

Product Data Sheet

PS-00371, Rev. E

February 2010

Micro Motion® T-Series Coriolis Flow and Density Meters

Micro Motion® T-Series meters offer the best performance of any straight-tube Coriolis meter. The single straight-tube design is self-draining, and allows the meter to be cleaned or sterilized in place (CIP/SIP). The straight flow path also resists plugging, and can be pigged.



Superior flow measurement in a single straight tube flow meter

- Built-in balance bar provides the best single straight tube mass flow measurement to reduce variability in process control

Comprehensive hygienic application coverage

- Easy to CIP and SIP with EHEDG certified, 3-A authorized, ASME BPE design
- Diameter matches standard process tubing for draining in any orientation
- Fast product change-over with self-draining design and no profile effects
- Single flow path is easy to clean mechanically
- Highly-polished surface finish for ultra-pure fluids

Superior reliability

- No moving parts to wear or replace minimizes maintenance for long-term reliability

ELITE® Peak performance Coriolis meter

ELITE HC Peak performance high capacity 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 T-Series straight-tube 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.

T-Series Coriolis meters. Our straight-tube meter design is based on the ASME Bioprocessing Equipment Standard. With optional sanitary fittings, Micro Motion T-Series meters meet 3-A Sanitary Standards for Milk and Milk Products, are EHEDG clean-in-place approved, and feature a standard surface finish of 32 μ -inch Ra (0.8 μ -meter)—and 15 μ -inch Ra (0.4 μ -meter) is an available option.



The Micro Motion T-Series single straight-tube design makes these meters self-draining, and allows them to be cleaned or sterilized in place (CIP/SIP). The straight flow path also resists plugging, and can be pigged.

Contents

Flow performance	3	Hazardous area classifications	7
Density performance (liquid only)	4	Materials of construction	9
Temperature specifications	5	Weight	9
Pressure ratings	6	Dimensions	10
Environmental effects	6	Fitting options	13
Vibration limits	6	Ordering information	21
Sanitary standards	7		

Flow performance

		Mass		Volume ⁽¹⁾	
		lb/min	kg/h	gal/min	l/h
Maximum flow rate	T025	25	680	3	680
	T050	140	3800	17	3800
	T075	500	14,000	62	14,000
	T100	1100	30,000	132	30,000
	T150	3200	87,000	383	87,000
Mass flow accuracy⁽²⁾	±0.15% of rate ⁽³⁾				
Volume flow accuracy⁽²⁾	±0.25% of rate ⁽⁴⁾				
Gas flow accuracy⁽²⁾	±0.50% of rate ⁽⁵⁾				
Repeatability	±0.05% of rate				
		lb/min	kg/h	gal/min	l/h
Zero stability	T025	0.0038	0.10	0.0005	0.10
	T050	0.021	0.57	0.0025	0.57
	T075	0.075	2.0	0.009	2.0
	T100	0.165	4.50	0.02	4.50
	T150	0.48	13.0	0.06	13.0

(1) Specifications for volumetric flow rate are based on a process-fluid density of 1 g/cc (1000 kg/m³). For fluids with density other than 1 g/cc (1000 kg/m³), the volumetric flow rate equals the maximum mass flow rate divided by the fluid's density.

(2) 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) When flow rate < (zero stability / 0.0015), then mass flow accuracy = ±[(zero stability / flow rate) × 100]% of rate and repeatability = ±½(zero stability / flow rate) × 100% of rate.

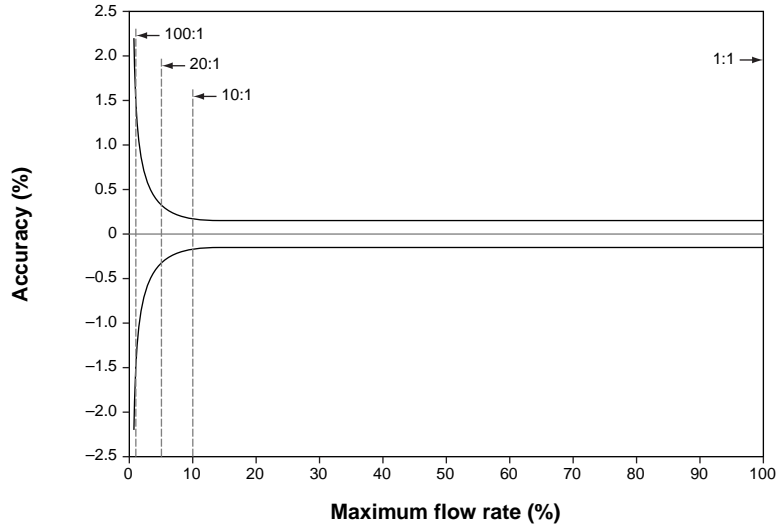
(4) When flow rate < (zero stability / 0.0025), then volume flow accuracy = ±[1.667 × (zero stability / flow rate) × 100]% of rate, and repeatability = ±½(zero stability / flow rate) × 100% of rate.

(5) When flow rate < (zero stability / 0.005), then gas flow accuracy = ±[(zero stability / flow rate) × 100]% of rate, and repeatability = ±½(zero stability / flow rate) × 100% of rate.

Flow performance *continued*

Typical accuracy, turndown, and pressure drop

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



Turndown from maximum flow rate	100:1	20:1	10:1	1:1
Accuracy (\pm %)	1.60	0.31	0.15	0.15
Pressure drop <i>psi</i>	~0	0.06	0.22	14.3
<i>bar</i>	~0	0.02	0.05	0.99

Density performance (liquid only)

Accuracy ⁽¹⁾	± 0.002 g/cc	± 2.0 kg/m ³
Repeatability	± 0.0005 g/cc	± 0.5 kg/m ³
Range	0–5000 kg/m ³	

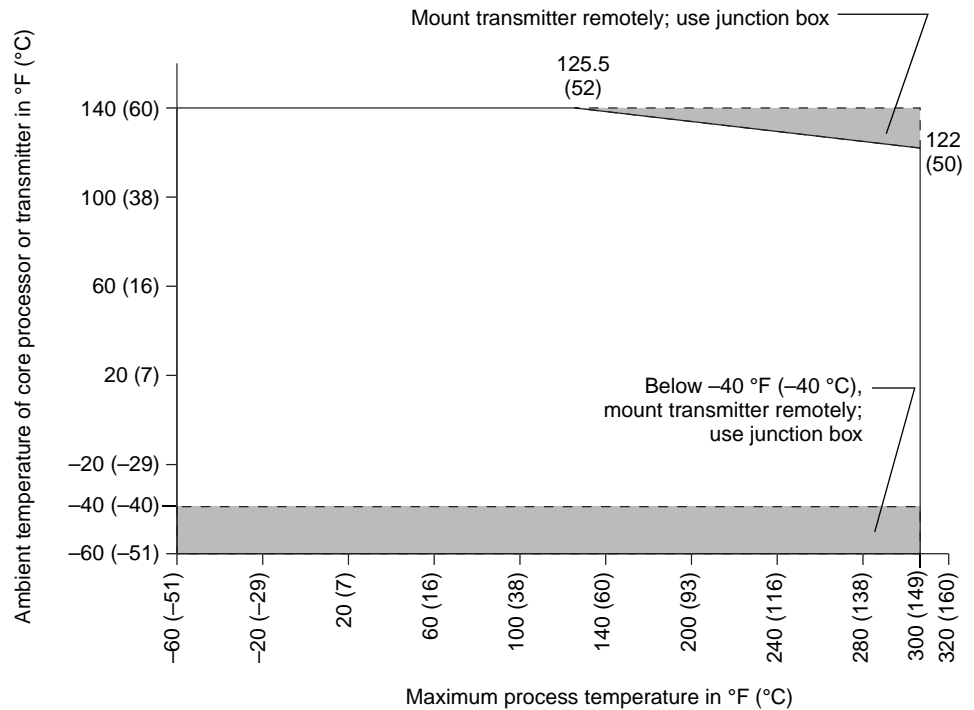
(1) Density accuracy includes the combined effects of repeatability, linearity, and hysteresis. All specifications for liquids are based on reference conditions of water at 68 to 77 °F (20 to 25 °C) and 15 to 30 psig (1 to 2 bar), unless otherwise noted.

Temperature specifications

Accuracy $\pm 1.0\text{ }^{\circ}\text{C} \pm 0.5\%$ of reading in $^{\circ}\text{C}$

Repeatability $\pm 0.2\text{ }^{\circ}\text{C}$

Temperature limits ⁽¹⁾⁽²⁾⁽³⁾



(1) Temperature limits may be further restricted by hazardous area approvals. See pages 7–8.

(2) When ambient temperature is below $-40\text{ }^{\circ}\text{F}$ ($-40\text{ }^{\circ}\text{C}$), a core processor 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.

(3) 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.

Pressure ratings

		psi	bar
Flow tube rating⁽¹⁾	All models	1450	100
ASME B31.3 secondary containment rating⁽²⁾	Models without purge fittings	1450	100
	Models with purge fittings	725	50
PED compliance	Sensors comply with council directive 97/23/EC of 29 May 1997 on Pressure Equipment.		

(1) Pressure ratings at 77 °F (25 °C), according to ASME B31.3.

(2) Housing is not rated for pressure containment below -20 °F (-29 °C).

Environmental effects

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.	
	All models	0.002% of maximum flow rate per °C
Pressure effect	Pressure effect is defined as the change in sensor flow sensitivity due to process pressure change away from the calibration pressure. Pressure effect can be corrected.	
	All models	None

Vibration limits

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

Sanitary standards

For sanitary applications, Micro Motion T-Series sensors with sanitary fittings feature a standard 32 μ -inch Ra (0.8 μ -meter) tube surface finish, with 15 μ -inch Ra (0.4 μ -meter) surface finish available as an option.

ASME	The Micro Motion T-Series sensor design is based on the ASME Bioprocessing Equipment Standard – 1997. With sanitary fittings, these sensors meet the ASME Bioprocessing Equipment Standard.
3-A	Micro Motion T-Series sensors with sanitary fittings meet 3-A Sanitary Standards for Milk and Dairy Products.
USDA	Micro Motion T-Series sensors with sanitary fittings are acceptable for use in dairy plants and are approved for USDA grading service.
EHEDG	Micro Motion T-Series sensors with sanitary fittings are approved by the European Hygienic Equipment Design Group. Sensors comply with the hygienic criteria of Machinery Directive 98/37/EC, annex 1 (additional essential health and safety requirements for certain categories of machinery), section 2.1 (agri-foodstuffs machinery). Test results show that Micro Motion T-Series sensors can be cleaned in place at least as well as the reference pipe.

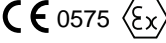

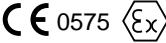

Hazardous area classifications

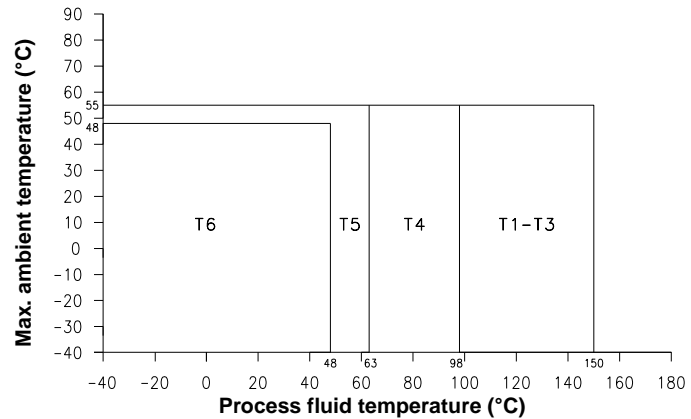
UL and CSA

Sensors 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
Sensors with integral core processor or transmitter	Ambient temperature: –40 to +140 °F (–40 to +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

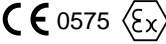

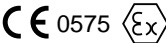

Hazardous area classifications *continued*

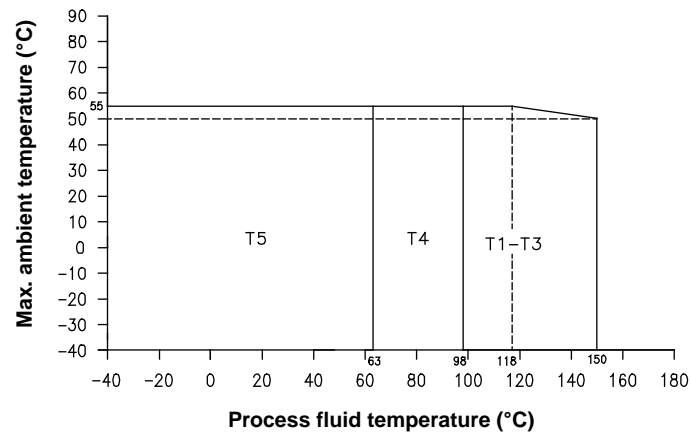
ATEX⁽¹⁾

Sensors with junction box	Models T075 and T100	 0575  II 2G EEx ib IIC T1–T6 II 2D IP65 T 182C – T 80C
	Model T150	 0575  II 2G EEx ib IIB T1–T6 II 2D IP65 T 182C – T 80C



The maximum surface temperature for dust is as follows: T6:T 80°C, T5:T 95°C, T4:T 130°C, T3 to T1:T 182°C.

Sensors with integral core processor or transmitter ⁽²⁾	Models T025, T050, T075, and T100	 0575  II 2G EEx ib IIC T1–T5 II 2D IP65 T 182C – T 95C
	Model T150	 0575  II 2GD EEx ib IIB T1–T5 II 2D IP65 T 182C – T 95C



The maximum surface temperature for dust is as follows: T5:T 95°C, T4:T 130°C, T3 to T1:T 182°C.

- (1) The ATEX "T" rating is defined as the maximum surface temperature of the flowmeter. The "T" rating and the ambient temperature restrict the maximum allowable temperature of the process fluid (shown in the graphs above).
- (2) When the THUM wireless adapter is installed on the transmitter, the flowmeter marking is limited to T4, and the T4 lower boundary is changed to -40 °C.

Materials of construction

Wetted parts⁽¹⁾	Flow tubes	Titanium ASTM Grade 9
	Sanitary fittings ⁽²⁾	304L stainless steel and titanium ASTM Grade 1
	Socket-weld flanges ⁽²⁾	F316/316L stainless steel and titanium ASTM Grade 5 (6AL-4V)
Sensor housing	Sensor	304L stainless steel
	Core processor	316L stainless steel or polyurethane-coated aluminum; NEMA 4X (IP65)
	Junction box	Polyurethane-coated aluminum; 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 Micro Motion's corrosion guide for material compatibility information.

(2) Flanges are stainless steel; wetted parts are titanium. Only titanium is in contact with process flow.

Weight

Approximate weight with ANSI CL150 socket weld raised face flange

	T025		T050		T075		T100		T150	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
Sensor with core processor ⁽¹⁾	14	7	16	7	33	15	58	27	137	63
Sensor with extended core processor ⁽¹⁾	15	7	17	8	34	16	59	27	138	63
Sensor with integrally mounted Model 1700/2700 transmitter	20	9	22	10	39	18	64	29	143	65
Sensor with junction box	–	–	–	–	32	15	57	26	136	62
Sensor with extended junction box	–	–	–	–	33	15	58	27	137	63

Approximate weight with 1/2-inch or 1-inch sanitary fitting (Tri-Clamp compatible)

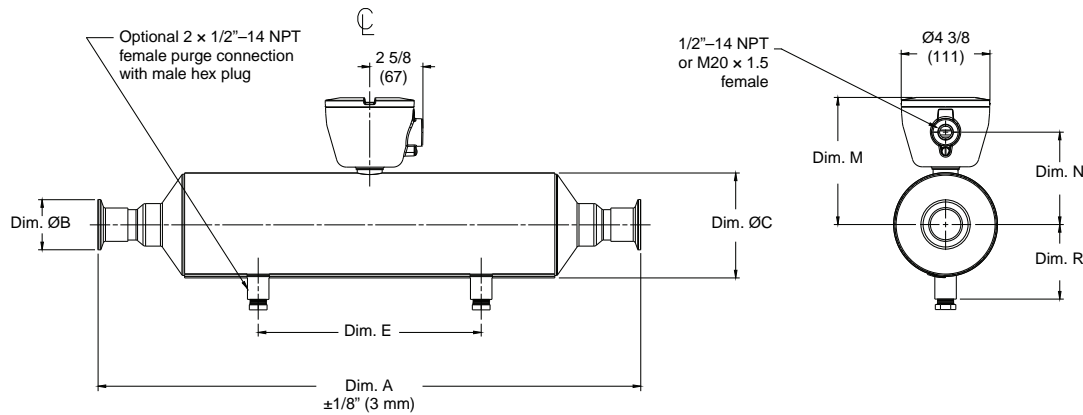
	T025		T050		T075		T100		T150	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
Sensor with core processor ⁽¹⁾	12	6	14	7	33	15	55	25	131	60
Sensor with extended core processor ⁽¹⁾	13	6	15	7	34	16	56	25	132	60
Sensor with integrally mounted Model 1700/2700 transmitter	18	8	20	9	39	18	60	28	137	62
Sensor with junction box	–	–	–	–	32	15	54	25	130	59
Sensor with extended junction box	–	–	–	–	33	15	55	25	131	60

(1) Add 4 lbs (2 kg) for stainless steel core processor housing option (electronics interface codes A, B, D, and E).

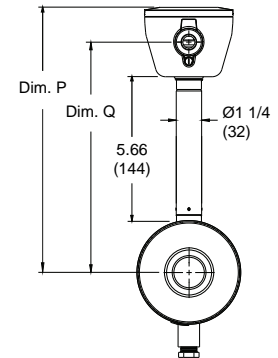
Dimensions

Sensor with core processor

Dimensions in inches
(mm)



Extended mount option



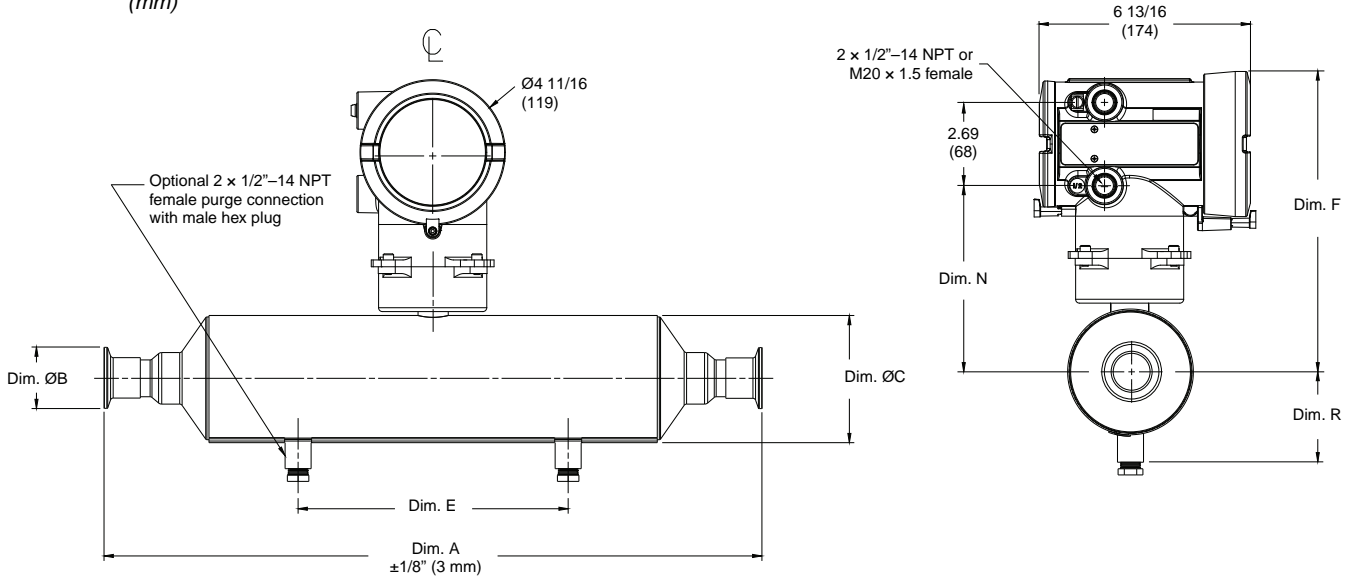
Sensor model	No. of flow tubes	Dimensions in inches (mm) ⁽¹⁾							
		Tube ID	ØC (case diameter)	E	M	N	P	Q	R
T025	1	0.180 (4.57)	3 1/8 (79)	4 1/8 (105)	5 1/4 (133)	3 1/2 (89)	10 5/8 (269)	8.88 (225)	2 11/16 (68)
T050	1	0.360 (9.14)	3 1/8 (79)	5 1/2 (140)	5 1/4 (133)	3 1/2 (89)	10 5/8 (269)	8.88 (225)	2 11/16 (68)
T075	1	0.619 (15.72)	4 1/8 (105)	6 1/8 (156)	5 3/4 (147)	4 1/16 (103)	11 1/8 (283)	9.44 (240)	3 3/16 (81)
T100	1	0.870 (22.10)	5 1/8 (130)	11 (279)	6 1/4 (159)	4 9/16 (116)	11 5/8 (296)	9.94 (252)	3 11/16 (93)
T150	1	1.360 (34.54)	7 1/8 (181)	11 (279)	7 1/4 (185)	5 9/16 (141)	12 5/8 (321)	10.94 (278)	4 11/16 (119)

(1) For dimensions A and B, see process fittings tables, pages 13–19.

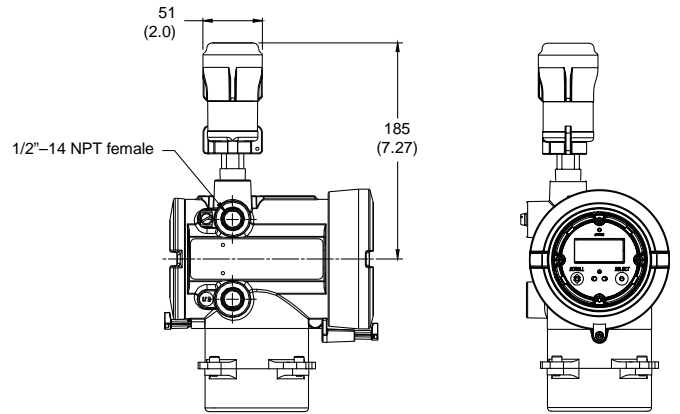
Dimensions *continued*

Sensor with integrally mounted Model 1700/2700 transmitter

Dimensions in inches
(mm)



THUM adapter detail



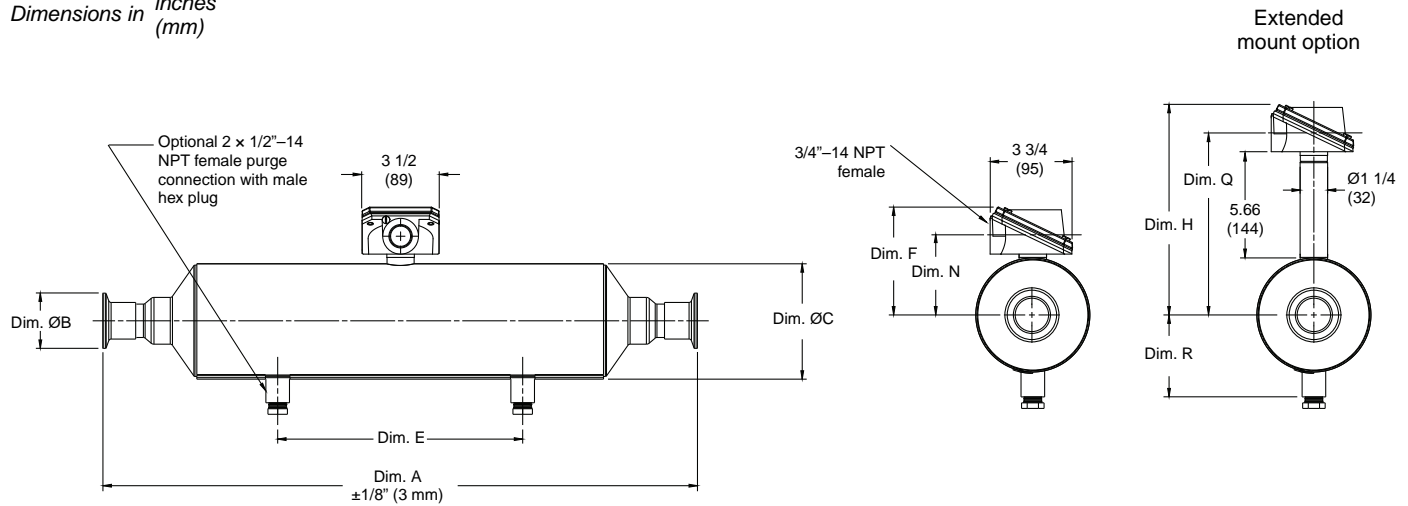
Sensor model	No. of flow tubes	Dimensions in inches (mm) ⁽¹⁾					
		Tube ID	ØC (case diameter)	E	F	N	R
T025	1	0.180 (4.57)	3 1/8 (79)	4 1/8 (105)	9 3/16 (233)	5.5 (139)	2 11/16 (68)
T050	1	0.360 (9.14)	3 1/8 (79)	5 1/2 (140)	9 3/16 (233)	5.5 (139)	2 11/16 (68)
T075	1	0.619 (15.72)	4 1/8 (105)	6 1/8 (156)	9 3/4 (247)	6.03 (153)	3 3/16 (81)
T100	1	0.870 (22.10)	5 1/8 (130)	11 (279)	10 1/4 (260)	6.54 (166)	3 11/16 (93)
T150	1	1.360 (34.54)	7 1/8 (181)	11 (279)	11 1/4 (285)	7.53 (191)	4 11/16 (119)

(1) For dimensions A and B, see process fittings tables, pages 13–19.

Dimensions *continued*

Sensor with junction box

Dimensions in *inches*
(*mm*)



Sensor model ⁽¹⁾	No. of flow tubes	Dimensions in inches (mm) ⁽²⁾								
		Tube ID	ØC (case diameter)	E	F	H	J	N	Q	R
T075	1	0.619 (15.72)	4 1/8 (105)	6 1/8 (156)	4 1/2 (114)	9 7/8 (251)	8 9/16 (217)	3.19 (81)	8.56 (217)	3 3/16 (81)
T100	1	0.870 (22.10)	5 1/8 (130)	11 (279)	5 (127)	10 3/8 (264)	9 1/16 (230)	3.69 (94)	9.06 (230)	3 11/16 (93)
T150	1	1.360 (34.54)	7 1/8 (181)	11 (279)	6 (152)	11 3/8 (289)	10 1/16 (256)	4.69 (119)	10.06 (256)	4 11/16 (119)

(1) Models T025 and T050 are not available with junction box.

(2) For dimensions A and B, see process fittings tables, pages 13–19.

Fitting options

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diam. inches (mm)
Model T025T⁽¹⁾			
1/2-inch ANSI CL150 socket weld raised face flange	613	13.31 (338)	3 1/2 (89)
1/2-inch ANSI CL300 socket weld raised face flange	614	13.83 (351)	3 3/4 (95)
1/2-inch ANSI CL600 socket weld raised face flange	615	13.95 (351)	3 3/4 (95)
DN15 PN40 flange; EN 1092-1 Form B1	525	13.65 (347)	3 3/4 (95)
DN15 PN100 flange; EN 1092-1 Form B2	526	13.97 (355)	4 1/8 (105)
DN15 PN40 flange; EN 1092-1 Form D	654	13.65 (347)	3 3/4 (95)
DN15 PN40 socket weld flange; DIN2526 type C face	616	13.65 (347)	3 3/4 (95)
DN15 PN100 socket weld flange; DIN2526 type E face	617	13.97 (355)	4 1/8 (105)
DN15 PN40 socket weld flange; DIN2512 type N face	650	13.65 (347)	3 3/4 (95)
1/2-inch NPT female adapter; Swagelok compatible size 8 VCO union fitting	636	18.67 (474)	3 1/8 (79)
Swagelok compatible size 8 VCO union fitting	637	15.13 (385)	3 1/8 (79)
1/2-inch sanitary fitting (Tri-Clamp compatible)	621	13.92 (354)	1 (25)
DN10 DIN 11851 hygienic coupling	670	13.93 (354)	Rd 28 x 1/8
DN15 DIN 11851 hygienic coupling	671	13.93 (354)	Rd 34 x 1/8
DN15 DIN 11864-1A aseptic coupling	676	13.89 (353)	Rd 34 x 1/8
15 mm JIS 10K/20K socket weld flange	781	13.64 (346)	3 3/4 (95)
Model T025F⁽¹⁾			
1/2-inch sanitary fitting (Tri-Clamp compatible)	621	13.92 (354)	1 (25)
DN10 DIN 11851 hygienic coupling	670	13.93 (354)	Rd 28 x 1/8
DN15 DIN 11851 hygienic coupling	671	13.93 (354)	Rd 34 x 1/8
DN15 DIN 11864-1A aseptic coupling	676	13.89 (353)	Rd 34 x 1/8

(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 diam. inches (mm)
Model T050T⁽¹⁾			
1/2-inch ANSI CL150 socket weld raised face flange	613	15.75 (400)	3 1/2 (89)
1/2-inch ANSI CL300 socket weld raised face flange	614	16.27 (413)	3 3/4 (95)
1/2-inch ANSI CL600 socket weld raised face flange	615	16.39 (417)	3 3/4 (95)
DN15 PN40 flange; EN 1092-1 Form B1	525	16.09 (409)	3 3/4 (95)
DN15 PN100 flange; EN 1092-1 Form B2	526	16.41 (417)	4 1/8 (105)
DN15 PN40 flange; EN 1092-1 Form D	654	16.09 (409)	3 3/4 (95)
DN15 PN40 socket weld flange; DIN2526 type C face	616	16.09 (409)	3 3/4 (95)
DN15 PN100 socket weld flange; DIN2526 type E face	617	16.41 (417)	4 1/8 (105)
DN15 PN40 socket weld flange; DIN2512 type N face	650	16.09 (409)	3 3/4 (95)
3/4-inch NPT female adapter; Swagelok compatible size 12 VCO union fitting	638	21.60 (549)	3 1/8 (79)
Swagelok compatible size 12 VCO union fitting	639	17.74 (451)	3 1/8 (79)
1/2-inch sanitary fitting (Tri-Clamp compatible)	621	16.37 (416)	1 (25)
DN15 DIN 11851 hygienic coupling	671	16.37 (416)	Rd 34 x 1/8
DN15 DIN 11864-1A aseptic coupling	676	16.37 (416)	Rd 34 x 1/8
15 mm JIS 10K/20K socket weld flange	781	16.08 (409)	3 3/4 (95)
Model T050F⁽¹⁾			
1/2-inch sanitary fitting (Tri-Clamp compatible)	621	16.37 (416)	1 (25)
DN15 DIN 11851 hygienic coupling	671	16.37 (416)	Rd 34 x 1/8
DN15 DIN 11864-1A aseptic coupling	676	16.37 (416)	Rd 34 x 1/8

(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 diam. inches (mm)
Model T075T⁽¹⁾			
1/2-inch ANSI CL150 socket weld raised face flange	613	20.81 (529)	3 1/2 (89)
1/2-inch ANSI CL300 socket weld raised face flange	614	21.33 (542)	3 3/4 (95)
1/2-inch ANSI CL600 socket weld raised face flange	615	21.45 (545)	3 3/4 (95)
1-inch ANSI CL150 socket weld raised face flange	628	21.07 (529)	4 1/4 (108)
1-inch ANSI CL300 socket weld raised face flange	629	21.81 (548)	4 7/8 (124)
1-inch ANSI CL600 socket weld raised face flange	630	21.81 (548)	4 7/8 (124)
DN15 PN40 flange; EN 1092-1 Form B1	525	21.15 (537)	3 3/4 (95)
DN15 PN100 flange; EN 1092-1 Form B2	526	21.47 (545)	4 1/8 (105)
DN25 PN40 flange; EN 1092-1 Form B1	527	21.75 (552)	4 1/2 (115)
DN25 PN100 flange; EN 1092-1 Form B2	528	22.23 (565)	4 15/16 (125)
DN15 PN40 flange; EN 1092-1 Form D	654	21.15 (537)	3 3/4 (95)
DN25 PN40 flange; EN 1092-1 Form D	655	21.75 (552)	4 1/2 (115)
DN15 PN40 socket weld flange; DIN2526 type C face	616	21.15 (537)	3 3/4 (95)
DN15 PN100 socket weld flange; DIN2526 type E face	617	21.47 (545)	4 1/8 (105)
DN25 PN40 socket weld flange; DIN2526 type C face	618	21.75 (552)	4 1/2 (115)
DN25 PN100 socket weld flange; DIN2526 type E face	619	22.23 (565)	4 15/16 (125)
DN15 PN40 socket weld flange; DIN2512 type N face	650	21.15 (537)	3 3/4 (95)
DN25 PN40 socket weld flange; DIN2512 type N face	651	21.75 (552)	4 1/2 (115)
3/4 inch full-bore sanitary fitting (Tri-clamp compatible)	622	21.57 (544)	1 (25)
1-inch sanitary fitting (Tri-clamp compatible)	623	21.43 (544)	2 (50)
DN25 DIN 11851 hygienic coupling	672	21.47 (545)	Rd 52 x 1/6
DN25 SMS-1145 aseptic coupling	692	21.47 (545)	Rd 40 x 1/6
DN25 DIN 11864-1A aseptic coupling	677	21.47 (545)	Rd 52 x 1/6
DN25 IDF (ISO-2853) aseptic coupling	662	21.47 (545)	DN25
15 mm JIS 10K/20K socket weld flange	781	21.14 (537)	3 3/4 (95)
25 mm JIS 10K/20K socket weld flange	782	21.57 (548)	4 15/16 (125)

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diam. inches (mm)
Model T075F⁽¹⁾			
1/2-inch ANSI CL150 socket weld raised face flange	613	20.81 (529)	3 1/2 (89)
1/2-inch ANSI CL300 socket weld raised face flange	614	21.33 (542)	3 3/4 (95)
1/2-inch ANSI CL600 socket weld raised face flange	615	21.45 (545)	3 3/4 (95)
1-inch ANSI CL150 socket weld raised face flange	628	21.07 (529)	4 1/4 (108)
1-inch ANSI CL300 socket weld raised face flange	629	21.81 (548)	4 7/8 (124)
1-inch ANSI CL600 socket weld raised face flange	630	21.81 (548)	4 7/8 (124)
DN15 PN40 socket weld flange; DIN2526 type C face	616	21.15 (537)	3 3/4 (95)
DN15 PN100 socket weld flange; DIN2526 type E face	617	21.47 (545)	4 1/8 (105)
DN25 PN40 socket weld flange; DIN2526 type C face	618	21.75 (552)	4 1/2 (115)
DN25 PN100 socket weld flange; DIN2526 type E face	619	22.23 (565)	4 15/16 (125)
DN15 PN40 socket weld flange; DIN2512 type N face	650	21.15 (537)	3 3/4 (95)
DN25 PN40 socket weld flange; DIN2512 type N face	651	21.75 (552)	4 1/2 (115)
3/4 inch full-bore sanitary fitting (Tri-clamp compatible)	622	21.57 (544)	1 (25)
1-inch sanitary fitting (Tri-clamp compatible)	623	21.43 (544)	2 (50)
DN25 DIN 11851 hygienic coupling	672	21.47 (545)	Rd 52 x 1/6
DN25 SMS-1145 aseptic coupling	692	21.47 (545)	Rd 40 x 1/6
DN25 DIN 11864-1A aseptic coupling	677	21.47 (545)	Rd 52 x 1/6
DN25 IDF (ISO-2853) aseptic coupling	662	21.47 (545)	DN25
15 mm JIS 10K/20K socket weld flange	781	21.14 (537)	3 3/4 (95)
25 mm JIS 10K/20K socket weld flange	782	21.57 (548)	4 15/16 (125)

Fitting options *continued*

	Fitting code	Dim. A face-to-face inches (mm)	Dim. B outside diam. inches (mm)
Model T100T⁽¹⁾			
1-inch ANSI CL150 socket weld raised face flange	628	25.51 (648)	4 1/4 (108)
1-inch ANSI CL300 socket weld raised face flange	629	26.25 (667)	4 7/8 (124)
1-inch ANSI CL600 socket weld raised face flange	630	26.37 (670)	4 7/8 (124)
1 1/2-inch ANSI CL150 socket weld raised face flange	641	25.77 (655)	5 (127)
1 1/2-inch ANSI CL300 socket weld raised face flange	642	26.39 (670)	6 1/8 (155)
1 1/2-inch ANSI CL600 socket weld raised face flange	643	26.51 (673)	6 1/8 (155)
DN25 PN40 flange; EN 1092-1 Form B1	527	26.19 (665)	4 1/2 (115)
DN25 PN100 flange; EN 1092-1 Form B2	528	26.81 (681)	5 1/2 (140)
DN25 PN40 flange; EN 1092-1 Form D	655	26.19 (665)	4 1/2 (115)
DN40 PN40 flange; EN 1092-1 Form D	656	26.29 (668)	5 15/16 (150)
DN40 PN40 flange; EN 1092-1 Form B1	658	26.29 (668)	5 15/16 (150)
DN40 PN100 flange; EN 1092-1 Form B2	659	27.53 (699)	6 11/16 (170)
DN25 PN40 socket weld flange; DIN2526 type C face	618	26.19 (665)	4 1/2 (115)
DN25 PN100 socket weld flange; DIN2526 type E face	619	26.55 (674)	5 1/2 (140)
DN25 PN40 socket weld flange; DIN2512 type N face	651	26.19 (665)	4 1/2 (115)
DN40 PN40 socket weld flange; DIN2526 type C face	681	26.29 (668)	5 15/16 (150)
DN40 PN40 socket weld flange; DIN2512 type N face	652	26.29 (668)	5 15/16 (150)
DN40 PN100 socket weld flange; DIN2526 type E face	682	26.69 (678)	6 11/16 (170)
1-inch sanitary fitting (Tri-clamp compatible)	623	26.23 (666)	2 (50)
1 1/2-inch sanitary fitting (Tri-clamp compatible)	624	26.23 (666)	2 (50)
DN25 DIN 11851 hygienic coupling	672	26.23 (666)	Rd 52 x 1/6
DN25 DIN 11864-1A aseptic coupling	677	26.23 (666)	Rd 52 x 1/6
25 mm JIS 10K/20K socket weld flange	782	26.13 (664)	4 15/16 (125)
40 mm JIS 10K/20K socket weld flange	783	26.19 (665)	5 1/2 (140)

(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 diam. inches (mm)
Model T100F⁽¹⁾			
1-inch ANSI CL150 socket weld raised face flange	628	25 1/2 (648)	4 1/4 (108)
1-inch ANSI CL300 socket weld raised face flange	629	26 1/4 (667)	4 7/8 (124)
1-inch ANSI CL600 socket weld raised face flange	630	26 3/8 (670)	4 7/8 (124)
1 1/2-inch ANSI CL150 socket weld raised face flange	641	25 3/4 (655)	5 (127)
1 1/2-inch ANSI CL300 socket weld raised face flange	642	26 3/8 (670)	6 1/8 (155)
1 1/2-inch ANSI CL600 socket weld raised face flange	643	26 1/2 (673)	6 1/8 (155)
DN25 PN40 socket weld flange; DIN2526 type C face	618	26 3/16 (665)	4 1/2 (115)
DN25 PN100 socket weld flange; DIN2526 type E face	619	26 9/16 (674)	5 1/2 (140)
DN25 PN40 socket weld flange; DIN2512 type N face	651	26 3/16 (665)	4 1/2 (115)
DN40 PN40 socket weld flange; DIN2526 type C face	681	26 5/16 (668)	5 15/16 (150)
DN40 PN100 socket weld flange; DIN2526 type E face	682	26 11/16 (678)	6 11/16 (170)
DN40 PN40 socket weld flange; DIN2512 type N face	652	26 5/16 (668)	5 15/16 (150)
1-inch sanitary fitting (Tri-clamp compatible)	623	26 1/4 (668)	2 (50)
1 1/2-inch sanitary fitting (Tri-clamp compatible)	624	26 1/4 (666)	2 (50)
DN25 DIN 11851 hygienic coupling	672	26 1/4 (666)	Rd 52 x 1/6
DN25 DIN 11864-1A aseptic coupling	677	26 1/4 (667)	Rd 52 x 1/6
25 mm JIS 10K/20K socket weld flange	782	26 1/8 (664)	4 15/16 (125)
40 mm JIS 10K/20K socket weld flange	783	26 3/16 (665)	5 1/2 (140)

(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 diam. inches (mm)
Model T150T⁽¹⁾			
1 1/2-inch ANSI CL150 socket weld raised face flange	641	31.46 (799)	5 (127)
1 1/2-inch ANSI CL300 socket weld raised face flange	642	32.08 (815)	6 1/8 (155)
1 1/2-inch ANSI CL600 socket weld raised face flange	643	32.32 (821)	6 1/8 (155)
2-inch ANSI CL150 socket weld raised face flange	644	31.68 (805)	6 (152)
2-inch ANSI CL300 socket weld raised face flange	645	32.30 (820)	6 1/2 (165)
2-inch ANSI CL600 socket weld raised face flange	646	32.56 (827)	6 1/2 (165)
DN40 PN40 flange; EN 1092-1 Form D	656	31.74 (806)	5 7/8 (150)
DN50 PN40 flange; EN 1092-1 Form D	657	32.02 (813)	6 1/2 (165)
DN40 PN40 flange; EN 1092-1 Form B1	658	31.74 (806)	5 7/8 (150)
DN40 PN100 flange; EN 1092-1 Form B2	659	32.74 (832)	6 11/16 (170)
DN50 PN40 flange; EN 1092-1 Form B1	660	32.02 (813)	6 1/2 (165)
DN50 PN100 flange; EN 1092-1 Form B2	661	33.02 (839)	7 1/8 (181)
DN40 PN40 socket weld flange; DIN2526 type C face	681	31.74 (806)	5 7/8 (150)
DN40 PN100 socket weld flange; DIN2526 type E face	682	32.38 (822)	6 11/16 (170)
DN40 PN40 socket weld flange; DIN2512 type N face	652	31.74 (806)	5 7/8 (150)
DN50 PN40 socket weld flange; DIN2526 type C face	683	32.02 (813)	6 1/2 (165)
DN50 PN100 socket weld flange; DIN2526 type E face	684	32.66 (829)	7 1/8 (181)
DN50 PN40 socket weld flange; DIN2512 type N face	653	32.02 (813)	6 1/2 (165)
1 1/2-inch sanitary fitting (Tri-clamp compatible)	624	32.04 (814)	2 (50)
2-inch sanitary fitting (Tri-clamp compatible)	625	32.04 (814)	2 1/2 (64)
DN40 DIN 11851 hygienic coupling	673	32.60 (828)	Rd 65 x 1/6
DN50 DIN 11851 hygienic coupling	674	32.04 (814)	Rd 78 x 1/6
DN50 DIN 11864-1A aseptic coupling	678	32.04 (814)	Rd 78 x 1/6
DN51 SMS-1145 aseptic coupling	693	32.04 (814)	Rd 70 x 1/6
DN51 IDF (ISO-2853) aseptic coupling	663	32.04 (814)	DN51
40 mm JIS 10K/20K socket weld flange	783	31.88 (810)	5 1/2 (140)
50 mm JIS 10K/20K socket weld flange	784	31.89 (810)	7 1/8 (181)

(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 diam. inches (mm)
Model T150F⁽¹⁾			
1 1/2-inch ANSI CL150 socket weld raised face flange	641	31.46 (799)	5 (127)
1 1/2-inch ANSI CL300 socket weld raised face flange	642	32.08 (815)	6 1/8 (155)
1 1/2-inch ANSI CL600 socket weld raised face flange	643	32.32 (821)	6 1/8 (155)
2-inch ANSI CL150 socket weld raised face flange	644	31.68 (805)	6 (152)
2-inch ANSI CL300 socket weld raised face flange	645	32.30 (820)	6 1/2 (165)
2-inch ANSI CL600 socket weld raised face flange	646	32.56 (827)	6 1/2 (165)
DN40 PN40 socket weld flange; DIN2526 type C face	681	31.74 (806)	5 7/8 (150)
DN40 PN100 socket weld flange; DIN2526 type E face	682	32.38 (822)	6 11/16 (170)
DN40 PN40 socket weld flange; DIN2512 type N face	652	31.74 (806)	5 7/8 (150)
DN50 PN40 socket weld flange; DIN2526 type C face	683	32.02 (813)	6 1/2 (165)
DN50 PN100 socket weld flange; DIN2526 type E face	684	32.66 (829)	7 1/8 (181)
DN50 PN40 socket weld flange; DIN2512 type N face	653	32.02 (813)	6 1/2 (165)
1 1/2-inch sanitary fitting (Tri-clamp compatible)	624	32.04 (814)	2 (50)
2-inch sanitary fitting (Tri-clamp compatible)	625	32.04 (814)	2 1/2 (64)
DN40 DIN 11851 hygienic coupling	673	32.60 (828)	Rd 65 x 1/6
DN50 DIN 11851 hygienic coupling	674	32.04 (814)	Rd 78 x 1/6
DN50 DIN 11864-1A aseptic coupling	678	32.04 (814)	Rd 78 x 1/6
DN51 SMS-1145 aseptic coupling	693	32.04 (814)	Rd 70 x 1/6
DN51 IDF (ISO-2853) aseptic coupling	663	32.04 (814)	DN51
40 mm JIS 10K/20K socket weld flange	783	31.88 (810)	5 1/2 (140)
50 mm JIS 10K/20K socket weld flange	784	31.89 (810)	7 1/8 (181)

(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 sensor models	
T025T	Micro Motion Coriolis T-Series sensor; 1/4-inch; straight tube; titanium; 32 Ra (0.8 µm) surface finish
T050T	Micro Motion Coriolis T-Series sensor; 1/2-inch; straight tube; titanium; 32 Ra (0.8 µm) surface finish
T075T	Micro Motion Coriolis T-Series sensor; 3/4-inch; straight tube; titanium; 32 Ra (0.8 µm) surface finish
T100T	Micro Motion Coriolis T-Series sensor; 1-inch; straight tube; titanium; 32 Ra (0.8 µm) surface finish
T150T	Micro Motion Coriolis T-Series sensor; 1 1/2-inch; straight tube; titanium; 32 Ra (0.8 µm) surface finish
Improved surface finish sensor models	
T025F	Micro Motion Coriolis T-Series sensor; 1/4-inch; straight tube; titanium; 15 Ra (0.4 µm) surface finish
T050F	Micro Motion Coriolis T-Series sensor; 1/2-inch; straight tube; titanium; 15 Ra (0.4 µm) surface finish
T075F	Micro Motion Coriolis T-Series sensor; 3/4-inch; straight tube; titanium; 15 Ra (0.4 µm) surface finish
T100F	Micro Motion Coriolis T-Series sensor; 1-inch; straight tube; titanium; 15 Ra (0.4 µm) surface finish
T150F	Micro Motion Coriolis T-Series sensor; 1 1/2-inch; straight tube; titanium; 15 Ra (0.4 µm) surface finish
Code	Fitting options
###	See fittings tables on pages 13–19.
Code	Case options
S	1450 psi (100 bar) containment
P ⁽¹⁾	Purge fittings (two 1/2-inch NPT female); 725 psi (50 bar) containment
Code	Electronics interface
Q	4-wire polyurethane-painted aluminum integral core processor for remotely mounted transmitter with MVD Technology
A	4-wire stainless steel integral core processor for remotely mounted transmitter with MVD Technology
V	4-wire polyurethane-painted aluminum integral core processor with extended mount for remotely mounted transmitter with MVD Technology
B	4-wire stainless steel integral core processor with extended mount for remotely mounted transmitter with MVD Technology
C	Integrally mounted Model 1700 or 2700 transmitter
R	9-wire polyurethane-painted junction box — not available with Models T025 or T050
H	9-wire polyurethane-painted junction box with extended mount — not available with Models T025 or T050
Code	Conduit connections
Electronics interface codes Q, A, V, and B	
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 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
Electronics interface code C (integrally mounted transmitter)	
A	No gland

Continued on next page

(1) Not available with sensors with improved surface finish option.

Ordering information *continued*

Code	Approval
M	Micro Motion standard (no approval)
N	Micro Motion standard / PED compliant
U ⁽¹⁾	UL
C	CSA (Canada only)
A	CSA (U.S.A. and Canada)
Z	ATEX — Equipment Category 2 (Zone 1) / PED compliant
V ⁽²⁾	ATEX — Equipment Category 3 (Zone 2) / PED compliant
3 ⁽²⁾	IECEx Zone 2
2 ⁽²⁾	CSA Class I Div. 2 (U.S.A. and Canada)
Code	Language
A	Danish installation manual
C	Czech 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
S	Spanish installation manual
W	Swedish installation manual
B	Hungarian CE requirements and English installation manual
K	Slovak CE requirements and English installation manual
T	Estonian CE requirements and English installation manual
U	Greek CE requirements and English installation manual
L	Latvian CE requirements and English installation manual
V	Lithuanian CE requirements and English installation manual
Y	Slovenian CE requirements and English installation manual
Code	Future option 1
Z	Reserved for future use
Code	Future option 2
Z	Reserved for future use
Code	Measurement application software
Z	No measurement application software
Code	Factory options
Z	Standard product
X	ETO product
Typical model number: T025T 613 S Q B M E Z Z Z Z	

(1) Not available with models T025F or T050F.

(2) Available only with electronics interface option C.

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Emerson Process Management Micro Motion Americas

Worldwide Headquarters
7070 Winchester Circle
Boulder, Colorado USA 80301
T: 800 522 6277
T: +1 (303) 527 5200
F: +1 (303) 530 8459
Mexico T: 52 55 5809 5300
Argentina T: 54 11 4837 7000
Brazil T: 55 15 3238 3527
Venezuela T: 58 26 1792 1858

Emerson Process Management Micro Motion Europe/Middle East

Central & Eastern Europe T: +41 41 7686 111
Dubai T: +971 4 811 8100
France T: 0800 917 901
Germany T: 0800 182 5347
Italy T: 8008 77334
The Netherlands T: (31) 318 495 555
Belgium T: +32 (0) 2 716 77 11
Spain T: +34 913 586 000
U.K. T: 0870 240 1978
Russia/CIS T: +7 495 981 9811

Emerson Process Management Micro Motion Asia Pacific

Australia T: (61) 3 9721 0200
China T: (86) 21 2892 9000
India T: (91) 22 6662 0566
Japan T: (81) 3 5769 6803
Korea T: (82) 2 3438 4600
Singapore T: (65) 6 777 8211

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