

LASVF 渦流式蒸氣流量計 - 適用於鍋爐蒸氣、氣體及液體流量量測

全方位型高精準度流量計，內建溫度及壓力補償

適用用途:

- 測量飽和蒸汽或高溫蒸氣流量
- 液體流量
- 混和氣體流量
- 腐蝕性介質

顯示數據:

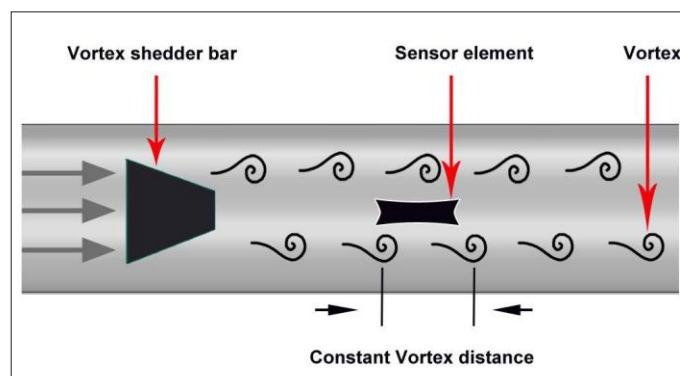
- 瞬間流量(kg/h、m3/h...)
- 累積流量
- 溫度
- 壓力

產品優勢:

- 可測量標準體積流量、實際體積流量、質量流量
- 可量測最大 350°C 高溫流量
- 可量測最大 63 bar 高壓管線
- 具抗腐蝕性能 – 所有部件皆由不鏽鋼製成
- 數值不受管線振動影響，因為其標準震動量測原理
- 無活動部件-無額外耗材



渦流式流量計運作原理- 渦流頻率原理:



量測範圍及產品規格:

量測介質	最小流速	最大流速
氣體	6m/s for DN15、DN20 (19.7 ft/s) for 0.5" and 0.75" 4m/s · DN25、DN32 (13.1 ft/s) for 1" and 1.25" 2m/s · DN40 ~ DN300 (6.7 ft/s) for 1.5" ~ 1.2"	60m/s (196.9 ft/s)
蒸氣	6m/s for DN15、DN20 (19.7 ft/s) for 0.5" and 0.75" 4m/s · DN25、DN32 (13.1 ft/s) for 1" and 1.25" 2m/s · DN40 ~ DN300 (6.7 ft/s) for 1.5" ~ 1.2"	70m/s (229.7 ft/s)
液體	0.3m/s (1 ft/s)	7m/s (23 ft/s)

連接方式	法蘭式 薄片式	管徑大小:	DN15~DN300 or 0.5 inch to 12 inch DN15~DN300 or 0.5 inch to 12 inch
介質溫度	Standard Medium High	-40 ~ 150 °C or -40 ~ 302 °F -40 ~ 250 °C or -40 ~ 482 °F -40 ~ 350 °C or -40 ~ 662 °F	
精準度及雷諾數	氣體/蒸氣 (m ³ /h) 液體 (m ³ /h) 氣體/蒸氣 (m ³ /h)	±1%RD (Re ≥ 20000) ±2%RD (10000 < Re < 20000) ±0.75%RD (Re ≥ 20000) ±2%RD (10000 < Re < 20000) ±1.5%RD (Re ≥ 20000) ±2.5%RD (10000 < Re < 20000)	
量程比	氣體 蒸氣 液體	1:30 1:35 1:35	
重複性	體積流量 質量流量 溫度 壓力	±0.3% ±0.3% ±0.05 °C ±0.05%FS	
預留段要求:	15 x D / 5 x D Details please check in manual	允許黏度:	DN15 or 0.5 inch ≤ 4mPas DN25 or 1 inch ≤ 5mPas DN40~DN300 or 1.5~12 inch ≤ 7mPas
顯示器	LCD displaye	數據輸出	4~20mA/ Modbus-RTU/ Pulse
飽和/過熱蒸氣量測	Support	電源供應	24VDC

LASVF 渦流式流量計選型表

範例: LASVF-TP-2-WC-1-N-ML2-015

1. 型號選擇	LASVF-TP	Vortex mass flowmeter with integral RTD and pressure sensor	Standard
	LASVF-N	Vortex flowmeter without integral RTD and pressure sensor	Option
2. 量測介質	1	Liquid	Option
	2	Gas	Standard
	3	Steam	Option
3. 管線連接接口	WC	Wafer with carbon steel flanges up to 16 barG (232 psiG) (DN15 ~ DN300)	Standard
	WF	Wafer with stainless steel flanges up to 16 barG (232 psiG) (DN15 ~ DN300)	Option
	D1	Flanged DIN PN16 up to 16 barG (232 psiG) (DN15 ~ DN300)	Option
	D2	Flanged DIN PN25 up to 25 barG (362 psiG) (DN15 ~ DN300)	Option
	D3	Flanged DIN PN40 up to 40 barG (580 psiG) (DN15 ~ DN300)	Option
	D4	Flanged DIN PN63 up to 63 barG (913 psiG) (DN15 ~ DN300)	Option
	C1	Flanged ANSI CL150 up to 16 barG (232 psiG) (0.5 inch ~ 12 inch)	Option
	C2	Flanged ANSI CL300 up to 40 barG (580 psiG) (0.5 inch ~ 12 inch)	Option
	C3	Flanged ANSI CL400 up to 63 barG (913 psiG) (0.5 inch ~ 12 inch)	Option
	J1	JIS 10K up to 16 barG (232 psiG) (DN15 ~ DN300)	Option
	J2	JIS 20K up to 40 barG (580 psiG) (DN15 ~ DN300)	Option
J3	JIS 30K up to 63 barG (913 psiG) (DN15 ~ DN300)	Option	
4. 連接部件材質	1	OCr18Ni9 (304)	Standard
	2	316	Option
5. 介質溫度	N	T≤150°C	Standard
	S	T≤250°C (wafer or flanged)	Option
	H	T≤350°C (wafer or flanged)	Option
6. 數據輸出	ML1	Integral transmitter, multi-variable, bluetooth, RS485, pulse,	Standard
	ML2	Integral transmitter, multi-variable, bluetooth, pulse, 4 wire 4~20mA	Option
	ML3	Integral transmitter, multi-variable, bluetooth, RS485, pulse, 4 wire 4~20mA	Option
7. 管線尺寸	015	DN15 or 0.5 inch	
	020	DN20 or 0.75 inch	
	025	DN25 or 1 inch	
	032	DN32 or 1.25 inch	
	040	DN40 or 1.5 inch	
	050	DN50 or 2 inch	
	065	DN65 or 2.5 inch	
	080	DN80 or 3 inch	
	100	DN100 or 4 inch	
	125	DN125 or 5 inch	
150	DN150 or 6 inch		
200	DN200 or 8 inch		
250	DN250 or 10 inch		

氣體與液體流量範圍

LASVF 實際體積流量下氣體及液體之流量範圍										
Inside diameter of pipe			Gases				Liquids			
Inch	mm	DN	Min flow m3/h	Max flow m3/h	Min flow cfm	Max flow cfm	Min flow m3/h	Max flow m3/h	Min flow GPM	Max flow GPM
1/2"	15	DN 15	3.8	44.5	2.2	26.2	0.2	4.4	0.8	19.6
3/4"	20	DN 20	6.8	79.1	4	46.6	0.3	7.9	1.5	34.8
1"	25	DN 25	7.1	123.6	4.2	72.7	0.5	12.4	2.3	54.4
1 1/4"	32	DN 32	11.6	202.5	6.8	119.2	0.9	20.2	3.8	89.2
1 1/2"	40	DN 40	9	316.4	5.3	186.2	1.4	31.6	6.0	139.3
2"	50	DN 50	14.1	494.4	8.3	291	2.1	49.4	9.3	217.7
2 1/2"	65	DN 65	23.9	835.5	14	491.7	3.6	83.5	15.8	367.8
3"	80	DN 80	36.2	1265.5	21.3	744.9	5.4	126.6	23.9	557.2
4"	100	DN 100	56.5	1977.4	33.3	1163.9	8.5	197.7	37.3	870.6
5"	125	DN 125	88.3	3089.7	52	1818.5	13.2	309.0	58.3	1360.4
6"	150	DN 150	127.1	4449.2	74.8	2618.7	19.1	444.9	84.0	1958.9
8"	200	DN 200	226	7909.6	133	4655.4	33.9	791.0	149.3	3482.5
10"	250	DN 250	353.1	12358.8	207.8	7274.1	53.0	1235.9	233.2	5441.4
12"	300	DN 300	508.5	17796.6	299.3	10474.7	76.3	1779.7	335.8	7835.6

蒸氣流量範圍

LASVF 實際體積流量下蒸氣之流量範圍(單位kg/h)																
Inside diameter of pipe			T=112 °C		T=121 °C		T=134 °C		T=144 °C		T=159 °C		T=165 °C		T=171 °C	
			P=0.5 bar(g)		P=1 bar(g)		P=2 bar(g)		P=3 bar(g)		P=5 bar(g)		P=6 bar(g)		P=7 bar(g)	
			D=0.8798 kg/m3		D=1.155 kg/m3		D=1.672 kg/m3		D=2.185 kg/m3		D=3.182 kg/m3		D=3.671 kg/m3		D=4.218 kg/m3	
Inch	mm	DN	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1/2"	15	DN 15	3.4	39.1	4.4	51.4	6.4	74.4	8.3	97.2	12.1	141.6	14.0	163.3	16.1	187.7
3/4"	20	DN 20	6.0	69.6	7.8	91.4	11.3	132.2	14.8	172.8	21.6	251.7	24.9	290.4	28.6	333.6
1"	25	DN 25	6.2	108.7	8.2	142.7	11.8	206.6	15.4	270.0	22.5	393.3	25.9	453.7	29.8	521.3
1 1/4"	32	DN 32	10.2	178.1	13.4	233.9	19.3	338.6	25.3	442.4	36.8	644.3	42.5	743.3	48.8	854.1
1 1/2"	40	DN 40	8.0	278.4	10.4	365.4	15.1	529.0	19.8	691.3	28.8	1006.7	33.2	1161.4	38.1	1334.5
2"	50	DN 50	12.4	434.9	16.3	571.0	23.6	826.6	30.9	1080.2	44.9	1573.0	51.9	1814.8	59.6	2085.2
2 1/2"	65	DN 65	21.0	735.0	27.6	964.9	39.9	1396.9	52.2	1825.5	76.0	2658.4	87.6	3066.9	100.7	3523.9
3"	80	DN 80	31.8	1113.4	41.8	1461.7	60.5	2116.0	79.0	2765.2	115.1	4026.9	132.7	4645.8	152.5	5338.0
4"	100	DN 100	49.7	1739.7	65.3	2283.9	94.5	3306.2	123.4	4320.6	179.8	6292.1	207.4	7259.0	238.3	8340.7
5"	125	DN 125	77.7	2718.3	102.0	3568.6	147.6	5166.0	192.9	6751.0	280.9	9831.4	324.1	11342.2	372.4	13032.3
6"	150	DN 150	111.8	3914.4	146.8	5138.8	212.5	7439.0	277.8	9721.4	404.5	14157.2	466.7	16332.8	536.2	18766.5
8"	200	DN 200	198.8	6958.9	261.0	9135.6	377.9	13224.9	493.8	17282.5	719.1	25168.4	829.6	29036.2	953.2	33362.7
10"	250	DN 250	310.7	10873.2	407.8	14274.4	590.4	20663.8	771.5	27003.9	1123.6	39325.6	1296.3	45369.0	1489.4	52129.2
12"	300	DN 300	447.4	15657.5	587.3	20555.1	850.2	29755.9	1111.0	38885.6	1618.0	56628.8	1866.6	65331.4	2144.7	75066.1

LASVF 實際體積流量下蒸氣之流量範圍(單位kg/h)														
Inside diameter of pipe			T=176 °C		T=185 °C		T=192 °C		T=199 °C		T=210 °C		T=215 °C	
			P=8 bar(g)		P=10 bar(g)		P=12 bar(g)		P=14 bar(g)		P=18 bar(g)		P=20 bar(g)	
			D=4.723 kg/m3		D=5.752 kg/m3		D=6.671 kg/m3		D=7.706 kg/m3		D=9.593 kg/m3		D=10.57 kg/m3	
Inch	mm	DN	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
1/2"	15	DN 15	18.0	210.1	21.9	255.9	25.4	296.8	29.4	342.9	36.6	426.8	40.3	470.3
3/4"	20	DN 20	32.0	373.6	39.0	455.0	45.2	527.6	52.2	609.5	65.0	758.8	71.7	836.0
1"	25	DN 25	33.4	583.7	40.6	710.9	47.1	824.5	54.4	952.4	67.7	1185.6	74.6	1306.3
1 1/4"	32	DN 32	54.6	956.3	66.6	1164.7	77.2	1350.8	89.2	1560.4	111.0	1942.4	122.3	2140.3
1 1/2"	40	DN 40	42.7	1494.3	52.0	1819.8	60.3	2110.6	69.7	2438.1	86.7	3035.1	95.5	3344.2
2"	50	DN 50	66.7	2334.8	81.2	2843.5	94.2	3297.8	108.8	3809.5	135.5	4742.3	149.3	5225.3
2 1/2"	65	DN 65	112.7	3945.8	137.3	4805.5	159.2	5573.3	183.9	6438.0	229.0	8014.5	252.3	8830.7
3"	80	DN 80	170.8	5977.1	208.0	7279.4	241.2	8442.4	278.6	9752.2	346.9	12140.3	382.2	13376.7
4"	100	DN 100	266.8	9339.3	325.0	11374.0	376.9	13191.2	435.4	15237.9	542.0	18969.2	597.2	20901.1
5"	125	DN 125	416.9	14592.6	507.8	17771.9	588.9	20611.3	680.3	23809.1	846.8	29639.4	933.1	32658.0
6"	150	DN 150	600.4	21013.3	731.2	25591.5	848.0	29680.3	979.6	34285.2	1219.4	42680.7	1343.6	47027.5
8"	200	DN 200	1067.3	37357.1	1299.9	45496.0	1507.6	52765.0	1741.5	60951.4	2167.9	75876.8	2388.7	83604.5
10"	250	DN 250	1667.7	58370.4	2031.1	71087.6	2355.6	82445.3	2721.0	95236.6	3387.4	118557.6	3732.3	130632.1
12"	300	DN 300	2401.5	84053.4	2924.7	102366.1	3392.0	118721.2	3918.3	137140.7	4877.8	170722.9	5374.6	188110.2



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