

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Overview



MASS 2100 DI 3 to DI 15 is suitable for accurate mass flow measurement of a variety of liquids and gases.

The sensor offers superior performance in terms of flow accuracy, turn-down ratio and density accuracy. The ease of installation through a "plug & play" mechanical and electrical interface ensures optimum performance and operation.

The sensor delivers true multi-parameter measurements i.e.: Mass flow, volume flow, density, temperature and fraction.

Benefits

- High accuracy better than 0.1 % of mass flow rate
- Large dynamic turn-down ratio better than 500:1
- Densitometer performance available through density accuracy (depending upon sensor size) ranging from 0.0005 to 0.0015 g/cm³ with a typical repeatability better than 0.0001 to 0.0002 g/cm³
- Single continuous tube design, with no internal welds, reductions or flow splitters offers optimal hygiene, safety and CIP cleanability for food and beverage and pharmaceutical applications
- Markets' thickest sensor walls ensure optimal life-time and corrosion resistance and high-pressure durability
- Full bore design provides lower pressure loss due to same internal diameter throughout the entire sensor
- Balanced pipe design with little mechanical energy loss, ensures optimal performance and stability under non-ideal and unstable process conditions (pressure, temperature, density changes etc.)
- 4-wire Pt1000 temperature measurement ensures optimum accuracy on mass flow, density and fraction flow
- Multi-plug electrical connector and Sensor Flash/SENSORPROM enables true "plug & play". Installation and commissioning in less than 10 minutes
- Intrinsically safe Ex design ia IIC as standard, making service in hazardous area possible without having to demount the sensor if a compact Ex d transmitter needs service
- Sensor pipe available in high-quality stainless steel AISI 316L/1.4435 or Hastelloy C22/2.4602 offering optimum corrosion resistance
- Centre-block design decouples process noise from the environment such as vibrations, pulsations, pressure shocks etc. making installation flexible and versatile
- Rugged and space-saving sensor design in stainless steel matching all environments
- High-pressure program as standard
- The sensor calibration factor is also valid for gas measurement
- Uniform sensor interface matching all transmitter versions at the same time whether it is compact IP67/NEMA 6, compact Ex d or remote installation, one sensor fits all

Application

Coriolis mass flowmeters are suitable for measuring all liquids and gases. The measurement is independent of changes in process conditions/parameters such as temperature, density, pressure, viscosity, conductivity and flow profile.

Due to this versatility the meter is easy to install and the Coriolis flowmeter is recognized for its high accuracy in a wide turn-down ratio which is a paramount in many applications.

The main applications of the Coriolis flowmeter can be found in all industries, such as:

Chemical and pharma	Detergents, bulk chemicals, pharmaceuticals, acids, alkalis
Food and beverage	Dairy products, beer, wine, soft-drinks, Brix/Plato, fruit juices and pulps, bottling, CO ₂ dosing, CIP-liquids
Automotive	Fuel injection nozzle and pump testing, filling of AC units, engine consumption, paint robots
Oil and gas	Filling of gas bottles, furnace control, test separators, LPG
Water and waste water	Dosing of chemicals for water treatment

The wide variety of combinations and versions from the modular system means that ideal adaptation is possible to each measuring task.

Design

The MASS 2100 sensor consists of a single bent tube in a double bent pipe configuration, welded directly to the process connectors at each end.

The centre-block is brazed onto the sensor pipes from the outside acting as a mechanical low pass filter.

The sensor is available in 2 material configurations, AISI 316L/1.4404 or Hastelloy C22/2.4602 with a wide variety of process connections.

The enclosure is made in stainless steel AISI 316L/1.4404 with a grade of encapsulation of IP67.

The sensor is as standard Ex ia approved, intrinsically safe.

The sensor can be installed in horizontal or vertical position. In horizontal position the sensor is self draining.

Heating: All the sensors MASS 2100, DI 3 to DI 15, can optionally be equipped with a heating coil to avoid solidification of sensitive fluids during down-time or period between discontinuing processes. This feature gives the user an alternative to the costly electrical heating normally used, as it gives the freedom to choose either hot water, superheated steam or hot oil, to maintain a constant temperature inside the sensor.

Flow Measurement

SITRANS F C

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Function

The measuring principle is based on the Coriolis effect. See "System information SITRANS F C Coriolis mass flowmeters".

Integration

The sensor can be connected to FCT010, FCT030 and MASS 6000 (none CE) transmitters for compact and remote installation as well as SIFLOW FC070 standard and Ex type transmitters.

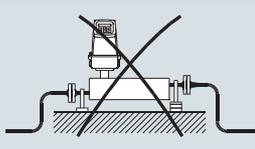
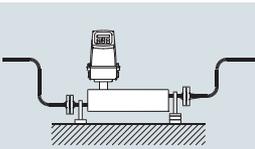
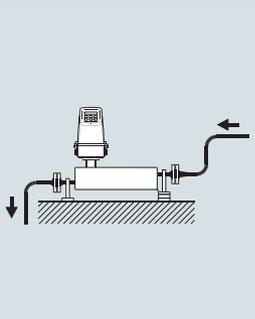
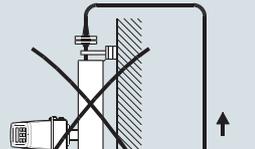
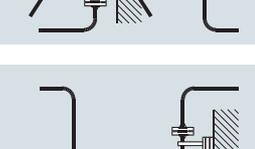
All sensors are delivered with a Sensor Flash or SENSORPROM containing all information about calibration data, identity and factory pre-programming of transmitter settings.

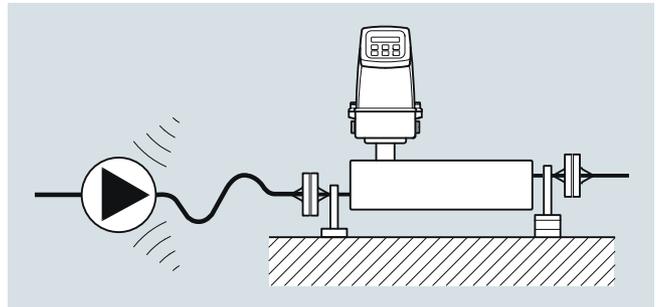
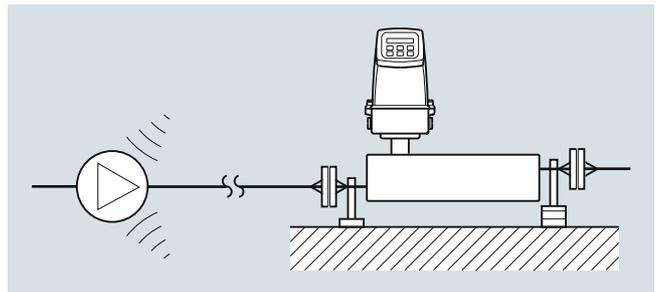
Installation guidelines MASS 2100 DI 3 ... DI 15 (1/8" ... 1/2")

Installation of sensor

In order to perform according to given specifications for flow and density accuracy, the sensor must be installed using rigid mounting brackets as shown in the installation examples.

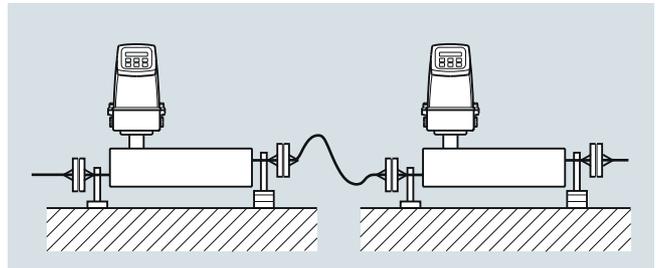
If the liquid is volatile or contains solid particles, vertical mounting is not recommended.

	Liquid	Gas
Horizontal	 	
Vertical	 	



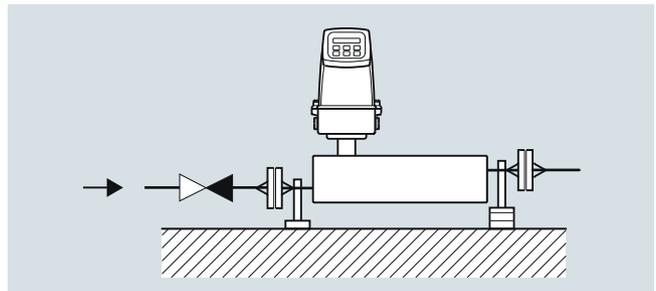
Vibration

Always locate the flowmeter as far away as possible from components that generate mechanical vibration in the piping.



Cross talk

Cross talk between sensors mounted close to each other may disturb the measurement. To avoid cross talk never mount more than one meter on each frame and mount flexible hose connections between the sensors as shown.



Zero point adjustment

To facilitate zero point adjustment a shut-off valve should always be mounted in connection with the sensor as a proper zero point setting is essential for a good accuracy.

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Technical specifications

Versions (mm (inch))		DI 3 (1/8)	DI 6 (¼)	DI 15 (5/8)
Inside pipe diameter (sensor consists of one continuous pipe)	mm (inch)	3.0 (0.12)	6.0 (0.24)	14.0 (0.55)
Pipe wall thickness	mm (inch)	0.5 (0.02)	1.0 (0.04)	1.0 (0.04)
Mass flow measuring range (liquids)	kg/h (lb/h)	0 ... 250 (0 ... 550)	0 ... 1000 (0 ... 2200)	0 ... 5600 (0 ... 12345)
Density	g/cm ³ (lb/inch ³)	0 ... 2.9 (0 ... 0.10)		
Fraction e.g.	°Brix	0 ... 70 (applicable temperature range: 10 ... 99 °C (50 ... 210.2 °F))		
Temperature				
Media temperature	°C (°F)	-50 ... +180 °C (-58 ... +356 °F)		
Ambient temperature	°C (°F)	-20 ... +50 °C (-4 ... +122 °F)		
Liquid pressure measuring pipe¹⁾				
Stainless steel	bar (psi)	230 (3336)	265 (3844)	130 (1885)
Hastelloy C22/2.4602	bar (psi)	350 (5076)	410 (5946)	200 (2900)
Materials				
Measuring pipe, flange and thread connection		Stainless steel AISI 316L/1.4435 Hastelloy C22/2.4602		
Enclosure and enclosure material				
IP67 (NEMA 4) and stainless steel AISI 316L/1.4404, The housing is not rated for pressure containment				
Process connections²⁾				
Flange				
EN 1092-1, PN 40			DN 10	DN 15
ANSI B16.5, Class 150			½"	½"
ANSI B16.5, Class 600 (Class 300)			½"	½"
Dairy screwed connection (PN 16/25/40)³⁾				
DIN 11851			DN 10	DN 15
ISO 2853/BS 4825 part 4 (SS3351)			25 mm	25 mm
Dairy clamp connection (PN 16)³⁾				
ISO 2852/BS 4825 part 3 (SMS3016)			25 mm	25 mm
Thread				
ISO 228/1, PN 100		G¼" female	G¼" male	G½" male
ANSI/ASME B1.20.1, PN 100		¼" NPT female	¼" NPT male	½" NPT male
Cable connection				
Multiple plug connection to sensor 5 x 2 x 0.35 mm ² twisted and screened in pairs, ext. Ø 12 mm				
Ex-version				
ATEX, EAC Ex, c-UL-us		Zone 0: Ex ia IIC T3...T6 Ga		
UL (c-UL-us)		Class I, Div. 1: Grp. A, B, C, D		
Weight approx.	kg (lb)	4 (8.8)	8 (17.6)	12 (26.5)

¹⁾ Max. at 20 °C (68 °F), DIN 2413, DIN 17457

²⁾ Other connections to order, see "Selection and Ordering data"

³⁾ Material, AISI 316/1.4401 or corresponding

For accuracy specification see "System information SITRANS F C".

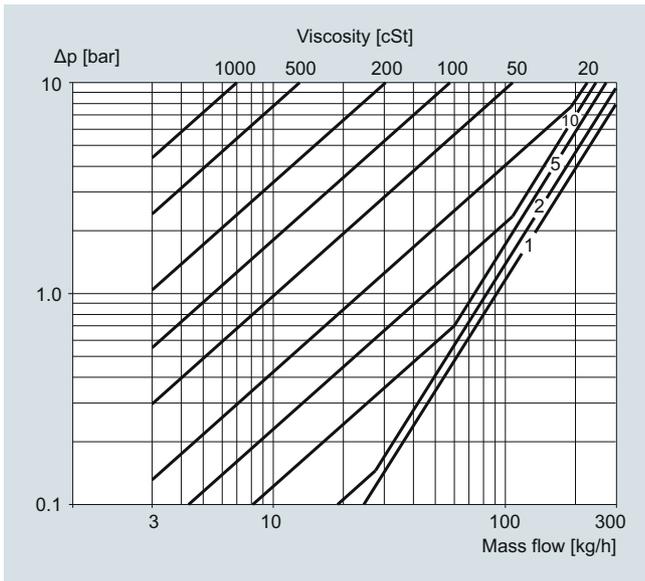
Flow Measurement

SITRANS F C

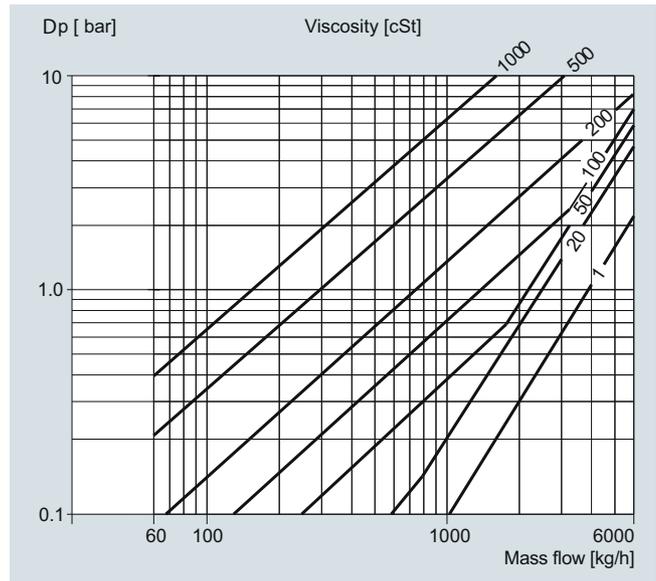
SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Pressure drop

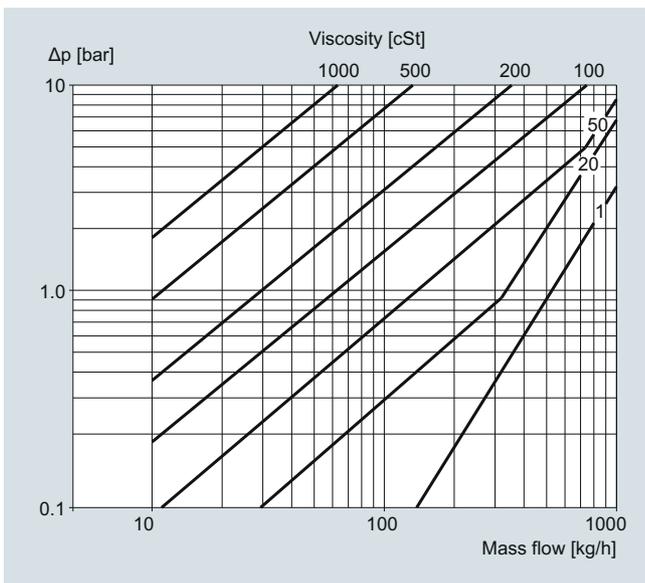
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MASS 2100 DI 3 (1/8"), pressure drop for density = 1000 kg/m³

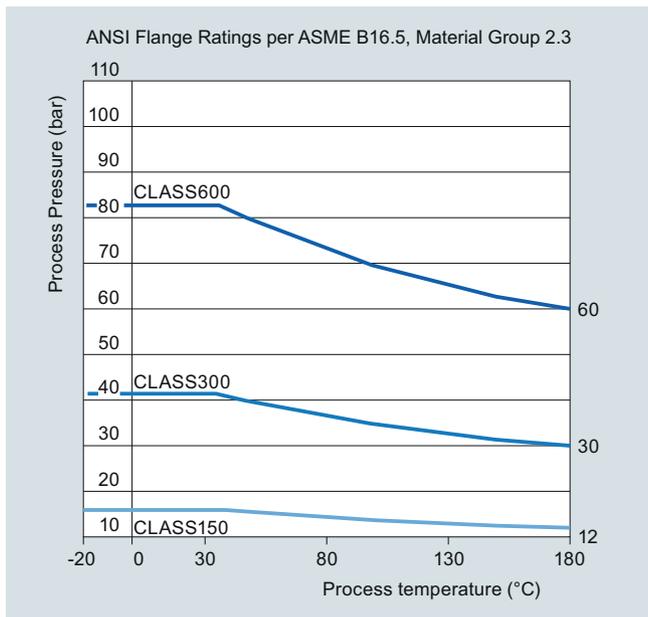


MASS 2100 DI 15 (1/2"), pressure drop for density = 1000 kg/m³

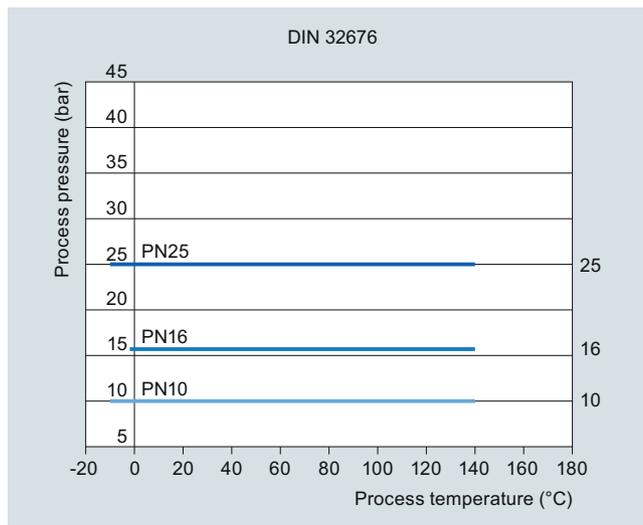


MASS 2100 DI 6 (1/4"), pressure drop for density = 1000 kg/m³

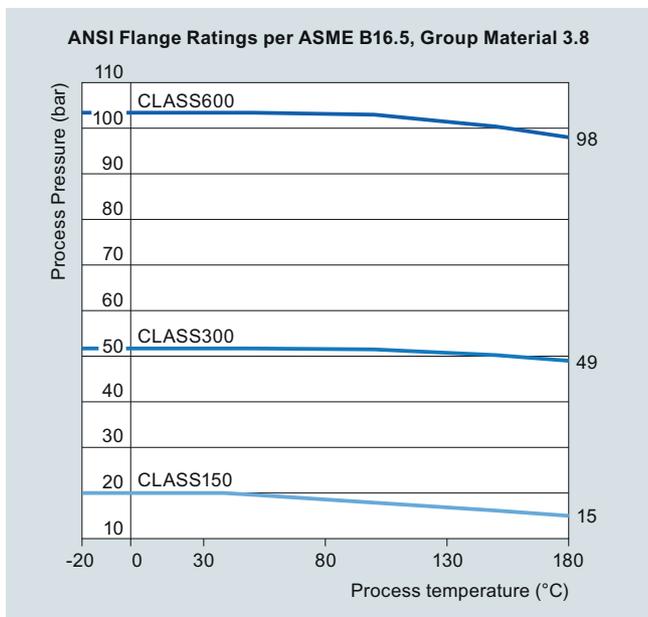
Pressure/temperature curves



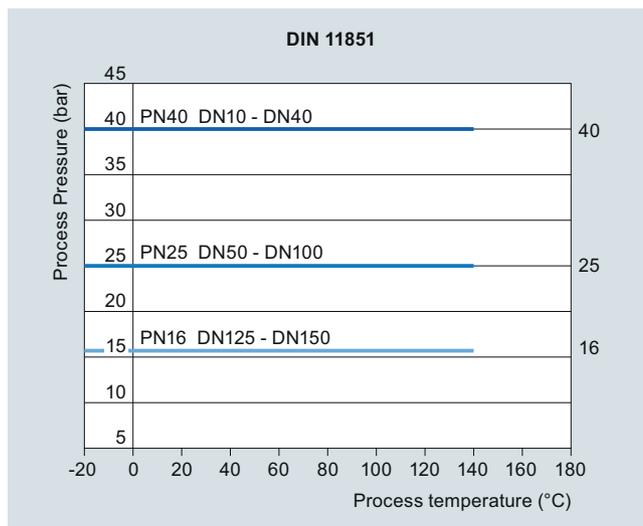
ASME flanges B16.5 stainless steel



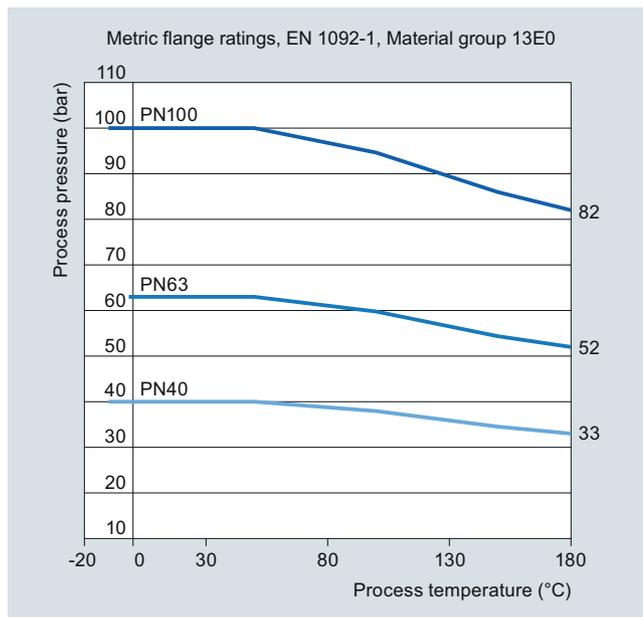
DIN 32676 flanges stainless steel (PN 10 ... PN 25)



ASME flanges B16.5 Hastelloy C22/2.4602



DIN 11851 flanges stainless steel (PN 25 ... PN 40)



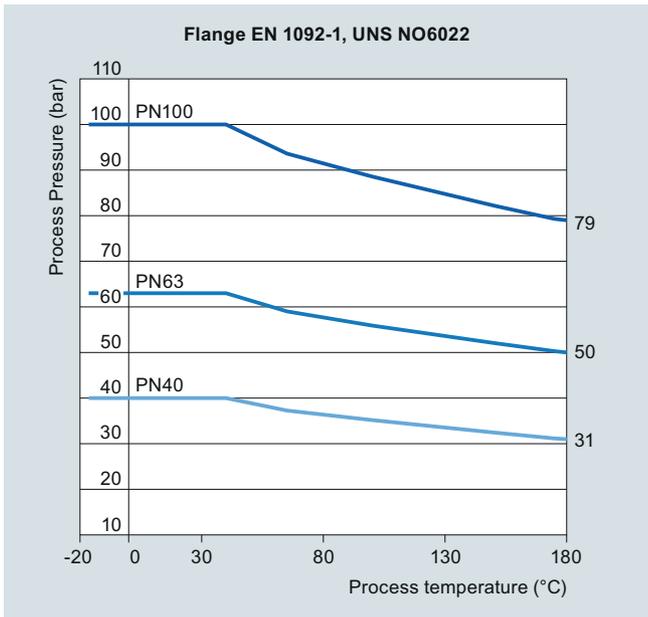
Flow Measurement

SITRANS F C

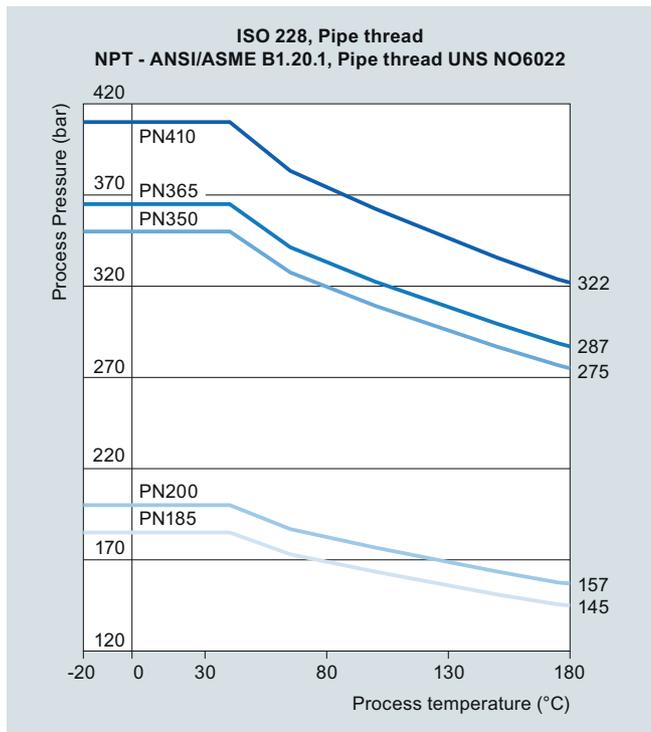
SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

EN 1092 flanges stainless steel (PN 40 ... PN 100)

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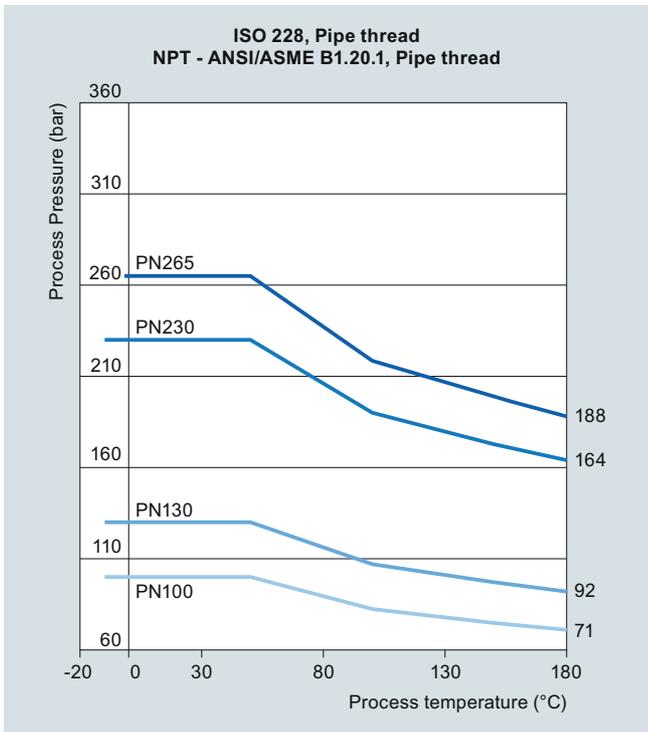


EN 1092 flanges Hastelloy C22/2.4602 (PN 40 ... PN 100)



ISO 218 and NPT pipe thread stainless steel (PN 185 ... PN 410)

For further information on the PED standard and requirements, see page 10/15.

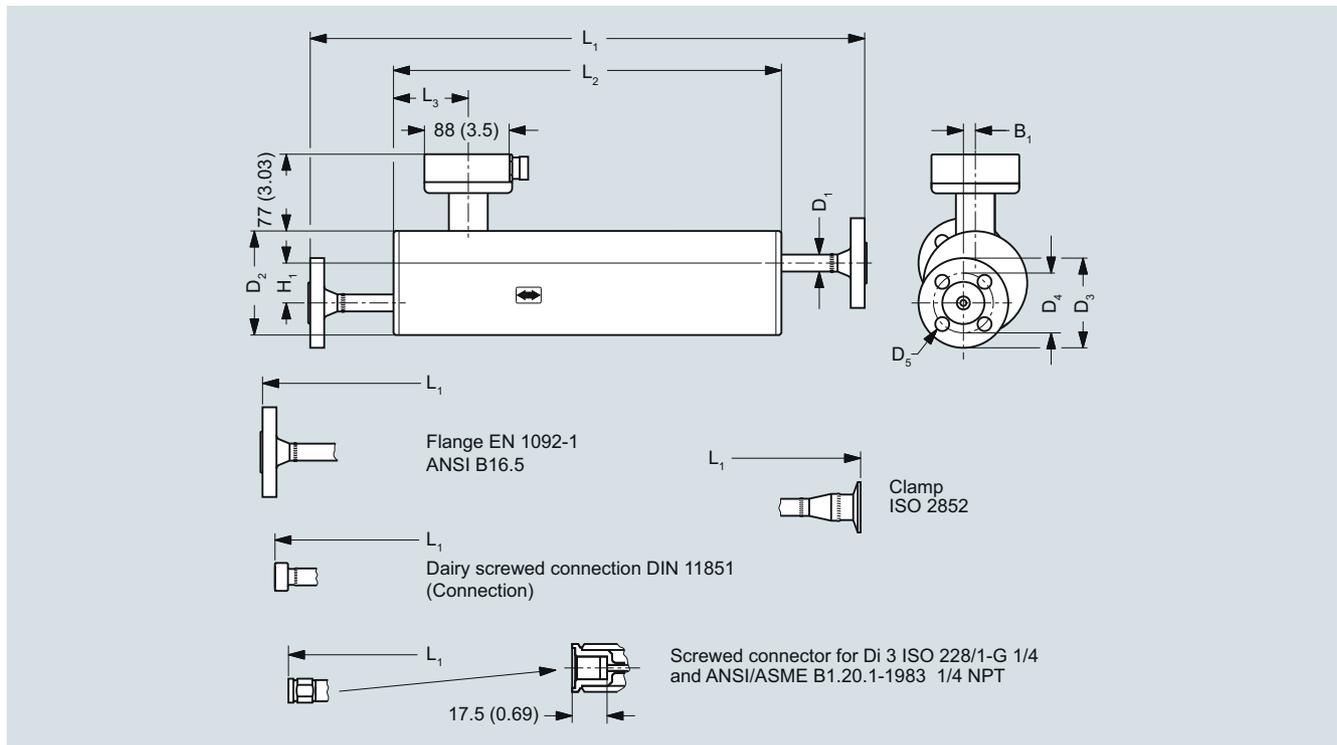


ISO 228 and NPT pipe thread stainless steel (PN 100 ... PN 265)

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Dimensional drawings

MASS 2100 sensor for analog cable connection



Dimension in mm (inch)

For not listed variants please contact product support

Sensor size	Connections			L1	L2	L3	H1	B1	D1	D2	D3	D4	D5
DI (inch)	Type	Pressure rating	Size	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
DI 3 (1/8)	Pipe thread ISO 228/1 - G 1/4	PN 100	1/4"	400	280	75.5	60	0	21.3	104	-	-	-
	Pipe thread ANSI/ASME B 1.20.1 - 1/4" NPT	PN 100	1/4"	400	280	75.5	60	0	21.3	104	-	-	-
DI 6 (1/4)	Flange EN 1092-1	PN 100	DN 10	580	390	62.0	40	12	17.0	104	100	70.0	14.0
	Flange EN 1092-1	PN 40	DN 10	560	390	62.0	40	12	17.0	104	90.0	60.0	14.0
	Flange ANSI B16.5	Class 150	1/2"	624	390	62.0	40	12	17.0	104	88.9	60.5	15.7
	Flange ANSI B16.5	Class 600	1/2"	608	390	62.0	40	12	17.0	104	95.3	66.5	15.7
	Screwed connection DIN 11851	PN 40	DN 10	532	390	62.0	40	12	17.0	104	-	-	-
	Clamp ISO 2852	PN 16	25 mm	570	390	62.0	40	12	17.0	104	-	-	-
DI 15 (1/2)	Flange EN 1092-1	PN 100	DN 15	634	444	75.5	44	20	21.3	129	105	75.0	14.0
	Flange EN 1092-1	PN 40	DN 15	620	444	75.5	44	20	21.3	129	95.0	65.0	14.0
	Flange ANSI B16.5	Class 150	1/2"	639	444	75.5	44	20	21.3	129	88.9	60.5	15.7
	Flange ANSI B16.5	Class 600	1/2"	660	444	75.5	44	20	21.3	129	95.3	66.5	15.7
	Screwed connection DIN 11851	PN 40	DN 15	586	444	75.5	44	20	21.3	129	-	-	-
	Clamp ISO 2852	PN 16	25 mm	624	444	75.5	44	20	21.3	129	-	-	-

Flow Measurement

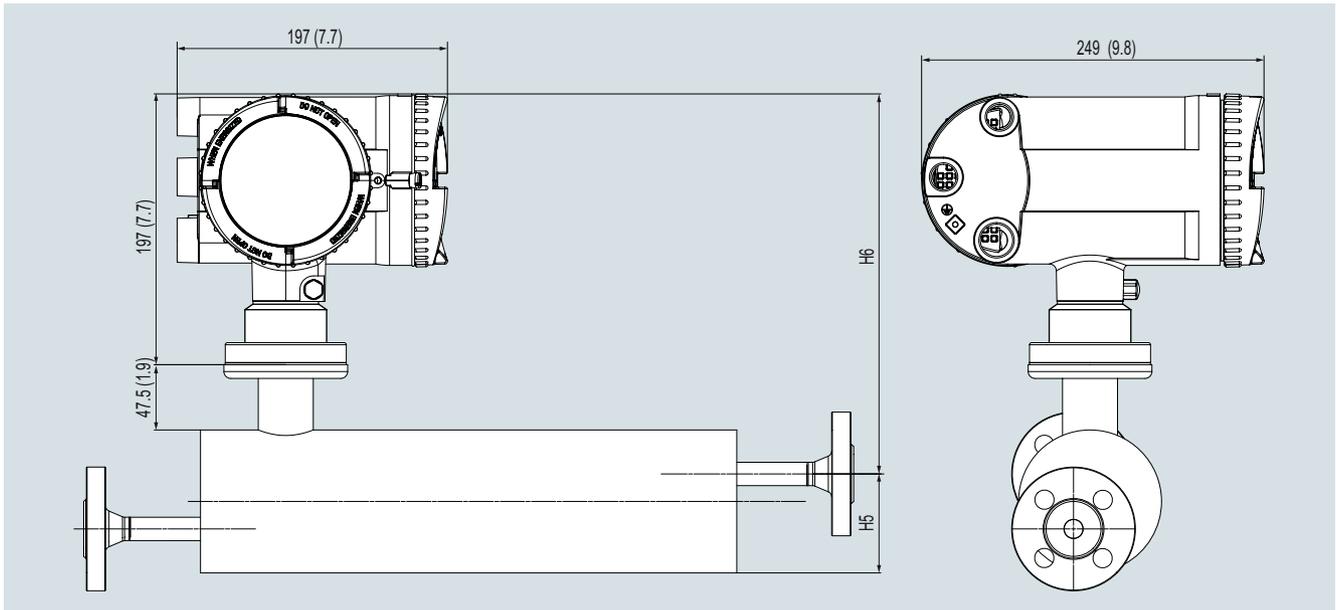
SITRANS F C

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

For not listed variants please contact product support.

Sensor size	Connections			L1	L2	L3	H1	B1	D1	D2	D3	D4	D5
DI (inch)	Type	Pressure rating	Size	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch
DI 3 (1/8)	Pipe thread ISO 228/1 - G $\frac{1}{4}$	PN 100	$\frac{1}{4}$ "	15.75	11.02	2.97	2.36	0	0.84	4.09	-	-	-
	Pipe thread ANSI/ASME B 1.20.1 - $\frac{1}{4}$ " NPT	PN 100	$\frac{1}{4}$ "	15.75	11.02	2.97	2.36	0	0.84	4.09	-	-	-
DI 6 ($\frac{1}{4}$)	Flange EN 1092-1	PN 100	DN 10	22.83	15.35	2.44	1.57	0.47	0.67	4.09	3.94	2.76	0.55
	Flange EN 1092-1	PN 40	DN 10	22.05	15.35	2.44	1.57	0.47	0.67	4.09	3.54	2.36	0.55
	Flange ANSI B16.5	Class 150	$\frac{1}{2}$ "	24.57	15.35	2.44	1.57	0.47	0.67	4.09	3.5	2.38	0.62
	Flange ANSI B16.5	Class 600	$\frac{1}{2}$ "	23.94	15.35	2.44	1.57	0.47	0.67	4.09	3.75	2.62	0.62
	Screwed connection DIN 11851	PN 40	DN 10	20.94	15.35	2.44	1.57	0.47	0.67	4.09	-	-	-
	Clamp ISO 2852	PN 16	25 mm	22.44	15.35	2.44	1.57	0.47	0.67	4.09	-	-	-
DI 15 ($\frac{1}{2}$)	Flange EN 1092-1	PN 100	DN 15	24.96	17.48	2.97	1.73	0.79	0.84	5.08	2.95	4.13	0.55
	Flange EN 1092-1	PN 40	DN 15	24.41	17.48	2.97	1.73	0.79	0.84	5.08	3.74	2.56	0.55
	Flange ANSI B16.5	Class 150	$\frac{1}{2}$ "	25.16	17.48	2.97	1.73	0.79	0.84	5.08	3.5	2.38	0.62
	Flange ANSI B16.5	Class 600	$\frac{1}{2}$ "	25.98	17.48	2.97	1.73	0.79	0.84	5.08	3.75	2.62	0.62
	Screwed connection DIN 11851	PN 40	DN 15	23.07	17.48	2.97	1.73	0.79	0.84	5.08	-	-	-
	Clamp ISO 2852	PN 16	25 mm	24.57	17.48	2.97	1.73	0.79	0.84	5.08	-	-	-

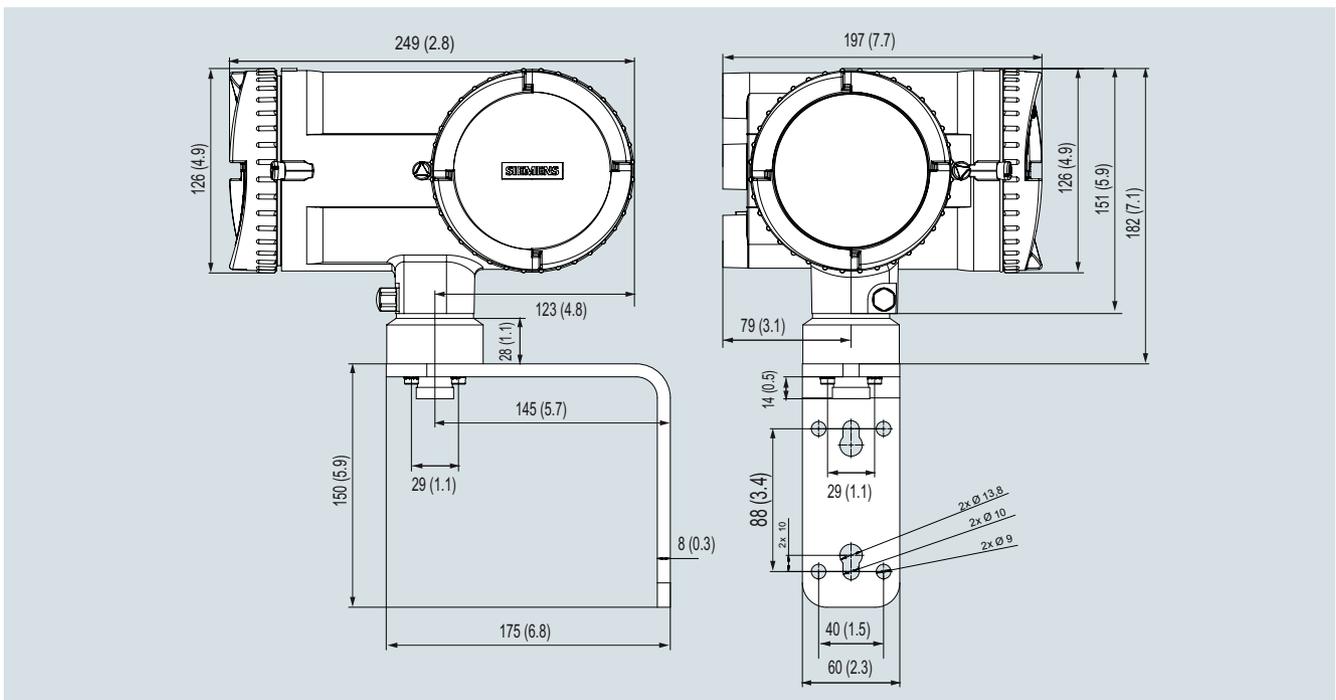
SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Compact with FCT030


Dimensions in mm (inch)

MASS 2100 with FCT030 transmitter compact

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75.5 (2.97)	82 (3.23)	267 (10.51)	349 (13.74)
6 (1/4)	62 (2.44)	72 (2.83)	277 (10.91)	349 (13.74)
15 (1/2)	75.5 (2.97)	86.5 (3.41)	287 (11.3)	373.5 (14.71)

Transmitter FCT030 remote field mount for M20 analog cable connection


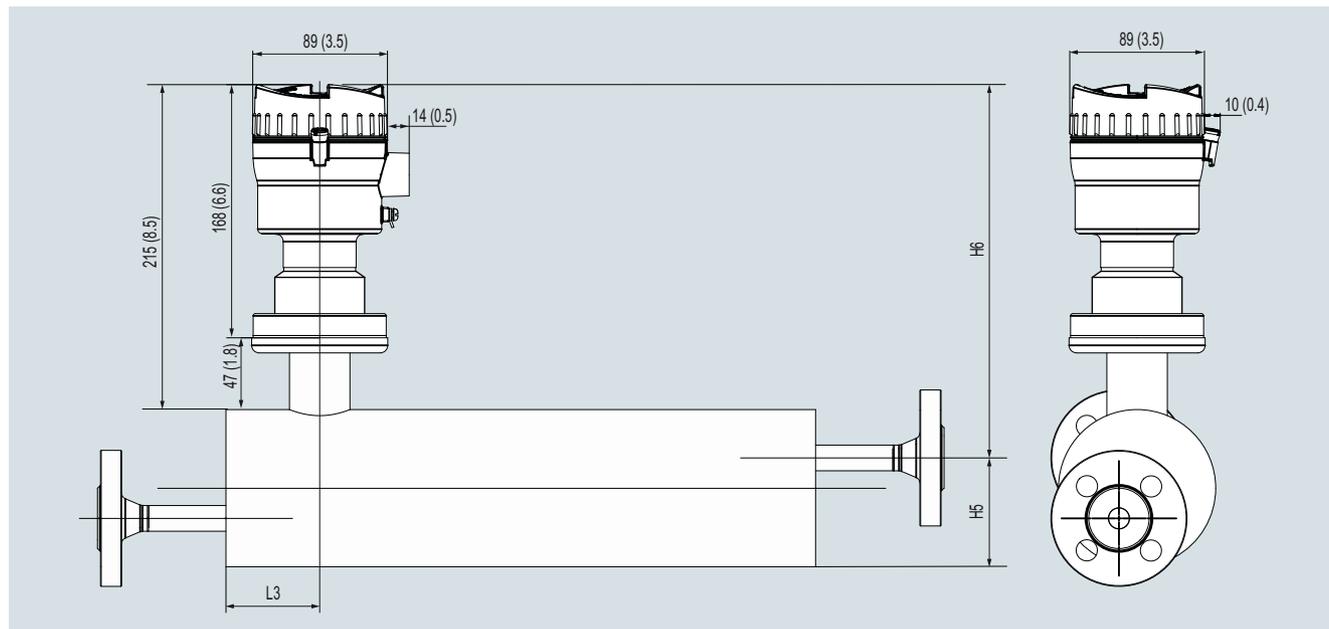
Dimensions in mm (inch)

Flow Measurement

SITRANS F C

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

Compact with FCT010

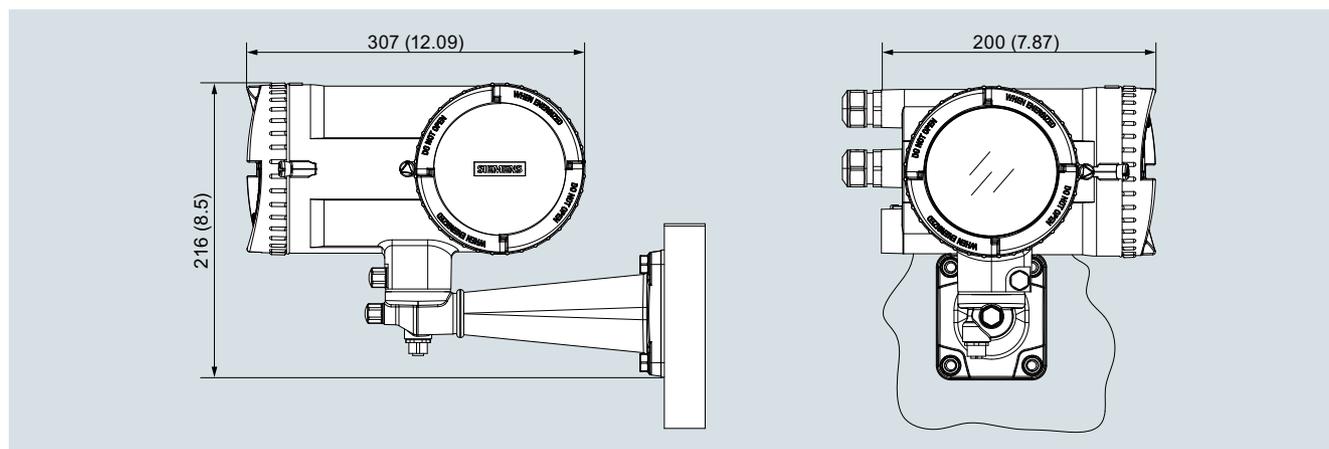


Dimensions in mm (inch)

MASS 2100 with FCT010 transmitter compact

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75.5 (2.97)	82 (3.23)	237 (9.33)	319 (12.56)
6 (1/4)	62 (2.44)	72 (2.83)	247 (9.72)	319 (12.56)
15 (1/2)	75.5 (2.97)	86.5 (3.41)	257 (10.11)	343.5 (13.52)

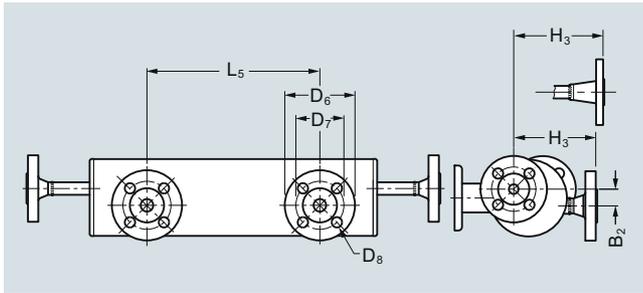
Transmitter FCT030 remote field mount for M12 digital cable connection



Dimensions in mm (inch)

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

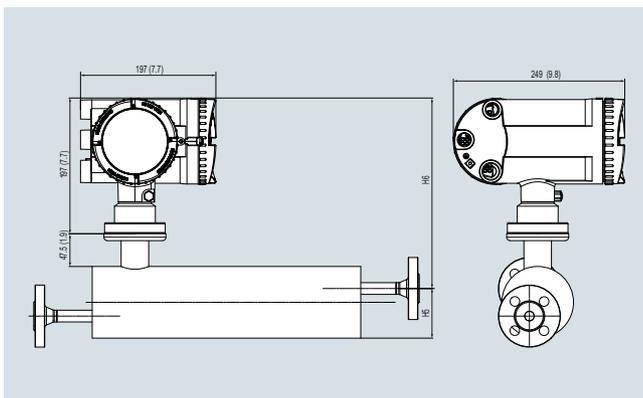
MASS 2100 sensor with "heating jacket"



Dimensions in mm (inch)

Sensor size	Connections heated			L5	H3	B2	D6	D7	D8
DI (inch)	Type	Pressure rating	Size	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
DI 3 (1/8)	EN 1092-1	PN 40	DN 15	234 (9.21)	122 (4.8)	22 (0.87)	95 (3.74)	65.0 (2.56)	14.0 (0.55)
	ANSI B16.5	Class 150	½"	234 (9.21)	131.6 (5.18)	22 (0.87)	88.9 (3.5)	60.5 (2.38)	15.7 (0.62)
DI 6 (¼)	EN 1092-1	PN 40	DN 15	234 (9.21)	112 (4.41)	22.7 (0.89)	95 (3.74)	65.0 (2.56)	14.0 (0.55)
	ANSI B16.5	Class 150	½"	234 (9.21)	121.6 (4.79)	22.7 (0.89)	88.9 (3.5)	60.5 (2.38)	15.7 (0.62)
DI 15 (½)	EN 1092-1	PN 40	DN 15	234 (9.21)	126.5 (4.98)	31.5 (1.24)	95 (3.74)	65.0 (2.56)	14.0 (0.55)
	ANSI B16.5	Class150	½"	234 (9.21)	136.1 (5.36)	31.5 (1.24)	88.9 (3.5)	60.5 (2.38)	15.7 (0.62)

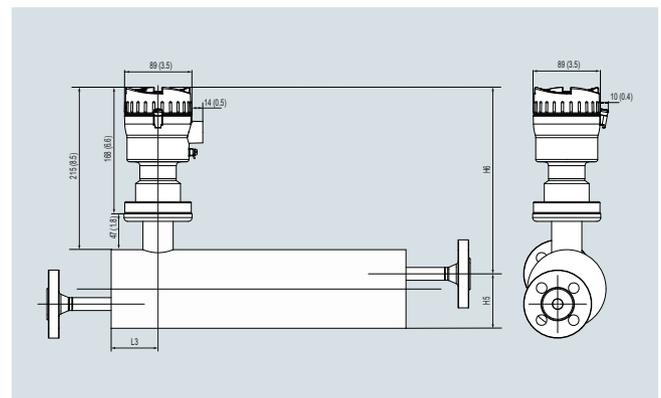
MASS 2100 and FCT030 compact version



MASS 2100 and FCT030 compact version, dimensions in mm (inch)

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75.5 (2.97)	82 (3.23)	267 (10.51)	349 (13.74)
6 (¼)	62 (2.44)	72 (2.83)	277 (10.91)	349 (13.74)
15 (½)	75.5 (2.97)	86.5 (3.41)	287 (11.30)	373.5 (14.70)

MASS 2100 and FCT010 compact version



MASS 2100 and FCT010 compact version, dimensions in mm (inch)

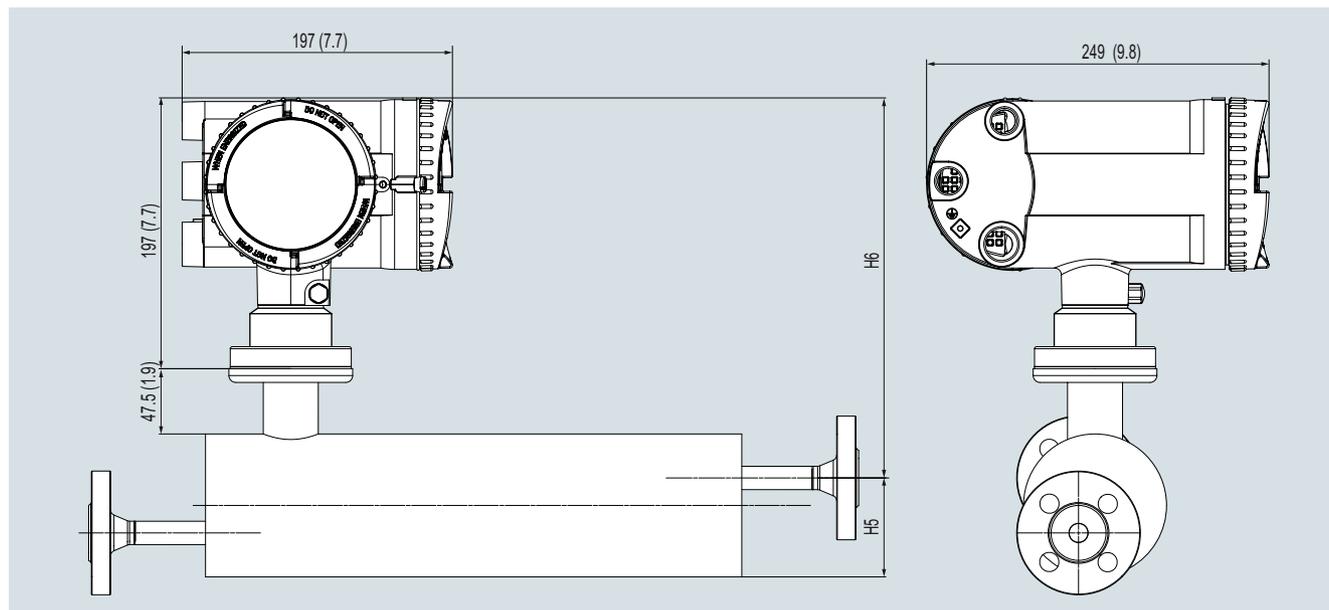
Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75 (2.95)	82 (3.23)	237 (9.33)	319 (12.56)
6 (¼)	62 (2.44)	72 (2.83)	247 (9.72)	319 (12.56)
15 (½)	75 (2.95)	87 (3.43)	257 (10.11)	343.5 (13.52)

Flow Measurement

SITRANS F C

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS FCT010, FCT030 and SIFLOW FC070 transmitter

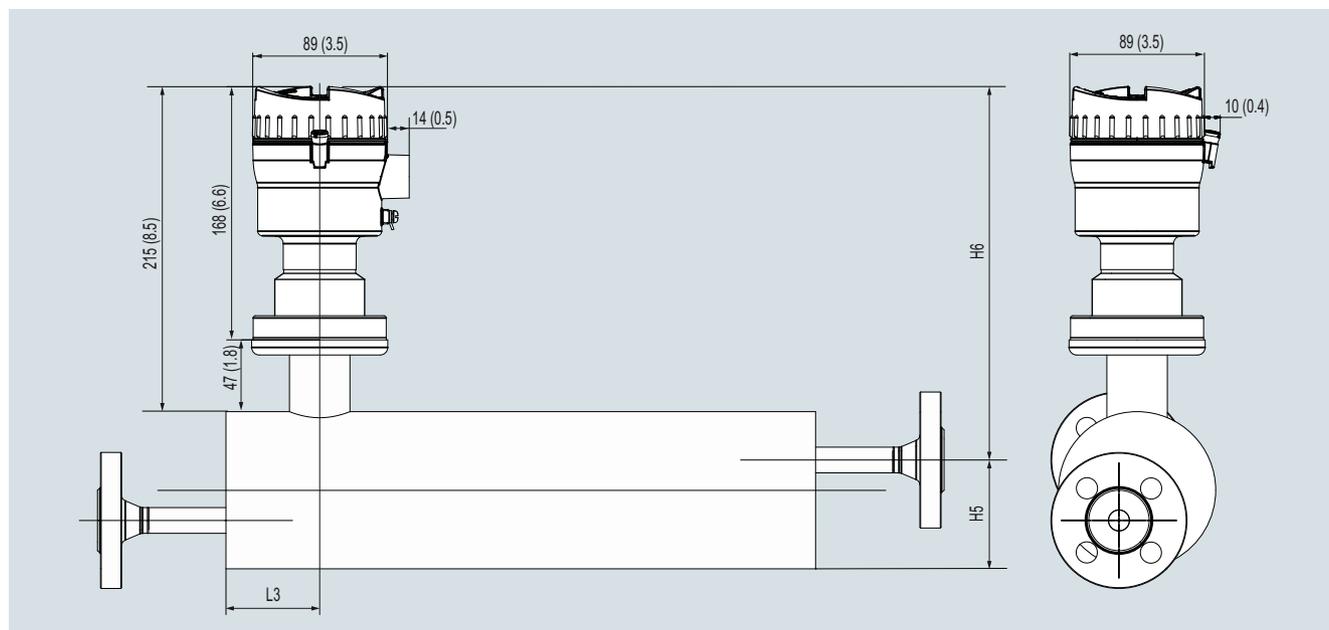
MASS 2100 and FCT030 compact version



MASS 2100 and FCT030 compact version, dimensions in mm (inch)

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75.5 (2.97)	82 (3.23)	267 (10.51)	349 (13.74)
6 (1/4)	62 (2.44)	72 (2.83)	277 (10.91)	349 (13.74)
15 (1/2)	75.5 (2.97)	86.5 (3.41)	287 (11.30)	373.5 (14.70)

MASS 2100 and FCT010 compact version



MASS 2100 and FCT010 compact version, dimensions in mm (inch)

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75 (2.95)	82 (3.23)	237 (9.33)	319 (12.56)
6 (1/4)	62 (2.44)	72 (2.83)	247 (9.72)	319 (12.56)
15 (1/2)	75 (2.95)	87 (3.43)	257 (10.11)	343.5 (13.52)

SITRANS F C sensors MASS 2100/FC300 with FCT010, FCT030 and SIFLOW FC070 transmitters (Low flow program)

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
SITRANS F C sensors MASS 2100/FC300 with FCT010 transmitter	7ME4811-		SITRANS F C sensors MASS 2100/FC300 with FCT010 transmitter	7ME4811-	
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Sensor type and connector size			Tube material (wetted) and max. operational temperature		
MASS 2100 DI 1.5, 1/4"	1G		AISI 316L/EN 1.4435, Max 115 °C	1	
MASS 2100 DI 3, 1/4"	3A		AISI 316L/EN 1.4435, Max 125 °C	2	
MASS 2100 DI 3, 1/4" Heated w. DIN	3B		AISI 316L/EN 1.4435, Max 180 °C	3	
MASS 2100 DI 3, 1/4" Heated w. ANSI	3C		Hastelloy C22/UNS N06022/EN 2.4602, Max. 115 °C	5	
FC300 DN 4, 1/4"	4A		Hastelloy C22/UNS N06022/EN 2.4602, Max. 125 °C	6	
MASS 2100 DI 6, 1/4"	6A		Hastelloy C22/UNS N06022/EN 2.4602, Max. 180 °C	7	
MASS 2100 DI 6, 1/4" Heated w. EN	6B				
MASS 2100 DI 6, 1/4" Heated w. ANSI	6C		Calibration		
MASS 2100 DI 6, DN 10	6D		Mass flow calibration	1	
MASS 2100 DI 6, DN 10 Heated w. EN	6E		Mass flow calibration and density calibration	4	
MASS 2100 DI 6, DN 10 Heated w. ANSI	6F				
MASS 2100 DI 6, DN 15 (1/2")	6G		Mounting style, Transmitter Housing and Material		
MASS 2100 DI 6, DN 15 (1/2") Heated w. EN	6H		Compact mounted, IP67, Aluminium transmitter housing (DI 3, DI 6 and DI 15 only)	D	
MASS 2100 DI 6, DN 15 (1/2") Heated w. ANSI	6J		Remote mounted, IP67, Aluminium transmitter housing, analog cable connection with M20 connectors	Z	P 0 D
MASS 2100 DI 6, DN 20 (3/4")	6K				
MASS 2100 DI 6, DN 20 (3/4") Heated w. EN	6L		Ex approvals		
MASS 2100 DI 6, DN 20 (3/4") Heated w. ANSI	6M		Non-Ex		A
MASS 2100 DI 6, DN 25 (1")	6N		ATEX Zone 1		C
MASS 2100 DI 6, DN 25 (1") Heated w. EN	6P		IECEx Zone 1		F
MASS 2100 DI 6, DN 25 (1") Heated w. ANSI	6Q		USA (FM, CSA, UL), Zone 1/Div1		H
MASS 2100 DI 15, DN 15 (1/2")	7A		Canada (CSA, UL), Zone 1/Div1		M
MASS 2100 DI 15, DN 15 (1/2") Heated w. EN	7B				
MASS 2100 DI 15, DN 15 (1/2") Heated w. ANSI	7C		Local User Interface		
MASS 2100 DI 15, DN 20 (3/4")	7D		Blind		1
MASS 2100 DI 15, DN 20 (3/4") Heated w. EN	7E				
MASS 2100 DI 15, DN 20 (3/4") Heated w. ANSI	7F				
MASS 2100 DI 15, DN 25 (1")	7G				
MASS 2100 DI 15, DN 25 (1") Heated w. EN	7H				
MASS 2100 DI 15, DN 25 (1") Heated w. ANSI	7J				
Process connection/Pressure					
No connections (spare part transmitter)	A0				
EN1092-1 B1, PN40	A1				
EN1092-1 B1, PN100	A3				
ASME B16.5, RF, Class 150	D1				
ASME B16.5, RF, Class 600	D3				
DIN 11851 Screwed connection	F1				
ISO2852 Hyg. Clamped	J1				
ISO2853 Hyg. Screwed	J5				
ISO 228-1 Pipe thread, PN 100	C1				
ISO 228-1 Pipe thread, PN 130	C2				
ISO 228-1 Pipe thread, PN 200	C3				
ISO 228-1 Pipe thread, PN 230	C4				
ISO 228-1 Pipe thread, PN 265	C5				
ISO 228-1 Pipe thread, PN 350	C6				
ISO 228-1 Pipe thread, PN 365	C7				
ISO 228-1 Pipe thread, PN 410	C8				
NPT ASME B 1.20.1 Pipe thread, PN 100	N1				
NPT ASME B 1.20.1 Pipe thread, PN 130	N2				
NPT ASME B 1.20.1 Pipe thread, PN 200	N3				
NPT ASME B 1.20.1 Pipe thread, PN 230	N4				
NPT ASME B 1.20.1 Pipe thread, PN 265	N5				
NPT ASME B 1.20.1 Pipe thread, PN 350	N6				
NPT ASME B 1.20.1 Pipe thread, PN 365	N7				
NPT ASME B 1.20.1 Pipe thread, PN 410	N8				

Flow Measurement

SITRANS F C

SITRANS F C sensors MASS 2100/FC300 with FCT010, FCT030 and SIFLOW FC070 transmitters (Low flow program)

Selection and Ordering data	Order code
Futher designs	
Please add "-Z" to Article No. and specify Order code(s).	
Cable glands	
None (mechanical sensor)	A00
Metric, no glands	A01
Metric, plastic	A02
Metric, brass/Ni plated	A05
Metric, stainless steel	A06
NPT, no glands	A11
NPT, plastic	A12
NPT, brass/Ni plated	A15
NPT, stainless steel	A16
Integral M12 socket	A20
SW functions & CT approvals	
Standard	B11
I/O configuration Ch1	
Modbus RTU RS 485	E14
I/O configuration Ch2, Ch3 and Ch4	
None	F00
Certificates	
Press test certificate CRN	C01
Press test certificate PED	C02
Material certificate EN 10204-3.1	C12
Welding inspection report	C13
Factory certificate according to EN 10204 2.2	C14
Factory certificate according to EN 10204 2.1	C15
Cleaning for oil and grease/ASTM-A380	C50
Cleaned according to PWIS	C51
Sensor data storage	
Sensor with SensorFlash for FCT	S20
Sensor with SensorProm for MASS 6000	S21
Cable sensor-transmitter	
None	L50
5 m, standard, M12 connectors	L51
5 m, standard, without connectors	L52
10 m, standard, M12 connectors	L55
10 m, standard, without connectors	L56
25 m, standard, M12 connectors	L59
25 m, standard, without connectors	L60
50 m, standard, M12 connectors	L63
50 m, standard, without connectors	L64
75 m, standard, M12 connectors	L67
75 m, standard, without connectors	L68
2 m cable, analog, with two M20 connectors	L85
5 m cable, analog, with two M20 connectors	L86
10 m cable, analog, with two M20 connectors	L87
15 m cable, analog, with two M20 connectors	L88

Selection and Ordering data	Order code
Additional data	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
Tag name	
Tag name plate, stainless steel	Y17
Extended calibration	
Multi-point high, (5 flows x 2 passes), 10 ... 100 % of Q_{nom}	Y61
Multi-point high, (10 flows x 1 pass), 10 ... 100 % of Q_{nom}	Y63

SITRANS F C sensors MASS 2100/FC300 with FCT010, FCT030 and SIFLOW FC070 transmitters (Low flow program)

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
SITRANS F C sensors MASS 2100/FC300 with FCT030 transmitter	7ME4813-		SITRANS F C sensors MASS 2100/FC300 with FCT030 transmitter	7ME4813-	
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Sensor type and connector size			Tube material (wetted) and max. operational temperature		
MASS 2100 DI 1.5, 1/4"	1G		AISI 316L/EN 1.4435, Max 115 °C	1	
MASS 2100 DI 3, 1/4"	3A		AISI 316L/EN 1.4435, Max 125 °C	2	
MASS 2100 DI 3, 1/4" Heated w. DIN	3B		AISI 316L/EN 1.4435, Max 180 °C	3	
MASS 2100 DI 3, 1/4" Heated w. ANSI	3C		Hastelloy C22/UNS N06022/EN 2.4602, Max. 115 °C	5	
FC300 DN 4, 1/4"	4A		Hastelloy C22/UNS N06022/EN 2.4602, Max. 125 °C	6	
MASS 2100 DI 6, 1/4"	6A		Hastelloy C22/UNS N06022/EN 2.4602, Max. 180 °C	7	
MASS 2100 DI 6, 1/4" Heated w. EN	6B				
MASS 2100 DI 6, 1/4" Heated w. ANSI	6C		Calibration		
MASS 2100 DI 6, DN 10	6D		Mass flow calibration	1	
MASS 2100 DI 6, DN 10 Heated w. EN	6E		Mass flow calibration and density calibration	4	
MASS 2100 DI 6, DN 10 Heated w. ANSI	6F		Standard fraction	8	
MASS 2100 DI 6, DN 15 (1/2")	6G				
MASS 2100 DI 6, DN 15 (1/2") Heated w. EN	6H		Mounting style, Transmitter Housing and Material		
MASS 2100 DI 6, DN 15 (1/2") Heated w. ANSI	6J		Compact mounted, IP67, Aluminium transmitter housing (DI 3, DI 6 and DI 15 only)	D	
MASS 2100 DI 6, DN 20 (3/4")	6K		Remote field mounted, IP67, Aluminium housing, M12 socket for digital cable connection (DI 3, DI 6 and DI 15 only)	G	
MASS 2100 DI 6, DN 20 (3/4") Heated w. EN	6L		Remote field mount, IP67, Aluminium housing, terminal box for digital cable connection (DI 3, DI 6 and DI 15 only)	K	
MASS 2100 DI 6, DN 20 (3/4") Heated w. ANSI	6M		Wall mount aluminum transmitter housing, M12 socket for digital cable connection (DI 3, DI 6 and DI 15 only)	U	
MASS 2100 DI 6, DN 25 (1")	6N		Remote field mount, IP67, Aluminium transmitter housing, analog cable connection with M20 connectors	Z	P 0 D
MASS 2100 DI 6, DN 25 (1") Heated w. EN	6P		Remote wall mount, IP67, aluminum transmitter housing, analog cable connection with M20 connectors	Z	P 0 E
MASS 2100 DI 6, DN 25 (1") Heated w. ANSI	6Q				
MASS 2100 DI 15, DN 15 (1/2")	7A		Ex approvals		
MASS 2100 DI 15, DN 15 (1/2") Heated w. EN	7B		Non-Ex	A	
MASS 2100 DI 15, DN 15 (1/2") Heated w. ANSI	7C		ATEX Zone 1	C	
MASS 2100 DI 15, DN 20 (3/4")	7D		IECEx Zone 1	F	
MASS 2100 DI 15, DN 20 (3/4") Heated w. EN	7E		USA (FM, CSA, UL), Zone 1/Div1	H	
MASS 2100 DI 15, DN 20 (3/4") Heated w. ANSI	7F		Canada (CSA, UL), Zone 1/Div1	M	
MASS 2100 DI 15, DN 25 (1")	7G				
MASS 2100 DI 15, DN 25 (1") Heated w. EN	7H		Local User Interface		
MASS 2100 DI 15, DN 25 (1") Heated w. ANSI	7J		Blind	1	
			Graphical, 240 x 160 pixels, glass lid	3	
Process connection/Pressure					
No connections (spare part transmitter)	A 0				
EN1092-1 B1, PN40	A 1				
EN1092-1 B1, PN100	A 3				
ASME B16.5, RF, Class 150	D 1				
ASME B16.5, RF, Class 600	D 3				
DIN 11851 Screwed connection	F 1				
ISO2852 Hyg. Clamped	J 1				
ISO2853 Hyg. Screwed	J 5				
ISO 228-1 Pipe thread, PN 100	C 1				
ISO 228-1 Pipe thread, PN 130	C 2				
ISO 228-1 Pipe thread, PN 200	C 3				
ISO 228-1 Pipe thread, PN 230	C 4				
ISO 228-1 Pipe thread, PN 265	C 5				
ISO 228-1 Pipe thread, PN 350	C 6				
ISO 228-1 Pipe thread, PN 365	C 7				
ISO 228-1 Pipe thread, PN 410	C 8				
NPT ASME B 1.20.1 Pipe thread, PN 100	N 1				
NPT ASME B 1.20.1 Pipe thread, PN 130	N 2				
NPT ASME B 1.20.1 Pipe thread, PN 200	N 3				
NPT ASME B 1.20.1 Pipe thread, PN 230	N 4				
NPT ASME B 1.20.1 Pipe thread, PN 265	N 5				
NPT ASME B 1.20.1 Pipe thread, PN 350	N 6				
NPT ASME B 1.20.1 Pipe thread, PN 365	N 7				
NPT ASME B 1.20.1 Pipe thread, PN 410	N 8				

Flow Measurement

SITRANS F C

SITRANS F C sensors MASS 2100/FC300 with FCT010, FCT030 and SIFLOW FC070 transmitters (Low flow program)

Selection and Ordering data	Order code	Selection and Ordering data	Order code
Further designs		Sensor data storage	
Please add "-Z" to Article No. and specify Order code(s).		Sensor with SensorFlash for FCT	S20
		Sensor with SensorProm for MASS 6000 (in preparation)	S21
Cable glands		SD-Card accessibility via USB (not allowed in USA by Patent)	
None (mechanical sensor)	A00	Mass storage enabled	S30
Metric, no glands	A01	Cable sensor-transmitter	
Metric, plastic	A02	None	L50
Metric, brass/Ni plated	A05	5 m, standard, M12 connectors	L51
Metric, stainless steel	A06	5 m, standard, without connectors	L52
NPT, no glands	A11	10 m, standard, M12 connectors	L55
NPT, plastic	A12	10 m, standard, without connectors	L56
NPT, brass/Ni plated	A15	25 m, standard, M12 connectors	L59
NPT, stainless steel	A16	25 m, standard, without connectors	L60
Integral M12 socket	A20	50 m, standard, M12 connectors	L63
		50 m, standard, without connectors	L64
SW functions & CT approvals		75 m, standard, M12 connectors	L67
Standard	B11	75 m, standard, without connectors	L68
I/O configuration Ch1		2 m cable, analog with two M20 connectors	L85
None (replacement sensor)	E00	5 m cable, analog with two M20 connectors	L86
4 ... 20 mA, HART, active/passive output (non-Ex)	E02	10 m cable, analog with two M20 connectors	L87
4 ... 20 mA, HART, active Ex	E06	15 m cable, analog with two M20 connectors	L88
4 ... 20 mA, HART, passive Ex	E07		
PROFIBUS PA (non-Ex)	E10	Additional data	
PROFIBUS DP	E11	Please add "-Z" to Article No. and specify Order code(s) and plain text.	
Modbus RTU RS 485	E14	Tag name	
I/O configuration Ch2, Ch3 and Ch4		Tag name plate, stainless steel	Y17
None	F00	Extended calibration	
Non Ex: Sig O, None, None	F01	Multi-point high, (5 flows x 2 passes), 10 ... 100 % of Q_{nom}	Y61
Non Ex: Sig O, Sig I/O, None	F02	Multi-point high, (10 flows x 1 pass), 10 ... 100 % of Q_{nom}	Y63
Non Ex: Sig O, Sig I/O, Sig I/O	F03		
Non Ex: Sig O, Sig I/O, R	F04		
Non Ex: Sig O, R, R	F05		
Non Ex: Sig O, R, None	F06		
Ex: pSig O, None, None	F11		
Ex: pSig O, pSig I/O, None	F12		
Ex: pSig O, pSig I/O, pSig I/O	F13		
Ex: pSig O, pSig I/O, R	F14		
Ex: pSig O, R, R	F15		
Ex: pSig O, R, None	F16		
Ex: aSig O, None, None	F21		
Ex: aSig O, aSig I/O, None	F22		
Ex: aSig O, aSig I/O, aSig I/O	F23		
Ex: aSig O, aSig I/O, R	F24		
Ex: aSig O, R, R	F25		
Ex: aSig O, R, None	F26		
Certificates			
Press test certificate CRN	C01		
Press test certificate PED	C02		
Material certificate EN 10204-3.1	C12		
Welding inspection report	C13		
Factory certificate according to EN 10204 2.2	C14		
Factory certificate according to EN 10204 2.1	C15		
Cleaning for oil and grease/ASTM-A380	C50		
Cleaned according to PWIS	C51		

SITRANS F C sensors MASS 2100/FC300 with FCT010, FCT030 and SIFLOW FC070 transmitters (Low flow program)

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
SITRANS F C sensors MASS 2100/FC300 with SIFLOW FC070 transmitter¹⁾	7ME4818-		SITRANS F C sensors MASS 2100/FC300 with SIFLOW FC070 transmitter¹⁾	7ME4818-	
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Sensor type and connector size			Tube material (wetted) and max. operational temperature		
MASS 2100 DI 1.5, 1/4"	1G		AISI 316L/EN 1.4435, Max 115 °C	1	
MASS 2100 DI 3, 1/4"	3A		AISI 316L/EN 1.4435, Max 125 °C	2	
MASS 2100 DI 3, 1/4" Heated w. DIN	3B		AISI 316L/EN 1.4435, Max 180 °C	3	
MASS 2100 DI 3, 1/4" Heated w. ANSI	3C		Hastelloy C22/UNS N06022/EN 2.4602, Max. 115 °C	5	
FC300 DN 4, 1/4"	4A		Hastelloy C22/UNS N06022/EN 2.4602, Max. 125 °C	6	
MASS 2100 DI 6, 1/4"	6A		Hastelloy C22/UNS N06022/EN 2.4602, Max. 180 °C	7	
MASS 2100 DI 6, 1/4" Heated w. EN	6B				
MASS 2100 DI 6, 1/4" Heated w. ANSI	6C		Calibration		
MASS 2100 DI 6, DN 10	6D		Mass flow calibration	1	
MASS 2100 DI 6, DN 10 Heated w. EN	6E		Mass flow calibration and density calibration	4	
MASS 2100 DI 6, DN 10 Heated w. ANSI	6F		Standard fraction calibration	8	
MASS 2100 DI 6, DN 15 (1/2")	6G		Mounting style, Transmitter Housing and Material		
MASS 2100 DI 6, DN 15 (1/2") Heated w. EN	6H		SIFLOW FC070 Standad DIN rail	W	
MASS 2100 DI 6, DN 15 (1/2") Heated w. ANSI	6J		Ex approvals		
MASS 2100 DI 6, DN 20 (3/4")	6K		Non-Ex	A	
MASS 2100 DI 6, DN 20 (3/4") Heated w. EN	6L		ATEX Zone 1	C	
MASS 2100 DI 6, DN 20 (3/4") Heated w. ANSI	6M		IECEx Zone 1	F	
MASS 2100 DI 6, DN 25 (1")	6N		USA (FM, CSA, UL), Zone 1/Div1	H	
MASS 2100 DI 6, DN 25 (1") Heated w. EN	6P		Canada (CSA, UL), Zone 1/Div1	M	
MASS 2100 DI 6, DN 25 (1") Heated w. ANSI	6Q		Local User Interface		
MASS 2100 DI 15, DN 15 (1/2")	7A		Blind	1	
MASS 2100 DI 15, DN 15 (1/2") Heated w. EN	7B				
MASS 2100 DI 15, DN 15 (1/2") Heated w. ANSI	7C				
MASS 2100 DI 15, DN 20 (3/4")	7D				
MASS 2100 DI 15, DN 20 (3/4") Heated w. EN	7E				
MASS 2100 DI 15, DN 20 (3/4") Heated w. ANSI	7F				
MASS 2100 DI 15, DN 25 (1")	7G				
MASS 2100 DI 15, DN 25 (1") Heated w. EN	7H				
MASS 2100 DI 15, DN 25 (1") Heated w. ANSI	7J				
Process connection/Pressure					
No connections (spare part transmitter)	A0				
EN1092-1 B1, PN40	A1				
EN1092-1 B1, PN100	A3				
ASME B16.5, RF, Class 150	D1				
ASME B16.5, RF, Class 600	D3				
DIN 11851 Screwed connection	F1				
ISO2852 Hyg. Clamped	J1				
ISO2853 Hyg. Screwed	J5				
ISO 228-1 Pipe thread, PN 100	C1				
ISO 228-1 Pipe thread, PN 130	C2				
ISO 228-1 Pipe thread, PN 200	C3				
ISO 228-1 Pipe thread, PN 230	C4				
ISO 228-1 Pipe thread, PN 265	C5				
ISO 228-1 Pipe thread, PN 350	C6				
ISO 228-1 Pipe thread, PN 365	C7				
ISO 228-1 Pipe thread, PN 410	C8				
NPT ASME B 1.20.1 Pipe thread, PN 100	N1				
NPT ASME B 1.20.1 Pipe thread, PN 130	N2				
NPT ASME B 1.20.1 Pipe thread, PN 200	N3				
NPT ASME B 1.20.1 Pipe thread, PN 230	N4				
NPT ASME B 1.20.1 Pipe thread, PN 265	N5				
NPT ASME B 1.20.1 Pipe thread, PN 350	N6				
NPT ASME B 1.20.1 Pipe thread, PN 365	N7				
NPT ASME B 1.20.1 Pipe thread, PN 410	N8				

¹⁾ SITRANS F C sensors MASS 2100/FC300 with SIFLOW FC070 transmitter (7ME4818-) are in preparation.

Flow Measurement

SITRANS F C

SITRANS F C sensors MASS 2100/FC300 with FCT010, FCT030 and SIFLOW FC070 transmitters (Low flow program)

Selection and Ordering data	Order code
Further designs	
Please add "-Z" to Article No. and specify Order code(s).	
SW functions & CT approvals	
Standard	B11
Certificates	
Press test certificate CRN	C01
Press test certificate PED	C02
Material certificate EN 10204-3.1	C12
Welding inspection report	C13
Factory certificate according to EN 10204 2.2	C14
Factory certificate according to EN 10204 2.1	C15
Cleaning for oil and grease/ASTM-A380	C50
Cleaned according to PWIS	C51
Sensor data storage	
Sensor with SensorFlash for FCT	S20
Sensor with SensorProm for MASS 6000 and SIFLOW FC070 (in preparation)	S21
Cable sensor-transmitter	
None	L50
5 m cable for SIFLOW FC070	L79
10 m cable for SIFLOW FC070	L80
25 m cable for SIFLOW FC070	L81
50 m cable for SIFLOW FC070	L82
75 m cable for SIFLOW FC070	L83
150 m cable for SIFLOW FC070	L84
Additional data	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
Tag name	
Tag name plate, stainless steel	Y17
Extended calibration	
Multi-point high, (5 flows x 2 passes), 10 ... 100 % of Q_{nom}	Y61
Multi-point high, (10 flows x 1 pass), 10 ... 100 % of Q_{nom}	Y63

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS MASS 6000 and SIFLOW FC070 transmitter

Note: Technical specification see page 3/187 to 3/198.

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
SITRANS F C sensors	7ME4100-		SITRANS F C sensors	7ME4100-	
MASS 2100 without heating jacket			MASS 2100 without heating jacket		
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Diameter			Dairy screwed connection DIN 11851		
Stainless steel AISI 316L/1.4435			DN 10 (PN 40)	40	
DI 3 (PN 100/PN 230)	1C		DN 15 (PN 40)	41	
DI 6	1D		DN 25 (PN 40)	42	
DI 15	1E		Dairy clamp connection ISO 2852 (DIN 32676)		
Hastelloy C22/2.4602			Cone down the sensor in order to obtain self-drainage with connectors ISO 2852		
DI 3 (PN 100/PN 350)	2C		25 mm (PN 16)	50	
DI 6	2D		38 mm (PN 16)	51	
DI 15	2E		51 mm (PN 16)	52	
Pressure			Dairy screwed connection ISO 2853		
PN 16 (DI 6, DI 15)	A		25 mm (PN 16)	60	
PN 25 (DI 6, DI 15)	B		38 mm (PN 16)	61	
PN 40 (DI 6, DI 15)	C		51 mm (PN 16)	62	
PN 100 (DI 3, DI 6, DI 15)	D		Configuration/calibration type		
PN 130 (DI 15, ½", AISI 316L/1.4404)	G		Standard	1	
PN 200 (DI 15, ½", Hastelloy C22/2.4602)	K		Density	2	
PN 230 (DI 3, ¼", AISI 316L/1.4404)	L		Brix/Plato	3	
PN 265 (DI 6, ¼", AISI 316L/1.4404)	M		Fraction (specification required)	9	NOY
PN 350 (DI 3, ¼", Hastelloy C22/2.4602)	N		Transmitter compact mounted on sensor		
PN 410 (DI 6, ¼", Hastelloy C22/2.4602)	Q		No transmitter, sensor and adapter only	A	
Class 150 (DI 6, DI 15)	R		MASS 6000, Ex d, stainless steel enclosure, 1 current, 1 freq./pulse and 1 relay output, 24 V AC/DC with Ex d e ib [ia Ga] IIC T4 Gb Ex-approval	B	
Class 600 (DI 6, DI 15)	S		MASS 6000, IP67, Polyamide enclosure, cable glands M20, 1 current, 1 freq./pulse and 1 relay output, 24 V AC/DC	C	
Process connection/flange			MASS 6000, IP67, Polyamide enclosure, cable glands M20, 1 current, 1 freq./pulse and 1 relay output, 115/230 V AC 50/60 Hz	D	
Pipe thread			MASS 6000, IP67, Polyamide enclosure, cable glands ½" NPT, 1 current, 1 freq./pulse and 1 relay output, 24 V AC/DC	E	
G ¼"	10		MASS 6000, IP67, Polyamide enclosure, cable glands ½" NPT, 1 current, 1 freq./pulse and 1 relay output, 115/230 V AC 50/60 Hz	F	
¼" NPT	11		Cable		
G ½"	12		No cable	A	
½" NPT	13		Cable with one M20 connector and one end for terminal connect	B	
G 1	14		• 5 m (16.4 ft)	B	
1" NPT	15		• 10 m (32.8 ft)	C	
G 2"	16		• 25 m (82 ft)	D	
2" NPT	17		• 50 m (164 ft)	E	
Flange EN1092-1 Form B			• 75 m (246 ft)	F	
DN 10 (PN 40/PN 100)	20		• 150 m (492 ft)	G	
DN 15 (PN 40/PN 100)	21		Calibration/verification		
DN 25 (PN 40/PN 100)	22		Standard calibration 3 flow x 2 points	1	
Flange ASME/ANSI B 16.5			Stand. calibration matched pair 3 flow x 2 points	2	
½" (class 150/class 600)	30		Accredited calibration matched pair 5 flow x 2 points (ISO 17025)	3	
			Extended calibration customer-specified select Y60, Y61, Y62 or Y63 (see additional information)	8	

Flow Measurement

SITRANS F C

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS MASS 6000 and SIFLOW FC070 transmitter

Dairy MLFB example

MASS 2100

Sensor size DI 15,
AISI 316L/1.4435

PN 40

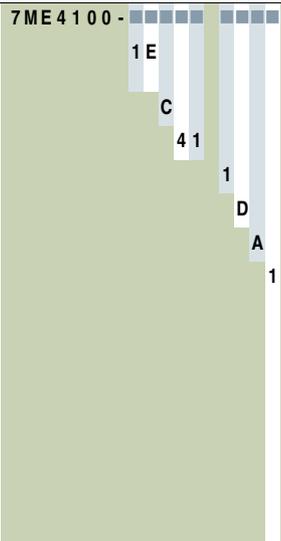
DN 15 connector

Standard configuration/calibration

MASS 6000 IP67 compact mounted

No cable

Standard calibration, 3 flow x 2 points



Selection and Ordering data

Order code

Additional information

Please add "-Z" to Article No. and specify Order code(s) and plain text.

Pressure testing certificate PED: 2014/68/EU

Material certificate EN 10204-3.1

NDT- X-ray inspection report: EN 1435

DI3 sensor only: NDT-Penetrant inspection report ISO 3452.

Factory certificate according to EN 10204 2.2

Factory certificate according to EN 10204 2.1

Tag name plate, stainless steel

Tag name plate, plastic

Customer-specific transmitter setup

Customer-specified, matched pair (5 x 2)

Customer-specified calibration (5 x 2)

Customer-specified, matched pair (10 x 1)

Customer-specified calibration (10 x 1)

Cleaned for oil and grease

Special version

C11

C12

C13

C14

C15

Y17

Y18

Y20

Y60

Y61

Y62

Y63

Y80

Y99

Operating instructions for SITRANS F C MASS 2100 DI 3 to DI 40

Description	Article No.
• English	A5E02896535
• German	A5E03073519

All literature is available to download for free, in a range of languages, at www.siemens.com/processinstrumentation/documentation

Selection and Ordering data

Accessories

Description	Dimension	Article No.
Mating parts for hygienic fittings DIN 11851 (AISI 316L)		
Includes:		
• 2 unions		
• 2 mating parts (for welding in)		
• 2 EPDM gaskets		
	DN 10	FDK:085U1016
	DN 15	FDK:085U1017
	DN 25	FDK:085U1019
Mating parts for hygienic clamp ISO 2852 (AISI 316L)		
Includes:		
• 2 clamps		
• 2 mating parts		
• 2 EPDM gaskets		
	25 mm	FDK:085U1029
2 EPDM gaskets with collar for mounting set DIN 11851		
	DN 10	FDK:085U1006
	DN 15	FDK:085U1007
	DN 25	FDK:085U1009

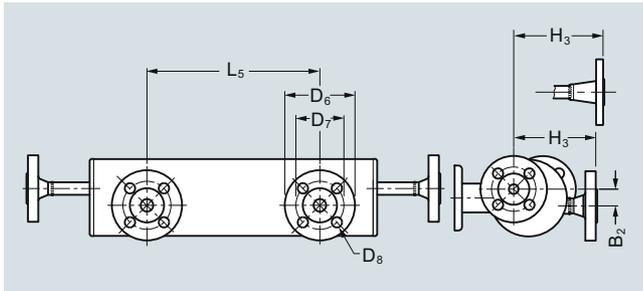
Description	Length	Article No.
Cable with M20 connector Standard blue cable between MASS 6000 and MASS 2100, 5 x 2 x 0.34 mm ² twisted and screened in pairs.		
	5 m (16.4 ft)	FDK:083H3015
	10 m (32.8 ft)	FDK:083H3016
	25 m (82 ft)	FDK:083H3017
	50 m (164 ft)	FDK:083H3018
	75 m (246 ft)	FDK:083H3054
	150 m (492 ft)	FDK:083H3055

Spare parts

Description	Article No.
Adapter for MASS 2100 M20 electrical adapter for MASS 2100 DI 3, 6, 15, 25 and 40	FDK:083L8889
M20 connector for cable mounting	FDK:083H5056
2 kB SENSORPROM unit, includ- ing programming (Sensor Serial No. and Article No. must be specified by ordering)	FDK:083H4410

SITRANS F C sensor MASS 2100 DI 3, DI 6 and DI 15 with SITRANS MASS 6000 and SIFLOW FC070 transmitter

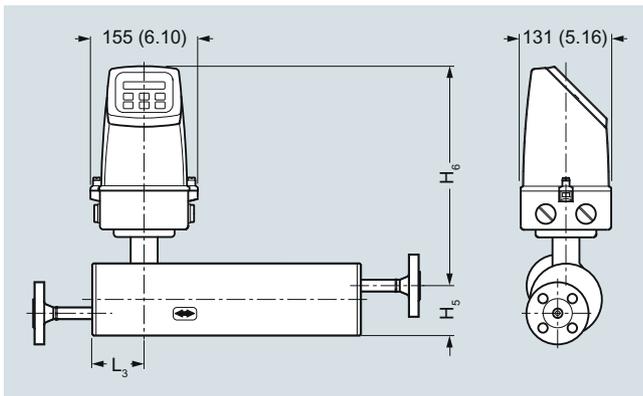
MASS 2100 sensor with "heating jacket"



Dimensions in mm (inch)

Sensor size	Connections heated			L5	H3	B2	D6	D7	D8
DI (inch)	Type	Pressure rating	Size	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)
DI 3 (1/8)	EN 1092-1	PN 40	DN 15	234 (9.21)	122 (4.8)	22 (0.87)	95 (3.74)	65.0 (2.56)	14.0 (0.55)
	ANSI B16.5	Class 150	½"	234 (9.21)	131.6 (5.18)	22 (0.87)	88.9 (3.5)	60.5 (2.38)	15.7 (0.62)
DI 6 (¼)	EN 1092-1	PN 40	DN 15	234 (9.21)	112 (4.41)	22.7 (0.89)	95 (3.74)	65.0 (2.56)	14.0 (0.55)
	ANSI B16.5	Class 150	½"	234 (9.21)	121.6 (4.79)	22.7 (0.89)	88.9 (3.5)	60.5 (2.38)	15.7 (0.62)
DI 15 (½)	EN 1092-1	PN 40	DN 15	234 (9.21)	126.5 (4.98)	31.5 (1.24)	95 (3.74)	65.0 (2.56)	14.0 (0.55)
	ANSI B16.5	Class150	½"	234 (9.21)	136.1 (5.36)	31.5 (1.24)	88.9 (3.5)	60.5 (2.38)	15.7 (0.62)

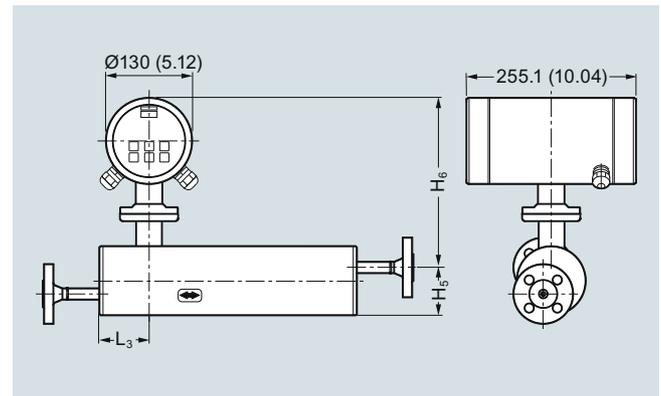
MASS 2100 and MASS 6000 IP67 compact version



MASS 2100 and MASS 6000 IP67 compact version, dimensions in mm (inch)

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75 (2.95)	82 (3.23)	306 (12.04)	388 (15.28)
6 (¼)	62 (2.44)	72 (2.83)	316 (12.44)	388 (15.28)
15 (½)	75 (2.95)	87 (3.43)	326 (12.83)	413 (16.26)

MASS 2100 and MASS 6000 Ex d compact version



MASS 2100 and MASS 6000 Ex d compact version, dimensions in mm (inch)

Sensor size [DI (inch)]	L ₃ [mm (inch)]	H ₅ [mm (inch)]	H ₆ [mm (inch)]	H ₅ + H ₆ [mm (inch)]
3 (1/8)	75 (2.95)	82 (3.23)	247 (9.72)	329 (12.95)
6 (¼)	62 (2.44)	72 (2.83)	257 (10.12)	329 (12.95)
15 (½)	75 (2.95)	87 (3.43)	267 (10.51)	354 (13.94)