

Flow Measurement

SITRANS FC (Coriolis)

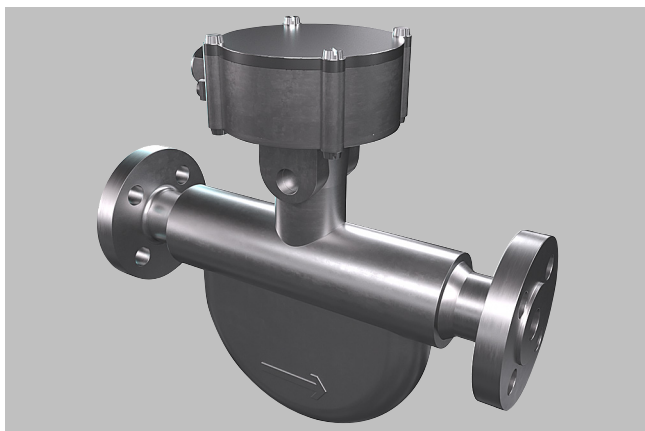
Sensors / SITRANS FCS500

Overview

SITRANS FCS500 sensor is the universal Coriolis flow sensor for routine and hygienic applications.

Features:

- Dual curved AISI 316L stainless steel tubes with polished option
- Nominal sizes: DN 10 to DN 80
- Process connection: flange, thread, or a selection of hygienic fittings
- Hygienic approvals for food, beverage, and pharmaceutical sectors
- Versatile solution with superior turndown and low pressure loss
- Combination with compact or remote transmitters



FCS500 sensor

Design

Sensor installation position related to type of fluid

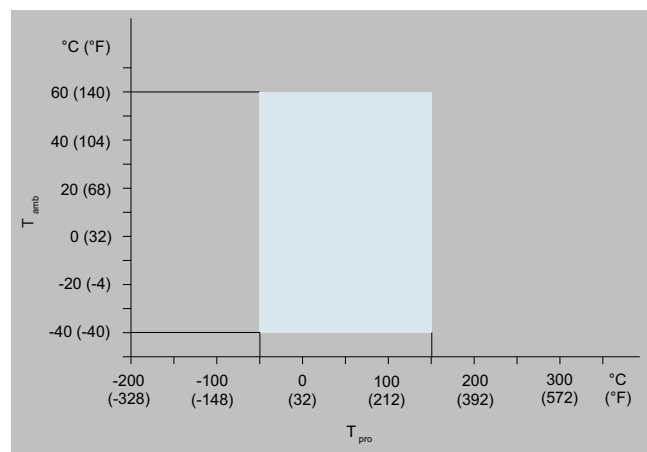
Installation position	Fluid	Description
Position 1 	Liquid	• Horizontal • Measuring tubes below process pipe • Avoids accumulation of entrained gas
Position 2 	Gas	• Horizontal • Measuring tubes above process pipe • Accumulation of liquid or condensate is less likely
Position 3 	Gas / Liquid	• Vertical • Upwards direction of flow • In liquid application accumulation of entrained gas is avoided • This position allows self-draining in liquid flow

Technical specifications

Allowed ambient temperature for FCS500 sensors

The allowed combinations of process fluid and ambient temperature for the sensor are illustrated as light areas in the diagrams below.

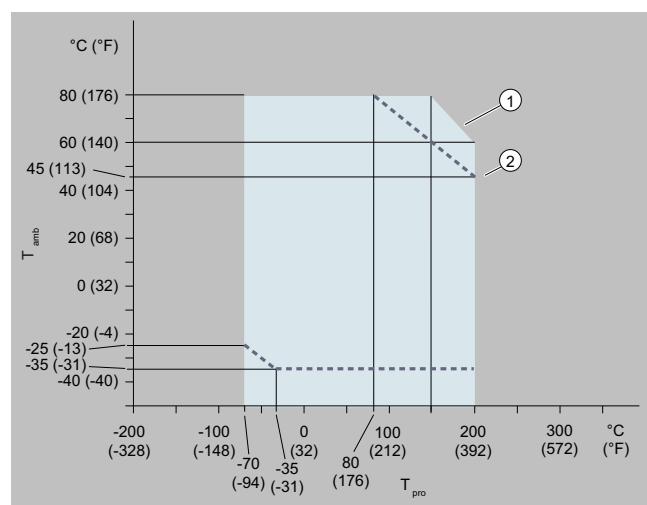
Standard temperature specification, non-hygienic version, compact transmitter



Allowed process fluid and ambient temperatures, compact type

T_{amb}	Ambient temperature
T_{pro}	Process fluid temperature

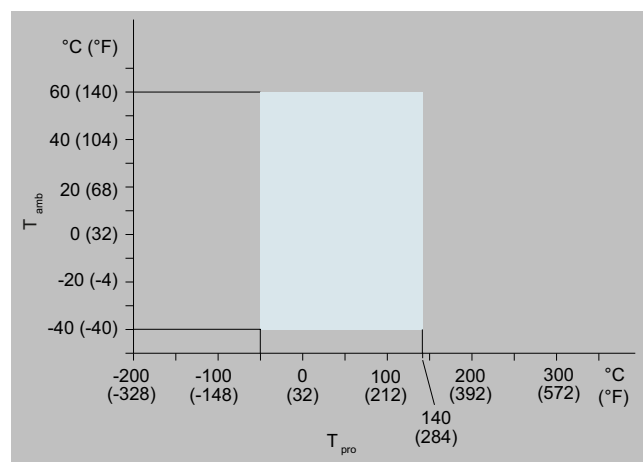
Standard temperature specification, non-hygienic version, remote transmitter



Allowed process fluid and ambient temperatures, non-hygienic, remote transmitter style

1	Standard cable option
2	Limitation for fire retardant cable option
T_{amb}	Ambient temperature
T_{pro}	Process fluid temperature

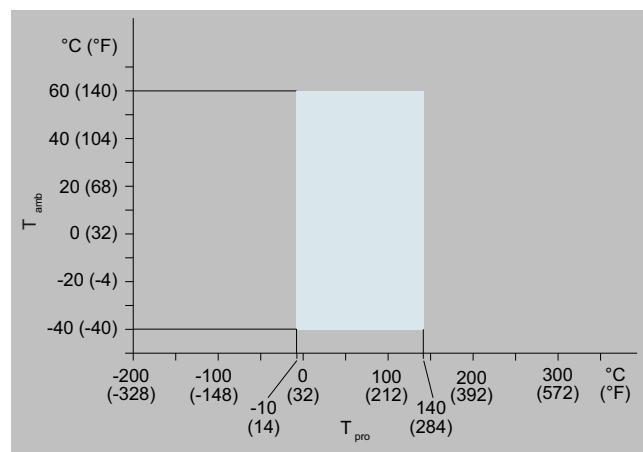
Standard temperature specification, hygienic version with threaded connections, compact transmitter



Allowed process fluid and ambient temperatures, threaded hygienic connections, compact transmitter

T_{amb}	Ambient temperature
T_{pro}	Process fluid temperature

Standard temperature specification, hygienic version with clamp connections, compact transmitter



Allowed process fluid and ambient temperatures, clamp hygienic connections, compact transmitter

T_{amb}	Ambient temperature
T_{pro}	Process fluid temperature

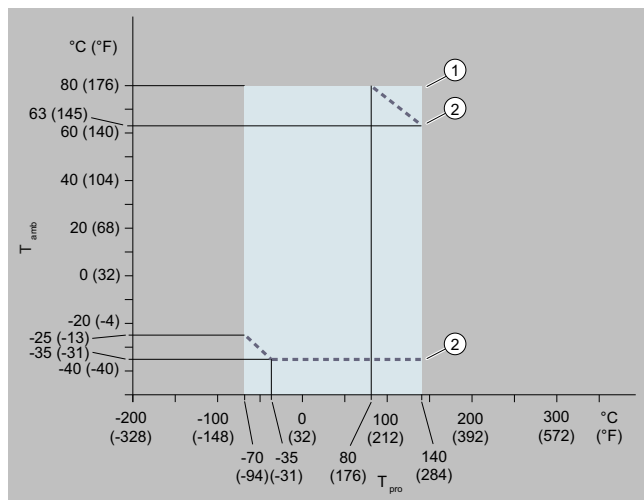
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Technical specifications (continued)

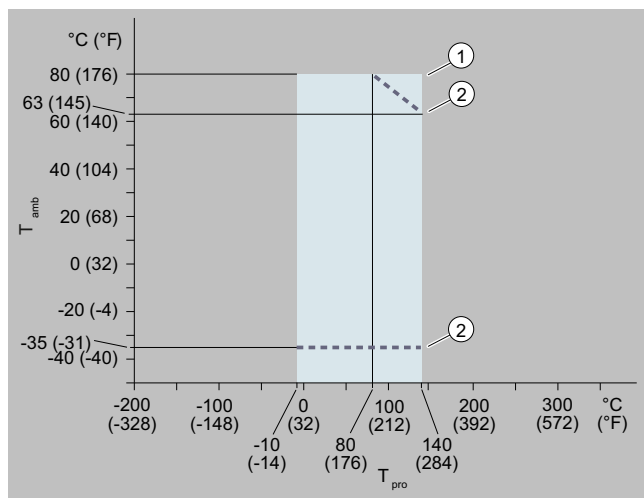
Standard temperature specification, hygienic version with threaded connections, remote transmitter



Allowed process fluid and ambient temperatures, threaded hygienic connections, remote transmitter

1	Standard cable option
2	Limitation for fire retardant cable option
T_{amb}	Ambient temperature
T_{pro}	Process fluid temperature

Standard temperature specification, hygienic version with clamp connections, remote transmitter

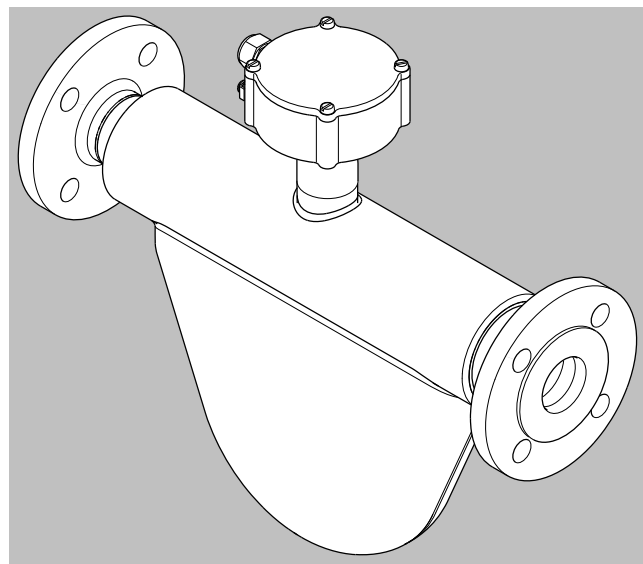


Allowed process fluid and ambient temperatures, hygienic clamp connections, remote transmitter

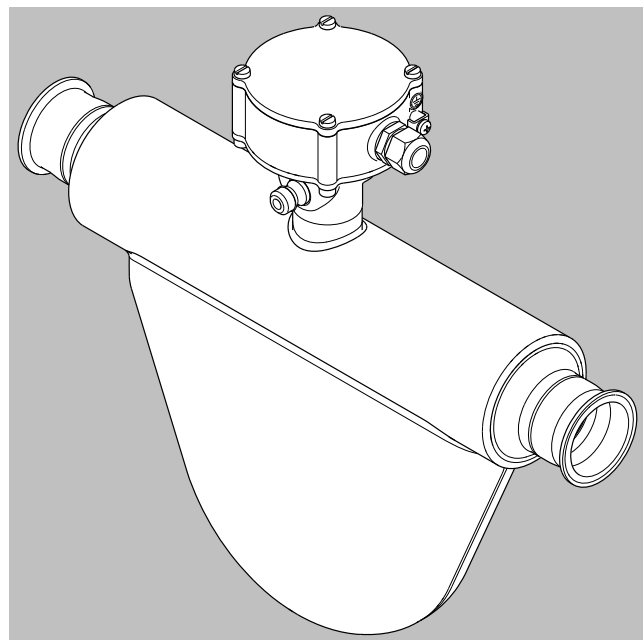
1	Standard cable option
2	Limitation for fire retardant cable option
T_{amb}	Ambient temperature
T_{pro}	Process fluid temperature

Mechanical specifications of FCS500 sensors

FCS500 sensors are available only with the standard neck design and can be combined with compact or remote transmitters. The neck can also be described as the pedestal connecting the sensor body to the transmitter or terminal housing.



FCS500 sensor (for remote transmitter) with standard neck, non hygienic version



FCS500 sensor (for remote transmitter) with standard neck, hygienic version

Technical specifications (continued)

Material specifications**Wetted parts³⁾**

Measuring tubes (for sensors with hygienic process connections)

Surface roughness $Ra \leq 0.8 \mu m^{1)}$

Process connections

AISI 316L stainless steel, mat. no. 1.4404

Sensor housing

Junction box

AISI 316L stainless steel

Mat. no. 1.4404

Neck

similar to ASTM CF-8 cast stainless steel

Mat. no. 1.4308

Body

AISI 304 stainless steel

Mat. no. 1.4301

Nameplates²⁾

Sensor with AISI 304 stainless steel housing

Process temperature range

Standard, up to 150 °C (302 °F)

Material

Polyester film

¹⁾ Other parts including the flow divider and process connections exhibit the same roughness.²⁾ Nameplate material depends on the materials selected for SITRANS FC sensors.³⁾ The user is responsible to ensure chemical compatibility of the material of the wetted parts with the measured process fluid.**Secondary containment**

Some applications or environment conditions require secondary containment retaining the process pressure for increased safety. SITRANS FCS500 sensors have a secondary containment filled with inert gas.

Typical burst pressure at room temperature for sizes DN 10, DN 15, DN 25, and DN 50	49 bar (710 psi)
Typical burst pressure at room temperature for size DN 80	30 bar (435 psi)

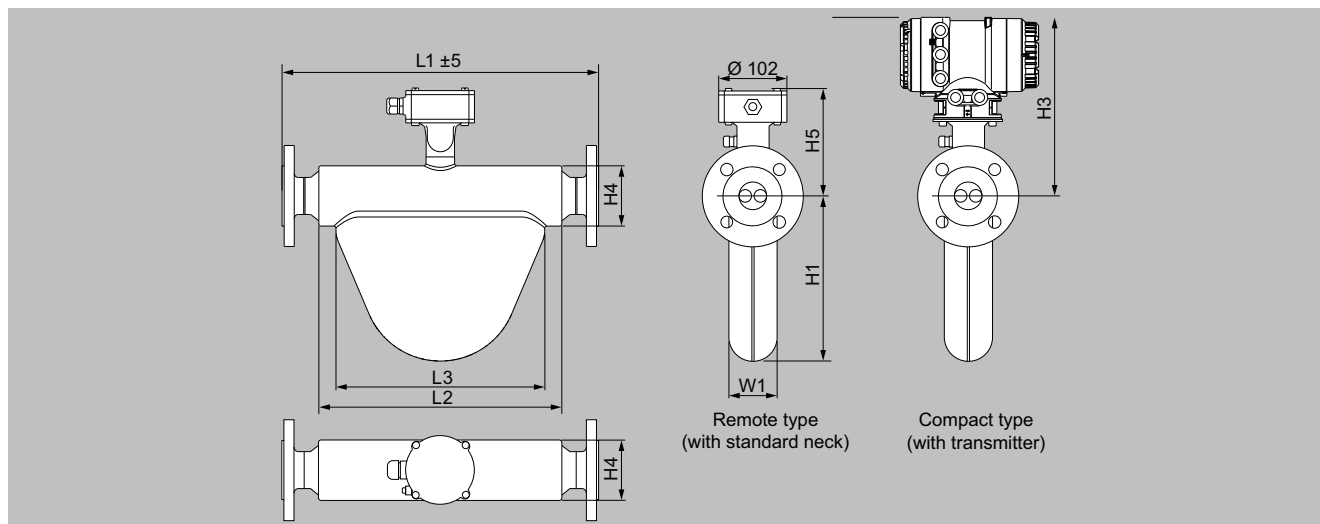
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Dimensional drawings

Drawings, dimensions and weight for FCS500 sensors (non-hygienic versions)



FCS500 sensor non hygienic, dimensions in mm

FCS500 sensor dimensions (non-hygienic versions)

Nominal size	L2	L3	H1	H3	H4	H5	W1
	Dimensions in mm (inch)						
DN 10	190 (7.5)	165 (6.5)	117 (4.6)	268 (10.6)	56 (2.2)	138 (5.4)	42 (1.7)
DN 15	227 (8.9)	195 (7.7)	145 (5.7)	277 (10.9)	71 (2.8)	148 (5.8)	50 (2)
DN 25	361 (14.2)	310 (12.2)	245 (9.6)	289 (11.4)	90 (3.5)	159 (6.3)	72 (2.8)
DN 50	455 (17.9)	400 (15.7)	333 (13.1)	296 (11.7)	102 (4)	167 (6.6)	96 (3.8)
DN 80	682 (26.9)	620 (24.4)	482 (19)	330 (13)	168 (6.6)	201 (7.9)	150 (5.9)

Overall length L1 and weight

The overall length of the sensor depends on the selected process connection (type and size). The following tables list the overall length and weight as functions of the individual process connection.

The weights in the tables are for the remote type. Additional weight for the compact type: up to 3.2 kg (7.1 lb)

L1 dimension and weight with process connections according to ASME B16.5 (AISI 316/AISI 316L)

Process connection size and type	FCS500 sensor nominal size									
	DN 10		DN 15		DN 25		DN 50		DN 80	
	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
ASME ½" class 150, raised face (RF)	280 (11)	6 (13)	320 (12.6)	8 (18)	n/a	n/a	n/a	n/a	n/a	n/a
ASME ½" class 300, raised face (RF)	280 (11)	6.4 (14)	320 (12.6)	8.4 (18)	n/a	n/a	n/a	n/a	n/a	n/a
ASME ½" class 600, raised face (RF)	290 (11.4)	6.7 (15)	330 (13)	8.7 (19)	n/a	n/a	n/a	n/a	n/a	n/a
ASME ½" class 600, ring joint (RJ)	290 (11.4)	6.6 (15)	330 (13)	8.6 (19)	n/a	n/a	n/a	n/a	n/a	n/a
ASME 1" class 150, raised face (RF)	280 (11)	6.9 (15)	320 (12.6)	8.9 (20)	490 (19.3)	15.7 (35)	n/a	n/a	n/a	n/a
ASME 1" class 300, raised face (RF)	280 (11)	7.9 (17)	320 (12.6)	9.9 (22)	490 (19.3)	16.7 (37)	n/a	n/a	n/a	n/a
ASME 1" class 600, raised face (RF)	300 (11.8)	8.3 (18)	340 (13.4)	10.3 (23)	500 (19.7)	17 (38)	n/a	n/a	n/a	n/a
ASME 1" class 600, ring joint (RJ)	300 (11.8)	8.4 (19)	340 (13.4)	10.4 (23)	500 (19.7)	17.2 (38)	n/a	n/a	n/a	n/a
ASME 1½" class 150, raised face (RF)	290 (11.4)	7.8 (17)	330 (13)	9.8 (22)	470 (18.5)	16.5 (36)	620 (24.4)	25.7 (57)	n/a	n/a

Dimensional drawings (continued)

Process connection size and type	FCS500 sensor nominal size									
	DN 10 L1 in mm (inch)	Weight in kg (lb)	DN 15 L1 in mm (inch)	Weight in kg (lb)	DN 25 L1 in mm (inch)	Weight in kg (lb)	DN 50 L1 in mm (inch)	Weight in kg (lb)	DN 80 L1 in mm (inch)	Weight in kg (lb)
ASME 1½" class 300, raised face (RF)	290 (11.4)	10.1 (22)	330 (13)	12.1 (27)	480 (18.9)	19 (42)	620 (24.4)	28.1 (62)	n/a	n/a
ASME 1½" class 600, raised face (RF)	310 (12.2)	11.5 (25)	350 (13.8)	13.5 (30)	500 (19.7)	20 (44)	630 (24.8)	28.9 (64)	n/a	n/a
ASME 1½" class 600, ring joint (RJ)	310 (12.2)	11.4 (25)	350 (13.8)	13.4 (30)	500 (19.7)	20 (44)	630 (24.8)	29.1 (64)	n/a	n/a
ASME 2" class 150, raised face (RF)	n/a	n/a	n/a	n/a	480 (18.9)	18.1 (40)	580 (22.8)	26.8 (59)	n/a	n/a
ASME 2" class 300, raised face (RF)	n/a	n/a	n/a	n/a	480 (18.9)	19.7 (43)	580 (22.8)	28.3 (62)	n/a	n/a
ASME 2" class 600, raised face (RF)	n/a	n/a	n/a	n/a	510 (20.1)	21.3 (47)	610 (24)	30.5 (67)	n/a	n/a
ASME 2" class 600, ring joint (RJ)	n/a	n/a	n/a	n/a	510 (20.1)	21.8 (48)	610 (24)	30.3 (67)	n/a	n/a
ASME 2½" class 150, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	29.8 (66)	n/a	n/a
ASME 2½" class 300, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	31.3 (69)	n/a	n/a
ASME 2½" class 600, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	610 (24)	33.4 (74)	n/a	n/a
ASME 2½" class 600, ring joint (RJ)	n/a	n/a	n/a	n/a	n/a	n/a	610 (24)	33.8 (74)	n/a	n/a
ASME 3" class 150, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	580 (23.3)	30.9 (68)	870 (34.3)	71.2 (157)
ASME 3" class 300, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	590 (22.8)	34.5 (76)	880 (34.6)	75 (165)
ASME 3" class 600, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	630 (24.8)	37.8 (83)	900 (35.4)	77.7 (171)
ASME 3" class 600, ring joint (RJ)	n/a	n/a	n/a	n/a	n/a	n/a	610 (24)	38.4 (85)	900 (35.4)	78.3 (173)
ASME 4" class 150, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	74.4 (164)
ASME 4" class 300, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	81.8 (180)
ASME 4" class 600, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	920 (36.2)	94 (207)
ASME 4" class 600, ring joint (RJ)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	920 (36.2)	94.6 (209)
ASME 5" class 150, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	870 (34.3)	77 (170)
ASME 5" class 300, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	890 (35)	89.4 (197)
ASME 5" class 600, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	920 (36.2)	114.2 (252)
ASME 5" class 600, ring joint (RJ)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	920 (36.2)	114.9 (253)

L1 dimension and weight with process connections according to EN 1092-1 (AISI 316L)

Process connection size and type	FCS500 sensor nominal size									
	DN 10 L1 in mm (inch)	Weight in kg (lb)	DN 15 L1 in mm (inch)	Weight in kg (lb)	DN 25 L1 in mm (inch)	Weight in kg (lb)	DN 50 L1 in mm (inch)	Weight in kg (lb)	DN 80 L1 in mm (inch)	Weight in kg (lb)
EN DN 15 PN 40 type B1, raised face (RF)	280 (11)	6.6 (14)	320 (12.6)	8.6 (19)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 15 PN 40 type D, with groove	280 (11)	6.4 (14)	320 (12.6)	8.4 (18)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 15 PN 40 type E, with spigot	280 (11)	6.3 (14)	320 (12.6)	8.3 (18)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 15 PN 40 type F, with recess	280 (11)	6.5 (14)	320 (12.6)	8.5 (19)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 15 PN 100 type B1, raised face (RF)	290 (11.4)	7.4 (16)	330 (13)	9.4 (21)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 15 PN 100 type D, with groove	290 (11.4)	7.4 (16)	330 (13)	9.4 (21)	n/a	n/a	n/a	n/a	n/a	n/a

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Dimensional drawings (continued)

Process connection size and type	FCS500 sensor nominal size									
	DN 10 L1 in mm (inch)	Weight in kg (lb)	DN 15 L1 in mm (inch)	Weight in kg (lb)	DN 25 L1 in mm (inch)	Weight in kg (lb)	DN 50 L1 in mm (inch)	Weight in kg (lb)	DN 80 L1 in mm (inch)	Weight in kg (lb)
EN DN 15 PN 100 type E, with spigot	290 (11.4)	7.1 (16)	330 (13)	9.1 (20)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 15 PN 100 type F, with recess	290 (11.4)	7.3 (16)	330 (13)	9.3 (21)	n/a	n/a	n/a	n/a	n/a	n/a
EN DN 25 PN 40 type B1, raised face (RF)	280 (11)	7.5 (17)	320 (12.6)	9.5 (21)	490 (19.3)	16.4 (36)	n/a	n/a	n/a	n/a
EN DN 25 PN 40 type D, with groove	280 (11)	7.5 (17)	320 (12.6)	9.5 (21)	490 (19.3)	16.3 (36)	n/a	n/a	n/a	n/a
EN DN 25 PN 40 type E, with spigot	280 (11)	7.2 (16)	320 (12.6)	9.2 (20)	490 (19.3)	16.1 (35)	n/a	n/a	n/a	n/a
EN DN 25 PN 40 type F, with recess	280 (11)	7.4 (67)	320 (12.6)	9.4 (21)	490 (19.3)	16.3 (36)	n/a	n/a	n/a	n/a
EN DN 25 PN 100 type B1, raised face (RF)	300 (10.1)	10.1 (22)	340 (13.4)	12.1 (27)	490 (19.3)	18.8 (41)	n/a	n/a	n/a	n/a
EN DN 25 PN 100 type D, with groove	300 (10.1)	10 (22)	340 (13.4)	12 (26)	490 (19.3)	18.7 (41)	n/a	n/a	n/a	n/a
EN DN 25 PN 100 type E, with spigot	300 (10.1)	9.5 (21)	340 (13.4)	11.5 (25)	490 (19.3)	18.3 (40)	n/a	n/a	n/a	n/a
EN DN 25 PN100 type F, with recess	300 (10.1)	9.9 (22)	340 (13.4)	11.9 (26)	490 (19.3)	18.7 (41)	n/a	n/a	n/a	n/a
EN DN 40 PN40 type B1, raised face (RF)	280 (11)	9.1 (20)	320 (12.6)	11.1 (24)	470 (18.5)	17.7 (39)	610 (24)	26.9 (59)	n/a	n/a
EN DN 40 PN 40 type D, with groove	280 (11)	8.9 (20)	320 (12.6)	10.9 (24)	470 (18.5)	17.6 (39)	610 (24)	26.8 (59)	n/a	n/a
EN DN 40 PN 40 type E, with spigot	280 (11)	8.6 (19)	320 (12.6)	10.6 (23)	470 (18.5)	17.4 (38)	610 (24)	26.5 (58)	n/a	n/a
EN DN 40 PN 40 type F, with recess	280 (11)	8.8 (19)	320 (12.6)	10.8 (24)	470 (18.5)	17.5 (39)	610 (24)	26.7 (59)	n/a	n/a
EN DN 40 PN 100 type B1, raised face (RF)	360 (14.2)	13.5 (30)	400 (15.7)	15.5 (34)	500 (19.7)	21.5 (47)	610 (24)	30.5 (67)	n/a	n/a
EN DN 40 PN 100 type D, with groove	360 (14.2)	13.4 (30)	400 (15.7)	15.4 (34)	500 (19.7)	21.4 (47)	610 (24)	30.4 (67)	n/a	n/a
EN DN 40 PN 100 type E, with spigot	360 (14.2)	13 (29)	400 (15.7)	15 (33)	500 (19.7)	21.1 (46)	610 (24)	30 (66)	n/a	n/a
EN DN 40 PN 100 type F, with recess	360 (14.2)	13.3 (29)	400 (15.7)	15.3 (34)	500 (19.7)	21.3 (47)	610 (24)	30.3 (67)	n/a	n/a
EN DN 50 PN 40 type B1, raised face (RF)	n/a	n/a	n/a	n/a	470 (18.5)	19.1 (42)	580 (22.8)	27.8 (61)	n/a	n/a
EN DN 50 PN 40 type D, with groove	n/a	n/a	n/a	n/a	470 (18.5)	18.9 (42)	580 (22.8)	27.7 (61)	n/a	n/a
EN DN 50 PN 40 type E, with spigot	n/a	n/a	n/a	n/a	470 (18.5)	18.6 (41)	580 (22.8)	27.4 (60)	n/a	n/a
EN DN 50 PN 40 type F, with recess	n/a	n/a	n/a	n/a	470 (18.5)	18.8 (41)	580 (22.8)	27.6 (61)	n/a	n/a
EN DN 50 PN 100 type B1, raised face (RF)	n/a	n/a	n/a	n/a	540 (21.3)	25.4 (56)	610 (24)	33.5 (74)	n/a	n/a
EN DN 50 PN 100 type D, with groove	n/a	n/a	n/a	n/a	540 (21.3)	25.3 (56)	610 (24)	33.4 (74)	n/a	n/a
EN DN 50 PN 100 type E, with spigot	n/a	n/a	n/a	n/a	540 (21.3)	24.8 (55)	610 (24)	32.9 (72)	n/a	n/a
EN DN 50 PN 100 type F, with recess	n/a	n/a	n/a	n/a	540 (21.3)	25.2 (56)	610 (24)	33.2 (73)	n/a	n/a
EN DN 80 PN 40 type B1, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	31.5 (69)	870 (34.2)	71.6 (158)
EN DN 80 PN 40 type D, with groove	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	31.3 (69)	870 (34.2)	71.1 (157)
EN DN 80 PN 40 type E, with spigot	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	30.9 (68)	870 (34.2)	70.7 (156)
EN DN 80 PN 40 type F, with recess	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	31.1 (69)	870 (34.2)	70.9 (156)
EN DN 80 PN 100 type B1, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	650 (25.6)	40 (88)	890 (35)	79.1 (174)
EN DN 80 PN 100 type D, with groove	n/a	n/a	n/a	n/a	n/a	n/a	650 (25.6)	39.8 (88)	890 (35)	78.9 (174)
EN DN 80 PN 100 type E, with spigot	n/a	n/a	n/a	n/a	n/a	n/a	650 (25.6)	39.2 (86)	890 (35)	78.3 (173)

Dimensional drawings (continued)

Process connection size and type	FCS500 sensor nominal size									
	DN 10		DN 15		DN 25		DN 50		DN 80	
	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
EN DN 80 PN 100 type F, with recess	n/a	n/a	n/a	n/a	n/a	n/a	650 (25.6)	39.6 (87)	890 (35)	78.7 (173)
EN DN 100 PN 40 type B1, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	73.8 (163)
EN DN 100 PN 40 type D, with groove	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	73.6 (162)
EN DN 100 PN 40 type E, with spigot	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	73 (161)
EN DN 100 PN 40 type F, with recess	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	73.3 (162)
EN DN 100 PN 100 type B1, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	870 (34.3)	85.2 (188)
EN DN 100 PN 100 type D, with groove	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	870 (34.3)	84.8 (187)
EN DN 100 PN 100 type E, with spigot	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	870 (34.3)	84 (185)
EN DN 100 PN 100 type F, with recess	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	870 (34.3)	84.5 (186)
EN DN125 PN40 type B1, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	860 (33.9)	78.5 (173)
EN DN 135 PN 40 type D, with groove	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	860 (33.9)	78.1 (172)
EN DN 125 PN 40 type E, with spigot	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	860 (33.9)	77.4 (171)
EN DN 125 PN 40 type F, with recess	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	860 (33.9)	77.7 (171)
EN DN 125 PN 100 type B1, raised face (RF)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	880 (34.6)	98 (216)
EN DN 125 PN 100 type D, with groove	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	880 (34.6)	97.6 (215)
EN DN 125 PN 100 type E, with spigot	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	880 (34.6)	96.3 (212)
EN DN 125 PN 100 type F, with recess	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	880 (34.6)	97.1 (214)

L1 dimension and weight with process connections according to JIS B 2220 (AISI 316/AISI 316L)

Process connection size and type	FCS500 sensor nominal size									
	DN 10		DN 15		DN 25		DN 50		DN 80	
	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
JIS DN 15 10 K	280 (11)	6.3 (14)	320 (12.6)	8.3 (18)	n/a	n/a	n/a	n/a	n/a	n/a
JIS DN 15 20 K	280 (11)	6.5 (14)	320 (12.6)	8.5 (19)	n/a	n/a	n/a	n/a	n/a	n/a
JIS DN 25 10 K	280 (11)	7.4 (16)	320 (12.6)	9.4 (21)	490 (19.3)	16.3 (36)	n/a	n/a	n/a	n/a
JIS DN 25 20 K	280 (11)	7.8 (17)	320 (12.6)	9.8 (22)	490 (19.3)	16.6 (37)	n/a	n/a	n/a	n/a
JIS DN 40 10 K	280 (11)	8.2 (18)	320 (12.6)	10.2 (23)	470 (18.5)	16.9 (37)	620 (24.4)	26.1 (58)	n/a	n/a
JIS DN 40 20 K	280 (11)	8.6 (19)	320 (12.6)	10.6 (23)	470 (18.5)	17.3 (38)	620 (24.4)	26.5 (58)	n/a	n/a
JIS DN 50 10 K	n/a	n/a	n/a	n/a	470 (18.5)	17.5 (39)	600 (23.6)	26.6 (59)	n/a	n/a
JIS DN 50 20 K	n/a	n/a	n/a	n/a	470 (18.5)	17.7 (39)	600 (23.6)	26.7 (59)	n/a	n/a
JIS DN 80 10 K	n/a	n/a	n/a	n/a	n/a	n/a	570 (22.4)	27.9 (62)	880 (34.6)	68.7 (151)
JIS DN 80 20 K	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	30.4 (67)	880 (34.6)	71 (156)
JIS DN 100 10 K	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	69.8 (154)
JIS DN 100 20 K	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	73.4 (162)
JIS DN 125 10 K	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	73.5 (162)
JIS DN 125 20 K	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	850 (33.5)	79.7 (176)

L1 dimension and weight with process connections according to NPT internal thread

Process connection size and type	FCS500 sensor nominal size									
	DN 10		DN 15		DN 25		DN 50		DN 80	
	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
3/8" NPT	300 (11.8)	5.4 (12)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1/2" NPT	300 (11.8)	5.4 (12)	340 (13.4)	7.4 (16)	n/a	n/a	n/a	n/a	n/a	n/a
3/4" NPT	300 (11.8)	5.3 (12)	340 (13.4)	7.3 (16)	n/a	n/a	n/a	n/a	n/a	n/a

Flow Measurement

SITRANS FC (Coriolis)

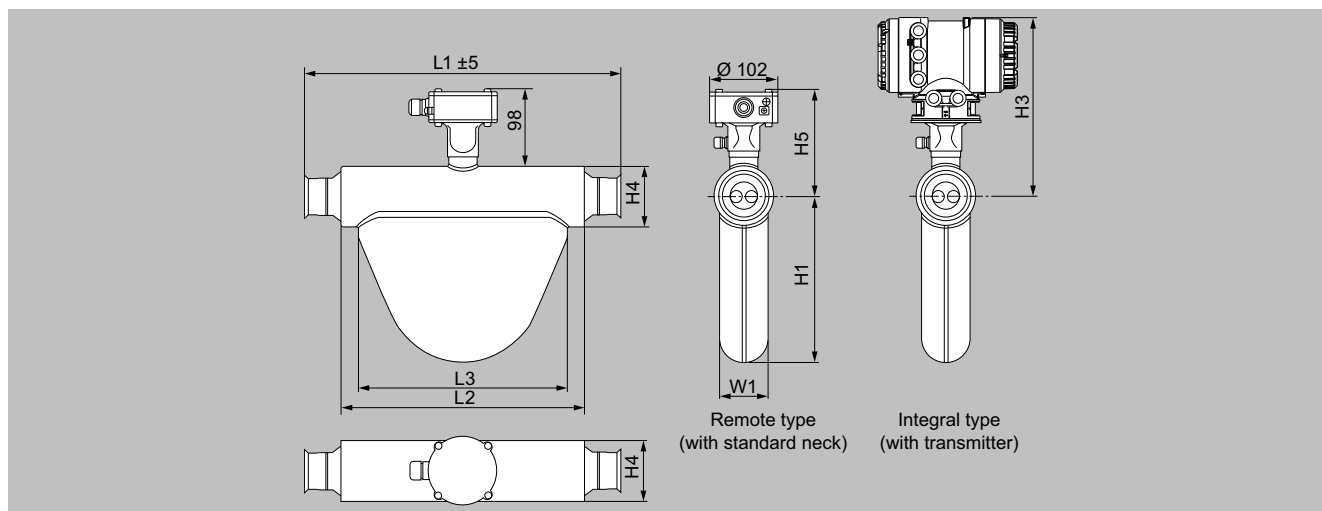
Sensors / SITRANS FCS500

Dimensional drawings (continued)

L1 dimension and weight with process connections according to G internal thread

Process connection size and type	FCS500 sensor nominal size DN 10		DN 15		DN 25		DN 50		DN 80	
	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
G 3/8"	300 (11.8)	5.4 (12)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
G 1/2"	300 (11.8)	5.4 (12)	340 (13.4)	7.4 (16)	n/a	n/a	n/a	n/a	n/a	n/a
G 3/4"	300 (11.8)	5.3 (12)	340 (13.4)	7.3 (16)	n/a	n/a	n/a	n/a	n/a	n/a

Drawings, dimensions and weight for FCS500 sensors (hygienic versions)



Dimensions in mm

FCS500 sensor dimensions (hygienic versions)

Nominal size	L2	L3	H1	H3	H4	H5	W1
Dimensions in mm (inch)							
DN 10	190 (7.5)	165 (6.5)	117 (4.6)	268 (10.6)	56 (2.2)	138 (5.4)	42 (1.7)
DN 15	227 (8.9)	195 (7.7)	145 (5.7)	277 (10.9)	71 (2.8)	148 (5.8)	50 (2)
DN 25	361 (14.2)	310 (12.2)	245 (9.6)	289 (11.4)	90 (3.5)	159 (6.3)	72 (2.8)
DN 50	455 (17.9)	400 (15.7)	333 (13.1)	296 (11.7)	102 (4)	167 (6.6)	96 (3.8)

Overall length L1 and weight

The overall length of the sensor depends on the selected process connection (type and size). The following tables list the overall length and weight as functions of the individual process connection.

The weights in the tables are for the remote type. Additional weight for the compact type: up to 3.2 kg (7.1 lb)

L1 dimension and weight with threaded hygienic process connections according to DIN 11851

Process connection size and type	FCS500 sensor nominal size DN 10		DN 15		DN 25		DN 50	
	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
DIN 11851, DN 25	280 (11)	5.4 (12)	320 (12.6)	7.4 (16)	n/a	n/a	n/a	n/a
DIN 11851, DN 40	290 (11.4)	5.5 (12)	330 (13)	7.5 (17)	490 (19.3)	14.3 (32)	n/a	n/a
DIN 11851, DN 50	n/a	n/a	n/a	n/a	480 (18.9)	14.4 (32)	610 (24)	23.4 (52)
DIN 11851, DN 65	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	23.4 (52)
DIN 11851, DN 80	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	23.8 (52)

Dimensional drawings (continued)

L1 dimension and weight with hygienic clamp process connections according to DIN 32676 Series A

Process connection size and type	FCS500 sensor nominal size		DN 15		DN 25		DN 50	
	DN 10 L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
DIN 32676 series A, DN 25	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	n/a	n/a	n/a	n/a
DIN 32676 series A, DN 40	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	470 (18.5)	14 (31)	n/a	n/a
DIN 32676 series A, DN 50	n/a	n/a	n/a	n/a	470 (18.5)	14 (31)	600 (23.6)	22.9 (50)
DIN 32676 series A, DN 65	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	23 (51)
DIN 32676 series A, DN 80	n/a	n/a	n/a	n/a	n/a	n/a	590 (23.2)	23.1 (51)

L1 dimension and weight with hygienic clamp process connections according to DIN 32676 Series C (Tri-clamp)

Process connection size and type	FCS500 sensor nominal size		DN 15		DN 25		DN 50	
	DN 10 L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
DIN 32676 series C, 1"	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	n/a	n/a	n/a	n/a
DIN 32676 series C, 1½"	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	480 (18.9)	14 (31)	n/a	n/a
DIN 32676 series C, 2"	n/a	n/a	n/a	n/a	470 (18.5)	14 (31)	600 (23.6)	22.9 (50)
DIN 32676 series C, 2½"	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	22.8 (50)
DIN 32676 series C, 3"	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	22.9 (50)

L1 dimension and weight with hygienic clamp process connections according to JIS/ISO 2852

Process connection size and type	FCS500 sensor nominal size		DN 15		DN 25		DN 50	
	DN 10 L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
JIS/ISO 2852, 1"	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	n/a	n/a	n/a	n/a
JIS/ISO 2852, 1½"	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	480 (18.9)	14 (31)	n/a	n/a
JIS/ISO 2852, 2"	n/a	n/a	n/a	n/a	470 (18.5)	14 (31)	600 (23.6)	22.9 (50)
JIS/ISO 2852, 2½"	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	22.8 (50)
JIS/ISO 2852, 3"	n/a	n/a	n/a	n/a	n/a	n/a	580 (22.8)	22.9 (50)