Drawings

ROTA*MASS* Total Insight
Coriolis Mass Flow and Density Meter
Prime

SD 01U10B04-00EN-R

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1 Process connections, dimensions and weights of sensor

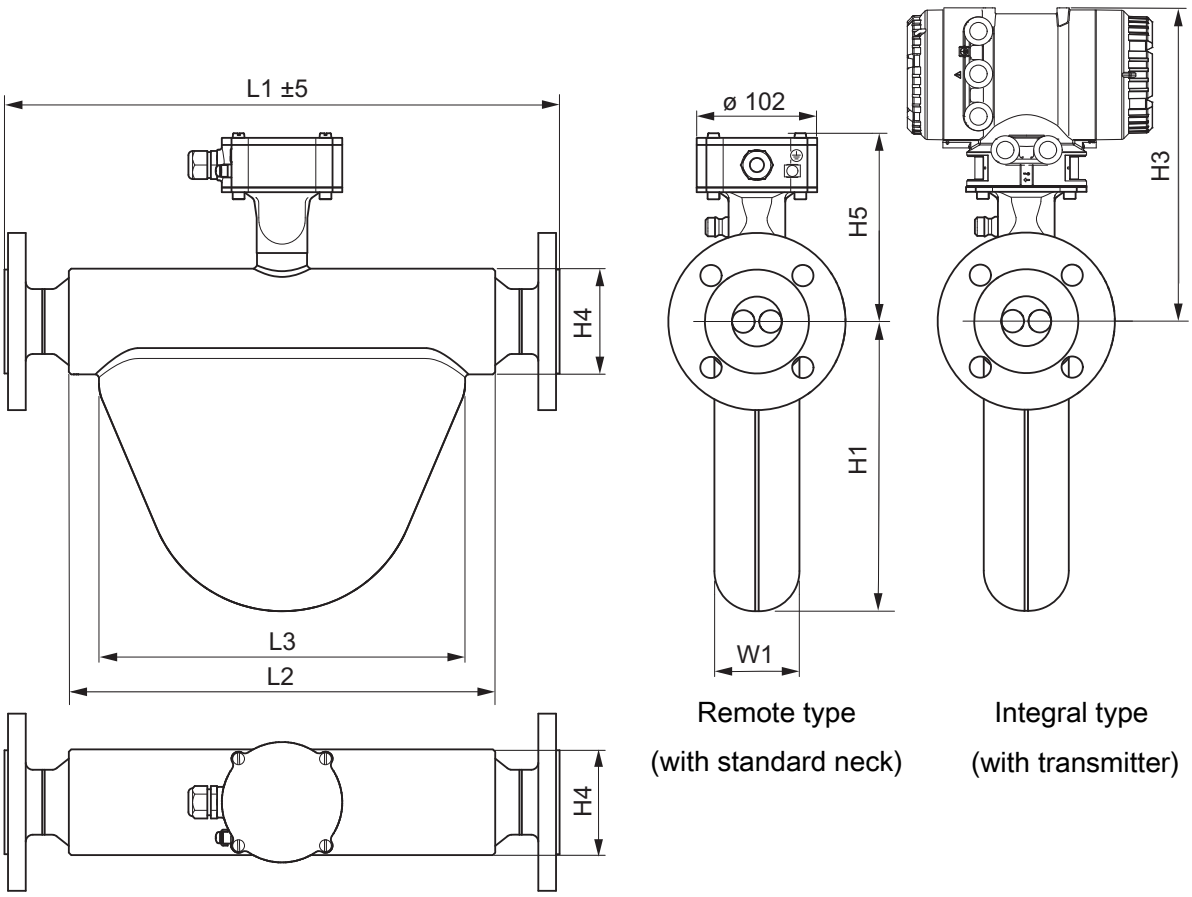


Fig. 1: Dimensions in mm

Tab. 1: Dimensions without length L1

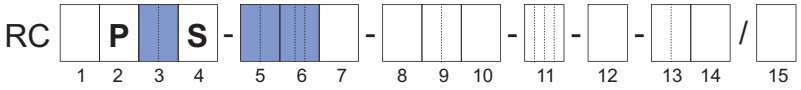
Meter size	L2	L3	H1	H3	H4	H5	W1
	in mm (inch)						
Prime 25	190 (7.5)	165 (6.5)	117 (4.6)	268 (10.6)	56 (2.2)	138 (5.4)	42 (1.7)
Prime 40	227 (8.9)	195 (7.7)	145 (5.7)	277 (10.9)	71 (2.8)	148 (5.8)	50 (2)
Prime 50	361 (14.2)	310 (12.2)	245 (9.6)	289 (11.4)	90 (3.5)	159 (6.3)	72 (2.8)
Prime 80	455 (17.9)	400 (15.7)	333 (13.1)	296 (11.7)	102 (4)	167 (6.6)	96 (3.8)
Prime 1H	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 (without customized installation length options) as functions of the individual process connection.

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

Process connections compatible to ASME B16.5 (AISI 316/ AISI 316L dual certified)



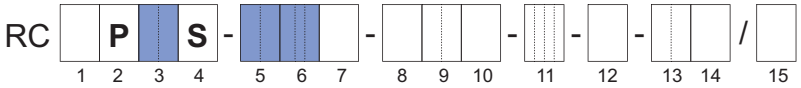
Tab. 2: Overall length L1 and weight of sensor (process connections: ASME)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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)	15	BA1	280 (11)	6 (13)	320 (12.6)	8 (18)	–	–	–	–	–	–
ASME ½" class 300, raised face (RF)		BA2	280 (11)	6.4 (14)	320 (12.6)	8.4 (18)	–	–	–	–	–	–
ASME ½" class 600, raised face (RF)		BA4	290 (11.4)	6.7 (15)	330 (13)	8.7 (19)	–	–	–	–	–	–
ASME ½" class 600, ring joint (RJ)		CA4	290 (11.4)	6.6 (15)	330 (13)	8.6 (19)	–	–	–	–	–	–
ASME 1" class 150, raised face (RF)	25	BA1	280 (11)	6.9 (15)	320 (12.6)	8.9 (20)	490 (19.3)	15.7 (35)	–	–	–	–
ASME 1" class 300, raised face (RF)		BA2	280 (11)	7.9 (17)	320 (12.6)	9.9 (22)	490 (19.3)	16.7 (37)	–	–	–	–
ASME 1" class 600, raised face (RF)		BA4	300 (11.8)	8.3 (18)	340 (13.4)	10.3 (23)	500 (19.7)	17 (38)	–	–	–	–
ASME 1" class 600, ring joint (RJ)		CA4	300 (11.8)	8.4 (19)	340 (13.4)	10.4 (23)	500 (19.7)	17.2 (38)	–	–	–	–
ASME 1½" class 150, raised face (RF)	40	BA1	290 (11.4)	7.8 (17)	330 (13)	9.8 (22)	470 (18.5)	16.5 (36)	620 (24.4)	25.7 (57)	–	–
ASME 1½" class 300, raised face (RF)		BA2	290 (11.4)	10.1 (22)	330 (13)	12.1 (27)	480 (18.9)	19 (42)	620 (24.4)	28.1 (62)	–	–
ASME 1½" class 600, raised face (RF)		BA4	310 (12.2)	11.5 (25)	350 (13.8)	13.5 (30)	500 (19.7)	20 (44)	630 (24.8)	28.9 (64)	–	–
ASME 1½" class 600, ring joint (RJ)		CA4	310 (12.2)	11.4 (25)	350 (13.8)	13.4 (30)	500 (19.7)	20 (44)	630 (24.8)	29.1 (64)	–	–
ASME 2" class 150, raised face (RF)	50	BA1	–	–	–	–	480 (18.9)	18.1 (40)	580 (22.8)	26.8 (59)	–	–
ASME 2" class 300, raised face (RF)		BA2	–	–	–	–	480 (18.9)	19.7 (43)	580 (22.8)	28.3 (62)	–	–
ASME 2" class 600, raised face (RF)		BA4	–	–	–	–	510 (20.1)	21.3 (47)	610 (24)	30.5 (67)	–	–
ASME 2" class 600, ring joint (RJ)		CA4	–	–	–	–	510 (20.1)	21.8 (48)	610 (24)	30.3 (67)	–	–

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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 2½" class 150, raised face (RF)	65	BA1	–	–	–	–	–	–	580 (22.8)	29.8 (66)	–	–
ASME 2½" class 300, raised face (RF)		BA2	–	–	–	–	–	–	580 (22.8)	31.3 (69)	–	–
ASME 2½" class 600, raised face (RF)		BA4	–	–	–	–	–	–	610 (24)	33.4 (74)	–	–
ASME 2½" class 600, ring joint (RJ)		CA4	–	–	–	–	–	–	610 (24)	33.8 (74)	–	–
ASME 3" class 150, raised face (RF)	80	BA1	–	–	–	–	–	–	580 (22.8)	30.9 (68)	870 (34.3)	71.2 (157)
ASME 3" class 300, raised face (RF)		BA2	–	–	–	–	–	–	590 (23.2)	34.5 (76)	880 (34.6)	75 (165)
ASME 3" class 600, raised face (RF)		BA4	–	–	–	–	–	–	630 (24.8)	37.8 (83)	900 (35.4)	77.7 (171)
ASME 3" class 600, ring joint (RJ)		CA4	–	–	–	–	–	–	610 (24)	38.4 (85)	900 (35.4)	78.3 (173)
ASME 4" class 150, raised face (RF)	1H	BA1	–	–	–	–	–	–	–	–	850 (33.5)	74.4 (164)
ASME 4" class 300, raised face (RF)		BA2	–	–	–	–	–	–	–	–	850 (33.5)	81.8 (180)
ASME 4" class 600, raised face (RF)		BA4	–	–	–	–	–	–	–	–	920 (36.2)	94 (207)
ASME 4" class 600, ring joint (RJ)		CA4	–	–	–	–	–	–	–	–	920 (36.2)	94.6 (209)
ASME 5" class 150, raised face (RF)	1Q	BA1	–	–	–	–	–	–	–	–	870 (34.3)	77 (170)
ASME 5" class 300, raised face (RF)		BA2	–	–	–	–	–	–	–	–	890 (35)	89.4 (197)
ASME 5" class 600, raised face (RF)		BA4	–	–	–	–	–	–	–	–	920 (36.2)	114.2 (252)
ASME 5" class 600, ring joint (RJ)		CA4	–	–	–	–	–	–	–	–	920 (36.2)	114.9 (253)

Meaning of "–": not available

Process connections compatible to EN 1092-1 (1.4404/ AISI 316 L)



Tab. 3: Overall length L1 and weight of sensor (process connections: EN)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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 DN15 PN40, type B1, raised face (RF)	15	BD4	280 (11)	6.6 (14)	320 (12.6)	8.6 (19)	–	–	–	–	–	–
EN DN15 PN40, type D, with groove		GD4	280 (11)	6.4 (14)	320 (12.6)	8.4 (18)	–	–	–	–	–	–
EN DN15 PN40, type E, with spigot		ED4	280 (11)	6.3 (14)	320 (12.6)	8.3 (18)	–	–	–	–	–	–
EN DN15 PN40, type F, with recess		FD4	280 (11)	6.5 (14)	320 (12.6)	8.5 (19)	–	–	–	–	–	–
EN DN15 PN100, type B1, raised face (RF)		BD6	290 (11.4)	7.4 (16)	330 (13)	9.4 (21)	–	–	–	–	–	–
EN DN15 PN100, type D, with groove		GD6	290 (11.4)	7.4 (16)	330 (13)	9.4 (21)	–	–	–	–	–	–
EN DN15 PN100, type E, with spigot		ED6	290 (11.4)	7.1 (16)	330 (13)	9.1 (20)	–	–	–	–	–	–
EN DN15 PN100, type F, with recess		FD6	290 (11.4)	7.3 (16)	330 (13)	9.3 (21)	–	–	–	–	–	–
EN DN25 PN40, type B1, raised face (RF)	25	BD4	280 (11)	7,5 (17)	320 (12.6)	9,5 (21)	490 (19.3)	16.4 (36)	–	–	–	–
EN DN25 PN40, type D, with groove		GD4	280 (11)	7.5 (16)	320 (12.6)	9.5 (21)	490 (19.3)	16.3 (36)	–	–	–	–
EN DN25 PN40, type E, with spigot		ED4	280 (11)	7.2 (16)	320 (12.6)	9.2 (20)	490 (19.3)	16.1 (35)	–	–	–	–
EN DN25 PN40, type F, with recess		FD4	280 (11)	7.4 (16)	320 (12.6)	9.4 (21)	490 (19.3)	16.3 (36)	–	–	–	–
EN DN25 PN100, type B1, raised face (RF)		BD6	300 (11.8)	10.1 (22)	340 (13.4)	12.1 (27)	490 (19.3)	18.8 (41)	–	–	–	–
EN DN25 PN100, type D, with groove		GD6	300 (11.8)	10 (22)	340 (13.4)	12 (26)	490 (19.3)	18.7 (41)	–	–	–	–
EN DN25 PN100, type E, with spigot		ED6	300 (11.8)	9.5 (21)	340 (13.4)	11.5 (25)	490 (19.3)	18.3 (40)	–	–	–	–
EN DN25 PN100, type F, with recess		FD6	300 (11.8)	9.9 (22)	340 (13.4)	11.9 (26)	490 (19.3)	18.7 (41)	–	–	–	–

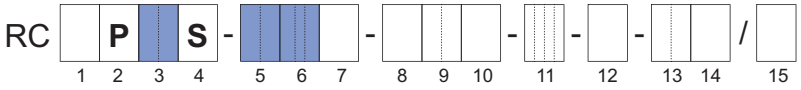
Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)	L1 in mm (inch)	Weight in kg (lb)
EN DN40 PN40, type B1, raised face (RF)	40	BD4	280 (11)	9.1 (20)	320 (12.6)	11.1 (24)	470 (18.5)	17.7 (39)	610 (24)	26.9 (59)	–	–
EN DN40 PN40, type D, with groove		GD4	280 (11)	8.9 (20)	320 (12.6)	10.9 (24)	470 (18.5)	17.6 (39)	610 (24)	26.8 (59)	–	–
EN DN40 PN40, type E, with spigot		ED4	280 (11)	8.6 (19)	320 (12.6)	10.6 (23)	470 (18.5)	17.4 (38)	610 (24)	26.5 (58)	–	–
EN DN40 PN40, type F, with recess		FD4	280 (11)	8.8 (19)	320 (12.6)	10.8 (24)	470 (18.5)	17.5 (39)	610 (24)	26.7 (59)	–	–
EN DN40 PN100, type B1, raised face (RF)		BD6	360 (14.2)	13.5 (30)	400 (15.7)	15.5 (34)	500 (19.7)	21.5 (47)	610 (24)	30.5 (67)	–	–
EN DN40 PN100, type D, with groove		GD6	360 (14.2)	13.4 (30)	400 (15.7)	15.4 (34)	500 (19.7)	21.4 (47)	610 (24)	30.4 (67)	–	–
EN DN40 PN100, type E, with spigot		ED6	360 (14.2)	13 (29)	400 (15.7)	15 (33)	500 (19.7)	21.1 (46)	610 (24)	30 (66)	–	–
EN DN40 PN100, type F, with recess		FD6	360 (14.2)	13.3 (29)	400 (15.7)	15.3 (34)	500 (19.7)	21.3 (47)	610 (24)	30.3 (67)	–	–
EN DN50 PN40, type B1, raised face (RF)	50	BD4	–	–	–	–	470 (18.5)	19.1 (42)	580 (22.8)	27.8 (61)	–	–
EN DN50 PN40, type D, with groove		GD4	–	–	–	–	470 (18.5)	18.9 (42)	580 (22.8)	27.7 (61)	–	–
EN DN50 PN40, type E, with spigot		ED4	–	–	–	–	470 (18.5)	18.6 (41)	580 (22.8)	27.4 (60)	–	–
EN DN50 PN40, type F, with recess		FD4	–	–	–	–	470 (18.5)	18.8 (41)	580 (22.8)	27.6 (61)	–	–
EN DN50 PN100, type B1, raised face (RF)		BD6	–	–	–	–	540 (21.3)	25.4 (56)	610 (24)	33.5 (74)	–	–
EN DN50 PN100, type D, with groove		GD6	–	–	–	–	540 (21.3)	25.3 (56)	610 (24)	33.4 (74)	–	–
EN DN50 PN100, type E, with spigot		ED6	–	–	–	–	540 (21.3)	24.8 (55)	610 (24)	32.9 (72)	–	–
EN DN50 PN100, type F, with recess		FD6	–	–	–	–	540 (21.3)	25.2 (55)	610 (24)	33.2 (73)	–	–

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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 DN80 PN40, type B1, raised face (RF)	80	BD4	–	–	–	–	–	–	590 (23.2)	31.5 (69)	870 (34.3)	71.6 (158)
EN DN80 PN40, type D, with groove		GD4	–	–	–	–	–	–	590 (23.2)	31.3 (69)	870 (34.3)	71.1 (157)
EN DN80 PN40, type E, with spigot		ED4	–	–	–	–	–	–	590 (23.2)	30.9 (68)	870 (34.3)	70.7 (156)
EN DN80 PN40, type F, with recess		FD4	–	–	–	–	–	–	590 (23.2)	31.1 (69)	870 (34.3)	70.9 (156)
EN DN80 PN100, type B1, raised face (RF)		BD6	–	–	–	–	–	–	650 (25.6)	40 (88)	890 (35)	79.1 (174)
EN DN80 PN100, type D, with groove		GD6	–	–	–	–	–	–	650 (25.6)	39.8 (88)	890 (35)	78.9 (174)
EN DN80 PN100, type E, with spigot		ED6	–	–	–	–	–	–	650 (25.6)	39.2 (86)	890 (35)	78.3 (173)
EN DN80 PN100, type F, with recess		FD6	–	–	–	–	–	–	650 (25.6)	39.6 (87)	890 (35)	78.7 (173)
EN DN100 PN40, type B1, raised face (RF)	1H	BD4	–	–	–	–	–	–	–	–	850 (33.5)	73.8 (163)
EN DN100 PN40, type D, with groove		GD4	–	–	–	–	–	–	–	–	850 (33.5)	73.6 (162)
EN DN100 PN40, type E, with spigot		ED4	–	–	–	–	–	–	–	–	850 (33.5)	73 (161)
EN DN100 PN40, type F, with recess		FD4	–	–	–	–	–	–	–	–	850 (33.5)	73.3 (162)
EN DN100 PN100, type B1, raised face (RF)		BD6	–	–	–	–	–	–	–	–	870 (34.3)	85.2 (188)
EN DN100 PN100, type D, with groove		GD6	–	–	–	–	–	–	–	–	870 (34.3)	84.8 (187)
EN DN100 PN100, type E, with spigot		ED6	–	–	–	–	–	–	–	–	870 (34.3)	84 (185)
EN DN100 PN100, type F, with recess		FD6	–	–	–	–	–	–	–	–	870 (34.3)	84.5 (186)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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 DN125 PN40, type B1, raised face (RF)	1Q	BD4	–	–	–	–	–	–	–	–	860 (33.9)	78.5 (173)
EN DN125 PN40, type D, with groove		GD4	–	–	–	–	–	–	–	–	860 (33.9)	78.1 (172)
EN DN125 PN40, type E, with spigot		ED4	–	–	–	–	–	–	–	–	860 (33.9)	77.4 (171)
EN DN125 PN40, type F, with recess		FD4	–	–	–	–	–	–	–	–	860 (33.9)	77.7 (171)
EN DN125 PN100, type B1, raised face (RF)		BD6	–	–	–	–	–	–	–	–	880 (34.6)	98 (216)
EN DN125 PN100, type D, with groove		GD6	–	–	–	–	–	–	–	–	880 (34.6)	97.6 (215)
EN DN125 PN100, type E, with spigot		ED6	–	–	–	–	–	–	–	–	880 (34.6)	96.3 (212)
EN DN125 PN100, type F, with recess		FD6	–	–	–	–	–	–	–	–	880 (34.6)	97.1 (214)

Meaning of "–": not available

Process connections compatible to JIS B 2220 (AISI 316/ AISI 316 L)

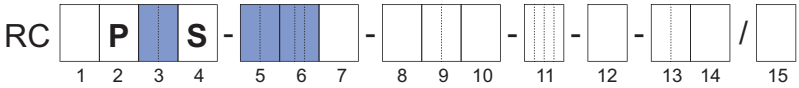


Tab. 4: Overall length L1 and weight of sensor (process connections: JIS)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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 DN15 10K	15	BJ1	280 (11)	6.3 (14)	320 (12.6)	8.3 (18)	–	–	–	–	–	–
JIS DN15 20K		BJ2	280 (11)	6.5 (14)	320 (12.6)	8.5 (19)	–	–	–	–	–	–
JIS DN25 10K	25	BJ1	280 (11)	7.4 (16)	320 (12.6)	9,4 (21)	490 (19.3)	16.3 (36)	–	–	–	–
JIS DN25 20K		BJ2	280 (11)	7.8 (17)	320 (12.6)	9,8 (22)	490 (19.3)	16.6 (37)	–	–	–	–
JIS DN40 10K	40	BJ1	280 (11)	8.2 (18)	320 (12.6)	10.2 (23)	470 (18.5)	16.9 (37)	620 (24.4)	26.1 (58)	–	–
JIS DN40 20K		BJ2	280 (11)	8.6 (19)	320 (12.6)	10.6 (23)	470 (18.5)	17.3 (38)	620 (24.4)	26.5 (58)	–	–
JIS DN50 10K	50	BJ1	–	–	–	–	470 (18.5)	17.5 (39)	600 (23.6)	26.6 (59)	–	–
JIS DN50 20K		BJ2	–	–	–	–	470 (18.5)	17.7 (39)	600 (23.6)	26.7 (59)	–	–
JIS DN80 10K	80	BJ1	–	–	–	–	–	–	570 (22.4)	27.9 (62)	880 (34.6)	68.7 (151)
JIS DN80 20K		BJ2	–	–	–	–	–	–	580 (22.8)	30.4 (67)	880 (34.6)	71 (156)
JIS DN100 10K	1H	BJ1	–	–	–	–	–	–	–	–	850 (33.5)	69.8 (154)
JIS DN100 20K		BJ2	–	–	–	–	–	–	–	–	850 (33.5)	73.4 (162)
JIS DN125 10K	1Q	BJ1	–	–	–	–	–	–	–	–	850 (33.5)	73.5 (162)
JIS DN125 20K		BJ2	–	–	–	–	–	–	–	–	850 (33.5)	79.7 (176)

Meaning of "–": not available

Process connections compatible to JPI



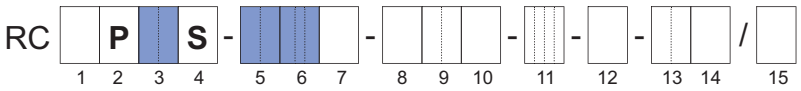
Tab. 5: Overall length L1 and weight of sensor (process connections: JPI)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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)
JPI ½" class 150	15	BP1	280 (11)	5.9 (13)	320 (12.6)	7.9 (18)	–	–	–	–	–	–
JPI ½" class 300		BP2	280 (11)	6.4 (14)	320 (12.6)	8.4 (18)	–	–	–	–	–	–
JPI ½" class 600		BP4	290 (11.4)	6.6 (14)	330 (13)	8.6 (19)	–	–	–	–	–	–
JPI 1" class 150	25	BP1	280 (11)	6.7 (15)	320 (12.6)	8.7 (19)	490 (19.3)	15.7 (35)	–	–	–	–
JPI 1" class 300		BP2	280 (11)	7.8 (17)	320 (12.6)	9.8 (22)	490 (19.3)	16.7 (37)	–	–	–	–
JPI 1" class 600		BP4	300 (11.8)	8.2 (18)	340 (13.4)	10.2 (22)	500 (19.7)	17 (38)	–	–	–	–
JPI 1½" class 150	40	BP1	290 (11.4)	7.9 (17)	330 (13)	9.9 (22)	470 (18.5)	16.5 (36)	620 (24.4)	25.7 (57)	–	–
JPI 1½" class 300		BP2	290 (11.4)	10.1 (22)	330 (13)	12.1 (27)	480 (18.9)	18.9 (42)	620 (24.4)	28 (62)	–	–
JPI 1½" class 600		BP4	310 (12.2)	11.2 (25)	350 (13.8)	13.2 (29)	500 (19.7)	19.9 (44)	630 (24.8)	28.9 (64)	–	–
JPI 2" class 150	50	BP1	–	–	–	–	480 (18.9)	18.1 (40)	580 (22.8)	26.8 (59)	–	–
JPI 2" class 300		BP2	–	–	–	–	480 (18.9)	19.7 (43)	580 (22.8)	28.3 (62)	–	–
JPI 2" class 600		BP4	–	–	–	–	510 (20.1)	21.4 (47)	610 (24)	30.1 (66)	–	–
JPI 2½" class 150	65	BP1	–	–	–	–	–	–	580 (22.8)	29.5 (65)	–	–
JPI 2½" class 300		BP2	–	–	–	–	–	–	580 (22.8)	31.1 (68)	–	–
JPI 2½" class 600		BP4	–	–	–	–	–	–	610 (24)	33.2 (73)	–	–
JPI 3" class 150	80	BP1	–	–	–	–	–	–	580 (22.8)	30.9 (68)	870 (34.3)	71.2 (157)
JPI 3" class 300		BP2	–	–	–	–	–	–	590 (23.2)	34.5 (76)	880 (34.6)	75.1 (166)
JPI 3" class 600		BP4	–	–	–	–	–	–	610 (24)	37.3 (82)	900 (35.4)	77.8 (171)
JPI 4" class 150	1H	BP1	–	–	–	–	–	–	–	–	850 (33.5)	74.5 (164)
JPI 4" class 300		BP2	–	–	–	–	–	–	–	–	850 (33.5)	81.9 (181)
JPI 4" class 600		BP4	–	–	–	–	–	–	–	–	920 (36.2)	93.9 (207)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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)
JPI 5" class 150	1Q	BP1	–	–	–	–	–	–	–	–	870 (34.3)	77.1 (170)
JPI 5" class 300		BP2	–	–	–	–	–	–	–	–	890 (35)	89.6 (198)

Meaning of "–": not available

Process connections with internal thread G

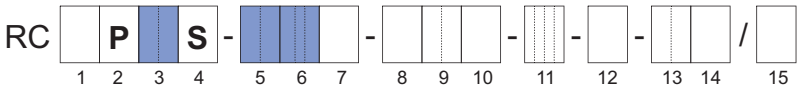


Tab. 6: Overall length L1 and weight of sensor (process connections: G thread)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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 ⅜"	08	TG9	300 (11.8)	5.4 (12)	–	–	–	–	–	–	–	–
G ½"	15		300 (11.8)	5.4 (12)	340 (13.4)	7.4 (16)	–	–	–	–	–	–
G ¾"	20		300 (11.8)	5.3 (12)	340 (13.4)	7.3 (16)	–	–	–	–	–	–

Meaning of "–": not available

Process connections with internal thread NPT

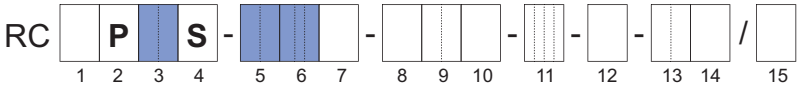


Tab. 7: Overall length L1 and weight of sensor (process connections: NPT thread)

Process connections	Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
	5	6	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)
NPT ⅜"	08	TT9	300 (11.8)	5.4 (12)	–	–	–	–	–	–	–	–
NPT ½"	15		300 (11.8)	5.4 (12)	340 (13.4)	7.4 (16)	–	–	–	–	–	–
NPT ¾"	20		300 (11.8)	5.3 (12)	340 (13.4)	7.3 (16)	–	–	–	–	–	–

Meaning of "–": not available

NAMUR & Customer length



Overall length and weight for customized installation length

Tab. 8: Available process connections for options NL and CL with minimum and maximum installation length

Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
5	6	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)
15	BA1, BA2, BD4, BJ1, BJ2, BP1, BP2, ED4, FD4, GD4	340 (13.4)	510 (20.1)	380 (15)	510 (20.1)	–	–	–	–	–	–
	CA4, BA4, BP4	350 (13.8)	510 (20.1)	390 (15.4)	510 (20.1)	–	–	–	–	–	–
25	BA1, BA2, BD4, BJ1, BJ2, BP1, BP2, ED4, FD4, GD4	340 (13.4)	600 (23.6)	380 (15)	600 (23.6)	550 (21.7)	600 (23.6)	–	–	–	–
	CA4, BA4, BP4	360 (14.2)	600 (23.6)	400 (15.7)	600 (23.6)	560 (22)	600 (23.6)	–	–	–	–
40	BJ1, BJ2, BD4, ED4, FD4, GD4	340 (13.4)	600 (23.6)	380 (15)	600 (23.6)	530 (20.9)	600 (23.6)	–	–	–	–
	BP1, BA1	350 (13.8)	600 (23.6)	390 (15.4)	600 (23.6)	530 (20.9)	600 (23.6)	–	–	–	–
	BA2, BP2	350 (13.8)	600 (23.6)	390 (15.4)	600 (23.6)	540 (21.3)	600 (23.6)	–	–	–	–
	BP4, CA4, BA4	370 (14.6)	600 (23.6)	410 (16.1)	600 (23.6)	560 (22)	600 (23.6)	–	–	–	–
50	BJ1, BJ2, BD4, ED4, FD4, GD4	–	–	–	–	530 (20.9)	715 (28.1)	660 (26)	715 (28.1)	–	–
	BA1, BP1, BA2, BP2	–	–	–	–	540 (21.3)	715 (28.1)	640 (25.2)	715 (28.1)	–	–
	BA4, BP4, CA4	–	–	–	–	570 (22.4)	715 (28.1)	670 (26.4)	715 (28.1)	–	–
65	BA1, BP1, BA2, BP2	–	–	–	–	–	–	640 (25.2)	715 (28.1)	–	–
	BA4, BP4, CA4	–	–	–	–	–	–	670 (26.4)	715 (28.1)	–	–
80	BJ1	–	–	–	–	–	–	630 (24.8)	915 (36)	–	–
	BA1, BP1, BJ2	–	–	–	–	–	–	640 (25.2)	915 (36)	–	–
	BA2, BD4, BP2, ED4, FD4, GD4	–	–	–	–	–	–	650 (25.6)	915 (36)	–	–
	BP4, CA4	–	–	–	–	–	–	670 (26.4)	915 (36)	–	–
	BA4	–	–	–	–	–	–	690 (27.2)	915 (36)	–	–

Model code pos.		Prime 25		Prime 40		Prime 50		Prime 80		Prime 1H	
5	6	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)	CL min in mm (inch)	CL max (NL) in mm (inch)
1H	BA1, BA2, BD4, BJ1, BJ2, BP1, BP2, ED4, FD4, GD4	–	–	–	–	–	–	–	–	910 (35.8)	1400 (55.1)
	BA4, BP4, CA4	–	–	–	–	–	–	–	–	980 (38.6)	1400 (55.1)
1Q	BJ1, BJ2	–	–	–	–	–	–	–	–	910 (35.8)	1400 (55.1)
	BD4, ED4, FD4, GD4	–	–	–	–	–	–	–	–	920 (36.2)	1400 (55.1)
	BA1, BP1	–	–	–	–	–	–	–	–	930 (36.6)	1400 (55.1)
	BA2, BP2	–	–	–	–	–	–	–	–	950 (37.4)	1400 (55.1)

Meaning of "–": not available, "CL": Customer length, "NL": NAMUR length; NL corresponds to CL max

Tab. 9: Additional weight in combination with options NL and CL

	Prime 25	Prime 40	Prime 50	Prime 80	Prime 1H
Additional weight for customized installation length in kg/mm	0.003	0.003	0.005	0.009	0.018

Typical dimensions of measuring tubes

Tab. 10: Typical dimensions of measuring tubes

Meter size	Material of wetted parts	Model code pos. 4	Internal diameter in mm (inch)	Wall thickness in mm (inch)
Prime25	Stainless steel 1.4404/316L	S	5.60 (0.220)	0.45 (0.018)
Prime40			9.00 (0.354)	0.50 (0.020)
Prime50			17.10 (0.673)	0.95 (0.037)
Prime80			27.60 (1.087)	1.70 (0.067)
Prime1H			45.80 (1.803)	2.60 (0.102)

2 Transmitter dimensions and weights

Transmitter dimensions

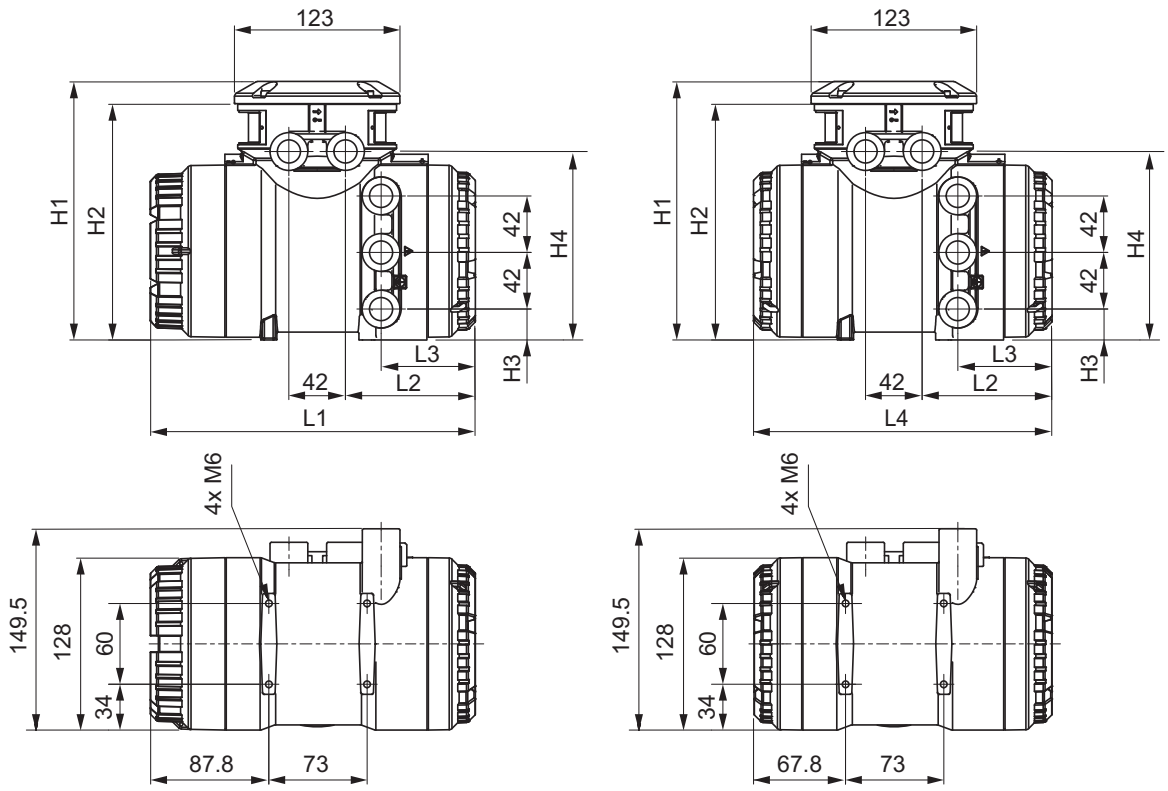
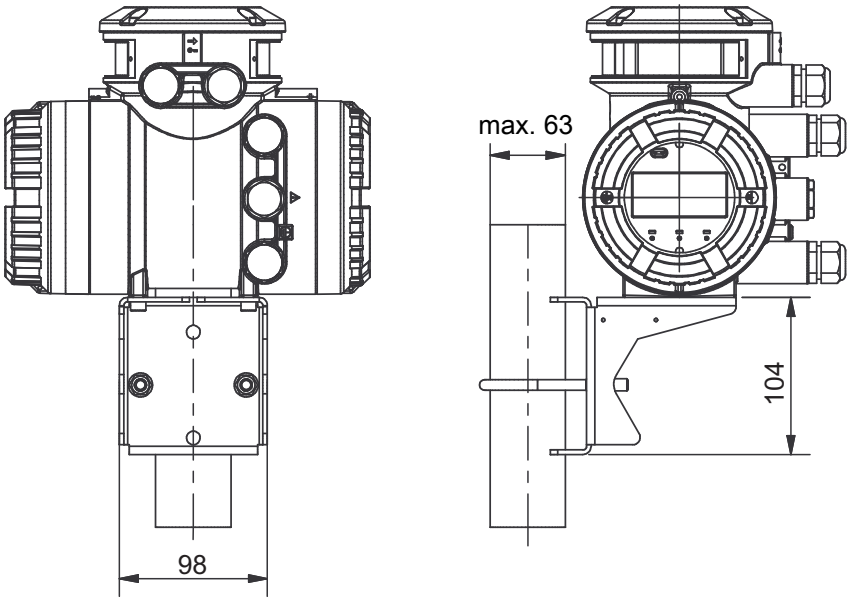


Fig. 2: Dimensions of transmitter in mm
(left: transmitter with display, right: transmitter without display)

Tab. 11: Overall length L1 - L4 and height H1 - H4 of transmitter (material: stainless steel, aluminum)

Material	L1 in mm (inch)	L2 in mm (inch)	L3 in mm (inch)	L4 in mm (inch)	H1 in mm (inch)	H2 in mm (inch)	H3 in mm (inch)	H4 in mm (inch)
Stainless steel	255.5 (10.06)	110.5 (4.35)	69 (2.72)	235 (9.25)	201 (7.91)	184 (7.24)	24 (0.94)	150.5 (5.93)
Aluminum	241.5 (9.51)	96.5 (3.8)	70 (2.76)	221 (8.7)	192 (7.56)	175 (6.89)	23 (0.91)	140 (5.51)



RC □□□□-□□□-□□□-□-□-□□-□/□
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Transmitter weights

Model code (pos. 10)	Design type	Housing material of transmitter	Weight in kg (lb)
A, E	Remote	Aluminum	max. 4.4 (9.7)
J		Stainless steel	12.5 (27.6)

3 Wiring

3.1 Terminal configuration diagrams

3.1.1 Terminal for connection between sensor and transmitter

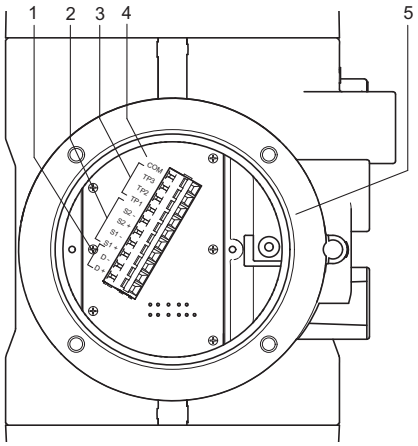


Fig. 3: Connection terminal circuits (transmitter on the left side, sensor on the right side)

1	Driver circuit (D+/D-)	4	Signal grounding
2	Sensor circuits (S1+/S1-, S2+/S2-)	5	Transmitter
3	Temperature measurement circuit (TP1, TP2, TP3)	6	Sensor

3.1.2 Terminal for I/O outputs and power supply

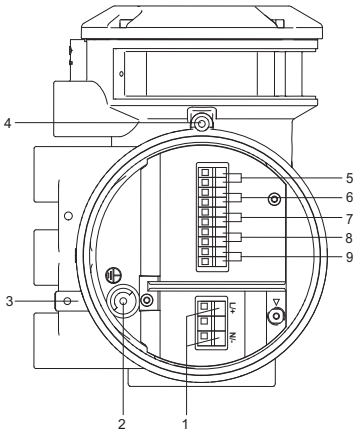


Fig. 4: Terminal for I/O outputs and power supply in transmitter

1	Power supply connection terminals	6	Connection terminals for I/O2 +/-
2	Grounding screw in terminal box	7	Connection terminals for I/O3 +/-
3	Grounding transmitter housing	8	Connection terminals for I/O4 +/-
4	Locking screw	9	WP: Write-protection terminal
5	Connection terminals for I/O1 +/-		

4 Connecting cable dimensions and weights

4.1 Standard cable (option /L⎵⎵⎵ without option /LAC)

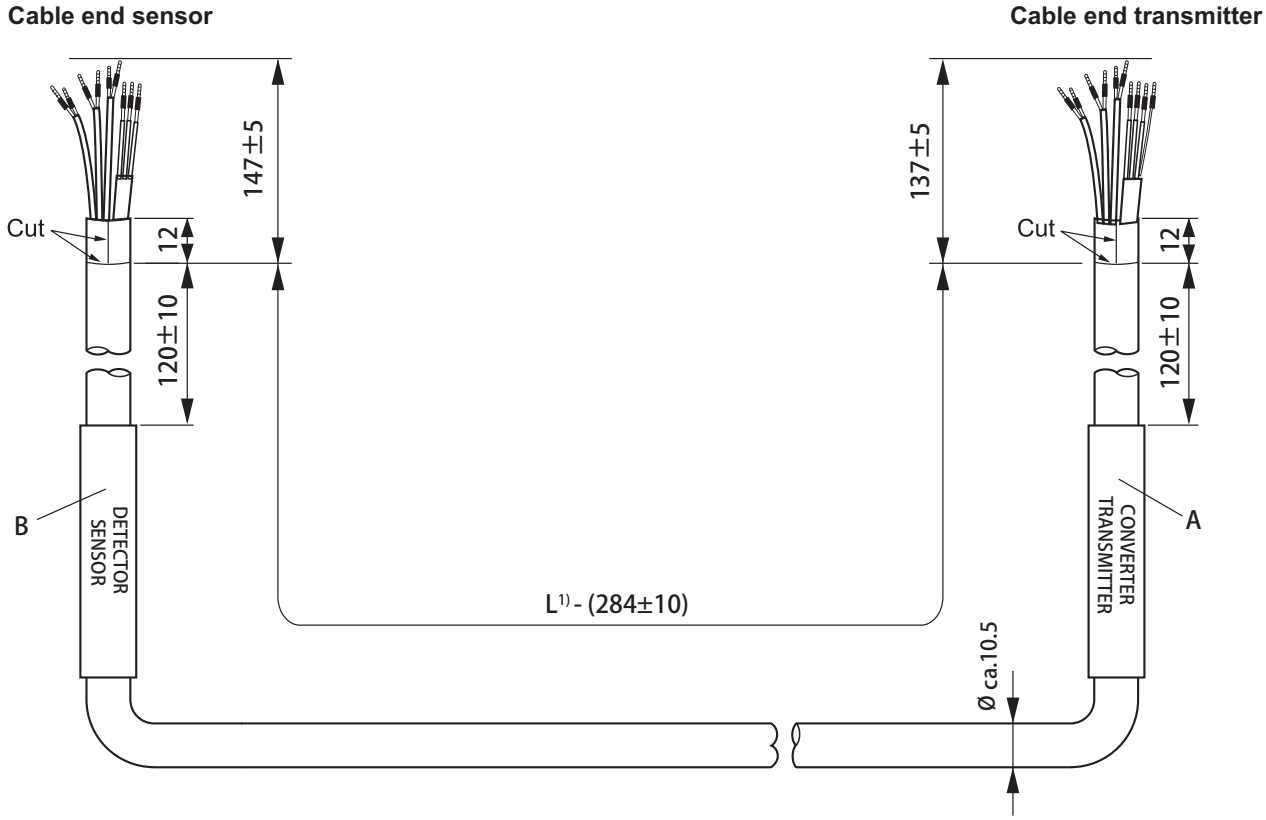


Fig. 5: Dimensions of standard cable (option /L⎵⎵⎵ without option /LAC), terminated in mm and labelling

Label number	Label name	Installation status
A	CONVERTER/TRANSMITTER	Factory labeled
B	DETECTOR/SENSOR	

[1] L: Length of connecting cable

Options	Length of connecting cable in m (ft)	Colour of connecting cable
/L000	Without connecting cable	Non Ex: gray / Ex: blue
/L005	5 m (16.4 ft)	
/L010	10 m (32.8 ft)	
/L015	15 m (49.2 ft)	
/L020	20 m (65.6 ft)	
/L030	30 m (98.4 ft)	

- Weight of cable ≤ 0.200 kg/m (0.134 lb/ft)

A cable assembly kit is included for possible repairs.

4.2 Steel armored cable (option /L_ _ _ with option /LAC)

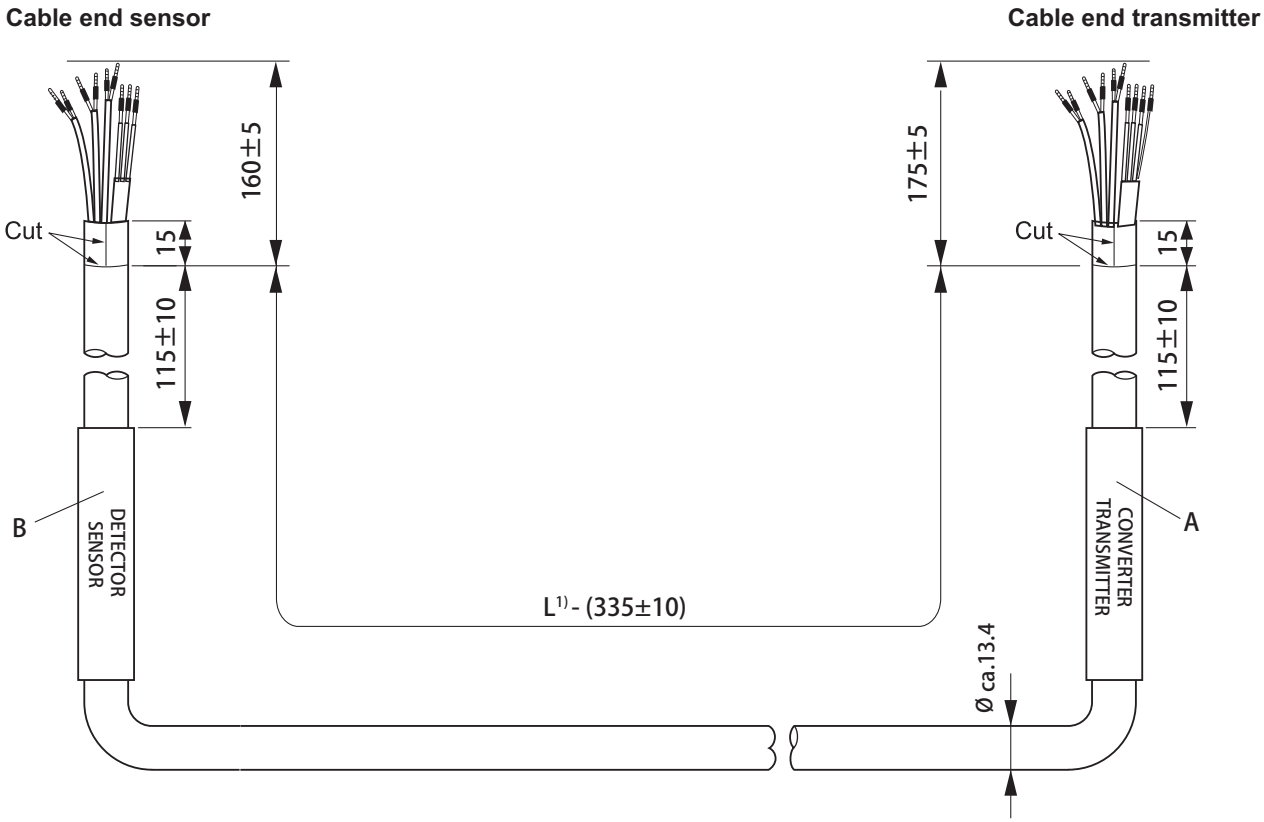


Fig. 6: Dimensions of standard cable (option /L_ _ _with option /LAC), terminated in mm and labelling

Label number	Label name	Installation status
A	CONVERTER/TRANSMITTER	Factory labeled
B	DETECTOR/SENSOR	

[1] L: Length of connecting cable

Options	Length of connecting cable in m (ft)	Colour of connecting cable
/L005, /LAC	5 m (16.4 ft)	Blue
/L010; /LAC	10 m (32.8 ft)	
/L015, /LAC	15 m (49.2 ft)	
/L020, /LAC	20 m (65.6 ft)	
/L030, /LAC	30 m (98.4 ft)	

- Weight of cable ≤ 0.300 kg/m (0.202 lb/ft)

A cable assembly kit is included for possible repairs.

4.3 Fire retardant cable (option /Y␣␣␣)

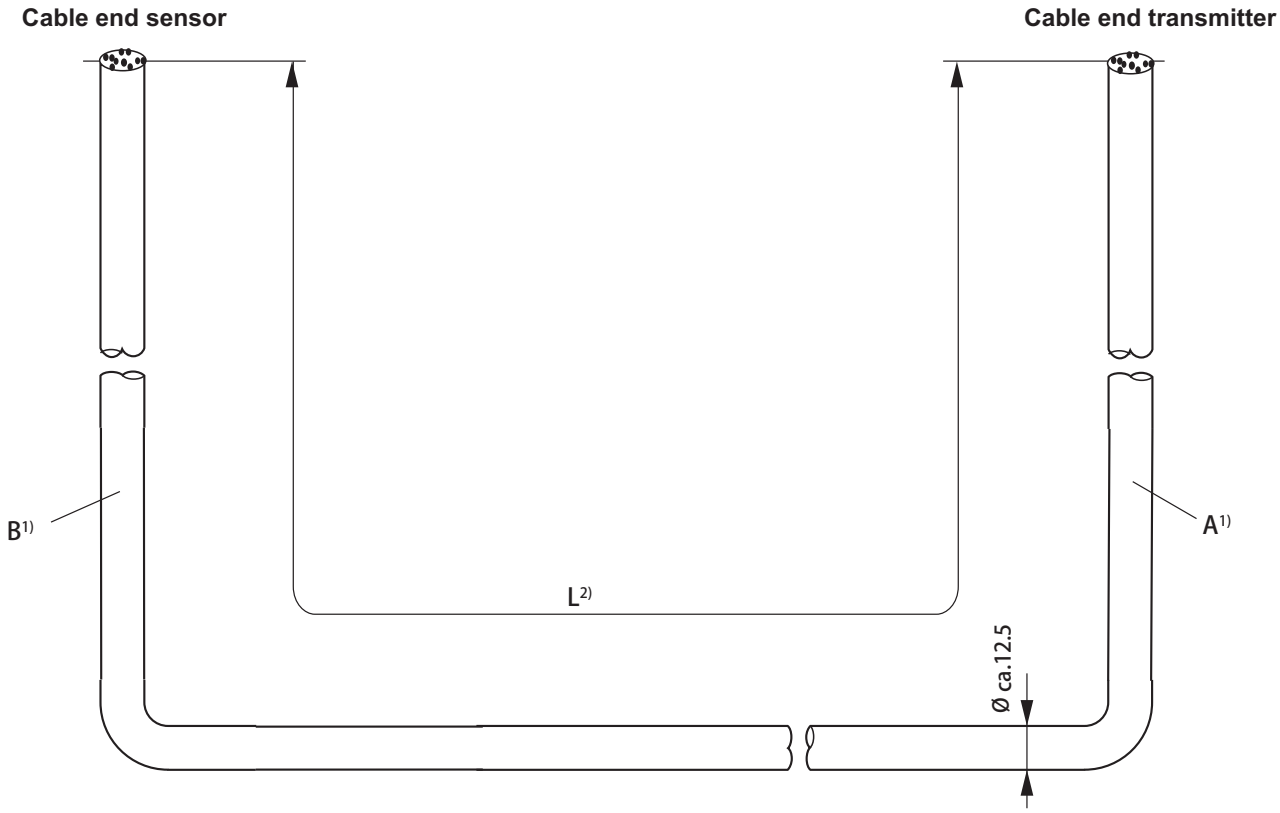


Fig. 7: Dimensions of fire retardant cable (option /Y␣␣␣), not terminated[3)] in mm and labelling

Label number	Label name	Installation status
A	CONVERTER/TRANSMITTER	Separately enclosed
B	DETECTOR/SENSOR	

[1)] Installation of label A/B: Label A/B is included in termination kit. Install the label inside an appropriate cable area near the mounted cable gland.

[2)] L: Length of connecting cable

[3)] The cable can also be supplied pre-assembled.

Options	Length of connecting cable in m (ft)	Colour of connecting cable
/Y000	Without connecting cable	Gray
/Y005	5 m (16.4 ft)	
/Y010	10 m (32.8 ft)	
/Y015	15 m (49.2 ft)	
/Y020	20 m (65.6 ft)	
/Y030	30 m (98.4 ft)	

- Weight of cable ≤ 0.270 kg/m (0.181 lb/ft)

A cable assembly kit with instructions is included.

5 Japan Ex cable gland dimensions (option /V5␣)

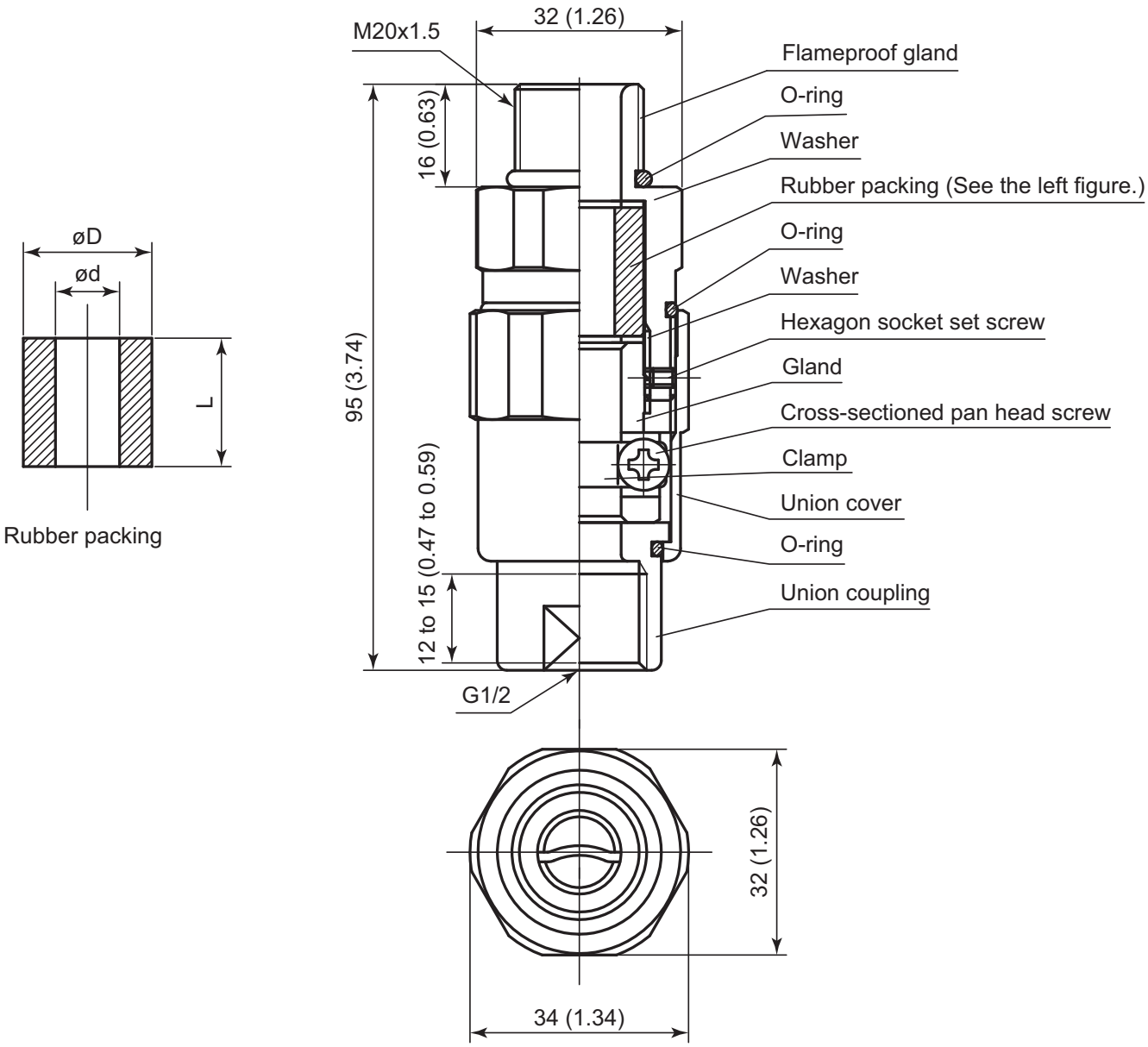


Fig. 8: Dimensions of cable gland (option V5␣), in mm (inch)

Dimensions of rubber packing (before compression)			Identification mark of rubber packing	Cable outer diameter	
L	Ø D	Ø d		Min.	Max.
in mm (inch)					
20 (0.79)	Ø 20 (0.79)	Ø 10 (0.39)	Ø 10 (0.39)	Ø 8.0 (0.31)	Ø 10.0 (0.39)
20 (0.79)	Ø 20 (0.79)	Ø 12 (0.47)	Ø 12 (0.47)	Ø 10.0 (0.39)	Ø 12.0 (0.47)

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Germany

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