Drawings

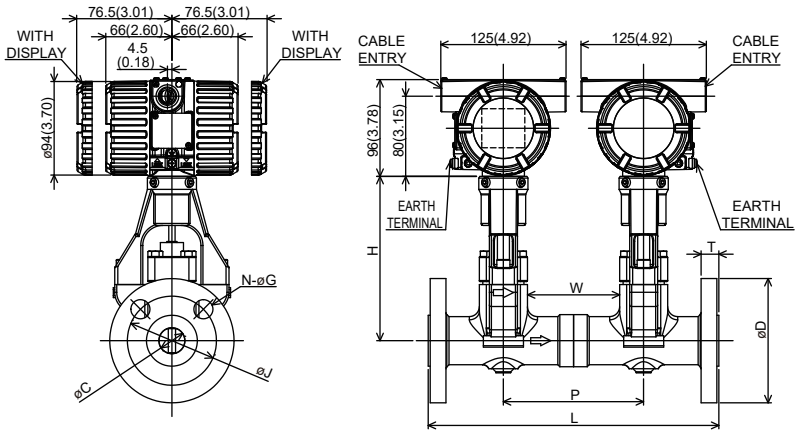
Vortex Flowmeter VY Series
VY080, VY100
Dual-Sensor (Welded) General Type
Process Connection: ASME Flange

SD 01F07H01-03EN

• Dual-Sensor (Welded) General Type: ASME Flange (80 mm(3 inch), 100 mm(4 inch))

☐ Standard View

Unit: mm (approx. inch)



Flow Direction➡

VY□□□ -□□□ -6 □ □□ □□□□ -□ □ □□□ 0 0 /DS1 /□
(1) (2) (3) (4) (5) (6)

• Code details for SD

(1) Model	VY080: Size 80 mm(3 inch), VY100: Size 100 mm(4 inch)
(2) Type of Body	-6: Dual-Sensor (Welded) General Type
(3) Type of Shedder Bar	N: General Type, P: General Type with Temperature Sensor, Q: High Temperature Type, R: High Temperature Type with Temperature Sensor, S: Cryogenic Type, U: Long Neck Type, V: Long Neck Type with Temperature Sensor
(4) Process Connection ASME Flange	[Body Material, Pressure Rating] EBA☐: CF8M, Raised Face(RF), Class 150 to 900 ☐: Pressure Rating, 1= Class 150, 2= Class 300, 4= Class 600, 5= Class 900
(5) Cable Entry : One	0: JIS G1/2 Female, 2: ASME 1/2 NPT Female, 4: ISO M20x1.5 Female
(6) Communication and Input/Output	JJ: Upstream: HART 7 Communication, 4-20 mA DC, Pulse/Status output, Downstream: HART 7 Communication, 4-20 mA DC, Pulse/Status output JF: Upstream: HART 7 Communication, 4-20 mA DC, Pulse/Status output, Downstream: FOUNDATION Fieldbus Communication FJ: Upstream: FOUNDATION Fieldbus Communication, Downstream: HART 7 Communication, 4-20 mA DC, Pulse/Status output FF: Upstream: FOUNDATION Fieldbus Communication, Downstream: FOUNDATION Fieldbus Communication NN: None (Remote Sensor)

SD 01F07H01-03EN
1st Edition: Aug. 31, 2022 (KP)
3rd Edition: Oct. 31, 2023 (KP)

● Dimensions (Lay Length, Outer Diameter etc) and Weight for each Model

☐VY080

	(4) Process Connection Code: Body Material, Pressure Rating	External Dimensions mm (approx. inch)								Weight kg(lb)*2
		Lay Length L*1	Outer Diameter øD	Flange thickness T	Bolt circle J	No. of bolt holes N	Bolt hole diameter G	Sensor Distance P	Central Gap Distance W	
☐	EBA1: CF8M, Raised Face(RF), Class 150	370 (14.57)	190.5 (7.50)	24.4 (0.96)	152.4 (6.00)	4	19.1 (0.75)	170 (6.69)	102 (4.02)	33.2 (73.0) [34 (74.8)]
☐	EBA2: CF8M, Raised Face(RF), Class 300	370 (14.57)	209.6 (8.25)	28.9 (1.14)	168.1 (6.62)	8	22.2 (0.87)	170 (6.69)	102 (4.02)	37.5 (82.5) [38.3 (84.3)]
☐	EBA4: CF8M, Raised Face(RF), Class 600	370 (14.57)	209.6 (8.25)	38.8 (1.53)	168.1 (6.62)	8	22.2 (0.87)	170 (6.69)	102 (4.02)	38.7 (85.1) [39.5 (86.9)]
☐	EBA5: CF8M, Raised Face(RF), Class 900	415 (16.34)	241.3 (9.50)	45.1 (1.78)	190.5 (7.50)	8	25.4 (1.00)	170 (6.69)	102 (4.02)	49 (107.8) [49.8 (109.6)]

☐VY100

	(4) Process Connection Code: Body Material, Pressure Rating	External Dimensions mm (approx. inch)								Weight kg(lb)*2
		Lay Length L*1	Outer Diameter øD	Flange thickness T	Bolt circle J	No. of bolt holes N	Bolt hole diameter G	Sensor Distance P	Central Gap Distance W	
☐	EBA1: CF8M, Raised Face(RF), Class 150	420 (16.54)	228.6 (9.00)	24.4 (0.96)	190.5 (7.50)	8	19.1 (0.75)	200 (7.87)	120 (4.72)	45.7 (100.5) [46.5 (102.3)]
☐	EBA2: CF8M, Raised Face(RF), Class 300	420 (16.54)	254 (10.00)	32.2 (1.27)	200.2 (7.88)	8	22.2 (0.87)	200 (7.87)	120 (4.72)	55.1 (121.2) [55.9 (123.0)]
☐	EBA4: CF8M, Raised Face(RF), Class 600	440 (17.32)	273.1 (10.75)	45.1 (1.78)	215.9 (8.50)	8	25.4 (1.00)	200 (7.87)	120 (4.72)	74.9 (164.8) [75.7 (166.5)]
☐	EBA5: CF8M, Raised Face(RF), Class 900	460 (18.11)	292.1 (11.50)	51.5 (2.03)	235 (9.25)	8	31.8 (1.25)	180 (7.09)	100 (4.02)	73.4 (161.5) [74.2 (163.2)]

*1: Lay Length tolerances: ±4 mm (±0.16 inch)
*2: In case of Type of Shedder Bar: Q,R,S,U,V, Refer to the value in square brackets

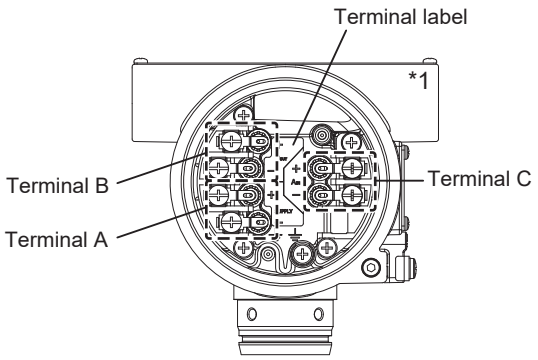
● Dimensions (height and diameters) for each Model

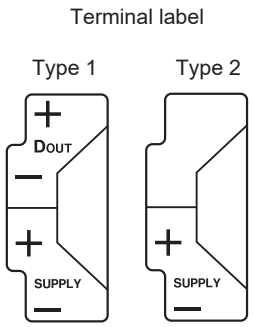
	(1) Model	(3) Type of Shedder Bar	Height H mm (inch)	Inner Diameter øC mm (inch)
☐	VY080	N: General Type, P: General Type with Temperature Sensor	215 (8.46)	71 (2.80)
☐		Q: High Temperature Type, R: High Temperature Type with Temperature Sensor, S: Cryogenic Type, U: Long Neck Type, V: Long Neck Type with Temperature Sensor	275 (10.83)	71 (2.80)
☐	VY100	N: General Type, P: General Type with Temperature Sensor	236 (9.29)	93.8 (3.69)
☐		Q: High Temperature Type, R: High Temperature Type with Temperature Sensor, S: Cryogenic Type, U: Long Neck Type, V: Long Neck Type with Temperature Sensor	296 (11.65)	93.8 (3.69)

● Terminal Layout Diagram

☐ Integral Transmitter Case

Terminal screw size: M4



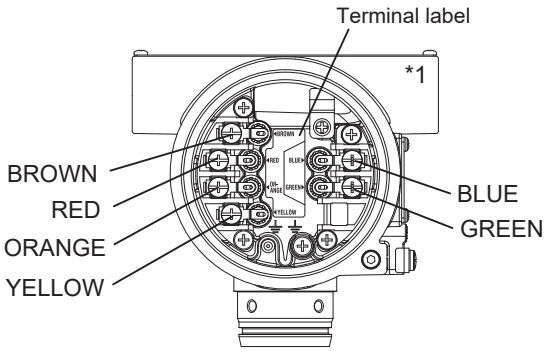


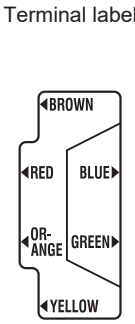
Terminal label	Communication and input/ output	Terminal A	Terminal B	Terminal C
Type 1	Jx or xJ	SUPPLY +, SUPPLY – Power supply, HART communication and analog output	D_{OUT} +, D_{OUT} – Pulse/status output	–
Type 2	Fx or xF	SUPPLY +, SUPPLY – Power supply and FOUNDATION Fieldbus communication	– (*2)	–

*1: When -0 (JIS G1/2 female, one electrical connection), -2 (ASME 1/2 NPT female, one electrical connection), or -4 (ISO M20x1.5 female, one electrical connection) is selected for the cable entry, it is only located on the right side in this view.
*2: Terminal B is a terminal block only and no screws are attached.

☐ Remote Sensor Terminal Box

Terminal screw size: M4





Terminal	Application
BROWN, RED, ORANGE, YELLOW, GREEN, BLUE (*2)	Connect the vortex fowmeter signal cable (VY1C)

*1: The cable entry is only located on the right side when viewed from the front.
*2: Match the colors of the vortex fowmeter signal cable (VY1C) with the corresponding terminals.