

Micro Motion™ H-Series Hygienic Coriolis Flow and Density Meters



Detailed specifications

H-Series flow and density accuracy options

Model	Liquid mass flow accuracy			Liquid density accuracy (g/cm ³)			Gas mass flow accuracy	
	±0.05% ⁽¹⁾	±0.1%	±0.15%	±0.0005 ⁽¹⁾	±0.001	±0.002	±0.35%	±0.5%
H025		•	•		•	•		•
H050	•	•	•	•	•	•	•	
H100	•	•	•	•	•	•	•	
H200	•	•	•	•	•	•	•	
H300	•	•	•	•	•	•	•	
H400	•	•	•	•	•	•	•	

(1) Not available on all models

Flow tube information

Model	Number of tubes	Tube inside diameter inches	Tube inside diameter mm	Tube length inches	Tube length mm
H025	2	0.21	5.3	14.6	370
H050	2	0.35	8.8	18.8	478
H100	2	0.65	16	25.1	637
H200	2	1.1	27	23.5	598
H300	2	1.6	40	34.4	874
H400	2	2.3	57	41	1,039

Tri-Clamp® compatible process fittings

Model	0.5 inches	0.75 inches	1 inch	2 inches	3 inches	4 inches
H025	•					
H050		•				
H100			•			
H200				•		
H300					•	
H400						•

DIN specification process fittings

Model	DN15	DN25	DN50	DN80	DN100
H025	■ DIN11851 ■ DIN11864-1A ■ DIN11864-2A ■ DIN11864-3A				

Model	DN15	DN25	DN50	DN80	DN100
H050	■ DIN11851 ■ DIN11864-1A ■ DIN11864-2A ■ DIN11864-3A				
H100		■ DIN11851 ■ DIN11864-1A ■ DIN11864-2A ■ DIN11864-3A			
H200			■ DIN11851 ■ DIN11864-1A ■ DIN11864-2A ■ DIN11864-3A		
H300				■ DIN11851 ■ DIN11864-1A ■ DIN11864-2A ■ DIN11864-3A	
H400					■ DIN11864-2A ■ DIN11864-3A

IDF process fittings

Model	8A	15A	1s	2s	3s	4s
H025	•					
H050		•				
H100			•			
H200				•		
H300					•	
H400						•

ISO 2853 (IDF) and SMS 1145 process fittings

Model	DN76.1	DN76
H300	ISO 2853 (IDF)	SMS 1145

Transmitter compatibility

Model	Transmitter						
	1500/2500	1700/2700	2400S	3000 series	FMT	4200	5700
							
All H-Series models	•	•	•	•	H025, H050, H100	•	•

Process pressure ratings

Sensor maximum working pressure reflects the highest possible pressure rating for a given sensor. Process connection type and environmental and process fluid temperatures may reduce the maximum rating. For common sensor and fitting combinations, see the *Micro Motion H-Series Hygienic Coriolis Flow and Density Meters Product Data Sheet*.

All sensors comply with Council Directive 2014/68/EU on pressure equipment.

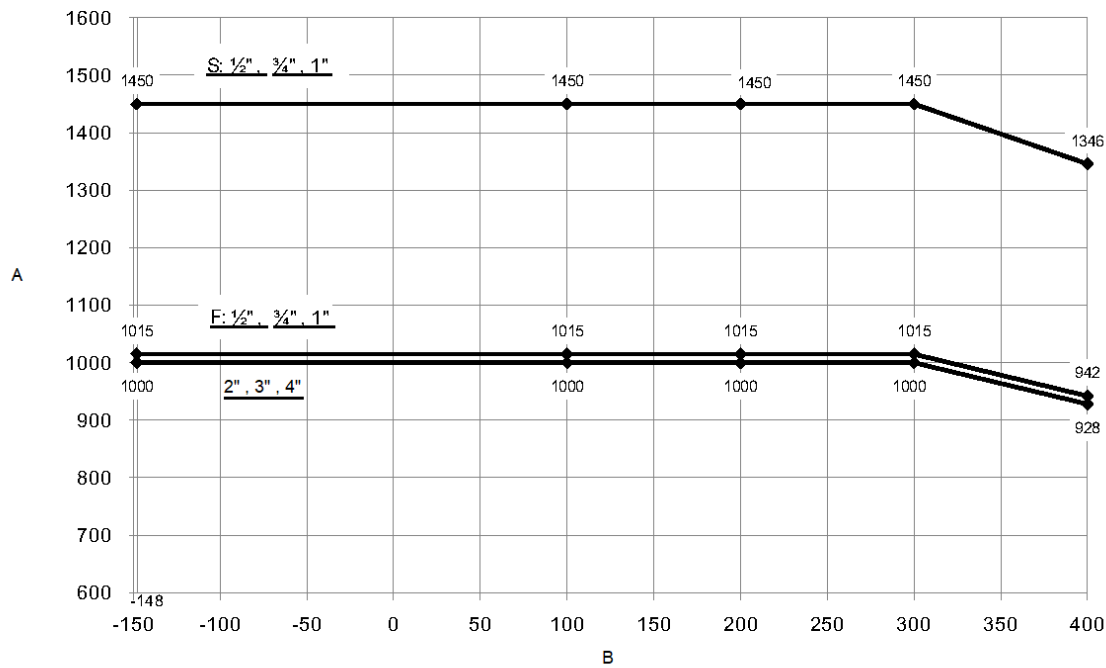
Model	Maximum working pressure
H025F, H050F, H100F, H200F, H300F, H400F	1,015 psig (70 barg)
H025S, H050S, H100S, H200S, H300S, H400S	1,450 psig (100 barg)

Temperature and pressure de-ratings

Note

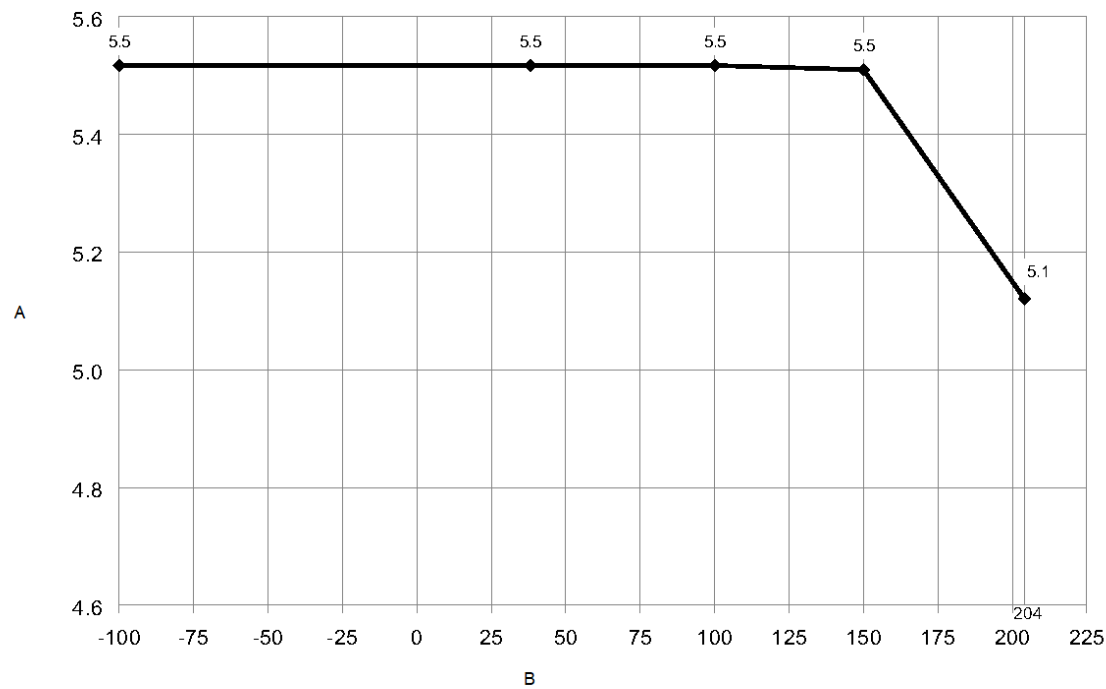
- The ratings in this section apply to the combined sensor and process connection to ensure that the meter does not exceed the limits of either component.
- The temperature and pressure de-ratings graphs do not represent all possible model and fitting combinations. For combinations not listed here, contact a sales representative or the factory.

Figure 1: Tri-Clamp compatible 316L hygienic fittings for H025 through H400



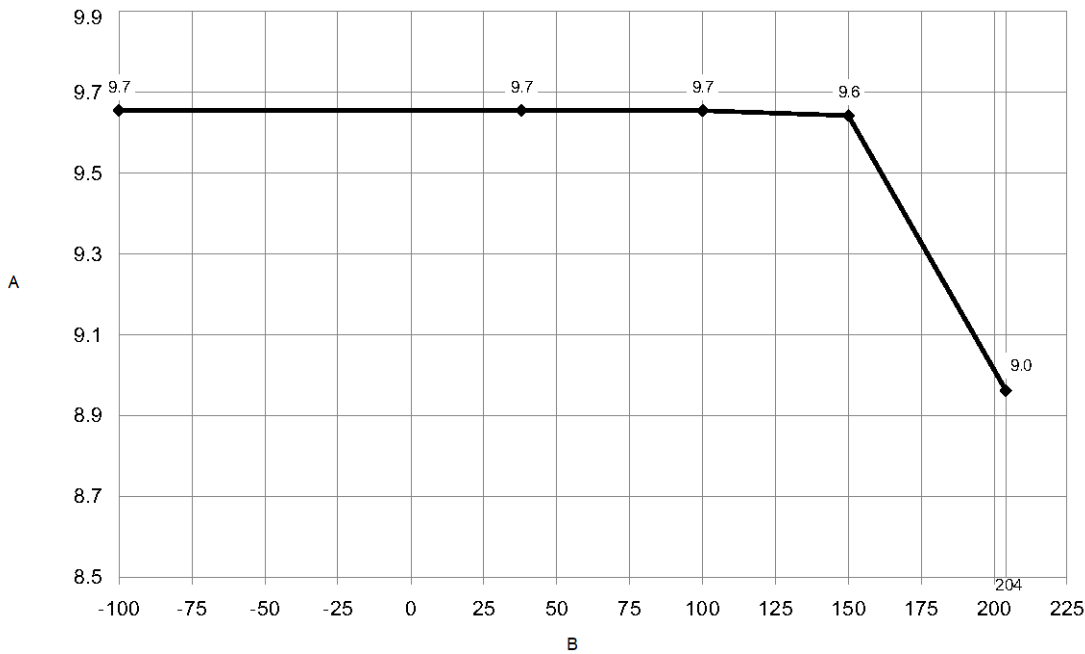
- A. Pressure (psi)
- B. Temperature (°F)

Figure 2: SMS 1145 316L hygienic coupling for H300



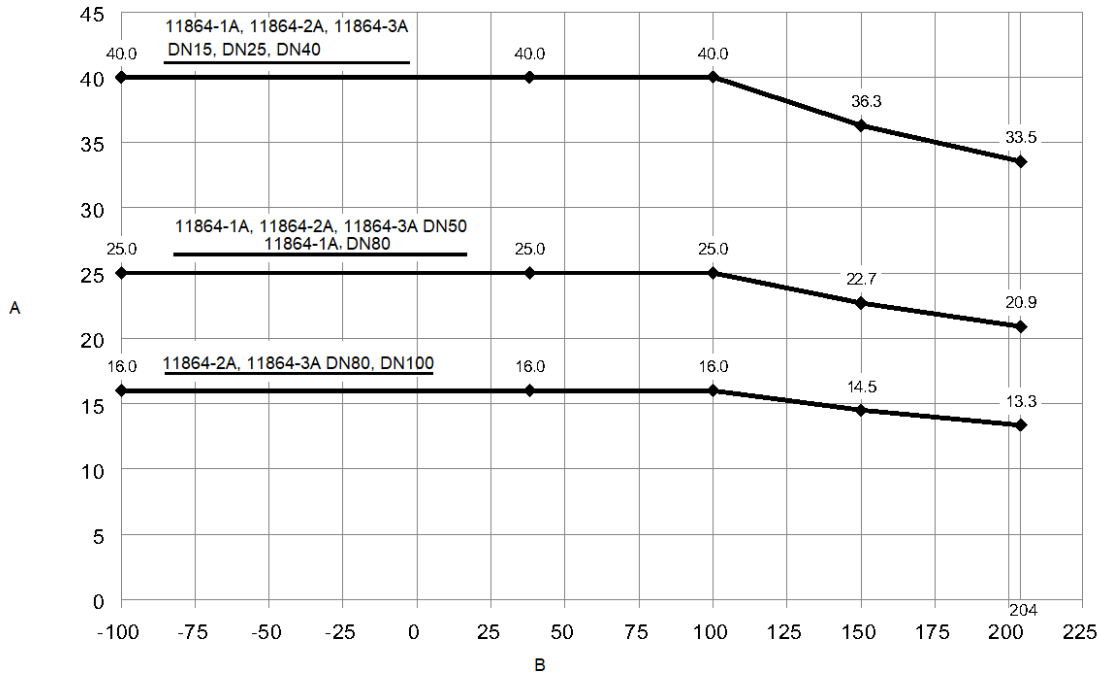
- A. Pressure (bar)
- B. Temperature (°C)

Figure 3: IDF 316L hygienic fittings for H025 through H400



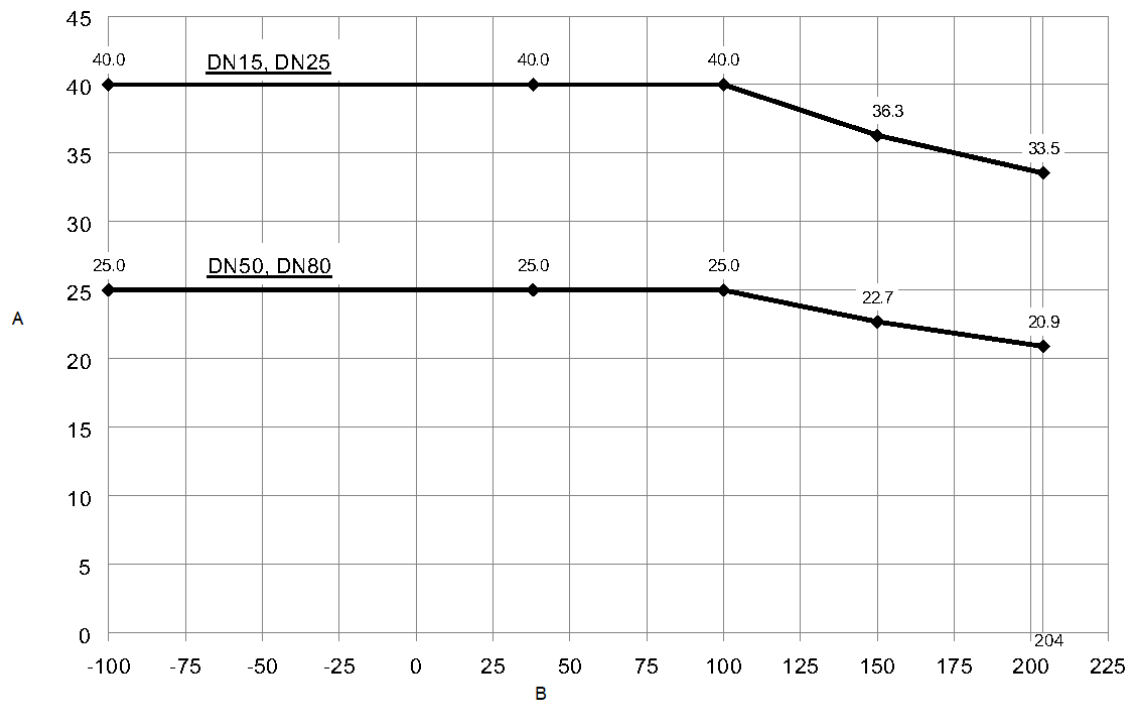
A. Pressure (bar)
B. Temperature (°C)

Figure 4: DIN 11864 316L hygienic couplings and flanges for H025 through H400



A. Pressure (bar)
B. Temperature (°C)

Figure 5: DIN 11851 316L hygienic coupling for H025 through H300



- A. Pressure (bar)
- B. Temperature (°C)

Hazardous area classifications

Detailed classifications

All information and approvals may change depending on sensor/transmitter configurations and operating conditions. Reference appropriate certificates for exact approvals.

CSA and CSA C-US

All models with a 2400S transmitter	Ambient temperature: -40 to +140 °F (-40 to +60 °C)
	Class I, Div. 2, Groups A, B, C, and D Class II, Div. 2, Groups F and G
H025, H050 and H100 with an FMT transmitter	Ambient temperature: -13 to +140 °F (-25 to +60 °C)
	Class I, Div. 2, Groups A, B, C, and D Class II, Div. 2, Groups F and G
All models with a junction box	Ambient temperature: -40 °F (-40 °C) to 149 °F (65 °C)
	Class I, Div. 1, Groups C and D Class I, Div. 2, Groups C and D Class I, Groups A, B, C, and D Class II, Div. 1, Groups E, F, and G
All models with a core processor or a 1700/2700 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

IECEx

All models with a 2400S transmitter; H025, H050, and H100 with an FMT transmitter	Ex nA IIC T5...T1 Gc Ex tc IIIC T ⁽¹⁾ °C Dc
H025, H050, H100, H200, and H400 with a core processor or a 1700/2700 transmitter	Ex ib IIC T1...T5
H300 with a core processor or a 1700/2700 transmitter	Ex ib IIB T1...T5

ATEX

All models with a 2400S transmitter; H025, H050, and H100 with an FMT transmitter	  II 3G Ex nA IIC T5...T1 Gc II 3D Ex tc IIIC T ⁽¹⁾ °C Dc IP66
H025, H050, H100, H200, and H400 with a core processor or a 1700/2700 transmitter	  II 2G Ex ib IIC T5...T1 Gb II 2D Ex ib IIIC T ⁽¹⁾ °C Db IP65
H300 with a core processor	  II 2G Ex ib IIB T6...T1 II 2D Ex tD A21 IP65 T ⁽¹⁾ °C
H300 with a 2200S transmitter	  II 2G Ex ib IIB T5...T1 Gb II 2D Ex ib IIIC T ⁽¹⁾ °C Db IP65

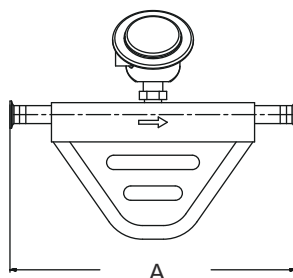
(1) For ambient and process temperature limits, refer to the appropriate approval certificate.

Process connections

The tables in this section do not represent all possible model and flange combinations. For combinations not listed here, contact a sales representative or the factory.

Dimensions with process connections

Dimension A is provided for each process fitting type when available. The finished face-to-face dimension of the sensor with the process connection ± 0.13 in (± 3 mm) is shown.



Weight with process connections

Product weights in this section include the weight of the sensor with sanitary process connection and stainless steel integral core processor. Values are rounded to ± 1 lb (± 0.5 kg). For product shipping weight, contact the factory.

Standard fitting options

Model H025

Code	Description				Dim A inch (mm)	Weight lb (kg)
121	0.5 in	Tri-Clamp compatible	316L	Hygienic fitting	16 (406)	13 (6)
222	DN15	DIN11851	316L	Hygienic coupling	16.6 (423)	
665	8A	IDF	316L	Hygienic fitting Type CLF W	15.9 (405)	
676	DN15	DIN11864-1A	316L	Aseptic coupling	16.6 (423)	
C70	DN15	DIN11864-2A	316L	Hygienic flange	17.8 (452)	
C80	DN15	DIN11864-3A	316L	Hygienic flange	17.6 (448)	

Model H050

Code	Description				Dim A inch (mm)	Weight lb (kg)
222	DN15	DIN11851	316L	Hygienic coupling	17.8 (452)	15 (7)
322	0.75 in	Tri-Clamp compatible	316L	Hygienic fitting	17.4 (441)	
667	15A	IDF	316L	Hygienic fitting Type CLF W	17.4 (442)	
676	DN15	DIN11864-1A	316L	Aseptic coupling	17.8 (452)	
C70	DN15	DIN11864-2A	316L	Hygienic flange	18.9 (481)	14 (6)
C80	DN15	DIN11864-3A	316L	Hygienic flange	18.8 (478)	14 (6)

Model H100

Code	Description				Dim A inch (mm)	Weight lb (kg)
138	1 in	Tri-Clamp compatible	316L	Hygienic fitting	21.0 (533)	23 (11)
230	DN25	DIN11851	316L	Hygienic coupling	22.0 (558)	
668	1s	IDF	316L	Hygienic fitting Type CLF2 W	21.3 (541)	
677	DN25	DIN11864-1A	316L	Aseptic coupling	22.4 (569)	
C71	DN25	DIN11864-2A	316L	Hygienic flange	22.7 (576)	21 (10)
C81	DN25	DIN11864-3A	316L	Hygienic flange	22.6 (573)	21 (10)
C84	DN40	DIN11864-2A	316L	Hygienic flange	23.1 (587)	23 (10)
C85	DN40	DIN11864-3A	316L	Hygienic flange	23.1 (587)	21 (10)

Model H200

Code	Description				Dim A inch (mm)	Weight lb (kg)
352	2 in	Tri-Clamp compatible	316L	Hygienic fitting	21.3 (541)	42 (19)
354	DN50	DIN11851	316L	Hygienic coupling	22.4 (569)	
669	2s	IDF	316L	Hygienic fitting Type CLF2 W	21.3 (541)	
678	DN50	DIN11864-1A	316L	Aseptic coupling	22.4 (569)	
C68	DN50	DIN11864-3A	316L	Hygienic flange	23.4 (594)	40 (18)
C72	DN50	DIN11864-2A	316L	Hygienic flange	23.4 (595)	40 (19)

Model H300

Code	Description				Dim A inch (mm)	Weight lb (kg)
361	3 in	Tri-Clamp compatible	316L	Hygienic fitting	32.9 (836)	84(38)
664	DN76.1	ISO 2853 (IDF)	316L	Hygienic fitting		
679	DN80	DIN11864-1A	316L	Hygienic fitting		
680	DN80	DIN11864-2A	316L	Hygienic fitting		
685	DN80	DIN11851	316L	Hygienic fitting		
687	3s	IDF	316L	Hygienic fitting Type CLF2 W		
694	DN76	SMS 1145	316L	Hygienic coupling		
C69	DN80	DIN11864-3A	316L	Hygienic flange	33.7 (857)	84 (38)

Model H400

Code	Description				Dim A inch (mm)	Weight lb (kg)
E42	4 in	Tri-Clamp compatible	316L	Hygienic fitting	40.8 (1,037)	152 (69)
E43	4s	IDF	316L	Hygienic fitting	40.8 (1,037)	152 (69)
E45	DN100	DIN11864-2A	316L	Hygienic fitting	41.7 (1,059)	159 (72)
E46	DN100	DIN11864-3A	316L	Hygienic fitting	41.7 (1,060)	152 (69)

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