

Product Data Sheet

PS-00371

February 2002

Micro Motion T-Series

Straight-Tube Mass Flow and Density Meters



Micro Motion

www.micromotion.com


EMERSON[™]
Process Management

Micro Motion T-Series Straight-Tube Meters

Micro Motion® is proud to offer you the first single-straight-tube flowmeter with Micro Motion excellence built in.

Micro Motion T-Series meters offer the best performance of any straight-tube Coriolis meter available today. If you have plugging concerns with your application, or if you need your meter to be **compact, self-draining, and sanitary**, with **standard secondary containment**, then Micro Motion T-Series meters are the straight-tube meters you want.

Five sizes of Micro Motion T-Series meters offer direct mass flow, volume flow, density, and temperature measurement of liquids and slurries — without the need for additional equipment, manual calculations or estimations. Micro Motion T-Series meters have no moving parts, and no special mounting or flow conditioning requirements. They feature titanium wetted parts for excellent corrosion resistance, and are available with a variety of process connections. And, like all Micro Motion meters, these straight-tube meters are easy to install and require no maintenance — saving you money over the course of their lifetime.

Sanitary applications

Our straight-tube meter design is based on the ASME Bioprocessing Equipment Standard. With optional sanitary fittings, Micro Motion T-Series meters meet 3A 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 20 μ -inch Ra (0.5 μ -meter) or better as an 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 single-tube, straight flow path also resists plugging, and can be pigged.

MVD™ Technology

Micro Motion T-Series meters are now available with MVD™ Technology — a new, innovative, multivariable, digital signal processing capability. A core processor, integrally mounted on the sensor, works with our new Series 1000 and 2000 transmitters to improve ease of use, reduce downtime, and lower your flow metering costs. Meters with MVD Technology provide cleaner, noise-free digital signals, have faster response times, and feature enhanced diagnostic capabilities.

Series 1000 and 2000 transmitters offer integral and remote mounting options with standard 4-wire connections, significantly reducing installation costs. A wide array of options is available for basic to enhanced measurement applications.

Series 3000 electronics

Alternatively, you can pair Micro Motion T-Series sensors with Series 3000 electronics for a variety of measurement and control options, such as milliampere and frequency/pulse outputs, batch processing capability, and advanced density measurement.

Series 3000 devices can be installed in an instrument rack or panel, or can be housed in a NEMA 4X (IP65) enclosure.

Micro Motion is known worldwide for increasing plant efficiency, production, and profitability. More than 300,000 Micro Motion meters are installed and working in processes just like yours. Contact us, and discover the best precision straight-tube meters available today — Micro Motion T-Series flowmeters.

Performance specifications

Flow – liquid only

Nominal flow range ⁽¹⁾		<i>lb/min</i>	<i>kg/h</i>
	T025	0 to 25	0 to 680
	T050	0 to 140	0 to 3,800
	T075	0 to 500	0 to 14,000
	T100	0 to 1100	0 to 30,000
	T150	0 to 3200	0 to 87,000
Maximum flow rate		<i>lb/min</i>	<i>kg/h</i>
	T025	25	680
	T050	140	3,800
	T075	500	14,000
	T100	1100	30,000
	T150	3200	87,000
Accuracy⁽²⁾	All models	±0.15% ⁽³⁾	
Repeatability⁽²⁾	All models	±0.05% ⁽³⁾	
Zero stability		<i>lb/min</i>	<i>kg/h</i>
	T025	0.004	0.11
	T050	0.022	0.61
	T075	0.080	2.24
	T100	0.176	4.80
	T150	0.512	13.92

Density – liquid only

		<i>g/cc</i>	<i>kg/m³</i>
Accuracy⁽²⁾	All models	± 0.002	± 2.0
Repeatability⁽²⁾	All models	± 0.0005	± 0.5

Temperature

Accuracy	All models	±1.0°C ± 0.5% of reading in °C	
Repeatability	All models	±0.2°C	
Range	All models ⁽⁴⁾	with junction box	–60 to 300°F (–50 to 150°C)
		with core processor or transmitter ⁽⁵⁾⁽⁶⁾	–60 to 257°F (–50 to 125°C)
		with extended mount (j-box or core processor)	–60 to 300°F (–50 to 150°C)

⁽¹⁾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 psi (1 bar) of pressure drop for Micro Motion T-Series sensors.

⁽²⁾Flow and density accuracies include 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 is less than (zero stability / 0.0015), accuracy equals ± [(zero stability / flow rate) x 100]% of rate, and repeatability equals ± [½(zero stability / flow rate) x 100]% of rate.

⁽⁴⁾For ATEX-compliant sensors, the ATEX "T" rating and hazardous area classification depend on the maximum process fluid and ambient temperature. See page 7.

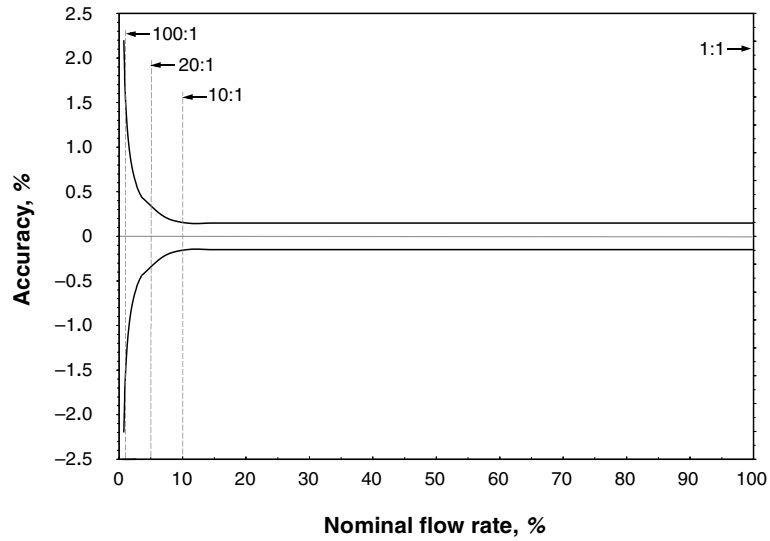
⁽⁵⁾For ATEX-compliant sensors, the maximum ambient temperature is 55°C. Use of the sensor above 55°C is acceptable, provided the ambient temperature does not exceed the ATEX "T" rating listed on page 7.

⁽⁶⁾For ATEX-compliant sensors, the minimum process fluid and ambient temperature is –20°C. If the process fluid remains at or above 0°C, ambient temperature below –20°C is acceptable.

Performance specifications *continued*

Typical flow accuracy, turndown, and pressure drop

To determine accuracy, turndown, and pressure drop using your process variables, contact your local Micro Motion representative.



Turndown	100:1	20:1	10:1	1:1
Accuracy, $\pm\%$	1.57	0.31	0.16	0.15
Pressure drop, <i>psi</i>	~0	0.06	0.22	14.3
<i>bar</i>	~0	0.02	0.05	0.99

Functional specifications

Pressure ratings⁽¹⁾

		psi	bar
Flow tube rating	All models	1450	100
PED approved	Sensors comply to council directive 97/23/EC of 29 May 1997 on Pressure Equipment.		
		psi	bar
Housing rating⁽²⁾	All models	720	50

Environmental influences

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.		
		Temperature effect⁽³⁾	
		% of nominal flow rate per °C	
	All models	0.002	
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.		
		Pressure effect	
	All models	none	

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 and optional 20 μ-inch Ra (0.5 μ-meter) or better.		
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.		
3A	Micro Motion T-Series sensors with sanitary fittings meet 3A 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.		

⁽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).

⁽³⁾Nominal flow rate is the upper limit of the nominal flow range.

Functional specifications *continued*

Hazardous area classifications

UL is a U.S.A. approvals agency, CSA is a Canadian approvals agency, and ATEX is a European standards organization.


UL and CSA


All models Class I, Div. 1, Groups C and D
 Class I, Div. 2, Groups A, B, C, and D
 Class II, Div.1, Groups E, F, and G


ATEX⁽¹⁾

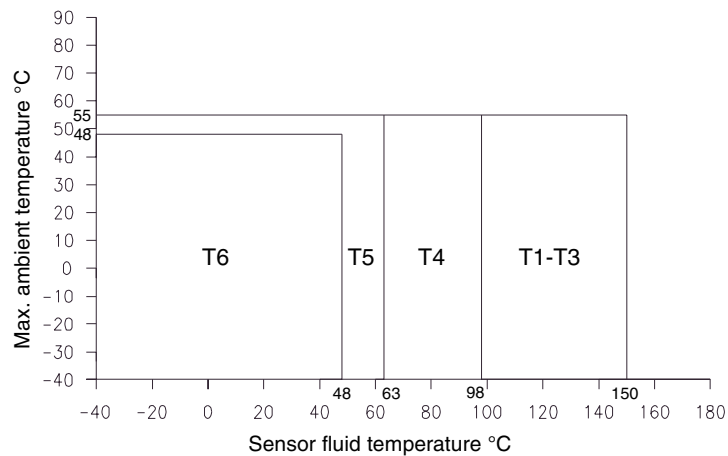
For sensors with integral core processor or transmitter, see page 8.

Sensors with junction box

T075 CE 0575  II 2G EEx ib IIC T1...T6

T100 CE 0575  II 2G EEx ib IIC T1...T6

T150 CE 0575  II 2G EEx ib IIB T1...T6



⁽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).

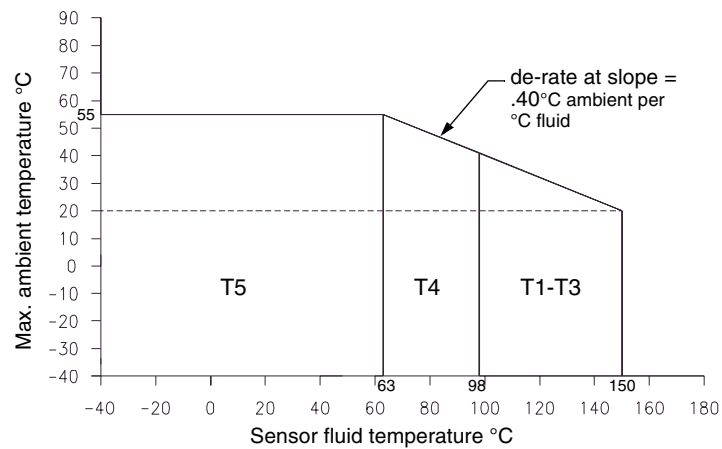
Functional specifications *continued*

Hazardous area classifications *continued*

ATEX⁽¹⁾

Sensors with integral core processor or transmitter

T025	CE 0575	⊕x	II 2G EEx ib IIC T1...T5
T050	CE 0575	⊕x	II 2G EEx ib IIC T1...T5
T075	CE 0575	⊕x	II 2G EEx ib IIC T1...T5
T100	CE 0575	⊕x	II 2G EEx ib IIC T1...T5
T150	CE 0575	⊕x	II 2G EEx ib IIB T1...T5



⁽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).

Physical specifications

Material 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	All models	304L stainless steel
Core processor housing		316L stainless steel
Junction box housing		Epoxy-coated aluminum

⁽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 flowmeter. 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 of sensor, or sensor and integrally mounted transmitter, with noted process fittings.

	<i>Process fitting</i>	<i>Sensor with junction box</i>		<i>Sensor with integral core processor</i>		<i>Sensor with integral transmitter</i>	
		<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>
T025	1/2-inch ANSI 150 lb socket weld raised face flange	N/A	N/A	12	5.2	16	7.2
	1/2-inch ANSI 300 lb socket weld raised face flange	N/A	N/A	14	6.4	18	8.1
	1/2-inch ANSI 600 lb socket weld raised face flange	N/A	N/A	14	6.4	18	8.1
	1/2-inch sanitary fitting (Tri-Clamp compatible)	N/A	N/A	10	4.7	14	6.3
	1/2-inch NPT female adapter; CAJON compatible size 8 VCO union fitting	N/A	N/A	14	7	18	9
	CAJON compatible size 8 VCO union fitting	N/A	N/A	13	6	17	8
	10 mm DIN 11851 hygienic coupling	N/A	N/A	13	6	17	8
	15 mm DIN 11851 hygienic coupling	N/A	N/A	13	6	17	8
	15 mm DIN 11864-1A aseptic coupling	N/A	N/A	16	6	17	8
	15 mm DIN PN40 socket weld flange; type C face	N/A	N/A	14	6.4	18	8.1
	15 mm DIN PN100 socket weld flange; type E face	N/A	N/A	16	7.1	20	9
	15 mm DIN PN40 socket weld flange; type N grooved face	N/A	N/A	14	6.4	18	8.1
	15 mm JIS 10K/20K socket weld flange	N/A	N/A	14	6.4	18	8.1
T050	1/2-inch ANSI 150 lb socket weld raised face flange	N/A	N/A	14	6.1	18	8.1
	1/2-inch ANSI 300 lb socket weld raised face flange	N/A	N/A	16	7.3	20	9
	1/2-inch ANSI 600 lb socket weld raised face flange	N/A	N/A	16	7.3	20	9
	1/2-inch sanitary fitting (Tri-Clamp compatible)	N/A	N/A	12	5.6	16	7.2
	3/4-inch NPT female adapter; CAJON compatible size 12 VCO fitting	N/A	N/A	17	8	21	10
	CAJON compatible size 12 VCO fitting	N/A	N/A	16	7	20	9
	15 mm DIN 11851 hygienic coupling	N/A	N/A	15	7	19	9
	15 mm DIN 11864-1A aseptic coupling	N/A	N/A	15	7	19	9
	15 mm DIN PN40 socket weld flange; type C face	N/A	N/A	16	7.3	20	9
	15 mm DIN PN100 socket weld flange; type E face	N/A	N/A	18	8	22	9.9
	15 mm DIN PN40 socket weld flange; type N grooved face	N/A	N/A	16	7.3	20	9
	15 mm JIS 10K/20K socket weld flange	N/A	N/A	16	7.3	20	9

Weight continued on next page

Physical specifications *continued*

Weight Approximate weight of sensor, or sensor and integrally mounted transmitter, with noted process fittings.

	<i>Process fitting</i>	<i>Sensor with junction box</i>		<i>Sensor with integral core processor</i>		<i>Sensor with integral transmitter</i>	
		<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>
T075	1/2-inch ANSI 150 lb socket weld raised face flange	32	15	34	16	38	18
	1/2-inch ANSI 300 lb socket weld raised face flange	33	15	35	16	39	18
	1/2-inch ANSI 600 lb socket weld raised face flange	33	15	36	16	39	18
	1-inch ANSI 150 lb socket weld raised face flange	34	16	37	17	40	19
	1-inch ANSI 300 lb socket weld raised face flange	37	17	39	18	43	20
	1-inch ANSI 600 lb socket weld raised face flange	37	17	39	18	43	20
	1-inch sanitary fitting	30	14	32	15	36	17
	15 mm DIN PN40 socket weld flange; type C face	33	15	36	16	39	18
	15 mm DIN PN40 socket weld flange; type N grooved face	33	15	36	16	39	18
	15 mm DIN PN100 socket weld flange; type E face	36	17	38	18	42	19
	25 mm DIN PN40 socket weld flange; type C face	36	17	39	18	43	20
	25 mm DIN PN40 socket weld flange; type N grooved face	36	17	39	18	43	20
	25 mm DIN PN100 socket weld flange; type E face	42	19	44	20	48	22
	25 mm DIN 11851 hygienic coupling	30	14	33	15	36	17
	25 mm DIN 11864-1A aseptic coupling	30	14	33	15	36	17
	25 mm SMS-1145 hygienic coupling	30	14	32	15	36	17
	25 mm IDF (ISO-2853) hygienic coupling	30	14	32	15	36	17
	15 mm JIS 10K/20K socket weld flange	33	15	35	16	39	18
	25 mm JIS 10K/20K socket weld flange	36	17	38	18	42	19
	T100	1-inch ANSI 150 lb socket weld raised face flange	57	26	60	27	63
1-inch ANSI 300 lb socket weld raised face flange		60	28	63	29	66	30
1-inch ANSI 600 lb socket weld raised face flange		60	28	63	29	66	30
1 1/2-inch ANSI 150 lb socket weld raised face flange		61	28	63	29	67	30
1 1/2-inch ANSI 300 lb socket weld raised face flange		66	30	69	31	72	33
1 1/2-inch ANSI 600 lb socket weld raised face flange		68	31	70	32	74	34
1-inch sanitary fitting		54	25	56	26	60	27
1 1/2-inch sanitary fitting		54	25	56	26	60	27
25 mm DIN PN40 socket weld flange; type C face		60	27	62	28	66	30
25 mm DIN PN40 socket weld flange; type N grooved face		60	27	62	28	66	30
25 mm DIN PN100 socket weld flange; type E face		66	30	68	31	72	33
40 mm DIN PN40 socket weld flange; type C face		65	30	67	31	71	32
40 mm DIN PN40 socket weld flange; type N grooved face		65	30	67	31	71	32
40 mm DIN PN100 socket weld flange; type E face		73	33	75	34	79	36
25 mm DIN 11851 hygienic coupling		54	25	56	26	60	27
25 mm DIN 11864-1A aseptic coupling		54	25	56	28	60	27
25 mm JIS 10K/20K socket weld flange		60	27	62	28	66	30
40 mm JIS 10K/20K socket weld flange		62	29	65	30	68	31

Weight continued on next page

Physical specifications *continued*

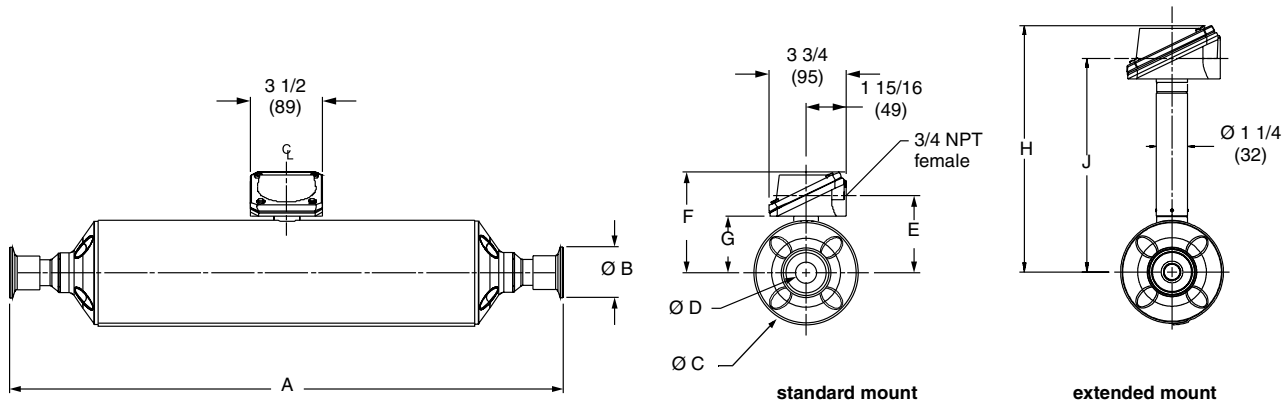
Weight Approximate weight of sensor, or sensor and integrally mounted transmitter, with noted process fittings.

	<i>Process fitting</i>	<i>Sensor with junction box</i>		<i>Sensor with integral core processor</i>		<i>Sensor with integral transmitter</i>	
		<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>	<i>lb</i>	<i>kg</i>
T150	1 1/2-inch ANSI 150 lb socket weld raised face flange	136	62	139	63	142	65
	1 1/2-inch ANSI 300 lb socket weld raised face flange	138	63	140	64	144	66
	1 1/2-inch ANSI 600 lb socket weld raised face flange	143	65	145	66	149	68
	2-inch ANSI 150 lb socket weld raised face flange	141	64	143	65	147	67
	2-inch ANSI 300 lb socket weld raised face flange	145	66	147	67	151	69
	2-inch ANSI 600 lb socket weld raised face flange	147	67	149	68	153	70
	1 1/2-inch sanitary fitting	130	59	132	60	136	62
	2-inch sanitary fitting	130	59	132	60	136	62
	40 mm DIN PN40 socket weld flange; type C face	139	63	141	64	145	66
	40 mm DIN PN40 socket weld flange; type N grooved face	139	63	141	64	145	66
	40 mm DIN PN100 socket weld flange; type E face	149	68	151	69	155	70
	50 mm DIN PN40 socket weld flange; type C face	144	66	146	67	150	68
	50 mm DIN PN40 socket weld flange; type N grooved face	144	66	146	67	150	68
	50 mm DIN PN100 socket weld flange; type E face	155	71	157	72	161	73
	50 mm DIN 11851 hygienic coupling	131	59	133	60	136	62
	50 mm DIN 11864-1A aseptic coupling	131	60	133	60	136	62
	51 mm SMS-1145 hygienic coupling	131	60	133	60	136	62
	51 mm IDF (ISO-2853) hygienic coupling	130	59	133	60	136	62
	40 mm JIS 10K/20K socket weld flange	139	63	141	64	145	66
	50 mm JIS 10K/20K socket weld flange	155	71	157	72	161	73

Physical specifications *continued*

Dimensions — sensor with junction box

Dimensions in *inches*
(*mm*)



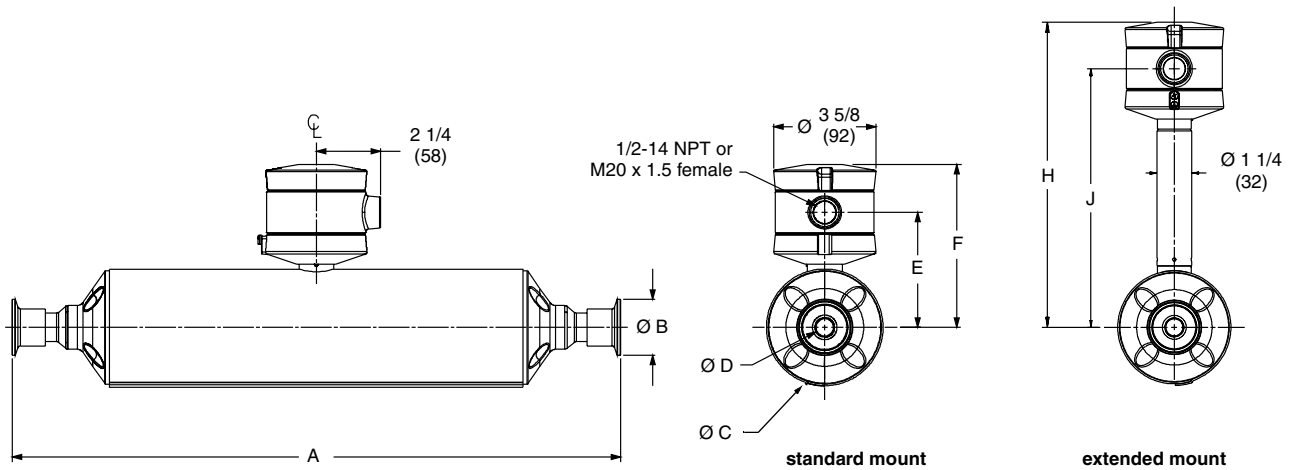
Model	Dimensions ⁽¹⁾							
		Ø C (Case dia.)	Ø D (Tube inside dia.)	E	F	G	H	J
T075	<i>inches</i> (<i>mm</i>)	4 1/8 (105)	5/8 (16)	3 3/16 (81)	4 1/2 (114)	2 3/8 (60)	9 7/8 (251)	8 9/16 (217)
T100	<i>inches</i> (<i>mm</i>)	5 1/8 (130)	7/8 (22)	3 3/4 (94)	5 (127)	2 7/8 (73)	10 3/8 (264)	9 1/16 (230)
T150	<i>inches</i> (<i>mm</i>)	7 1/8 (181)	1 3/8 (35)	4 11/16 (119)	6 (152)	3 7/8 (98)	11 3/8 (289)	10 1/16 (256)

⁽¹⁾ For dimensions A and Ø B, see process fittings table, page 15.

Physical specifications *continued*

Dimensions — sensor with local core processor

Dimensions in *inches*
(*mm*)



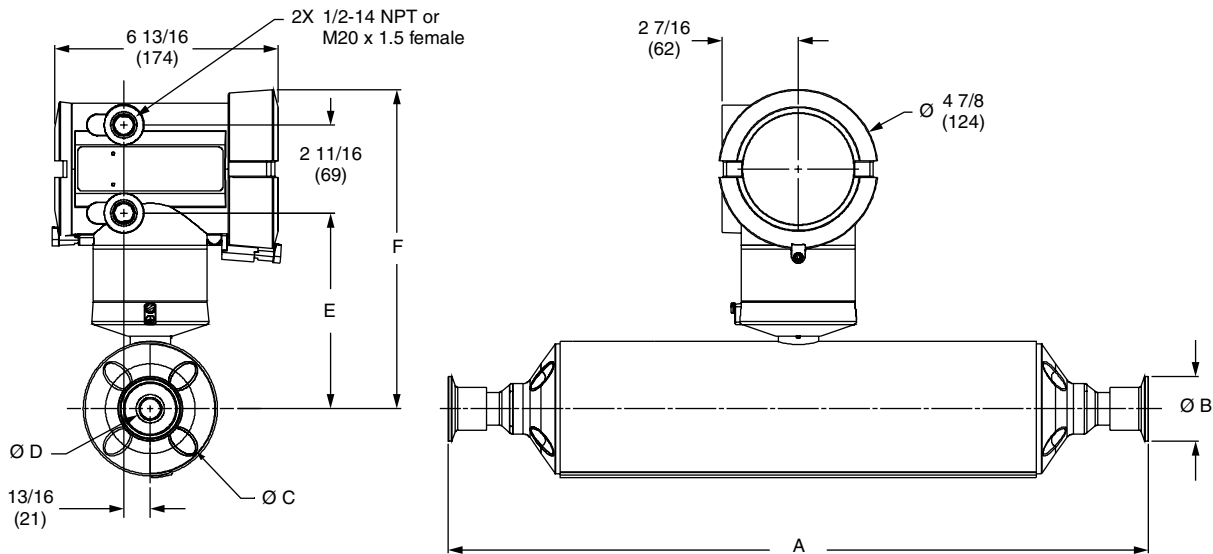
Model	Dimensions ⁽¹⁾						
		$\varnothing C$ (Case dia.)	$\varnothing D$ (Tube inside dia.)	E	F	H	J
T025	<i>inches</i> (<i>mm</i>)	3 1/8 (79)	3/16 (5)	3 1/2 (89)	5 3/16 (132)	10 9/16 (269)	8 7/8 (226)
T050	<i>inches</i> (<i>mm</i>)	3 1/8 (79)	3/8 (9)	3 1/2 (89)	5 3/16 (132)	10 9/16 (269)	8 7/8 (226)
T075	<i>inches</i> (<i>mm</i>)	4 1/8 (105)	5/8 (16)	4 1/16 (103)	5 3/4 (146)	11 1/8 (283)	9 7/16 (240)
T100	<i>inches</i> (<i>mm</i>)	5 1/8 (130)	7/8 (22)	4 9/16 (116)	6 1/4 (159)	11 5/8 (295)	9 15/16 (252)
T150	<i>inches</i> (<i>mm</i>)	7 1/8 (181)	1 3/8 (35)	5 9/16 (141)	7 1/4 (184)	12 5/8 (321)	10 15/16 (278)

⁽¹⁾For dimensions A and $\varnothing B$, see process fittings table, page 15.

Physical specifications *continued*

Dimensions — sensor with integrally mounted transmitter

Dimensions in inches
(mm)



Model	Dimensions ⁽¹⁾				
		Ø C (Case dia.)	Ø D (Tube inside dia.)	E	F
T025	inches (mm)	3 1/8 (79)	3/16 (5)	5 1/2 (140)	9 5/16 (236)
T050	inches (mm)	3 1/8 (79)	3/8 (9)	5 1/2 (140)	9 5/16 (236)
T075	inches (mm)	4 1/8 (105)	5/8 (16)	6 (153)	9 13/16 (249)
T100	inches (mm)	5 1/8 (130)	7/8 (22)	6 9/16 (166)	10 5/16 (263)
T150	inches (mm)	7 1/8 (181)	1 3/8 (35)	7 9/16 (192)	11 5/16 (288)

⁽¹⁾For dimensions A and Ø B, see process fittings table, page 15.

Physical specifications *continued*

Process fittings⁽¹⁾

	Fitting code	Dim. A Face-to-face inches (mm)	Dim. B Outside diameter inches (mm)
T025 fitting options			
1/2-inch ANSI 150 lb socket weld raised face flange	613	13 5/16 (338)	3 1/2 (89)
1/2-inch ANSI 300 lb socket weld raised face flange	614	13 13/16 (351)	3 3/4 (95)
1/2-inch ANSI 600 lb socket weld raised face flange	615	13 15/16 (351)	3 3/4 (95)
1/2-inch sanitary fitting (Tri-Clamp compatible)	621	13 15/16 (354)	1.0 (25)
1/2-inch NPT- female adapter; CAJON compatible size 8 VCO union fitting	636	15 1/8 (385)	3 1/8 (79)
CAJON compatible size 8 VCO union fitting	637	15 1/8 (385)	3 1/8 (79)
10 mm DIN 11851 hygienic coupling	670	13 15/16 (354)	3 1/8 (79)
15 mm DIN 11851 hygienic coupling	671	13 15/16 (354)	3 1/8 (79)
15 mm DIN 11864-1A aseptic coupling	676	13 7/8 (353)	3 1/8 (79)
15 mm DIN PN40 socket weld flange, DIN 2635, type C facing	616	13 5/8 (347)	3 3/4 (95)
15 mm DIN PN100 socket weld flange, DIN 2637, type E facing	617	14 (355)	4 1/8 (105)
15 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	650	13 5/8 (347)	3 3/4 (95)
15 mm JIS 10K/20K socket weld flange	781	13 5/8 (346)	3 3/4 (95)
T050 fitting options			
1/2-inch ANSI 150 lb socket weld raised face flange	613	15 3/4 (400)	3 1/2 (89)
1/2-inch ANSI 300 lb socket weld raised face flange	614	16 1/4 (413)	3 3/4 (95)
1/2-inch ANSI 600 lb socket weld raised face flange	615	16 3/8 (417)	3 3/4 (95)
1/2-inch sanitary fitting (Tri-Clamp compatible)	621	16 3/8 (416)	1.0 (25)
3/4-inch NPT- female adapter; CAJON compatible size 12 VCO union fitting	638	17 3/4 (451)	3 1/8 (79)
CAJON compatible size 12 VCO union fitting	639	17 3/4 (451)	3 1/8 (79)
15 mm DIN 11851 hygienic coupling	671	16 3/8 (416)	3 1/4 (82)
15 mm DIN 11864-1A aseptic coupling	676	16 3/8 (416)	3 1/4 (82)
15 mm DIN PN40 socket weld flange, DIN 2635, type C facing	616	16 1/8 (409)	3 3/4 (95)
15 mm DIN PN100 socket weld flange, DIN 2637, type E facing	617	16 7/16 (417)	4 1/8 (105)
15 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	650	16 1/8 (409)	3 3/4 (95)
15 mm JIS 10K/20K socket weld flange	781	16 1/16 (409)	3 3/4 (95)

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

Process fittings continued on next page

Physical specifications *continued*

Process fittings *continued* ⁽¹⁾

	Fitting code	Dim. A Face-to-face inches (mm)	Dim. B Outside diameter inches (mm)
T075 fitting options			
1/2-inch ANSI 150 lb socket weld raised face flange	613	20 13/16 (529)	3 1/2 (89)
1/2-inch ANSI 300 lb socket weld raised face flange	614	21 3/8 (542)	3 3/4 (95)
1/2-inch ANSI 600 lb socket weld raised face flange	615	21 7/16 (545)	3 3/4 (95)
1-inch ANSI 150 lb socket weld raised face flange	628	20 13/16 (529)	4 1/4 (108)
1-inch ANSI 300 lb socket weld raised face flange	629	21 9/16 (548)	4 7/8 (124)
1-inch ANSI 600 lb socket weld raised face flange	630	21 9/16 (548)	4 7/8 (124)
1-inch sanitary fitting	623	21 7/16 (544)	2 (50)
15 mm DIN PN40 socket weld flange, DIN 2635, type C facing	616	21 1/8 (537)	3 3/4 (95)
15 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	650	21 1/8 (537)	3 3/4 (95)
15 mm DIN PN100 socket weld flange; DIN 2637, type E facing	617	21 1/2 (545)	4 1/8 (105)
25 mm DIN PN40 socket weld flange; DIN 2635, type C facing	618	21 3/4 (552)	4 1/2 (115)
25 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	651	21 3/4 (552)	4 1/2 (115)
25 mm DIN PN100 socket weld flange, DIN 2637, type E facing	619	21 7/8 (556)	4 15/16 (125)
25 mm DIN 11851 hygienic coupling	672	21 1/2 (545)	2 1/16 (52)
25 mm DIN 11864-1A aseptic coupling	662	21 7/16 (545)	4 1/8 (105)
25 mm SMS-1145 hygienic coupling	692	21 7/16 (545)	4 1/8 (105)
25 mm IDF (ISO-2853) hygienic coupling	677	21 7/16 (545)	4 1/8 (105)
15 mm JIS 10K/20K socket weld flange	781	21 5/16 (542)	3 3/4 (95)
25 mm JIS 10K/20K socket weld flange	782	21 7/16 (545)	4 15/16 (125)
T100 fitting options			
1-inch ANSI 150 lb socket weld raised face flange	628	25 1/2 (648)	4 1/4 (108)
1-inch ANSI 300 lb socket weld raised face flange	629	26 1/4 (667)	4 7/8 (124)
1-inch ANSI 600 lb socket weld raised face flange	630	26 3/8 (670)	4 7/8 (124)
1 1/2-inch ANSI 150 lb socket raised face weld flange	641	25 3/4 (655)	5 (127)
1 1/2-inch ANSI 300 lb socket raised face weld flange	642	26 3/8 (670)	6 1/8 (155)
1 1/2-inch ANSI 600 lb socket weld raised face flange	643	26 1/2 (673)	6 1/8 (155)
1-inch sanitary fitting	623	26 1/4 (668)	2 (50)
1 1/2-inch sanitary fitting	624	26 1/4 (666)	2 (50)
25 mm DIN PN40 socket weld flange, DIN 2635, type C facing	618	26 3/16 (665)	4 1/2 (115)
25 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	651	26 3/16 (665)	4 1/2 (115)
25 mm DIN PN100 socket weld flange, DIN 2637, type E facing	619	26 9/16 (674)	5 1/2 (140)
40 mm DIN PN40 socket weld flange, DIN 2635, type C facing	681	26 5/16 (668)	5 15/16 (150)
40 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	652	26 5/16 (668)	5 15/16 (150)
40 mm DIN PN100 socket weld flange, DIN 2637, type E facing	682	26 11/16 (678)	6 11/16 (170)
25 mm DIN 11851 hygienic coupling	672	26 1/4 (666)	2 1/16 (52)
25 mm DIN 11864-1A aseptic coupling	677	26 1/4 (667)	5 1/8 (130)
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. Contact your local Micro Motion representative.

Process fittings continued on next page

Physical specifications *continued*

Process fittings *continued* ⁽¹⁾

T150 fitting options	Fitting code	Dim. A Face-to-face inches (mm)	Dim. B Outside diameter inches (mm)
1 1/2-inch ANSI 150 lb socket weld raised face flange	641	31 7/16 (799)	5 (127)
1 1/2-inch ANSI 300 lb socket weld raised face flange	642	32 1/16 (815)	6 1/8 (155)
1 1/2-inch ANSI 600 lb socket weld raised face flange	643	32 5/16 (821)	6 1/8 (155)
2-inch ANSI 150 lb socket weld raised face flange	644	31 11/16 (805)	6 (152)
2-inch ANSI 300 lb socket weld raised face flange	645	32 5/16 (820)	6 1/2 (165)
2-inch ANSI 600 lb socket weld raised face flange	646	32 1/2 (827)	6 1/2 (165)
1 1/2-inch sanitary fitting	624	32 1/16 (814)	2 (50)
2-inch sanitary fitting	625	32 1/16 (814)	2 1/2 (64)
40 mm DIN PN40 socket weld flange, DIN 2635, type C facing	681	31 3/4 (806)	5 7/8 (150)
40 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	652	31 3/4 (806)	5 7/8 (150)
40 mm DIN PN100 socket weld flange, DIN 2637, type E facing	682	32 3/8 (822)	6 11/16 (170)
50 mm DIN PN40 socket weld flange, DIN 2635, type C facing	683	32 (813)	6 1/2 (165)
50 mm DIN PN40 socket weld flange, DIN 2635, type N grooved facing	653	32 (813)	6 1/2 (165)
50 mm DIN PN100 socket weld flange, DIN 2637, type E facing	684	32 5/8 (829)	7 1/8 (181)
50 mm DIN 11851 hygienic coupling	674	32 1/16 (814)	3 1/16 (78)
50 mm DIN 11864-1A aseptic coupling	678	32 1/16 (814)	7 1/8 (181)
51 mm SMS-1145 hygienic coupling	693	32 1/16 (814)	7 1/8 (181)
51 mm IDF (ISO-2853) hygienic coupling	663	32 1/16 (814)	7 1/8 (181)
40 mm JIS 10K/20K socket weld flange	783	31 7/8 (810)	5 1/2 (140)
50 mm JIS 10K/20K socket weld flange	784	31 7/8 (810)	7 1/8 (181)

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

Ordering information

Micro Motion T-Series sensor model number matrix

Code	Sensor model
T025T	T-Series 1/4-inch sensor, titanium flow tube with 32 Ra surface finish
T050T	T-Series 1/2-inch sensor, titanium flow tube with 32 Ra surface finish
T075T ⁽¹⁾	T-Series 3/4-inch sensor, titanium flow tube with 32 Ra surface finish
T100T ⁽¹⁾	T-Series 1-inch sensor, titanium flow tube with 32 Ra surface finish
T150T ⁽¹⁾	T-Series 1 1/2-inch sensor, titanium flow tube with 32 Ra surface finish
Code	Process connections
###	See fittings tables on page 15
Code	Case options
S	720 psi (50 bar) containment rating
Code	Electronics interface
A	Local core processor for remote mount Series 1000/2000 transmitter
B	Local core processor extended mount for remote mount Series 1000/2000 transmitter
C	Integrally mounted Model 1700 or 2700 transmitter
D ⁽²⁾	MVD Solo; local core processor for direct host connection
E ⁽²⁾	MVD Solo; local core processor extended mount for direct host connection
R	9-wire junction box (not available for T025 or T050)
H	9-wire junction box extended mount (not available for T025 or T050)
Code	Conduit ports and glands
A	Available with electronics interface code A no glands
B	Available with electronics interface code A, B, D, or E 1/2-inch NPT female conduit port, no gland
C	1/2-inch NPT female conduit port, nickel-plated brass cable gland
D	1/2-inch NPT female conduit port, stainless steel cable gland
E	M20 (20 mm) conduit port, no gland
F	M20 (20 mm) conduit port, nickel-plated brass cable gland
G	M20 (20 mm) conduit port, stainless steel cable gland
A	Available with electronics interface code R or H (9-wire j-box) 3/4-inch NPT — no glands
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 approvals
N	Micro Motion standard/PED compliant
U	UL — U.S.A. approvals agency
C	CSA — Canadian approvals agency
A	CSA-US — Canadian and US approvals
Z	ATEX — Equipment Category 2 (Zone 1)/PED compliant — European standards organization
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
P	Portuguese Quick Reference and English Manual
S	Spanish Quick Reference and Spanish Manual
W	Swedish Quick Reference and English Manual
Code	Options
ZZZZ	None
Example:	T150T 641 S C D U E ZZZZ

⁽¹⁾ Substitute TxxxT for TxxxF for improved surface finish option of 20 Ra surface finish for T075, T100, T150.

⁽²⁾ Only available with M Approvals code (no approvals)

NOTES

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