	9 11/16 (246)	5 1/2 (140)
25 mm JIS 10K weld neck	317	8 5/16 (211)	4 15/16 (125)
25 mm JIS 20K weld neck	318	8 5/16 (211)	4 15/16 (125)
<b>Fittings for 304L stainless steel sensors<sup>(1)</sup></b>			
1" ANSI 150 lb weld neck raised face flange	415	9 1/4 (235)	4 1/4 (108)
1" ANSI 300 lb weld neck raised face flange	416	9 3/4 (248)	4 7/8 (124)
25 mm DIN PN40 weld neck, DIN 2635 type C face	424	8 9/16 (217)	4 1/2 (115)
<b>Fittings for nickel alloy sensors<sup>(1)</sup></b>			
1" ANSI 150 lb lap joint flange	530	9 1/4 (235)	4 1/4 (108)
1" ANSI 300 lb lap joint flange	531	9 3/4 (248)	4 7/8 (124)
25 mm DIN PN40 lap joint flange, DIN 2626	533	9 9/16 (243)	4 1/2 (115)
25 mm JIS 10K lap joint flange	532	9 5/16 (237)	4 15/16 (125)

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

# CMF200 dimensions

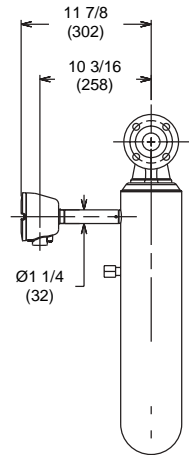
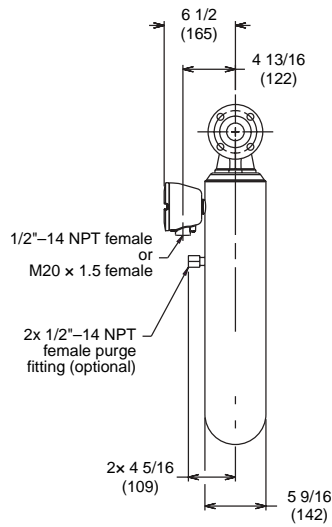
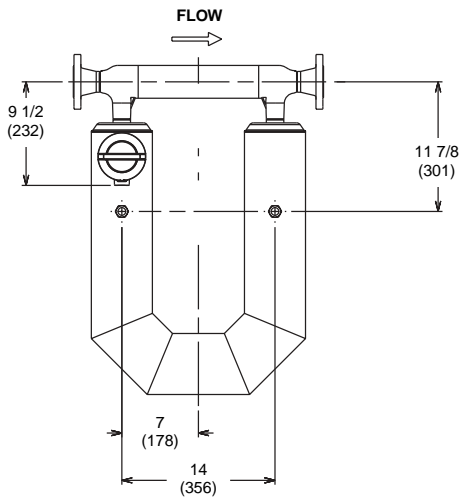
Dimensions in inches  
(mm)

## CMF200 with stainless steel core processor



Temperature extender option

## CMF200 with aluminum core processor

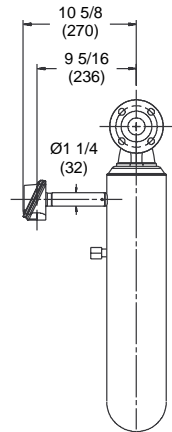
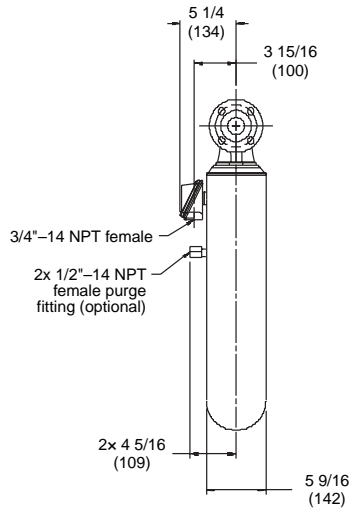
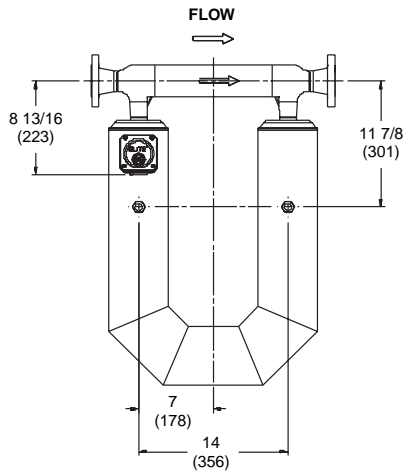


Temperature extender option

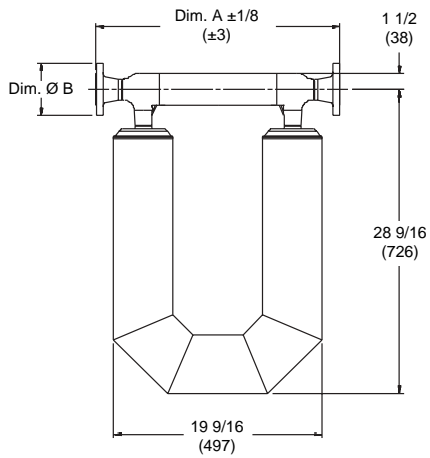
# CMF200 dimensions *continued*

Dimensions in *inches*  
(mm)

## CMF200 with junction box



**Temperature extender option**



**Back view and flange dimensions**

# CMF200 process fittings

	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
<b>Fittings for 316L stainless steel sensors<sup>(1)</sup></b>			
1 1/2" ANSI 150 lb weld neck raised face flange	341	22 7/8 (581)	5 (127)
1 1/2" ANSI 300 lb weld neck raised face flange	342	23 3/8 (594)	6 1/8 (156)
1 1/2" ANSI 600 lb weld neck raised face flange	343	23 7/8 (606)	6 1/8 (156)
2" ANSI 150 lb weld neck raised face flange	418	22 7/8 (581)	6 (152)
2" ANSI 300 lb weld neck raised face flange	419	23 3/8 (594)	6 1/2 (165)
2" ANSI 600 lb weld neck raised face flange	420	23 5/8 (600)	6 1/2 (165)
1 1/2" sanitary fitting	351	21 3/8 (543)	2 (51)
2" sanitary fitting	352	21 3/8 (543)	2 1/2 (64)
40 mm DIN PN40 weld neck, DIN 2635, type C facing	381	21 11/16 (551)	5 15/16 (150)
40 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	383	21 11/16 (551)	5 15/16 (150)
40 mm DIN PN100 weld neck, DIN 2637, type E facing	377	23 1/8 (587)	6 11/16 (170)
40 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	379	23 1/8 (587)	6 11/16 (170)
50 mm DIN PN40 weld neck, DIN 2635, type C facing	382	21 15/16 (557)	6 1/2 (165)
50 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	384	21 15/16 (557)	6 1/2 (165)
50 mm DIN PN100 weld neck, DIN 2637, type E facing	378	23 9/16 (598)	7 11/16 (195)
50 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	380	23 9/16 (598)	7 11/16 (195)
40 mm JIS 10K weld neck	385	21 9/16 (548)	5 1/2 (140)
40 mm JIS 20K weld neck	387	21 9/16 (548)	5 1/2 (140)
50 mm JIS 10K weld neck	386	21 13/16 (554)	6 1/8 (156)
50 mm JIS 20K weld neck	388	21 13/16 (554)	6 1/8 (156)
<b>Fittings for 304L stainless steel sensors<sup>(1)</sup></b>			
1 1/2" ANSI 150 lb weld neck raised face flange	441	22 7/8 (581)	5 (127)
1 1/2" ANSI 300 lb weld neck raised face flange	442	23 3/8 (594)	6 1/8 (156)
2" ANSI 150 lb weld neck raised face flange	518	22 7/8 (581)	6 (152)
2" ANSI 300 lb weld neck raised face flange	519	23 1/2 (597)	6 1/2 (165)
40 mm DIN PN40 weld neck, DIN 2635, type C face	481	21 11/16 (551)	5 15/16 (150)
50 mm DIN PN40 weld neck, DIN 2635, type C face	482	21 15/16 (557)	6 1/2 (165)
<b>Fittings for nickel alloy sensors<sup>(1)</sup></b>			
1 1/2" ANSI 150 lb lap joint flange	540	22 7/8 (581)	5 (127)
1 1/2" ANSI 300 lb lap joint flange	541	23 3/8 (594)	6 1/8 (156)
2" ANSI 150 lb lap joint flange	544	22 7/8 (581)	6 (152)
2" ANSI 300 lb lap joint flange	545	23 3/8 (594)	6 1/2 (165)
40 mm DIN PN40 lap joint flange, DIN 2626	543	21 11/16 (551)	5 15/16 (150)
50 mm DIN PN40 lap joint flange, DIN 2626	547	21 15/16 (557)	6 1/2 (165)
40 mm JIS 10K lap joint flange	542	21 9/16 (548)	5 1/2 (140)
50 mm JIS 10K lap joint flange	546	21 13/16 (554)	6 1/8 (155)

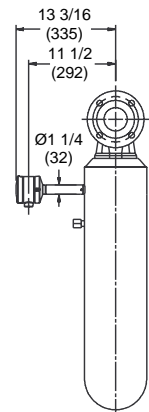
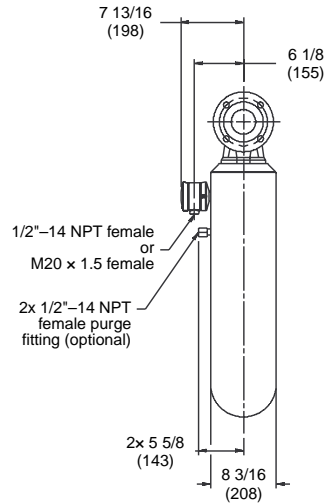
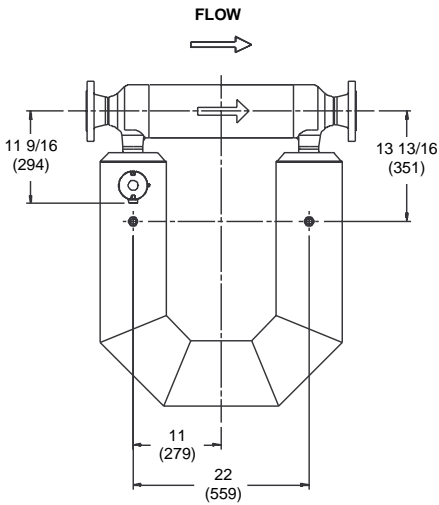
<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.



# CMF300 dimensions

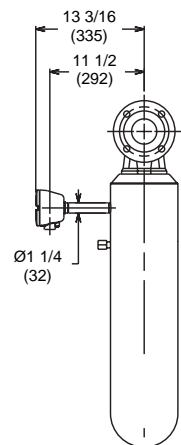
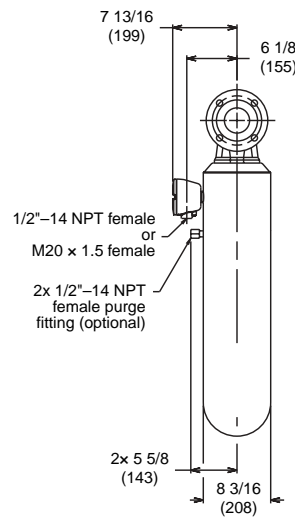
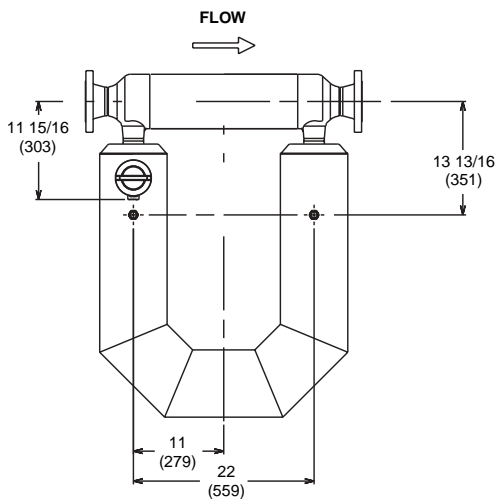
Dimensions in inches  
(mm)

## CMF300 with stainless steel core processor



Temperature extender option

## CMF300 with aluminum core processor

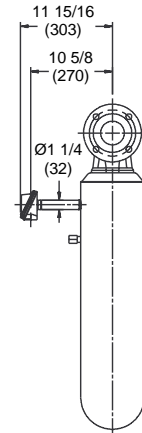
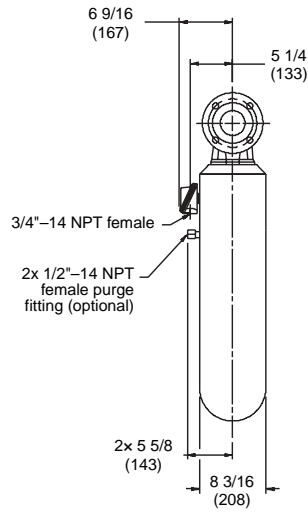
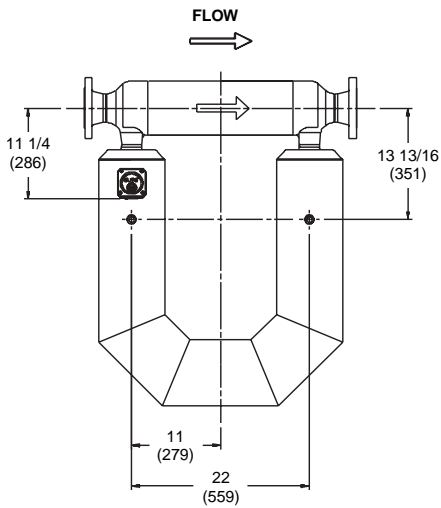


Temperature extender option

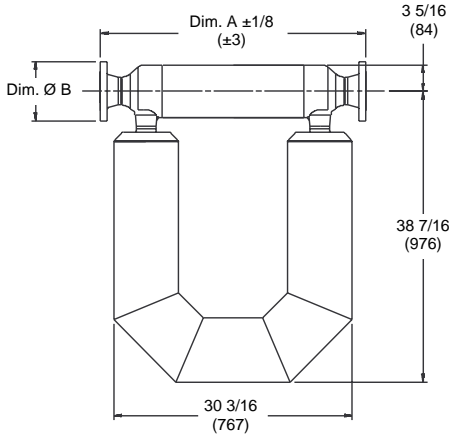
# CMF300 dimensions *continued*

Dimensions in *inches*  
(mm)

## CMF300 with junction box



Temperature extender option



Back view and flange dimensions

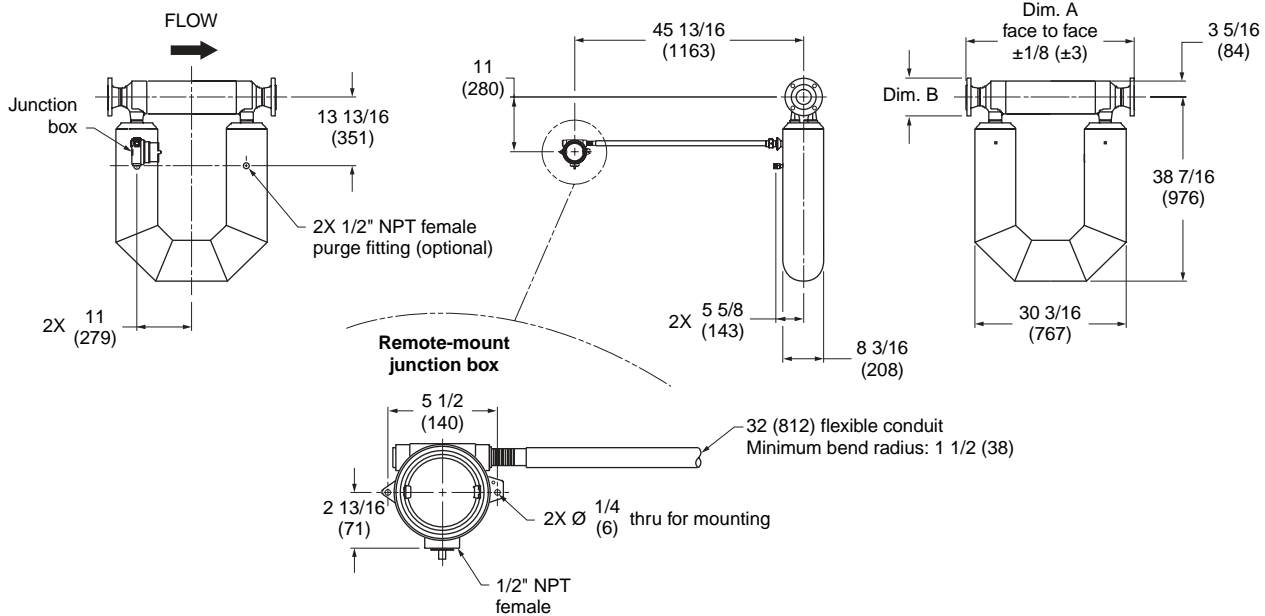
# CMF300 process fittings

	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
<b>Fittings for 316L stainless steel sensors<sup>(1)</sup></b>			
3" ANSI 150 lb weld neck raised face flange	355	33 11/16 (856)	7 1/2 (191)
3" ANSI 300 lb weld neck raised face flange	356	34 7/16 (875)	8 1/4 (210)
3" ANSI 600 lb weld neck raised face flange	357	35 3/16 (894)	8 1/4 (210)
4" ANSI 150 lb weld neck raised face flange	425	34 1/16 (865)	9 (229)
4" ANSI 300 lb weld neck raised face flange	426	35 (889)	10 (254)
4" ANSI 600 lb weld neck raised face flange	427	36 11/16 (932)	10 3/4 (273)
3" sanitary fitting	361	32 (813)	3 9/16 (90)
80 mm DIN PN40 weld neck, DIN 2635, type C facing	391	32 7/8 (835)	7 7/8 (200)
80 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	393	32 7/8 (835)	7 7/8 (200)
80 mm DIN PN100 weld neck, DIN 2637, type E facing	395	34 9/16 (878)	9 1/16 (230)
80 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	397	34 9/16 (878)	9 1/16 (230)
100 mm DIN PN40 weld neck, DIN 2635, type C facing	392	33 7/16 (849)	9 1/4 (235)
100 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	394	33 7/16 (849)	9 1/4 (235)
100 mm DIN PN100 weld neck, DIN 2637, type E facing	396	35 9/16 (903)	10 7/16 (265)
100 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	398	35 9/16 (903)	10 7/16 (265)
80 mm JIS 10K weld neck	400	33 3/8 (848)	7 5/16 (186)
80 mm JIS 20K weld neck	402	33 3/8 (848)	7 7/8 (200)
100 mm JIS 10K weld neck	401	33 9/16 (853)	8 1/4 (210)
100 mm JIS 20K weld neck	403	33 9/16 (853)	8 7/8 (225)
<b>Fittings for 304L stainless steel sensors<sup>(1)</sup></b>			
3" ANSI 150 lb weld neck raised face flange	455	33 11/16 (856)	7 1/2 (191)
3" ANSI 300 lb weld neck raised face flange	456	34 7/16 (875)	8 1/4 (210)
80 mm DIN PN40 weld neck, DIN 2635, type C face	491	32 7/8 (835)	7 7/8 (200)
<b>Fittings for nickel alloy sensors<sup>(1)</sup></b>			
3" ANSI 150 lb lap joint flange	550	33 11/16 (856)	7 1/2 (191)
3" ANSI 300 lb lap joint flange	551	34 7/16 (875)	8 1/4 (210)
80 mm DIN PN40 lap joint flange, DIN 2626	553	32 7/8 (835)	7 7/8 (200)
80 mm JIS 10K lap joint flange	552	33 3/8 (848)	7 5/16 (185)

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

# High-temperature CMF300A dimensions and process fittings

Dimensions in inches  
(mm)



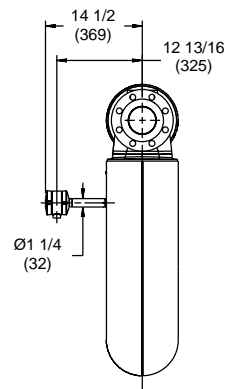
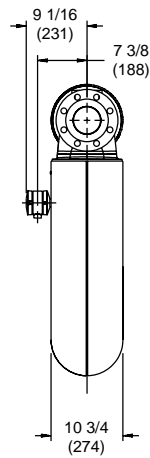
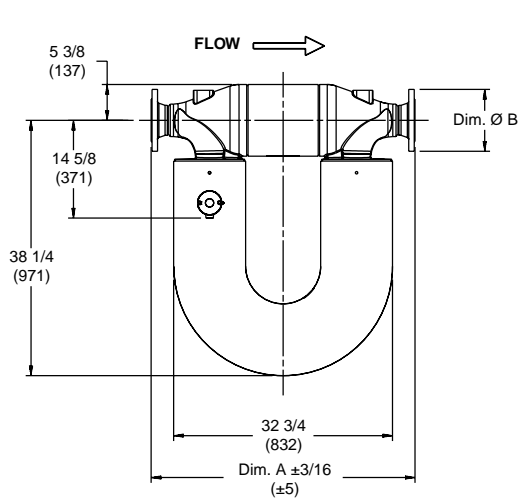
Fittings <sup>(1)</sup>	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
3" ANSI 150 lb weld neck raised face flange	355	33 11/16 (856)	7 1/2 (190)
3" ANSI 300 lb weld neck raised face flange	356	34 7/16 (875)	8 1/4 (210)
3" ANSI 600 lb weld neck raised face flange	357	35 3/16 (894)	8 1/4 (210)
3" ANSI 900 lb weld neck raised face flange	358	36 11/16 (932)	9 1/2 (241)
4" ANSI 150 lb weld neck raised face flange	425	34 1/16 (865)	9 (229)
4" ANSI 300 lb weld neck raised face flange	426	35 (889)	10 (254)
4" ANSI 600 lb weld neck raised face flange	427	36 11/16 (932)	10 3/4 (273)
4" ANSI 900 lb weld neck raised face flange	428	37 3/16 (945)	11 1/2 (292)
80 mm DIN PN40 weld neck, DIN 2635, type C facing	391	32 7/8 (835)	7 7/8 (200)
80 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	393	32 7/8 (835)	7 7/8 (200)
80 mm DIN PN100 weld neck, DIN 2637, type E facing	395	34 9/16 (878)	9 1/16 (230)
80 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	397	34 9/16 (878)	9 1/16 (230)
100 mm DIN PN40 weld neck, DIN 2635, type C facing	392	33 7/16 (849)	9 1/4 (235)
100 mm DIN PN40 weld neck, DIN 2635, type N grooved facing	394	33 7/16 (849)	9 1/4 (235)
100 mm DIN PN100 weld neck, DIN 2637, type E facing	396	35 9/16 (903)	10 7/16 (265)
100 mm DIN PN100 weld neck, DIN 2637, type N grooved facing	398	35 9/16 (903)	10 7/16 (265)
80 mm JIS 10K weld neck	400	33 3/8 (848)	7 5/16 (185)
80 mm JIS 20K weld neck	402	33 3/8 (848)	7 7/8 (200)
100 mm JIS 10K weld neck	401	33 9/16 (852)	8 1/4 (210)
100 mm JIS 20K weld neck	403	33 9/16 (852)	8 7/8 (225)

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

# CMF400 dimensions

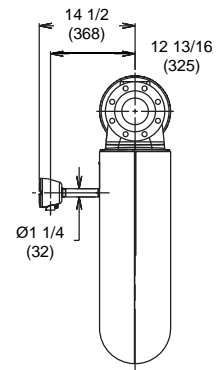
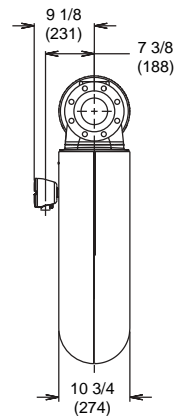
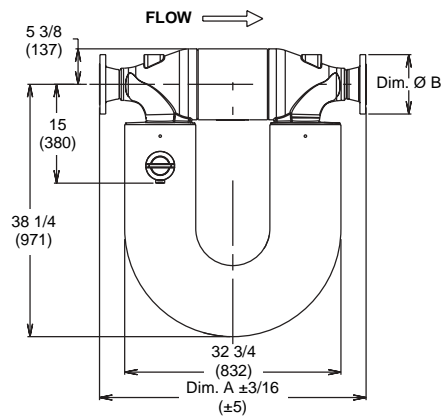
Dimensions in inches  
(mm)

## CMF400 with stainless steel core processor



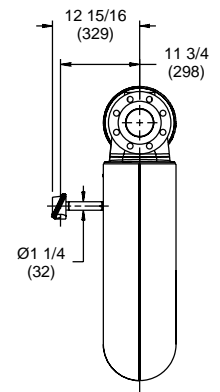
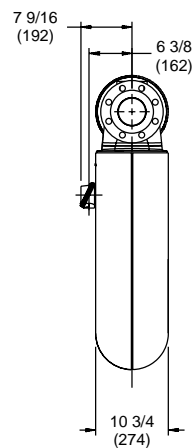
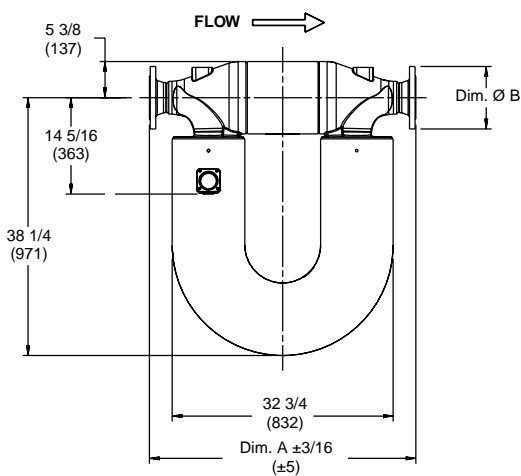
Temperature extender option

## CMF400 with aluminum core processor



Temperature extender option

## CMF400 with junction box



Temperature extender option

## CMF400 dimensions and process fittings

Fittings <sup>(1)</sup>	Fitting code	Dim. A Face-to-face	Dim. B Outside diam.
4" ANSI 150 lb weld neck raised face flange	435	40 3/16 (1021)	9 (229)
4" ANSI 300 lb weld neck raised face flange	436	41 (1041)	10 (254)
4" ANSI 600 lb weld neck raised face flange	437	42 11/16 (1084)	10 3/4 (273)
6" ANSI 150 lb weld neck raised face flange	451	40 5/16 (1024)	11 (279)
6" ANSI 300 lb weld neck raised face flange	452	41 5/16 (1049)	12 1/2 (318)
6" ANSI 600 lb weld neck raised face flange	453	43 1/2 (1105)	14 (356)
100 mm DIN PN40 weld neck, DIN 2635, type C facing	460	39 5/16 (999)	9 1/4 (235)
100 mm DIN PN40 weld neck, DIN 2635, type N facing	462	39 5/16 (999)	9 1/4 (235)
100 mm DIN PN100 weld neck, DIN 2637, type E facing	464	41 5/16 (1049)	10 7/16 (265)
100 mm DIN PN100 weld neck, DIN 2637, type N facing	466	41 5/16 (1049)	10 7/16 (265)
150 mm DIN PN40 weld neck, DIN 2635, type C facing	461	39 5/8 (1006)	11 13/16 (300)
150 mm DIN PN40 weld neck, DIN 2635, type N facing	463	39 5/8 (1006)	11 13/16 (300)
150 mm DIN PN100 weld neck, DIN 2637, type E facing	465	41 15/16 (1065)	14 (355)
150 mm DIN PN100 weld neck, DIN 2637, type N facing	467	41 15/16 (1065)	14 (355)
100 mm JIS 10K weld neck	470	39 5/16 (999)	8 1/4 (210)
100 mm JIS 20K weld neck	472	39 13/16 (1011)	8 7/8 (225)
150 mm JIS 10K weld neck	471	39 5/8 (1006)	11 (280)
150 mm JIS 20K weld neck	473	40 1/8 (1018)	12 (305)

<sup>(1)</sup> Fittings listed here are standard options. Other types of fittings are available. Contact your local Micro Motion representative.

## Ordering information

<b>Model</b>	<b>Sensor model</b>
CMF010	ELITE 1/8 inch sensor
CMF025	ELITE 1/4 inch sensor
CMF050	ELITE 1/2 inch sensor
CMF100	ELITE 1 inch sensor
CMF200	ELITE 2 inch sensor
CMF300	ELITE 3 inch sensor
CMF400	ELITE 4 inch sensor
<b>Code</b>	<b>Pressure, temperature and wetted material</b>
M	Standard pressure, standard temperature, 316L stainless steel
L	Standard pressure, standard temperature, 304L stainless steel — not available with CMF400
H	Standard pressure, standard temperature, Nickel Alloy — not available with CMF010 or CMF400
N	Standard pressure, standard temperature, Inconel 686 — CMF010 only
A	Standard pressure, high temperature, 316L stainless steel — CMF300 only
P	High pressure, standard temperature, Inconel 686 nickel alloy and 316L stainless steel — CMF010 only
<b>Code</b>	<b>Process connections</b>
###	See fittings tables on pages 15-30
<b>Code</b>	<b>Case options</b>
N	Standard pressure containment
P	Purge fittings (two 1/2-inch NPT female) — not available with CMF400
D	Rupture disks (two 400-psi disks) — CMF010 with pressure/material code P only
<b>Code</b>	<b>Electronics interface</b>
Q	4-wire epoxy-painted aluminum integral core processor for remotely mounted transmitter with MVD Technology — not available with CMF300A
A	4-wire stainless steel integral core processor for remotely mounted transmitter with MVD Technology — not available with CMF300A
V	4-wire epoxy-painted aluminum integral core processor with extended mount for remotely mounted transmitter with MVD Technology — not available with CMF300A
B	4-wire stainless steel integral core processor with extended mount for remotely mounted transmitter with MVD Technology — not available with CMF300A
W <sup>(1)</sup>	MVD Solo; epoxy-painted aluminum integral core processor for direct host communication — not available with CMF300A
D <sup>(1)</sup>	MVD Solo; stainless steel integral core processor for direct host communication — not available with CMF300A
Y <sup>(1)</sup>	MVD Solo; epoxy-painted aluminum integral core processor with extended mount for direct host communication — not available with CMF300A
E <sup>(1)</sup>	MVD Solo; stainless steel integral core processor with extended mount for direct host communication — not available with CMF300A
R	9-wire epoxy-painted aluminum junction box
H	9-wire epoxy-painted aluminum junction box with extended mount — not available with CMF300A
<b>Code</b>	<b>Conduit connections</b>
	Electronics interface codes Q, A, V, and B (integral core processor)
B	1/2 inch NPT — no gland
C	1/2 inch NPT with brass/nickel cable gland (cable dia. 0.335 in. to 0.394 in.)
D	1/2 inch NPT with stainless steel cable gland (cable dia. 0.335 in. to 0.394 in.)
E	M20 — no gland
F	M20 with brass/nickel cable gland (cable dia. 8.5 mm to 10.0 mm)
G	M20 with stainless steel cable gland (cable dia. 8.5 mm to 10.0 mm)

## Ordering information *(continued)*

Code	Conduit connections (continued)
	Electronics interface codes W, D, Y and E (MVD Solo)
C	1/2 inch NPT with brass nickel cable gland (cable dia. 0.335 in. to 0.394 in.)
F	M20 with brass nickel cable gland (cable dia. 8.5 mm to 10.0 mm)
G	M20 with stainless steel cable gland (cable dia. 8.5 mm to 10.0 mm)
	Electronics interface codes R and H (9-wire junction box)
A	3/4 inch NPT — no gland
H	3/4 inch NPT with brass/nickel cable gland
J	3/4 inch NPT with stainless steel cable gland
Code	Approvals
M	Micro Motion Standard (no approval)
N	Micro Motion standard/PED compliant (no approval)
U	UL
C	CSA — Canada only
A	CSA — US and Canada
Z	ATEX — Equipment Category 2 (Zone 1)/PED compliant
S	SAA — Electronic Interface Codes R and H only; not available with CMF400
Code	Language
A	Danish Quick Reference and English Manual
D	Dutch Quick Reference and English Manual
E	English Quick Reference and English Manual
F	French Quick Reference and French Manual
G	German Quick Reference and German Manual
H	Finnish Quick Reference and English Manual
I	Italian Quick Reference and English Manual
J	Japanese Quick Reference and English Manual
M	Chinese Quick Reference and English Manual
N	Norwegian Quick Reference and English Manual
O	Polish Quick Reference and English Manual
P	Portugese Quick Reference and English Manual
R	Russian Quick Reference and English Manual
S	Spanish Quick Reference and Spanish Manual
W	Swedish Quick Reference and English Manual
Code	Measurement application software
Z	None
A	Petroleum Measurement <sup>(2)</sup>
Code	Future options
Z	Reserved for future use
<b>Typical Model Number: CMF010M 313 N A B U E Z Z</b>	

<sup>(1)</sup> When electronics interface W, D, Y, or E is ordered with approval 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.

<sup>(2)</sup> Available with electronics interfaces W, D, Y and E. For all others, order with Model 2700 transmitter.









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