Flow sensor MC2

Overview

SITRANS F C MC2 is available as a:

- Standard version (DN 50 to DN 150 (2" to 6"))
- Hygienic EHEDG-certified version (DN 20 to DN 80 (¾" to 3"))

The MC2 sensor 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 and delivers true multi-parameter measurements i.e.: mass flow, volume flow, density, temperature and fraction flow.

The very compact sensor construction makes installation and commissioning of even the largest sizes very straight forward and easy.

Benefits

- High accuracy better than 0.15 % of mass flow rate
- Large dynamic turn-down ratio
- Densitometer performance available through density accuracy better than 0.001 g/cm^3
- Space-saving split-flow sensor design facilitating low pressure loss
- Parallel S-tube design and optimal oriented inductive sensors enhances accuracy and turn-down ratio.
- Self-draining in both horizontal and vertical position
- Rigid enclosure design reduces the influence from pipeline vibration and thermal stress
- 4-wire Pt100 temperature measurement ensures optimum accuracy on mass flow, density and fraction flow
- SENSORPROM enables true "plug & play" - installed and commissioned in less than 10 minutes.
- Safe Ex design Ex em [ib] IIC
- Sensor pipe available in high-quality stainless steel AISI 316L/1.4571 or Hastelloy C4/2.4610 offering optimum corrosion resistance.
- The sensor calibration is also valid for gas measurement.
- CIP cleanability for food and beverage and pharmaceutical applications

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 turndown ratio which is 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, plato/brix, fruit juices and pulps, bottling, CO_2 dosing, CIP-liquids
Oil and gas	Gas measurement, furnace control, test separators, LPG, oil bunkering
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.

The MC2 sensor is also available in a hygienic version which is EHEDG-approved. This is of particular interest for the food and beverage and pharmaceutical markets were the EHEDG approval is often requested for optimum hygienic and process safety.

Design

The MC2 sensor consists of 2 parallel measuring pipes, welded directly onto a flow-splitter at each end to eliminate a direct coupling to the process connectors and significantly reduce effects from external vibrations.

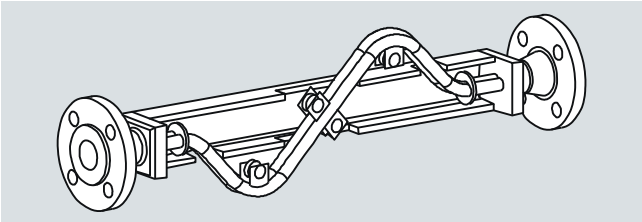
The flow-splitters are welded onto a rigid sensor housing which acts as a mechanical low-pass filter.

The sensor is available in 2 material configurations, AISI 316L/1.4436 or Hastelloy C4/2.4610 with a wide variety of process connections.

The enclosure is made of stainless steel AISI 304/1.4301 with an encapsulation grade of IP67/NEMA 4.

The sensor is Ex-approved Ex em [ib] IIC.

It can be installed in horizontal or vertical position, and is self-draining in both positions.



The MC2 sensor is based on a different Ex concept than MASS 6000. Therefore the MC2 sensor can only be connected to MASS 6000 IP67, MASS 6000 19" or SIFLOW FC070 standard versions, which have to be remote mounted in the safe area. MASS 6000 Ex d and SIFLOW FC070 Ex CT can **not** be used with MC2 sensors.

Hazardous area
Zone 1 + 2

Safe area

Function

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

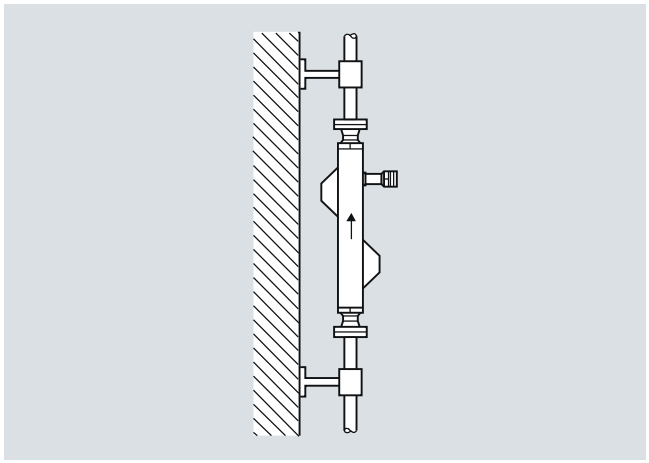
Integration

Installation guidelines MC2 DN 50 ... DN 150

Installation of sensor

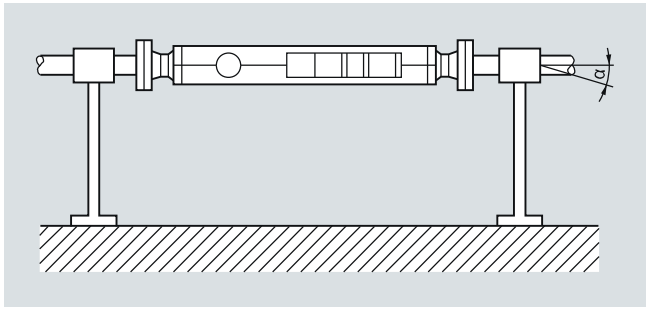
The optimal installation orientation is a vertical installation with an upward flow as shown in the following figure. This has the advantage that any solids contained in the fluid will settle downward and gas bubbles will move upward out of the meter tube when the flow rate is zero. Additionally, it is easy to drain the meter tube. Deposits can thereby be avoided.

Vertical orientation:

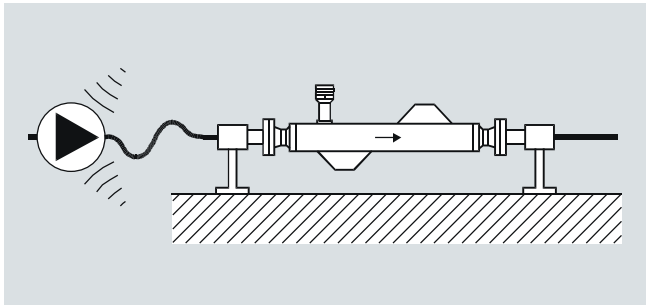


Vertical installation self-draining (upward flow)

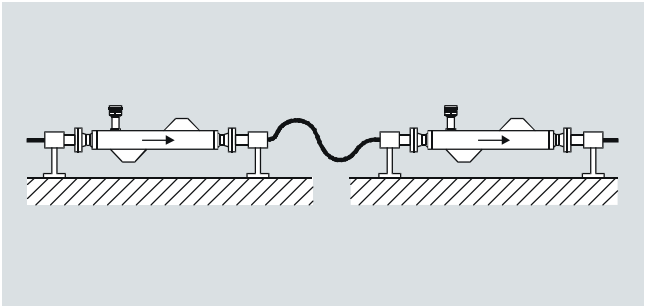
Horizontal orientation, self-draining



Avoid vibrations

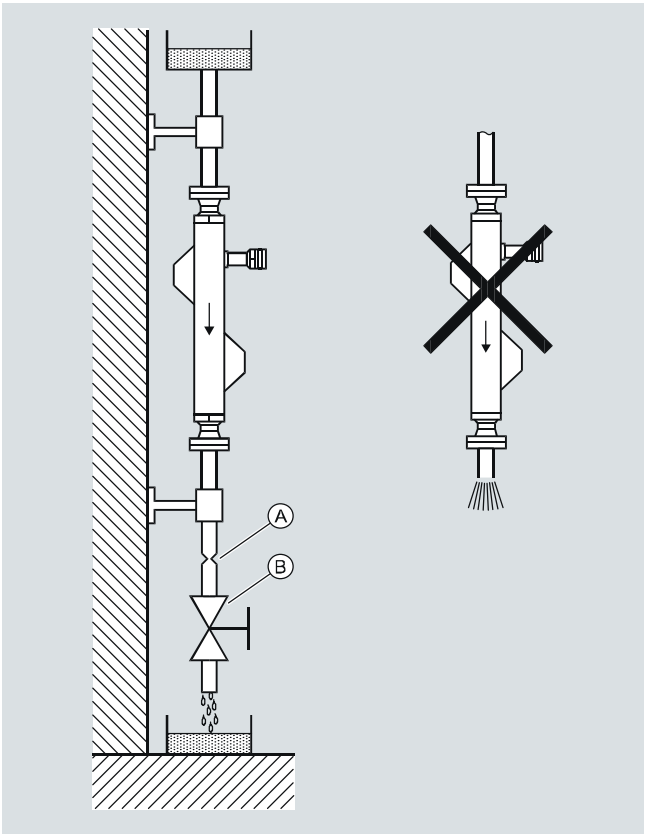


Avoid cross talk



Installation in a drop line

Mount with reduction (A) or orifice (B) to prevent partially draining (min. back pressure: 0.2 bar).



Installation in a drop line

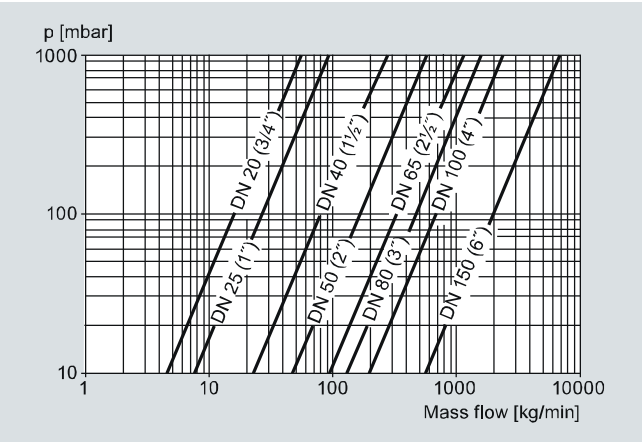
Flow sensor MC2

Technical specifications

Versions (mm (inch))		20 (¾)	25 (1)	40 (1½)	50 (2)	65 (2½)	80 (3)	100 (4)	150 (6)
Inside pipe diameter	**mm (inch)**	8.0 (0.31)	10.0 (0.39)	16.0 (0.63)	22.0 (0.87)	29.0 (1.14)	34.0 (1.34)	43.1 (1.69)	76.1 (2.99)
Pipe wall thickness	**mm (inch)**	1.0 (0.04)	1.0 (0.04)	1.0 (0.04)	1.5 (0.06)	1.5 (0.06)	2.0 (0.08)	2.6 (0.10)	3.2 (0.13)
Mass flow measuring range at pressure drop of 2 bar (29 psi) at 1 g/cm³ (0.036 lb/inch³)	**kg/h (lb/h)**	4 610 (10 163)	7 560 (16 667)	23 560 (51 941)	48 500 (106 924)	95 500 (210 541)	127 000 (279 987)	203 500 (448 640)	602 000 (1 327 181)
Density	**g/cm³ (lb/inch³)**	0.5 ... 3.5 (0.18 ... 0.126)							
Fraction e.g. Brix	**°Brix**	0 ... 100							Not possible
Temperature									
Standard-version		-50 ... +200 °C (-58 ... +392 °F)							
Ex-version		-50 ... +200 °C (-58 ... +392 °F)							
Liquid pressure measuring pipe		20	25	40					
Stainless steel (DIN 2413, 20 °C (68 °F))	**bar (psi)**	100 (1450)	100 (1450)	100 (1450)	100 (1450)	100 (1450)	100 (1450)	40 (580)	40 (580)
Materials									
Measuring pipe		Stainless steel AISI 316Ti/1.4571 or Hastelloy C4/2.4610							
Flange		Stainless steel AISI 316Ti/1.4571 or Hastelloy C4/2.4610							
Enclosure		IP67							
Enclosure material/ connection box		AISI 304 (1.4301)/aluminum, max. pressure 40 bar (580 psi)							
Process connections		See dimensional drawings							
Electrical connections		Screw terminals, M 20							
Cable		5 x 2 x 0.35 mm² twisted and screened in pairs, ext. Ø 12 mm							
Cable length		10, 25, 75 or 150 m (32.8, 82, 246 or 492 ft.)							
Ex-version									
ATEX 1443X		≤ DN 40: II 1/2 Ex em [ib] IIC T2-T6 ≥ DN 50: II 2G Ex em [ib] IIC T2-T6							
Weight approx.	**kg (lb)**	13 (28)	14 (31)	18 (40)	34 (75)	47 (104)	58 (128)	91 (201)	261 (573)

For accuracy specifications see „System information Coriolis mass flowmeters".

Pressure drop



Selection and Ordering data	Order No. Order code
SITRANS F C flow sensors MC2	7ME4300-
Nominal diameter	
Stainless steel AISI 316Ti/1.4571	
DN 50	1A
DN 65	1B
DN 80	1C
DN 100	1D
DN 150	1E
Hastelloy C4/2.4610	
DN 50	2A
DN 65	2B
DN 80	2C
DN 100	2D
DN 150	2E
Nominal pressure	
PN 40	A
PN 100	B
Class 150	C
Class 300	D
Class 600	E
Clamps/screwed-connections	F
Process connections	
Flange EN 1092-1	
DN 50 (PN 40/PN 100)	20
DN 65 (PN 40/PN 100)	21
DN 80 (PN 40/PN 100)	22
DN 100 (PN 40)	23
DN 150 (PN 40)	24
Flange ASME/ANSI	
2" (class 150/300/600)	30
2 ½" (class 150/300/600)	31
3" (class 150/300/600)	32
4" (class 150/300)	33
6" (class 150/300)	34
Dairy screwed connection to DIN 11851	
DN 50 (PN 25)	40
DN 65 (PN 25)	41
DN 80 (PN 25)	42
DN 100 (PN 25)	43
Dairy clamp connection DIN 32676 Tri-clamp	
50 mm clamp (PN 16)	50
66 mm clamp (PN 10)	51
81 mm clamp (PN 10)	52
100 mm clamp (PN 10)	53
Aseptic nut flange DIN 11864-2 form A for pipes dimensioned by DIN 11866	
DN 40 (1½")	60
DN 50 (2")	61
DN 65 (2½")	62
DN 80 (3")	63
DN 100 (4")	64
Configuration	
Flow and density (5 kg/m³ [0.31 lb/ft³])	1
Flow, Brix/Plato and density (1 kg/m³ [0.06 lb/ft³])[1]	2
Density (1 kg/m³ [0.06 lb/ft³])[1]	5
Fraction (specified by customer) and density (1 kg/m³ [0.06 lb/ft³])[1]	9 N0Y

Selection and Ordering data	Order No. Order code
SITRANS F C flow sensors MC2	7ME4300-
Ex-approval	
Standard, without explosion protection	A
With explosion protection: Ex, ATEX	B
Cable	
No cable (see accessories)	A
Calibration	
Standard	1
Matched pair	2
Extended calibration customer-specified select Y60, Y61, Y62 or Y63 (see additional information)	8

[1] Extended density and fraction not possible with DN 150.

Dairy MLFB example	Order No.
MC2 sensor	7ME4300-
Sensor size DN 80. AISI 316Ti/1.4571	1C
Nominal pressure: Clamps	F
DIN 11851, DN 80, PN 25	42
	
Configuration/calibration type: flow and density (5 kg/m³ [0.31 lb/ft³])	1
Without Ex appproval	A
No cable	A
Standard calibration	1

Selection and Ordering data	Order code
Additional information Please add "**-Z**" to Order No. and specify Order code(s) and plain text.	
Pressure testing certificate PED: 97/23/EC	**C11**
Material certificate EN 10204-3.1	**C12**
Welding certificate NDT X-ray: EN 25817/B	**C13**
Factory certificate according to EN 10204 2.2	**C14**
Factory certificate according to EN 10204 2.1	**C15**
Material certificate according to NACE	**C16**
Tag name plate, stainless steel	**Y17**
Customer-specified, matched pair (5 x 2)	**Y60**
Customer-specified calibration (5 x 2)	**Y61**
Customer-specified, matched pair (10 x 1)	**Y62**
Customer-specified calibration (10 x 1)	**Y63**
Special version	**Y99**

Operating instructions for SITRANS F C MC2

Description	Order No.
• English	**A5E02154544**
• German	**A5E02407329**
• Spanish	**A5E02384868**
• French	**A5E02384945**

This device is shipped with a Quick Start guide and a CD containing further SITRANS F literature.

All literature is also available for free at:
http://www.siemens.com/flowdocumentation

Flow sensor MC2

Accessories

Description	Order No.
Cables from MC2 sensor to MASS 6000 transmitter	
10 m (32.8 ft)	**FDK:083H3001**
25 m (82 ft)	**FDK:083H3002**
75 m (246 ft)	**FDK:083H3003**
150 m (492 ft)	**FDK:083H3004**

Spare parts

Description	Order No.
2 kB SENSORPROM unit (Sensor Serial No. and Order No. must be specified at ordering)	**FDK:083H4410**
Connection board/PCB	**A5E03004110**

Selection and Ordering data	Order No. Order code
SITRANS F C flow sensors	
MC2 for Hygienic applications only	**7ME4310-** ▢▢▢▢-▢▢▢▢ ▢▢▢
Nominal diameter	
AISI 316L/1.4435	
DN 20	**1A**
DN 25	**1B**
DN 40	**1C**
DN 50	**1D**
DN 65	**1E**
DN 80	**1F**
Nominal pressure 40 bar, PN 25	
Clamps/screwed-connections	**F**
Pressure and Process connections	
Dairy screwed connection to DIN 11851	
DN 20, PN 25	**40**
DN 25, PN 25	**41**
DN 40, PN 25	**42**
DN 50, PN 25	**43**
DN 65, PN 25	**44**
DN 80, PN 25	**45**
Dairy clamp connectors for DIN 32676 Tri-clamp	
20 mm clamp	**47**
26 mm clamp	**48**
38 mm clamp	**54**
50 mm clamp	**50**
66 mm clamp	**51**
81 mm clamp	**52**
Aseptic connectors DIN 11864-2 Form A for DIN tubes	
DN 20	**58**
DN 25	**57**
DN 40	**60**
DN 50	**61**
DN 65	**62**
DN 80	**63**
Configuration	
Flow and density (5 kg/m³)	**1**
Flow, BRIX/PLATO and density (1 kg/m³)[1]	**2**
Density (1 kg/m³)[1]	**5**
Flow, fraction (customer-specified application from the net)	**9** **NOY**
Ex-approval	
Standard, without explosion protection	**A**
With explosion protection: Ex, FM Class I, Div 2	**D**

Selection and Ordering data	Order No. Order code
SITRANS F C flow sensors	
MC2 for Hygienic applications only	**7ME4310-** ▢▢▢▢-▢▢▢▢ ▢▢▢
Cable	
No cable (see accessories)	**A**
Calibration	
Standard	**1**
Matched pair	**2**

[1] Extended density and fraction not possible with DN 150.

Selection and Ordering data	Order code
Additional information	
Please add "**-Z**" to Order No. and specify Order code(s) and plain text.	
Pressure testing certificate PED: 97/23/EC	**C11**
Material certificate EN 10204-3.1	**C12**
Welding certificate NDT X-ray: EN 25817/B	**C13**
Factory certificate according to EN 10204 2.2	**C14**
Factory certificate according to EN 10204 2.1	**C15**
Tag name plate, stainless steel	**Y17**
Tag name plate, plastic	**Y18**
Customer-specific transmitter setup	**Y20**
Customer-specified, matched pair (5 x 2)	**Y60**
Customer-specified calibration (5 x 2)	**Y61**
Customer-specified, matched pair (10 x 1)	**Y62**
Customer-specified calibration (10 x 1)	**Y63**
Special version	**Y99**

Accessories

Description	Order No.
Cables from MC2 sensor to MASS 6000 transmitter	
10 m (32.8 ft)	**FDK:083H3001**
25 m (82 ft)	**FDK:083H3002**
75 m (246 ft)	**FDK:083H3003**
150 m (492 ft)	**FDK:083H3004**

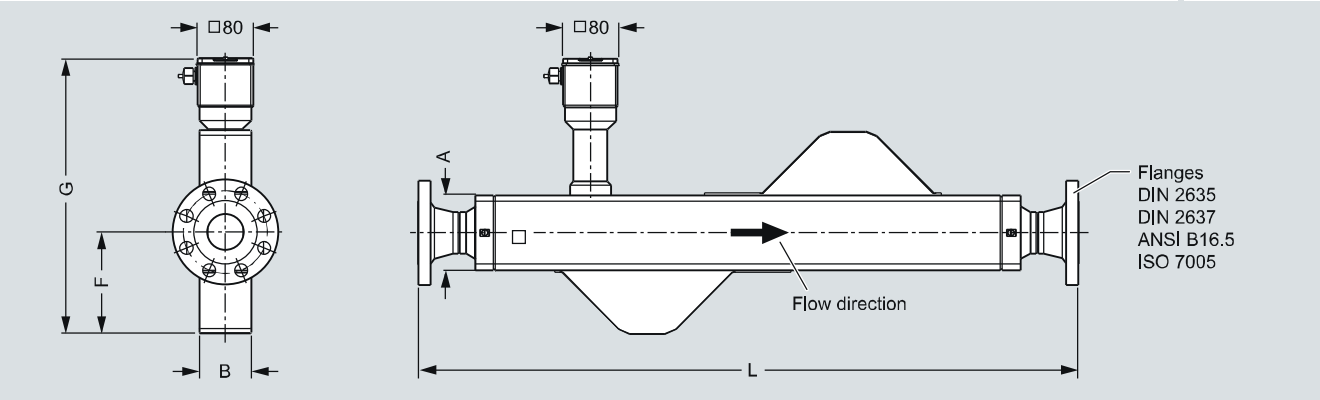
Spare parts

Description	Order No.
2 kB SENSORPROM unit (Sensor Serial No. and Order No. must be specified by ordering)	**FDK:083H4410**

Dairy MLFB example	Order No.	
MC2 sensor	7ME4310-	-
Sensor size DN 40 AISI 316L/1.4435	1C	
Nominal pressure: Clamp	F	
DIN 11851, DN 40, PN 25	42	
		
Configuration/calibration type: flow and density (5 kg/m³ [0.31 lb/ft³])		1
Without Ex appproval		A
No cable		A
Standard calibration		1

Dimensional drawings

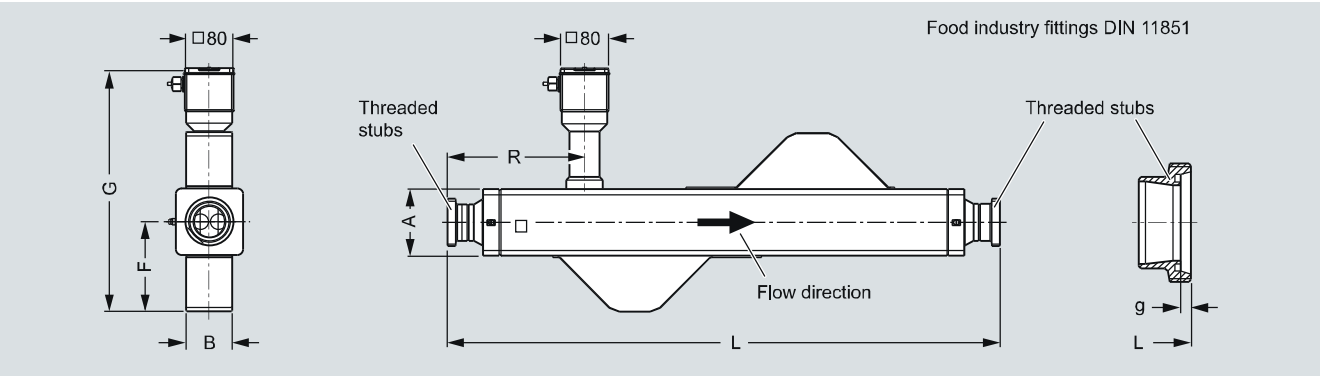
Remote design, flanged construction, DIN/ANSI



Meter size		Process connection size		L [mm (inch)]						G[1] [mm (inch)]	F [mm (inch)]	B [mm (inch)]	A [mm (inch)]	Weight [kg (lb)]
inch	DN	inch	DN	DIN 11864-2 form A	DIN 2635 PN 40	DIN 2637 PN 100	ANSI CL 150	ANSI CL 300	ANSI CL 600					
2	50	2	50	918 (36.14)	940 (37.01)	979 (38.54)	970 (38.19)	980 (38.58)	1001 (39.41)	403 (15.87)	148 (5.83)	80 (3.15)	110 (4.33)	34 (75)
		2½	65	1081 (42.56)	1100 (43.31)	1148 (45.20)	1218 (47.95)	1228 (48.35)	1248 (49.13)					38 (84)
2½	65	2	50	1197 (47.13)	1220 (48.03)	1259 (49.57)	1250 (49.21)	1260 (49.61)	1281 (50.43)	429 (16.89)	164 (6.64)	97 (3.82)	130 (5.12)	43 (95)
		2½	65	1081 (42.56)	1100 (43.31)	1148 (45.20)	1218 (47.95)	1228 (48.35)	1249 (49.17)					47 (104)
		3	80	1200 (47.24)	1220 (48.03)	1260 (49.61)	1240 (48.82)	1260 (49.61)	1282 (50.47)					50 (110)
3	80	2½	65	1310 (51.57)	1330 (52.36)	1378 (54.25)	1365 (53.74)	1375 (54.13)	1396 (54.96)	456 (17.95)	186 (7.32)	108 (4.25)	140 (5.51)	56 (123)
		3	80	1200 (47.24)	1220 (48.03)	1260 (49.61)	1240 (48.82)	1260 (49.61)	1282 (50.47)					58 (128)
		4	100	1463 (57.60)	1480 (58.27)	1530 (60.24)	1500 (59.06)	1520 (59.84)	1568 (61.73)					69 (152)
4	100	3	80	1618 (63.70)	1640 (64.57)	1680 (66.14)	1660 (65.35)	1680 (66.14)	1702 (67.01)	500 (19.69)	215 (8.46)	131 (5.16)	170 (6.69)	84 (185)
		4	100	1463 (57.60)	1480 (58.27)	1530 (60.24)	1500 (59.06)	1520 (59.84)	1568 (61.73)					91 (201)
		6	150	N/A	1778 (69.92)	N/A	1806 (71.10)	1826 (71.89)	N/A					120 (265)
6	150	6	150	N/A	2040 (80.31)	N/A	2070 (81.50)	2090 (82.28)	N/A	613 (24.13)	285 (11.22)	190 (7.84)	260 (9.84)	260 (573)

[1] For Ex add 54 mm

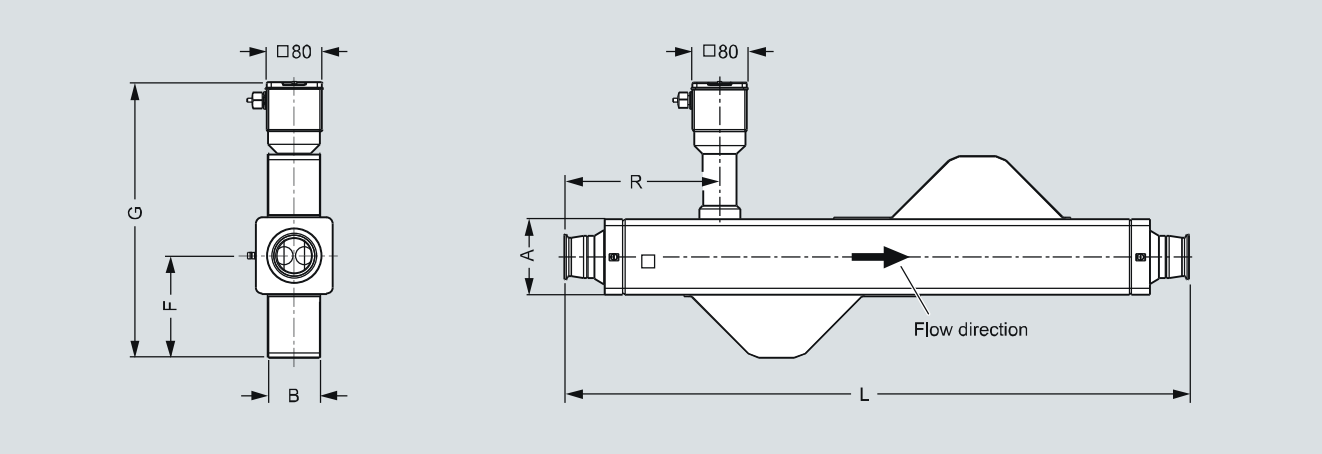
Remote design, food industry fittings, DIN 11851



Meter size		Process connection size			L [mm (inch)]	g [mm (inch)]	G[1] [mm (inch)]	F [mm (inch)]	B [mm (inch)]	A [mm (inch)]	R [mm (inch)]	Weight [kg (lb)]
inch	DN	inch	DN									
2	50	2	50	Rd 78 x 1/6	918 (36.14)	7 (0.28)	403 (15.87)	148 (5.83)	80 (3.15)	110 (4.33)	177 (6.97)	30 (66)
		2½	65	Rd 95 x 1/6	1081 (42.56)	8 (0.31)					254 (10.00)	34 (75)
2½	65	2	50	Rd 78 x 1/6	1197 (47.13)	7 (0.28)	429 (16.89)	164 (6.46)	97 (3.82)	130 (5.12)	291 (11.46)	40 (88)
		2½	65	Rd 95 x 1/6	1081 (42.56)	8 (0.31)					227 (10.91)	44 (97)
		3	80	Rd 110 x 1/6	1200 (47.24)	8 (0.31)					281 (11.06)	47 (104)
3	80	2½	65	Rd 95 x 1/6	1310 (51.57)	8 (0.31)	456 (17.95)	186 (7.32)	108 (4.25)	140 (5.51)	319 (12.56)	54 (119)
		3	80	Rd 110 x 1/6	1200 (47.24)	8 (0.31)					258 (10.16)	56 (123)
		4	100	Rd 110 x 1/6	1463 (57.60)	10 (0.39)					381 (15.00)	60 (132)
4	100	3	80	Rd 110 x 1/6	1618 (63.70)	8 (0.31)	500 (19.69)	215 (8.46)	131 (5.16)	170 (6.69)	401 (15.79)	82 (180)
		4	100	Rd 130 x ¼	1463 (57.60)	10 (0.39)					314 (12.36)	86 (190)

[1] For Ex add 54 mm

Remote design, Tri-clamp DIN 32676 (ISO 2852)



Dimensions in mm (inch)

Meter size		Process connection size		L [mm (inch)] ± 3	G[1] [mm (inch)]	F [mm (inch)]	B [mm (inch)]	A [mm (inch)]	R [mm (inch)]	Weight [kg (lb)]
inch	DN	inch	DN							
2	50	2	50	913 (35.94)	403 (15.87)	148 (5.83)	80 (3.15)	110 (4.33)	225 (8.86)	26 (57)
		2½	65	1073 (42.24)					305 (12.01)	27 (60)
2½	65	2	50	1192 (46.93)	429 (16.89)	164 (6.64)	97 (3.82)	130 (5.12)	335 (13.19)	36 (79)
		2½	65	1073 (42.24)					275 (10.83)	37 (82)
		3	80	1180 (46.46)					328 (12.91)	38 (84)
3	80	2½	65	1302 (51.26)	456 (17.95)	186 (7.32)	108 (4.25)	140 (5.51)	378 (14.88)	45 (99)
		3	80	1180 (46.46)					296 (11.65)	44 (97)
		4	100	1448 (57.01)					430 (16.93)	46 (101)
4	100	3	80	1598 (62.91)	500 (19.69)	215 (8.46)	131 (5.16)	170 (6.69)	440 (17.32)	71 (157)
		4	100	1448 (57.01)					365 (14.37)	69 (152)

[1] For Ex add 54 mm

Flow sensor MC2

Process Connections

- Flanges DIN/ASME
- Tri-Clamp DIN 32676
  - DN 15 to DN 50: Series 3
  - DN 65 to DN 100: Series 1
- Food Industry fittings DIN 11851

The max. allowable operating pressure is a function of the process connection type, the fluid temperature, the bolts and the gaskets.

Pressure Rating

- PN 16, PN 40, PN 100 (to DN 80 (3"))
  Class 150, Class 300, Class 600 (to DN 80 (3"))

Housing as secondary containment

- Max. 40 bar

Pressure Equipment Directive 97/23/EG

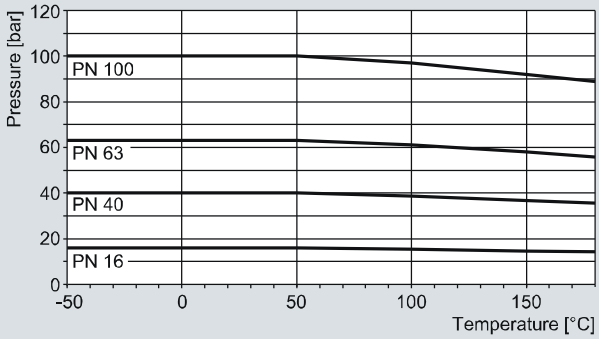
- Conformity evaluation category III, fluid group 1, gas, diagramme 6

Corrosion resistance of measuring pipe material to measuring medium has to be considered.

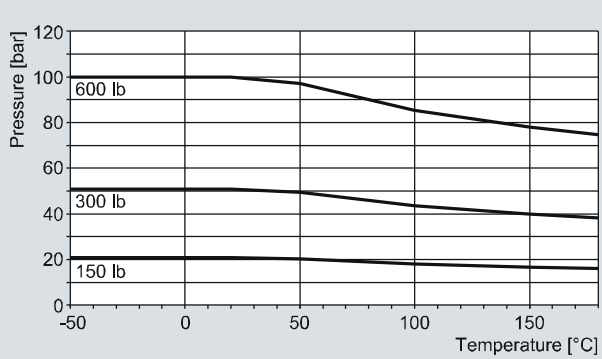
Material strength for process connections

Process connection	Size		$PS_{max.}$ at 20 °C (68 °F)	$TS_{max.}$	$TS_{min.}$
	DN	inch	bar (psi g)	°C (°F)	°C (°F)
Thread acc. DIN 11851	15 ... 40	½ ... 1½	40 (580)	140 (284)	-40 (-40)
	50 ... 100	2 ... 4	25 (363)	140 (284)	-40 (-40)
Tri-Clamp acc. DIN 32676	15 ... 50	½ ... 2	16 (232)	120 (248)	-40 (-40)
	65 ... 100	2½ ... 4	10 (145)	120 (248)	-40 (-40)

Pressure/temperature curves



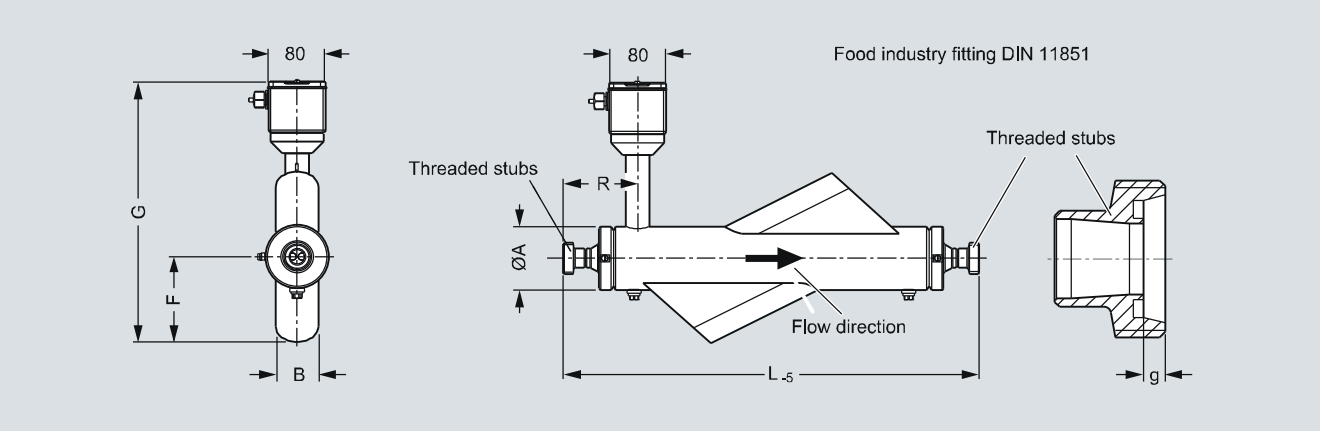
DIN-Flanges stainless steel AISI 316Ti/1.4571 to DN 100 (4")



ASME-Flanges stainless steel AISI 326Ti/1.4571 to DN 100 (4")

For further information on the PED standard and requirements, see page 9/14.

Remote Design, Food Industry Fitting, DIN 11851

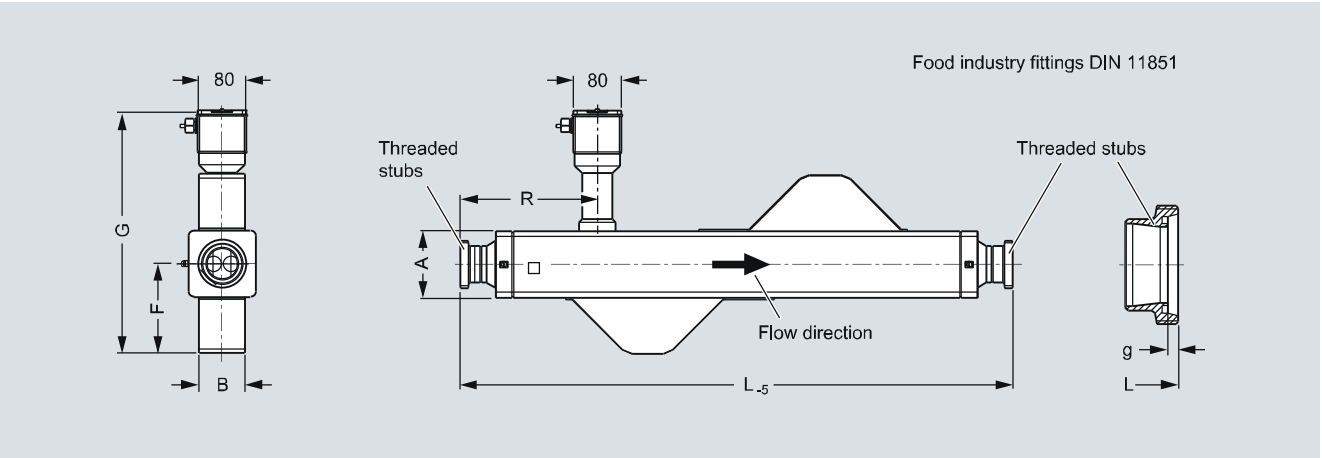


DN (Size)		Process connections			L_{-5}	g	G	F	B	∅A	R	Weight
DN	inch	DN	inch		mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	kg (lb)
20	¾	15	½	Rd34 x 1/8	672 (26.46)	4 (0.16)	358 (14.94)	127 (5.00)	66 (2.60)	89 (3.50)	152 (5.98)	13 (29)
		20	¾	Rd44 x 1/6	583 (22.95)	6 (0.24)					102 (4.02)	
		25	1	Rd52 x 1/6	683 (26.89)	7 (0.28)					152 (5.98)	
25	1	20	¾	Rd44 x 1/6	743 (29.25)	6 (0.24)	358 (14.94)	127 (5.00)	66 (2.60)	89 (3.50)	162 (6.38)	14 (31)
		25	1	Rd52 x 1/6	643 (25.31)	7 (0.28)					112 (4.11)	
		40	1½	Rd65 x 1/6	786 (30.94)	7 (0.28)					185 (7.28)	

If this connection is supplied with an EHEDG-certified device, the device nominal sizes must correspond with the connection nominal sizes!

Flow sensor MC2

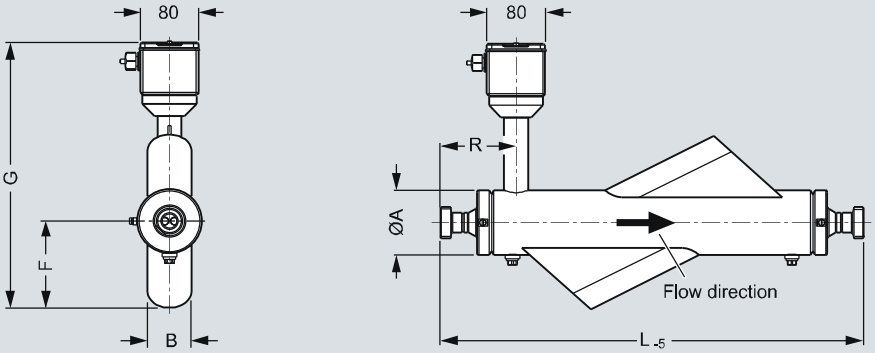
Remote Design, Food Industry Fitting, DIN 11851



DN (Size)		Process connections			L_{-5}	g	G	F	B	∅A	R	Weight
DN	inch	DN	inch		mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	kg (lb)
40	1½	25	1	Rd52 x 1/6	864 (34.02)	7 (0.28)	374 (14.72)	129 (5.08)	64 (2.52)	90 (3.54)	218 (8.58)	16 (35)
		40	1½	Rd65 x 1/6	761 (29.96)	7 (0.28)					164 (6.46)	18 (40)
		50	2	Rd78 x 1/6	918 (36.14)	7 (0.28)					241 (9.49)	19 (42)
50	2	40	1½	Rd65 x 1/6	1025 (40.35)	7 (0.28)	403 (15.87)	148 (5.83)	80 (3.15)	110 (4.33)	233 (9.17)	28 (62)
		50	2	Rd78 x 1/6	918 (36.14)	7 (0.28)					177 (6.97)	30 (66)
		65	2½	Rd95 x 1/6	1081 (42.56)	8 (0.31)					254 (10.00)	34 (75)
65	2½	50	2	Rd78 x 1/6	1197 (47.13)	7 (0.28)	429 (16.89)	164 (6.46)	97 (3.82)	130 (5.12)	291 (11.46)	40 (88)
		65	2½	Rd95 x 1/6	1081 (42.56)	8 (0.31)					227 (8.94)	44 (97)
		80	3	Rd110 x 1/4	1200 (47.24)	8 (0.31)					281 (11.06)	47 (104)
80	3	65	2½	Rd95 x 1/6	1310 (51.57)	8 (0.31)	456 (17.95)	186 (7.32)	108 (4.25)	140 (5.51)	319 (12.56)	54 (119)
		80	3	Rd110 x 1/4	1200 (47.24)	8 (0.31)					258 (10.16)	56 (123)
		100	4	Rd130 x 1/4	1463 (57.60)	10 (0.39)					381 (15.00)	60 (132)

If this connection is supplied with an EHEDG-certified device, the device nominal sizes must correspond with the connection nominal sizes!

Remote Design, Tri-Clamp DIN 32676

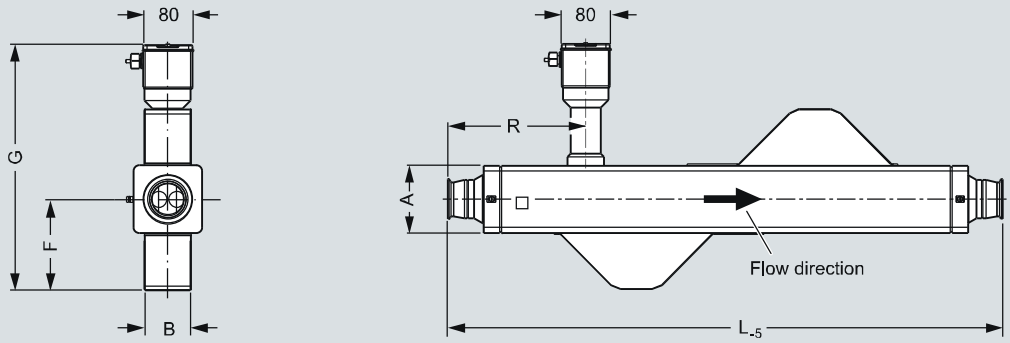


DN (Size)		Process connections			L_{-5}	G	F	B	∅A	R	Weight
DN	inch	DN	inch		mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	kg (lb)
20	¾	15	½	DIN 32676	656 (25.83)	358 (14.09)	127 (5.00)	66 (2.60)	89 (3.50)	140 (5.51)	12 (26)
		20	¾		561 (22.09)					92 (3.62)	
		25	1		661 (26.02)					142 (5.59)	
25	1	20	¾	DIN 32676	721 (28.39)	358 (14.09)	127 (5.00)	66 (2.60)	89 (3.50)	152 (5.98)	13 (29)
		25	1		621 (24.45)					102 (4.02)	
		40	1½		773 (30.43)					180 (7.09)	

If this connection is supplied with an EHEDG-certified device, the device nominal sizes must correspond with the connection nominal sizes!

Flow sensor MC2

Remote Design, Tri-Clamp DIN 32676



DN (Size)		Process connections		L_{-5}	G	F	B	∅A	R	Weight
DN	inch	DN	inch	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	mm (inch)	kg (lb)
40	1½	25	1	842 (33.15)	374 (14.72)	129 (5.08)	64 (2.52)	90 (3.54)	242 (9.53)	17 (37)
		40	1½	748 (29.45)					195 (7.68)	17 (37)
		50	2	913 (35.94)					278 (10.94)	18 (40)
50	2	40	1½	1012 (39.84)	403 (15.87)	148 (5.83)	80 (3.15)	110 (4.33)	275 (10.83)	27 (60)
		50	2	913 (35.94)					225 (8.86)	26 (57)
		65	2½	1073 (42.24)					305 (12.01)	27 (60)
65	2½	50	2	1192 (46.93)	429 (16.89)	164 (6.46)	97 (3.82)	130 (5.12)	335 (13.19)	36 (79)
		65	2½	1073 (42.24)					275 (10.83)	37 (82)
		80	3	1180 (46.46)					328 (12.91)	38 (84)
80	3	65	2½	1302 (51.26)	456 (17.95)	186 (7.32)	108 (4.25)	140 (5.51)	378 (14.88)	45 (99)
		80	3	1180 (46.46)					296 (11.65)	44 (97)
		100	4	1448 (57.01)					430 (16.93)	46 (101)

If this connection is supplied with an EHEDG-certified device, the device nominal sizes must correspond with the connection nominal sizes!