

# Drawings

## ROTAMASS Total Insight Coriolis Mass Flow and Density Meter Nano



SD 01U10B01-00EN-R



## Table of contents

<b>1</b>	<b>Process connections, dimensions and weights of sensor .....</b>	<b>3</b>
<b>2</b>	<b>Transmitter dimensions and weights .....</b>	<b>14</b>
<b>3</b>	<b>Wiring .....</b>	<b>16</b>
3.1	Terminal configuration diagrams .....	16
3.1.1	Terminal for connection between sensor and transmitter .....	16
3.1.2	Terminal for I/O outputs and power supply .....	16
<b>4</b>	<b>Connecting cable dimensions and weights.....</b>	<b>17</b>
4.1	Standard cable (option /L_ _ _ without option /LAC) .....	17
4.2	Steel armored cable (option /L_ _ _ with option /LAC) .....	18
4.3	Fire retardant cable (option /Y_ _ _) .....	19
<b>5</b>	<b>Japan Ex cable gland dimensions (option /V5_ ).....</b>	<b>20</b>

# 1 Process connections, dimensions and weights of sensor

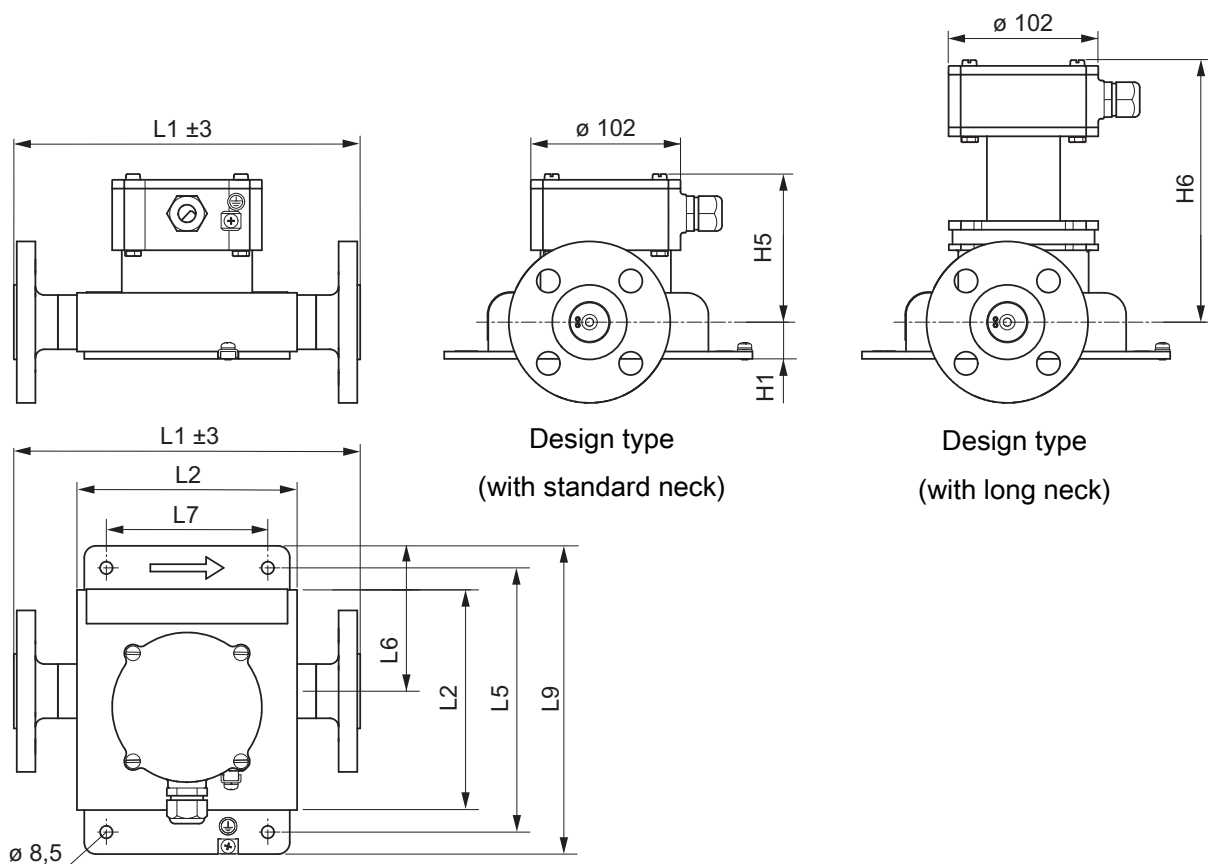


Fig. 1: Dimensions in mm

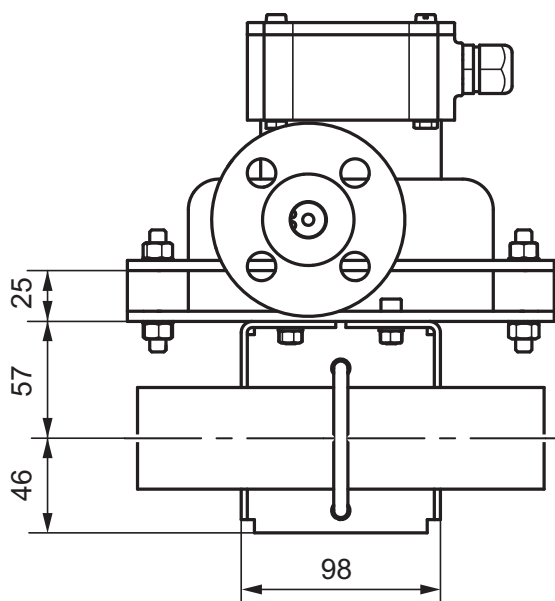


Fig. 2: Dimensions in mm: fixing device option PD for Nano

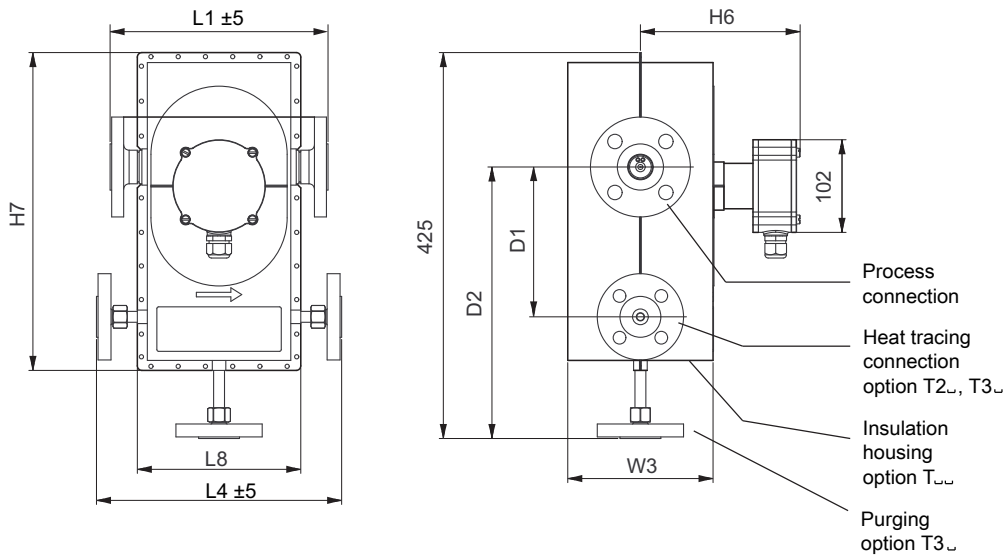


Fig. 3: Dimensions in mm: version with insulation housing

Tab. 1: Dimensions without length L1

Meter size	L2	L4	L5	L6	L7	L8	L9
	in mm (inch)						
Nano 06	150 (5.9)	270 (10.6)	180 (7.1)	111 (4.4)	110 (4.3)	180 (7.1)	210 (8.3)
Nano 08	150 (5.9)	270 (10.6)	180 (7.1)	111 (4.4)	110 (4.3)	180 (7.1)	210 (8.3)
Nano 10	150 (5.9)	270 (10.6)	180 (7.1)	99 (3.9)	110 (4.3)	180 (7.1)	210 (8.3)
Nano 15	150 (5.9)	270 (10.6)	180 (7.1)	89 (3.5)	110 (4.3)	180 (7.1)	210 (8.3)
Nano 20	150 (5.9)	270 (10.6)	180 (7.1)	55 (2.2)	110 (4.3)	180 (7.1)	210 (8.3)

Tab. 2: Dimensions without length L1

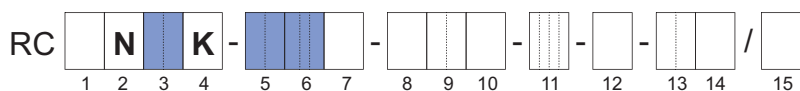
Meter size	H1	H3	H5	H6	H7	W3	D1	D2
	in mm (inch)							
Nano 06	25 (1)	81 (3.2)	101 (4)	176 (6.9)	350 (13.8)	160 (6.3)	165 (6.5)	299 (11.8)
Nano 08	25 (1)	81 (3.2)	101 (4)	176 (6.9)	350 (13.8)	160 (6.3)	165 (6.5)	299 (11.8)
Nano 10	25 (1)	81 (3.2)	101 (4)	176 (6.9)	350 (13.8)	160 (6.3)	165 (6.5)	299 (11.8)
Nano 15	25 (1)	81 (3.2)	101 (4)	176 (6.9)	350 (13.8)	160 (6.3)	165 (6.5)	299 (11.8)
Nano 20	25 (1)	81 (3.2)	101 (4)	176 (6.9)	350 (13.8)	160 (6.3)	165 (6.5)	299 (11.8)

**Overall length L1 and weight**

The overall length of the sensor depends on the selected process connection (type and size of flange). The following tables list the overall length and weight (without insulation or heat tracing and without customized installation length options) as functions of the individual process connection.

The weights in the tables are for the remote type with standard neck. Additional weight for the remote type with long neck: 1 kg (2.2 lb).

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



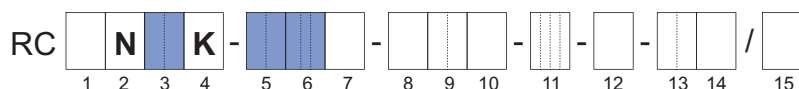
Tab. 3: Overall length L1 and weight of sensor (process connections: ASME)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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 1/2" class 150, raised face (RF)	15	BA1	240 (9.4)	6.2 (14)	240 (9.4)	6.2 (14)	240 (9.4)	6.2 (14)	240 (9.4)	6.2 (14)	240 (9.4)	6.2 (14)
ASME 1/2" class 300, raised face (RF)		BA2	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)
ASME 1/2" class 600, raised face (RF)		BA4	250 (9.8)	6.9 (15)	250 (9.8)	6.9 (15)	250 (9.8)	6.9 (15)	250 (9.8)	6.9 (15)	250 (9.8)	6.9 (15)
ASME 1/2" class 600, ring joint (RJ)		CA4	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)
ASME 1/2" class 900, raised face (RF)		BA5	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)
ASME 1/2" class 900, ring joint (RJ)		CA5	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)
ASME 1/2" class 1500, raised face (RF)		BA6	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)	270 (10.6)	8.8 (19)
ASME 1/2" class 1500, ring joint (RJ)		CA6	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)	270 (10.6)	11.3 (25)
ASME 1" class 150, raised face (RF)	25	BA1	–	–	240 (9.4)	7.1 (16)	240 (9.4)	7.1 (16)	240 (9.4)	7.1 (16)	240 (9.4)	7.1 (16)
ASME 1" class 300, raised face (RF)		BA2	–	–	240 (9.4)	8.1 (18)	240 (9.4)	8.1 (18)	240 (9.4)	8.1 (18)	240 (9.4)	8.1 (18)
ASME 1" class 600, raised face (RF)		BA4	–	–	260 (10.2)	8.5 (19)	260 (10.2)	8.5 (19)	260 (10.2)	8.5 (19)	260 (10.2)	8.5 (19)
ASME 1" class 600, ring joint (RJ)		CA4	–	–	260 (10.2)	8.6 (19)	260 (10.2)	8.6 (19)	260 (10.2)	8.6 (19)	260 (10.2)	8.6 (19)
ASME 1" class 900, raised face (RF)		BA5	–	–	320 (12.6)	12.7 (28)	320 (12.6)	12.7 (28)	320 (12.6)	12.7 (28)	320 (12.6)	12.7 (28)
ASME 1" class 900, ring joint (RJ)		CA5	–	–	320 (12.6)	12.8 (28)	320 (12.6)	12.8 (28)	320 (12.6)	12.8 (28)	320 (12.6)	12.8 (28)
ASME 1" class 1500, raised face (RF)		BA6	–	–	320 (12.6)	12.7 (28)	320 (12.6)	12.7 (28)	320 (12.6)	12.7 (28)	320 (12.6)	12.7 (28)
ASME 1" class 1500, ring joint (RJ)		CA6	–	–	320 (12.6)	12.8 (28)	320 (12.6)	12.8 (28)	320 (12.6)	12.8 (28)	320 (12.6)	12.8 (28)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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 1½" class 150, raised face (RF)	40	BA1	–	–	250 (9.8)	8 (18)	250 (9.8)	8 (18)	250 (9.8)	8 (18)	250 (9.8)	8 (18)
ASME 1½" class 300, raised face (RF)		BA2	–	–	250 (9.8)	10.3 (23)	250 (9.8)	10.3 (23)	250 (9.8)	10.3 (23)	250 (9.8)	10.3 (23)
ASME 1½" class 600, raised face (RF)		BA4	–	–	270 (10.6)	11.7 (26)	270 (10.6)	11.7 (26)	270 (10.6)	11.7 (26)	270 (10.6)	11.7 (26)
ASME 1½" class 600, ring joint (RJ)		CA4	–	–	270 (10.6)	11.6 (26)	270 (10.6)	11.6 (26)	270 (10.6)	11.6 (26)	270 (10.6)	11.6 (26)
ASME 1½" class 900, raised face (RF)		BA5	–	–	340 (13.4)	17.5 (39)	340 (13.4)	17.5 (39)	340 (13.4)	17.5 (39)	340 (13.4)	17.5 (39)
ASME 1½" class 900, ring joint (RJ)		CA5	–	–	340 (13.4)	17.7 (39)	340 (13.4)	17.7 (39)	340 (13.4)	17.7 (39)	340 (13.4)	17.7 (39)
ASME 1½" class 1500, raised face (RF)		BA6	–	–	340 (13.4)	17.5 (39)	340 (13.4)	17.5 (39)	340 (13.4)	17.5 (39)	340 (13.4)	17.5 (39)
ASME 1½" class 1500, ring joint (RJ)		CA6	–	–	340 (13.4)	17.7 (39)	340 (13.4)	17.7 (39)	340 (13.4)	17.7 (39)	340 (13.4)	17.7 (39)

Meaning of "–": not available

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



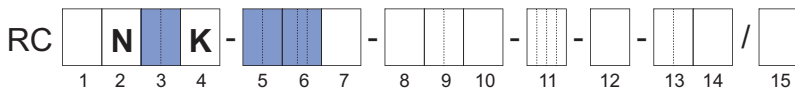
Tab. 4: Overall length L1 and weight of sensor (process connections: EN)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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	240 (9.4)	6.8 (15)	240 (9.4)	6.8 (15)	240 (9.4)	6.8 (15)	240 (9.4)	6.8 (15)	240 (9.4)	6.8 (15)
EN DN15 PN40, type D, with groove		GD4	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)
EN DN15 PN40, type E, with spigot		ED4	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)
EN DN15 PN40, type F, with recess		FD4	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)
EN DN15 PN100, type B1, raised face (RF)		BD6	250 (9.8)	7.6 (17)	250 (9.8)	7.6 (17)	250 (9.8)	7.6 (17)	250 (9.8)	7.6 (17)	250 (9.8)	7.6 (17)
EN DN15 PN100, type D, with groove		GD6	250 (9.8)	13.6 (30)	250 (9.8)	13.6 (30)	250 (9.8)	13.6 (30)	250 (9.8)	13.6 (30)	250 (9.8)	13.6 (30)
EN DN15 PN100, type E, with spigot		ED6	250 (9.8)	7.3 (16)	250 (9.8)	7.3 (16)	250 (9.8)	7.3 (16)	250 (9.8)	7.3 (16)	250 (9.8)	7.3 (16)
EN DN15 PN100, type F, with recess		FD6	250 (9.8)	7.5 (17)	250 (9.8)	7.5 (17)	250 (9.8)	7.5 (17)	250 (9.8)	7.5 (17)	250 (9.8)	7.5 (17)
EN DN25 PN40, type B1, raised face (RF)	25	BD4	-	-	240 (9.4)	7.7 (17)	240 (9.4)	7.7 (17)	240 (9.4)	7.7 (17)	240 (9.4)	7.7 (17)
EN DN25 PN40, type D, with groove		GD4	-	-	240 (9.4)	7.7 (17)	240 (9.4)	7.7 (17)	240 (9.4)	7.7 (17)	240 (9.4)	7.7 (17)
EN DN25 PN40, type E, with spigot		ED4	-	-	240 (9.4)	7.4 (16)	240 (9.4)	7.4 (16)	240 (9.4)	7.4 (16)	240 (9.4)	7.4 (16)
EN DN25 PN40, type F, with recess		FD4	-	-	240 (9.4)	7.6 (17)	240 (9.4)	7.6 (17)	240 (9.4)	7.6 (17)	240 (9.4)	7.6 (17)
EN DN25 PN100, type B1, raised face (RF)		BD6	-	-	260 (10.2)	10.3 (23)	260 (10.2)	10.3 (23)	260 (10.2)	10.3 (23)	260 (10.2)	10.3 (23)
EN DN25 PN100, type D, with groove		GD6	-	-	260 (10.2)	10.2 (22)	260 (10.2)	10.2 (22)	260 (10.2)	10.2 (22)	260 (10.2)	10.2 (22)
EN DN25 PN100, type E, with spigot		ED6	-	-	260 (10.2)	9.7 (21)	260 (10.2)	9.7 (21)	260 (10.2)	9.7 (21)	260 (10.2)	9.7 (21)
EN DN25 PN100, type F, with recess		FD6	-	-	260 (10.2)	10.1 (22)	260 (10.2)	10.1 (22)	260 (10.2)	10.1 (22)	260 (10.2)	10.1 (22)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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	–	–	240 (9.4)	9.2 (20)	240 (9.4)	9.2 (20)	240 (9.4)	9.2 (20)	240 (9.4)	9.2 (20)
EN DN40 PN40, type D, with groove		GD4	–	–	240 (9.4)	9.1 (20)	240 (9.4)	9.1 (20)	240 (9.4)	9.1 (20)	240 (9.4)	9.1 (20)
EN DN40 PN40, type E, with spigot		ED4	–	–	240 (9.4)	8.8 (19)	240 (9.4)	8.8 (19)	240 (9.4)	8.8 (19)	240 (9.4)	8.8 (19)
EN DN40 PN40, type F, with recess		FD4	–	–	240 (9.4)	9 (20)	240 (9.4)	9 (20)	240 (9.4)	9 (20)	240 (9.4)	9 (20)
EN DN40 PN100, type B1, raised face (RF)		BD6	–	–	320 (12.6)	13.7 (30)	320 (12.6)	13.7 (30)	320 (12.6)	13.7 (30)	320 (12.6)	13.7 (30)
EN DN40 PN100, type D, with groove		GD6	–	–	320 (12.6)	13.6 (30)	320 (12.6)	13.6 (30)	320 (12.6)	13.6 (30)	320 (12.6)	13.6 (30)
EN DN40 PN100, type E, with spigot		ED6	–	–	320 (12.6)	13.2 (29)	320 (12.6)	13.2 (29)	320 (12.6)	13.2 (29)	320 (12.6)	13.2 (29)
EN DN40 PN100, type F, with recess		FD6	–	–	320 (12.6)	13.5 (30)	320 (12.6)	13.5 (30)	320 (12.6)	13.5 (30)	320 (12.6)	13.5 (30)

Meaning of "–": not available

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

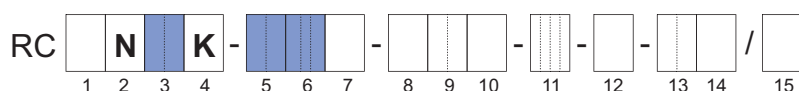


Tab. 5: Overall length L1 and weight of sensor (process connections: JIS)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)	240 (9.4)	6.5 (14)
JIS DN15 20K		BJ2	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)	240 (9.4)	6.7 (15)
JIS DN25 10K	25	BJ1	–	–	240 (9.4)	7.6 (17)	240 (9.4)	7.6 (17)	240 (9.4)	7.6 (17)	240 (9.4)	7.6 (17)
JIS DN25 20K		BJ2	–	–	240 (9.4)	8 (18)	240 (9.4)	8 (18)	240 (9.4)	8 (18)	240 (9.4)	8 (18)
JIS DN40 10K	40	BJ1	–	–	240 (9.4)	8.4 (19)	240 (9.4)	8.4 (19)	240 (9.4)	8.4 (19)	240 (9.4)	8.4 (19)
JIS DN40 20K		BJ2	–	–	240 (9.4)	8.8 (19)	240 (9.4)	8.8 (19)	240 (9.4)	8.8 (19)	240 (9.4)	8.8 (19)

Meaning of "–": not available

Process connections compatible to JPI

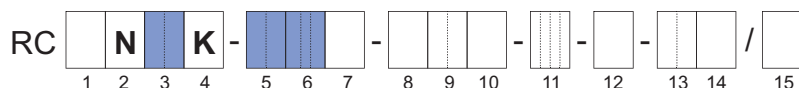


Tab. 6: Overall length L1 and weight of sensor (process connections: JPI)

Process connections	Model code pos.		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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 1/2" class 150	15	BP1	240 (9.4)	6.1 (14)	240 (9.4)	6.1 (14)	240 (9.4)	6.1 (14)	240 (9.4)	6.1 (14)	240 (9.4)	6.1 (14)
JPI 1/2" class 300		BP2	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)	240 (9.4)	6.6 (15)
JPI 1/2" class 600		BP4	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)	250 (9.8)	6.8 (15)
JPI 1" class 150	25	BP1	–	–	240 (9.4)	6.9 (15)	240 (9.4)	6.9 (15)	240 (9.4)	6.9 (15)	240 (9.4)	6.9 (15)
JPI 1" class 300		BP2	–	–	240 (9.4)	8 (18)	240 (9.4)	8 (18)	240 (9.4)	8 (18)	240 (9.4)	8 (18)
JPI 1" class 600		BP4	–	–	260 (10.2)	8.4 (18)	260 (10.2)	8.4 (18)	260 (10.2)	8.4 (18)	260 (10.2)	8.4 (18)
JPI 1 1/2" class 150	40	BP1	–	–	250 (9.8)	8.1 (18)	250 (9.8)	8.1 (18)	250 (9.8)	8.1 (18)	250 (9.8)	8.1 (18)
JPI 1 1/2" class 300		BP2	–	–	250 (9.8)	10.3 (23)	250 (9.8)	10.3 (23)	250 (9.8)	10.3 (23)	250 (9.8)	10.3 (23)
JPI 1 1/2" class 600		BP4	–	–	270 (10.6)	11.4 (25)	270 (10.6)	11.4 (25)	270 (10.6)	11.4 (25)	270 (10.6)	11.4 (25)

Meaning of "–": not available

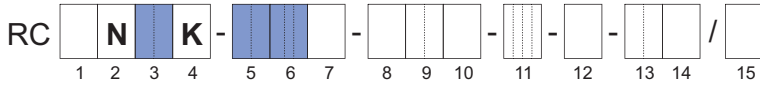
Process connections with internal thread NPT



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

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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 1/4"	06	TT9	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)
NPT 3/8"	08		260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)
NPT 1/2"	15		260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)
NPT 3/4"	20		260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)

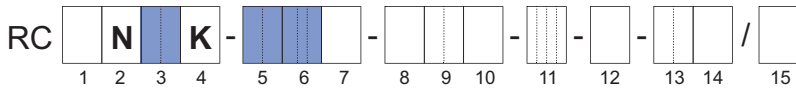
Process connections with internal thread G



Tab. 8: Overall length L1 and weight of sensor (process connections: G thread)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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 1/4"	06	TG9	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)
G 3/8"	08		260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)
G 1/2"	15		260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)	260 (10.2)	5.6 (12)
G 3/4"	20		260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)	260 (10.2)	5.5 (12)

Clamp process connections according to DIN 32676 series A

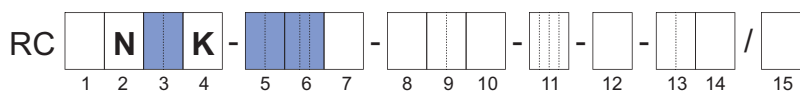


Tab. 9: Overall length L1 and weight of sensor (process connections: DIN 32676 series A clamp)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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)
DIN 32676 series A DN15	15	HS4	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)
DIN 32676 series A DN25	25		–	–	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)
DIN 32676 series A DN40	40		–	–	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)

Meaning of "–": not available

**Clamp process connections according to DIN 32676 series C (Tri-Clamp)**

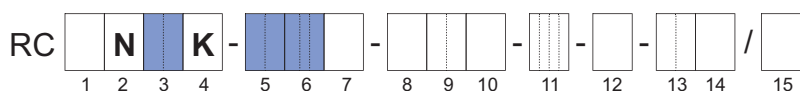


Tab. 10: Overall length L1 and weight of sensor (process connections: DIN 32676 series C Tri-Clamp)

Process connections	Model code position		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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)
DIN 32676 series C 1/2"	15	HS8	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)	240 (9.4)	5.3 (12)
DIN 32676 series C 1"	25		-	-	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)
DIN 32676 series C 1 1/2"	40		-	-	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)	240 (9.4)	5.4 (12)

Meaning of "-": not available

**Clamp process connections according to DIN 11864 2-BF form A**

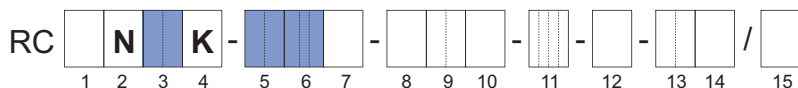


Tab. 11: Overall length L1 and weight of sensor (process connections: DIN 11864-2-BF Form A)

Process connections	Model code pos.		Nano 06		Nano 08		Nano 10		Nano 15		Nano 20	
	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)
DIN 11864-2-BF Form A DN15	15	HS3	260 (10.2)	5.7 (12.6)	260 (10.2)	5.7 (12.6)	260 (10.2)	5.7 (12.6)	260 (10.2)	5.7 (12.6)	260 (10.2)	5.7 (12.6)

Meaning of "-": not available

### NAMUR & Customer length



### Overall length and weight for customized installation length

Tab. 12: Available process connections for options NL and CL with minimum and maximum installation length

Model code position		Nano 06 to Nano 20	
5	6	CL min in mm (inch)	CL max (NL) <sup>1)</sup> in mm (inch)
15	BA1, BA2, BD4, BJ1, BJ2, BP1, BP2, ED4, FD4, GD4	300 (11.8)	510 (20.1)
	BA4, CA4, BP4	310 (12.2)	510 (20.1)
25	BA1, BA2, BD4, BJ1, BJ2, BP1, BP2, ED4, FD4, GD4	300 (11.8)	510 (20.1)
	BA4, CA4, BP4	320 (12.6)	510 (20.1)
40	BA1, BA2, BP1, BP2	310 (12.2)	510 (20.1)
	BD4, BJ1, BJ2, ED4, FD4, GD4	300 (11.8)	510 (20.1)
	BA4, CA4, BP4	330 (13)	510 (20.1)

Meaning of "CL": Customer length, "NL": NAMUR length; NL corresponds to CL max

<sup>1)</sup> NL only for process connection size 15, with other sizes only CL available (corresponds to NL for size 15)

Tab. 13: Additional weight in combination with options NL and CL

	Nano 06	Nano 08	Nano 10	Nano 15	Nano 20
Additional weight for customized installation length in kg/mm	0.003				

### Typical dimensions of measuring tubes

Tab. 14: 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)
Nano06	Measuring tubes made of nickel alloy C-22/2.4602, process connections of stainless steel 1.4404/316L	K	0.90 (0.035)	0.15 (0.006)
Nano08			1.20 (0.047)	0.20 (0.008)
Nano10			2.10 (0.083)	0.25 (0.009)
Nano15			3.00 (0.118)	0.25 (0.009)
Nano20			4.50 (0.177)	0.40 (0.016)

**Additional weight for insulation and heat tracing**

Tab. 15: Additional weight for insulation and heat tracing

Model code pos. 15	Description	Process connection	Weight in kg (lb)				
			Nano 06	Nano 08	Nano 10	Nano 15	Nano 20
/T10	Insulation	–			2.2 (4.9)		
/T21 <sup>1)</sup>	Insulation and heat tracing	ASME ½" class 150, raised face (RF)			2.4 (5.3)		
/T22 <sup>1)</sup>		ASME ½" class 300, raised face (RF)					
/T26 <sup>1)</sup>		EN DN15 PN40					
/T31 <sup>1)</sup>	Insulation and heat tracing with purging	ASME ½" class 150, raised face (RF)			2.6 (5.7)		
/T32 <sup>1)</sup>		ASME ½" class 300, raised face (RF)					
/T36 <sup>1)</sup>		EN DN15 PN40					

<sup>1)</sup>Weights from insulation (T10) have to be considered additionally.

## 2 Transmitter dimensions and weights

### Transmitter dimensions

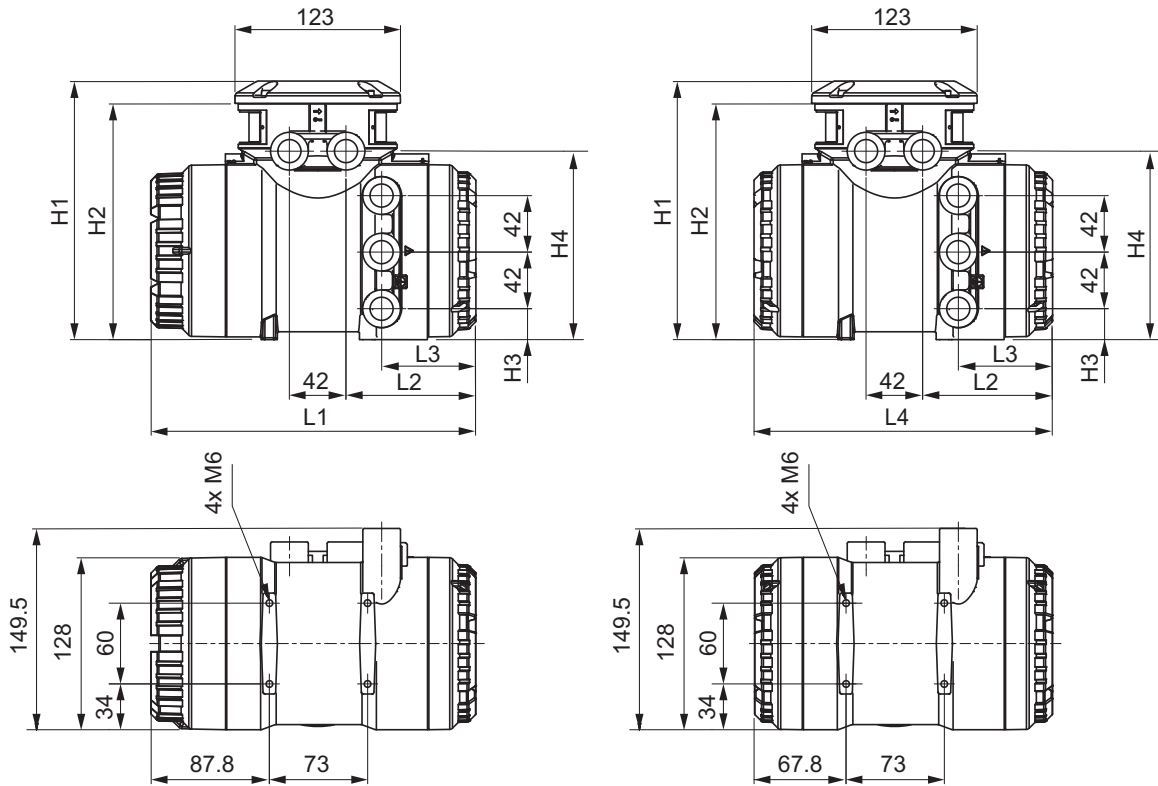


Fig. 4: Dimensions of transmitter in mm  
(left: transmitter with display, right: transmitter without display)

Tab. 16: 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)

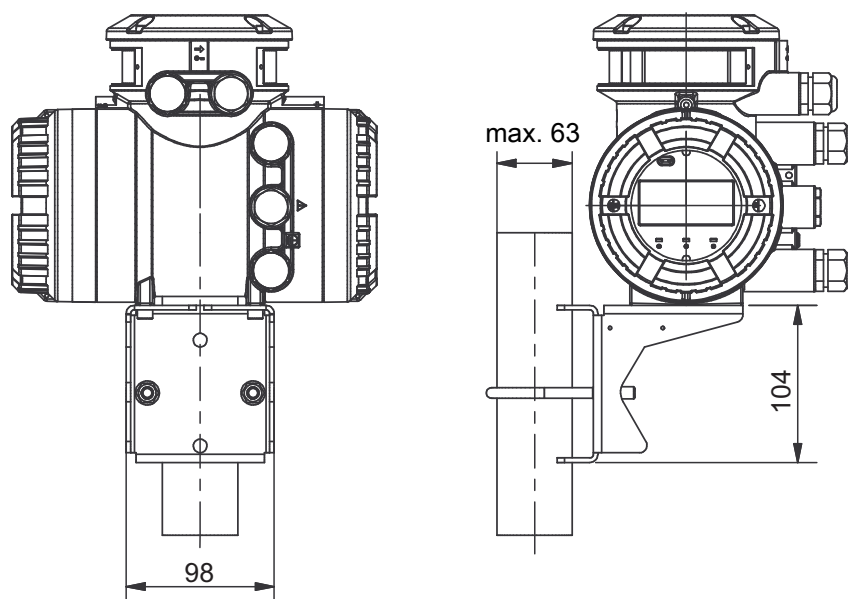
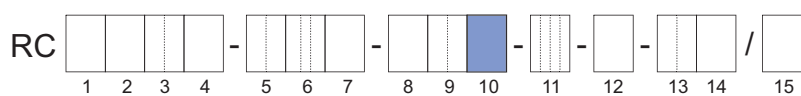


Fig. 5: Dimensions of transmitter in mm, attached to mounting bracket.

**Transmitter weights**



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

### 3 Wiring

#### 3.1 Terminal configuration diagrams

##### 3.1.1 Terminal for connection between sensor and transmitter

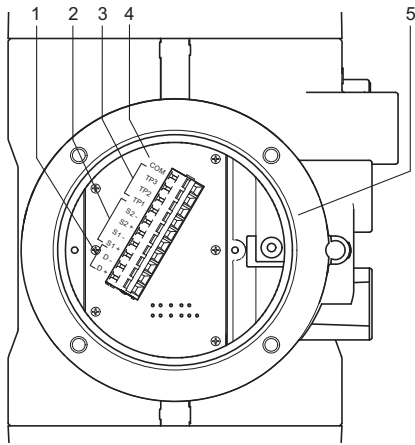


Fig. 6: Connection terminal circuits (transmitter on the left side, sensor on the right side)

- |   |   |   |                  |
|---|---|---|------------------|
| 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

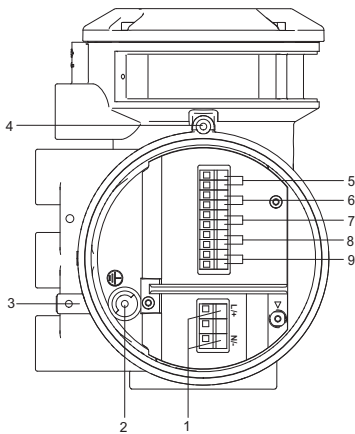


Fig. 7: Terminal for I/O outputs and power supply in transmitter

- |   |                                   |   |                                   |
|---|-----------------------------------|---|-----------------------------------|
| 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)

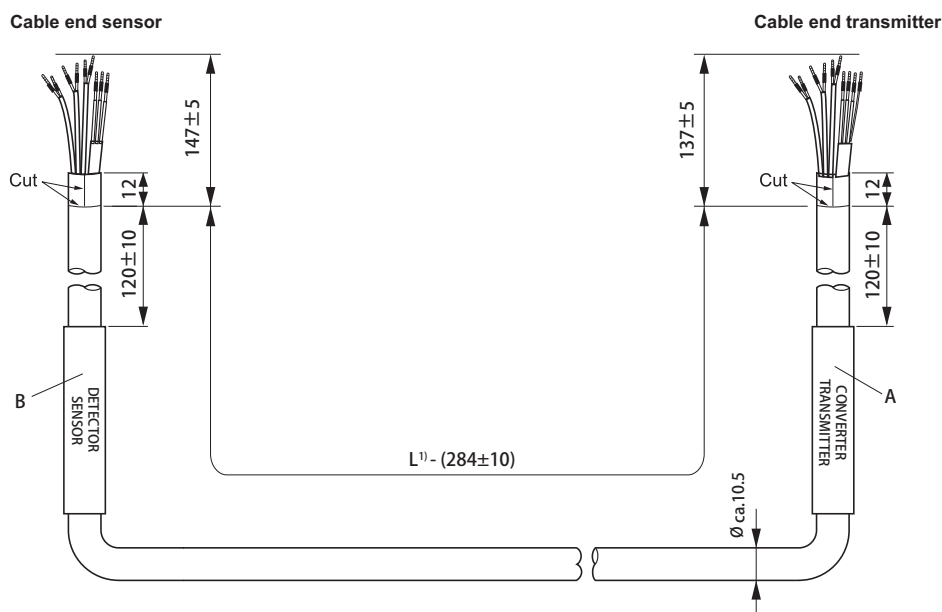


Fig. 8: Dimensions of standard cable (option /L\_ without option /LAC), terminated in mm and labelling

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)

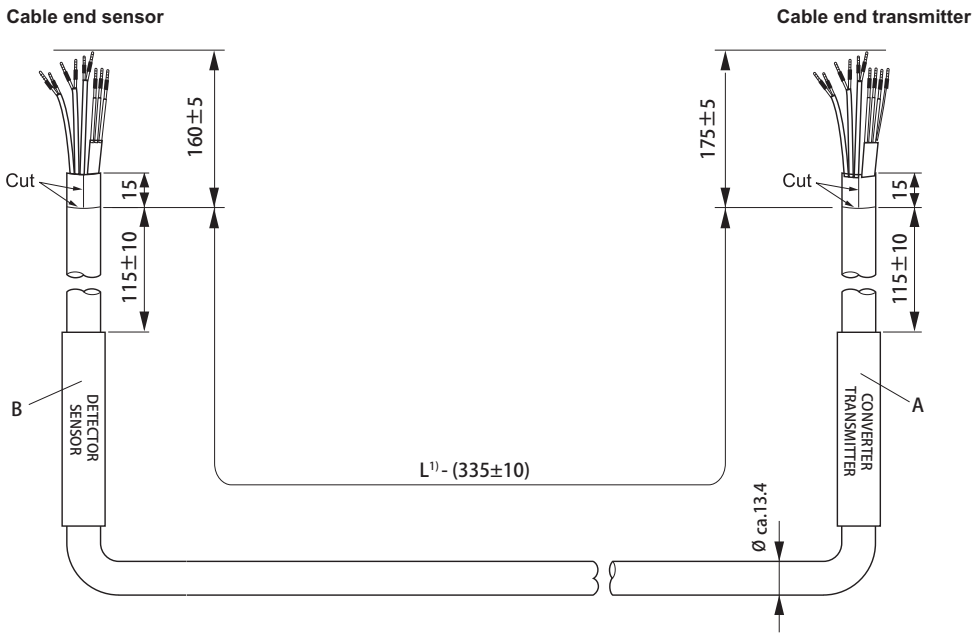


Fig. 9: Dimensions of standard cable (option /L\_\_\_\_ with option /LAC), terminated in mm and labelling

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\_...)

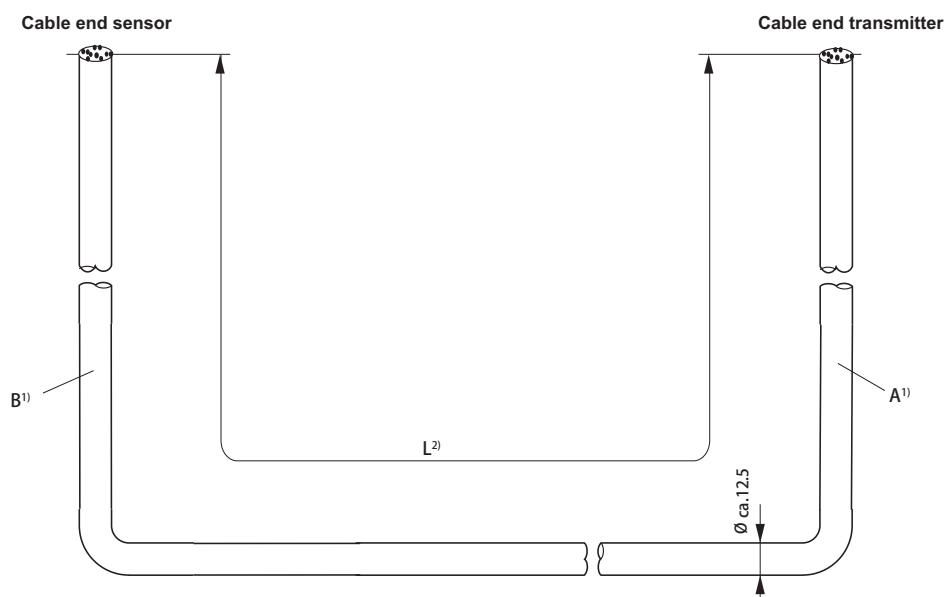


Fig. 10: Dimensions of fire retardant cable (option /Y\_...), not terminated<sup>3)</sup> in mm and labelling

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  $\leq 0.270$  kg/m (0.181 lb/ft)

A cable assembly kit with instructions is included.

### 5 Japan Ex cable gland dimensions (option /V5\_)

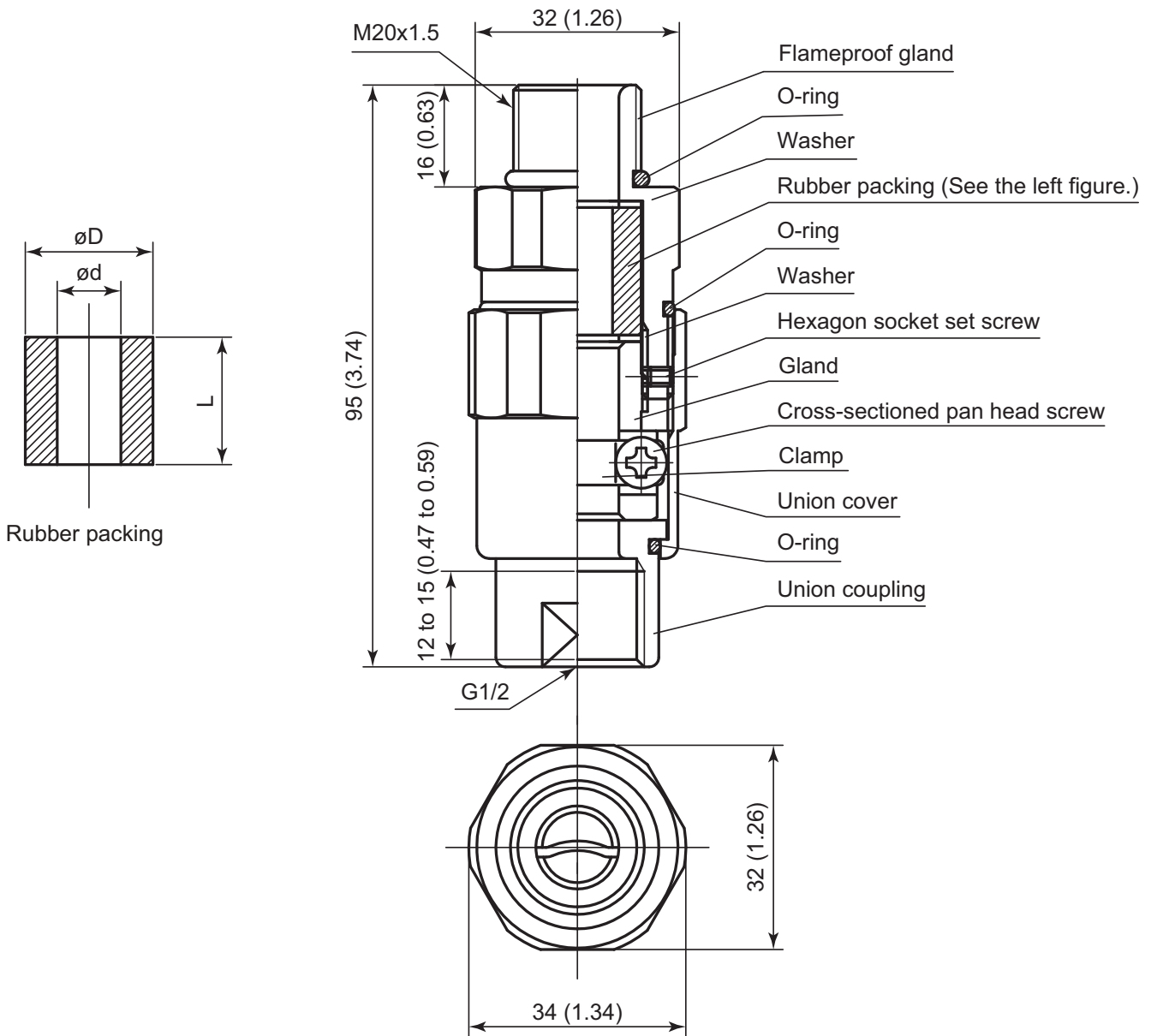


Fig. 11: Dimensions of cable gland (option V5\_), in mm (inch)

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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For the actual manufacturing location of your device refer to the model code and/or serial number.

