Drawings

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

SD 01U10B06-00EN-R

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1 Process connections, dimensions and weights of sensor

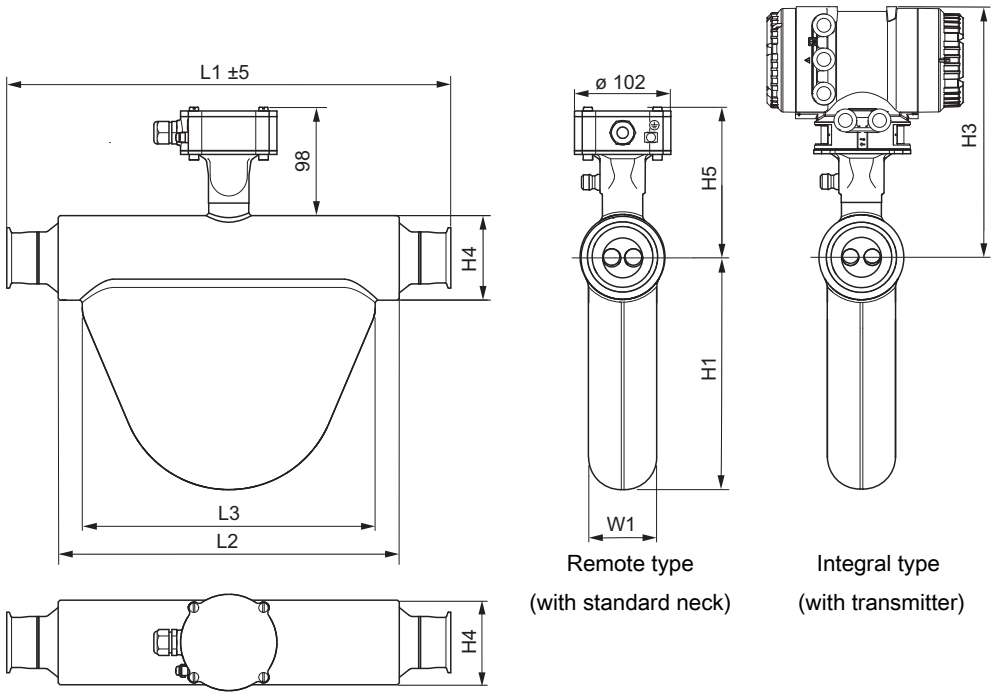


Fig. 1: Dimensions in mm

Tab. 1: Dimensions without length L1

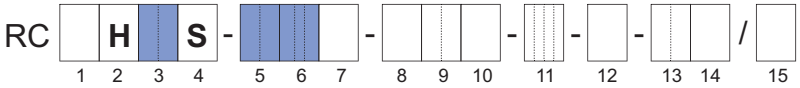
Meter size	L2	L3	H1	H3	H4	H5	W1
	in mm (inch)						
Hygienic 25	190 (7.5)	165 (6.5)	117 (4.6)	268 (10.6)	56 (2.2)	138 (5.4)	42 (1.7)
Hygienic 40	227 (8.9)	195 (7.7)	145 (5.7)	277 (10.9)	71 (2.8)	148 (5.8)	50 (2)
Hygienic 50	361 (14.2)	310 (12.2)	245 (9.6)	289 (11.4)	90 (3.5)	159 (6.3)	72 (2.8)
Hygienic 80	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 integral type: 3.5 kg (7.7 lb).

Threaded connection suitable for DIN 11851

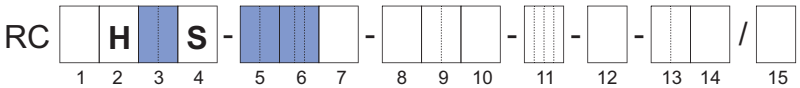


Tab. 2: Overall length L1 and weight of sensor (process connections: DIN 11851 threaded)

Process connections	Model code pos.		Hygienic 25		Hygienic 40		Hygienic 50		Hygienic 80	
	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)
DIN 11851 DN25	25	HS2	280 (11)	5.4 (12)	320 (12.6)	7.4 (16)	–	–	–	–
DIN 11851 DN40	40		290 (11.4)	5.5 (12)	330 (13)	7.5 (17)	490 (19.3)	14.3 (32)	–	–
DIN 11851 DN50	50		–	–	–	–	480 (18.9)	14.4 (32)	610 (24)	23.4 (52)
DIN 11851 DN65	65		–	–	–	–	–	–	590 (23.2)	23.4 (52)
DIN 11851 DN80	80		–	–	–	–	–	–	590 (23.2)	23.8 (52)

Meaning of "–": not available

Clamp process connections according to DIN 32676 series A



Tab. 3: Overall length L1 and weight of sensor (process connections: DIN 32676 series A clamp)

Process connections	Model code pos.		Hygienic 25		Hygienic 40		Hygienic 50		Hygienic 80	
	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)
DIN 32676 series A DN25	25	HS4	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	–	–	–	–
DIN 32676 series A DN40	40		280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	470 (18.5)	14 (31)	–	–
DIN 32676 series A DN50	50		–	–	–	–	470 (18.5)	14 (31)	600 (23.6)	22.9 (50)
DIN 32676 series A DN65	65		–	–	–	–	–	–	590 (23.2)	23 (51)
DIN 32676 series A DN80	80		–	–	–	–	–	–	590 (23.2)	23.1 (51)

Meaning of "–": not available

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

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Tab. 4: Overall length L1 and weight of sensor (process connections: DIN 32676 series C Tri-Clamp)

Process connections	Model code pos.		Hygienic 25		Hygienic 40		Hygienic 50		Hygienic 80	
	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)
DIN 32676 series C 1"	25	HS8	280 (11)	5.2 (12)	320 (12.6)	7.2 (16)	–	–	–	–
DIN 32676 series C 1½"	40		280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	480 (18.9)	14 (31)	–	–
DIN 32676 series C 2"	50		–	–	–	–	470 (18.5)	14 (31)	600 (23.6)	22.9 (50)
DIN 32676 series C 2½"	65		–	–	–	–	–	–	580 (22.8)	22.8 (50)
DIN 32676 series C 3"	80		–	–	–	–	–	–	580 (22.8)	22.9 (50)

Meaning of "–": not available

Clamp process connection according to JIS/ISO 2852

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Tab. 5: Overall length L1 and weight of sensor (process connections: JIS/ISO 2852 clamp)

Process connections	Model code pos.		Hygienic 25		Hygienic 40		Hygienic 50		Hygienic 80	
	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)
JIS/ISO 2852 1"	25	HS9	280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	–	–	–	–
JIS/ISO 2852 1½"	40		280 (11)	5.2 (11)	320 (12.6)	7.2 (16)	480 (18.9)	14 (31)	–	–
JIS/ISO 2852 2"	50		–	–	–	–	470 (18.5)	14 (31)	600 (23.6)	22.9 (50)
JIS/ISO 2852 2½"	65		–	–	–	–	–	–	580 (22.8)	22.8 (50)
JIS/ISO 2852 3"	80		–	–	–	–	–	–	580 (22.8)	22.9 (50)

Meaning of "–": not available

2 Transmitter dimensions and weights

Transmitter dimensions

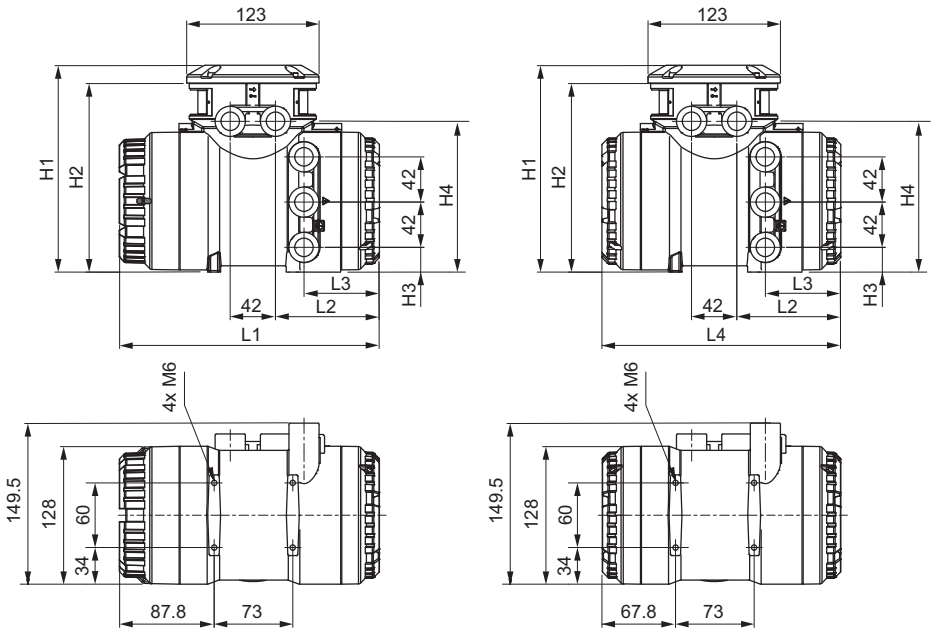


Fig. 2: Dimensions of transmitter in mm
(left: transmitter with display, right: transmitter without display)

Tab. 6: 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)
Alu-minum	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)

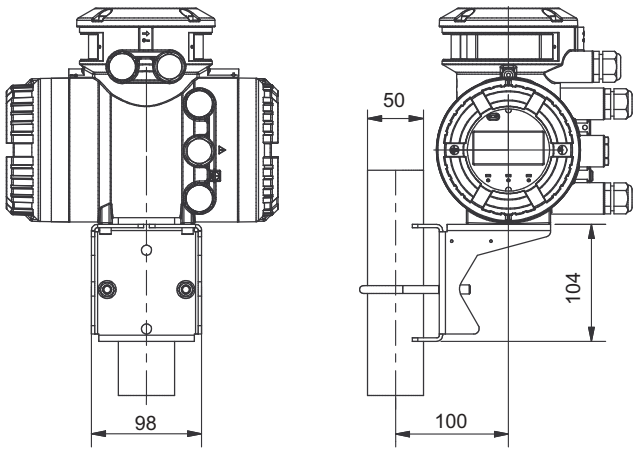
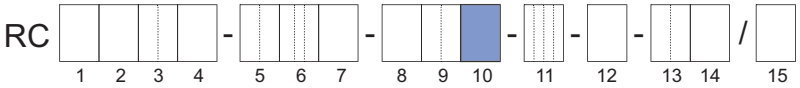


Fig. 3: Dimensions of transmitter in mm, attached to mounting bracket.



Transmitter weights

Model code (pos. 10)	Design type	Housing material of transmitter	Weight in kg (lb)
A, E	Remote	Aluminum	4.2 (9.3)
J		Stainless steel	12.5 (27.6)

3 Wiring

3.1 Terminal configuration diagrams

3.1.1 Terminal for connection between sensor and transmitter

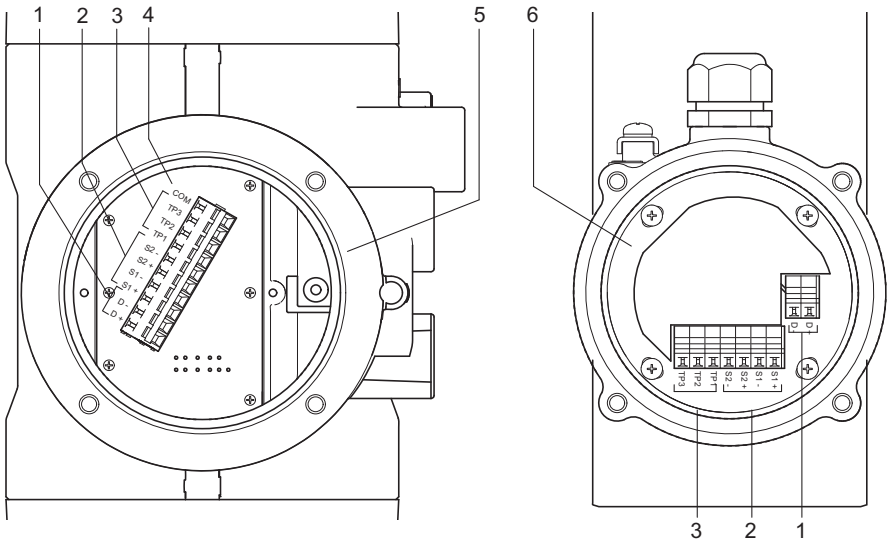


Fig. 4: Connection terminal circuits (transmitter on the left side, sensor on the right side)

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

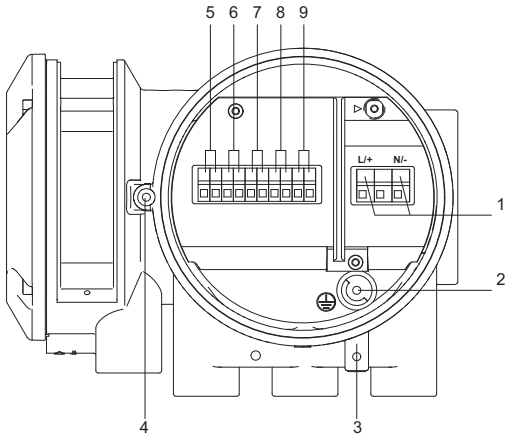


Fig. 5: Terminal for I/O outputs and power supply in transmitter

1	Power supply connection terminals	6	Connection terminals for I/O2 +/-
2	Grounding screw for connecting grounding conductor	7	Connection terminals for I/O3 +/-
3	Grounding terminal for potential equalization	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⎵⎵⎵)

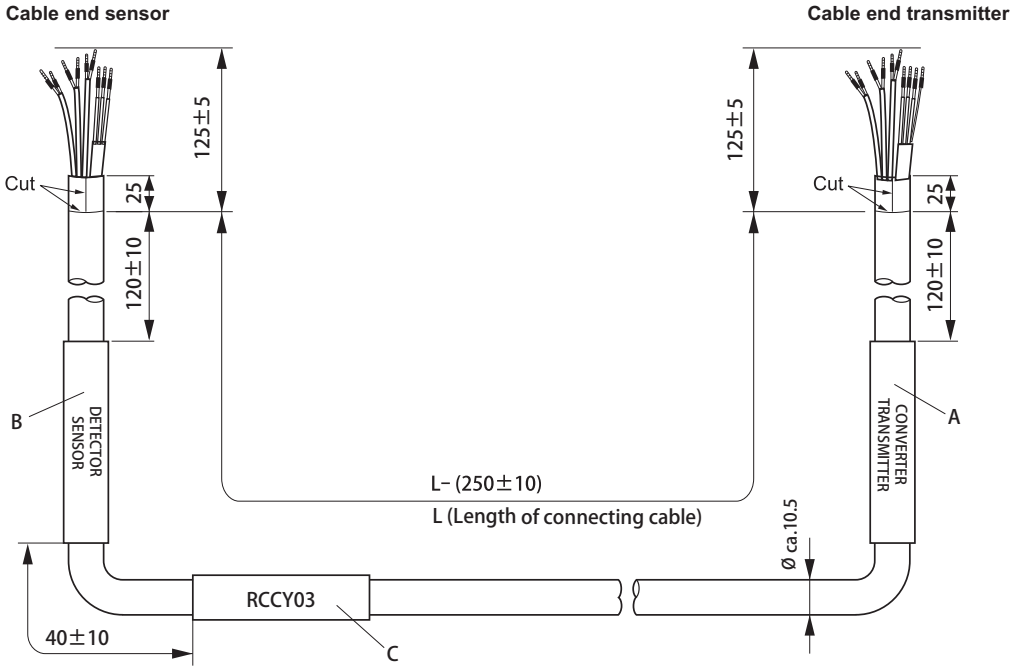


Fig. 6: Dimensions of standard cable (option L⎵⎵⎵), terminated in mm and labelling

Label number	Label name	Installation status
A	CONVERTER/TRANSMITTER	Factory labeled
B	DETECTOR/SENSOR	
C	RCCY03	

Options	Length of connecting cable in m (ft)	Colour of connecting cable
L000	Length specified in separate order	std. 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)

4.2 Fire retardant cable (option Y_ _ _)

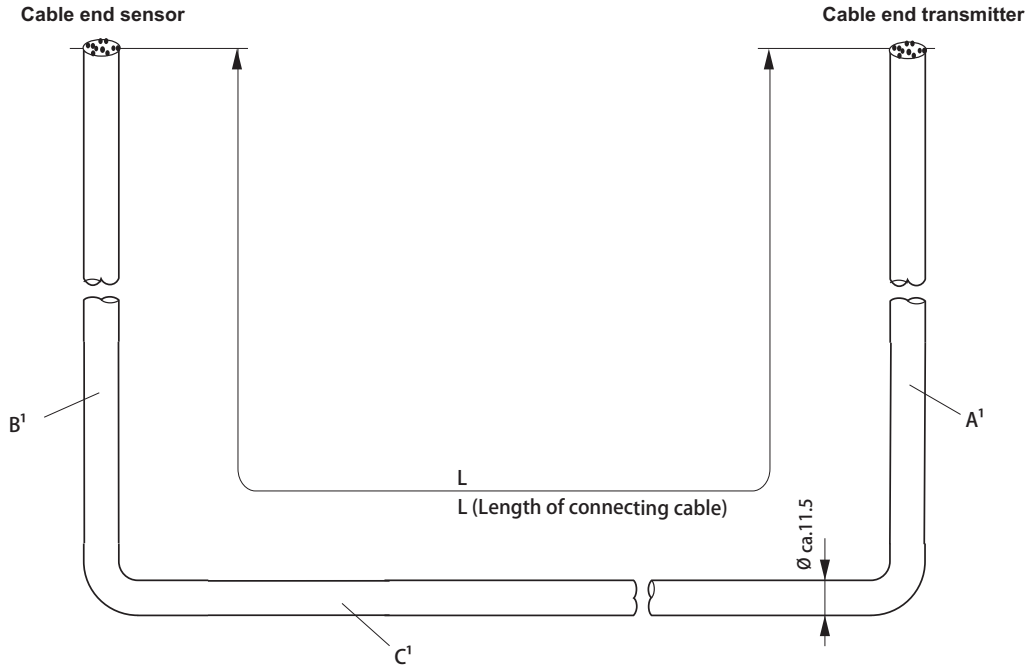


Fig. 7: Dimensions of fire retardant cable (option Y_ _ _), not terminated in mm and labelling

Label number	Label name	Installation status
A	CONVERTER/TRANSMITTER	Separately enclosed
B	DETECTOR/SENSOR	
C	RCCY03	

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

Options	Length of connecting cable in m (ft)	Colour of connecting cable
Y000	Length specified in separate order	std. / Ex 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)

5 Japan Ex cable gland dimensions (option V5_)

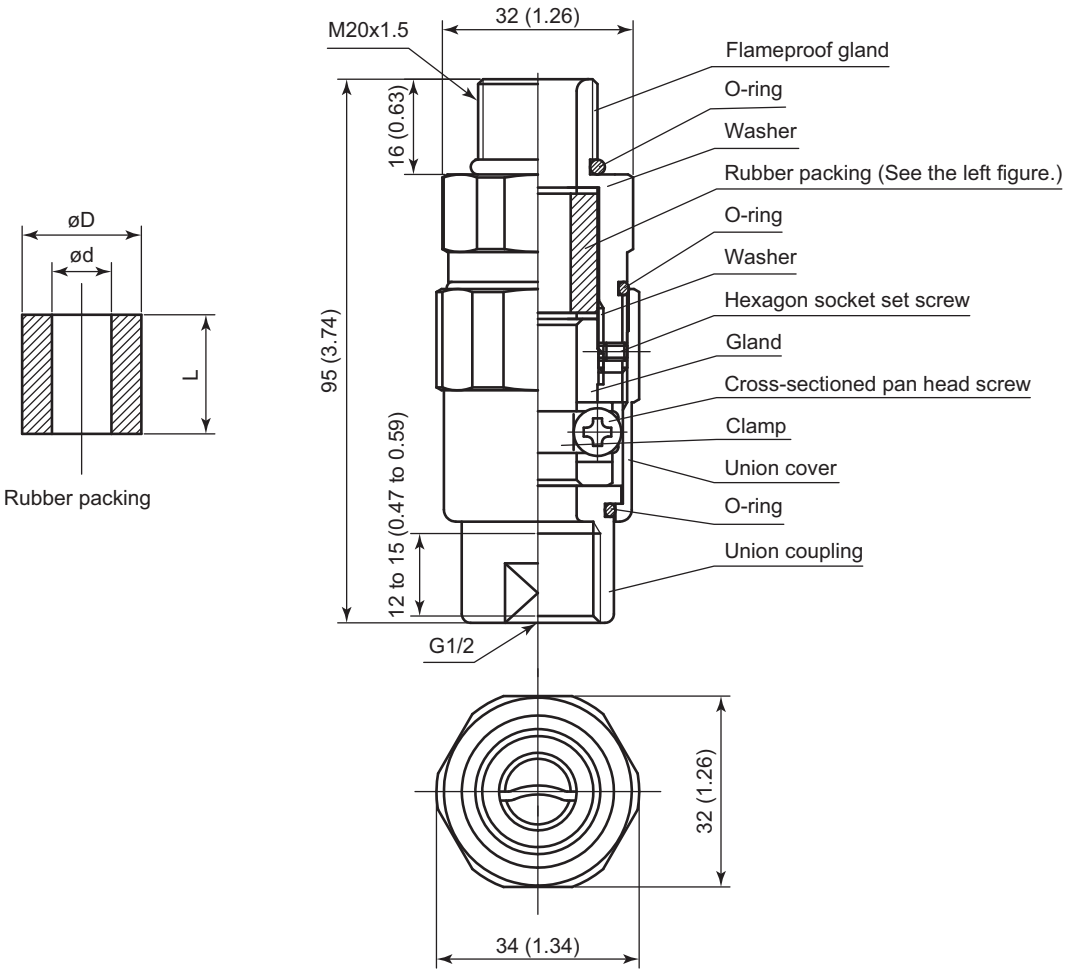


Fig. 8: Dimensions of cable gland (option V5_), in mm (inch)

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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