

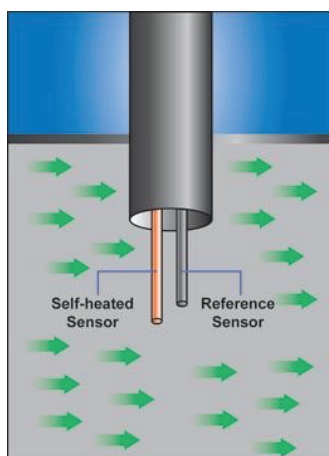
Thermal Mass Flow Meter



(VTHERM 2000 SERIES)

WORKING PRINCIPLE

Thermal mass flow meters are used almost entirely for gas flow applications. As the name implies, the meters use heat to measure flow, and they introduce heat into a flowing stream and measure how much heat dissipates using one or more temperature sensors. This method works best with measuring gas mass flow.



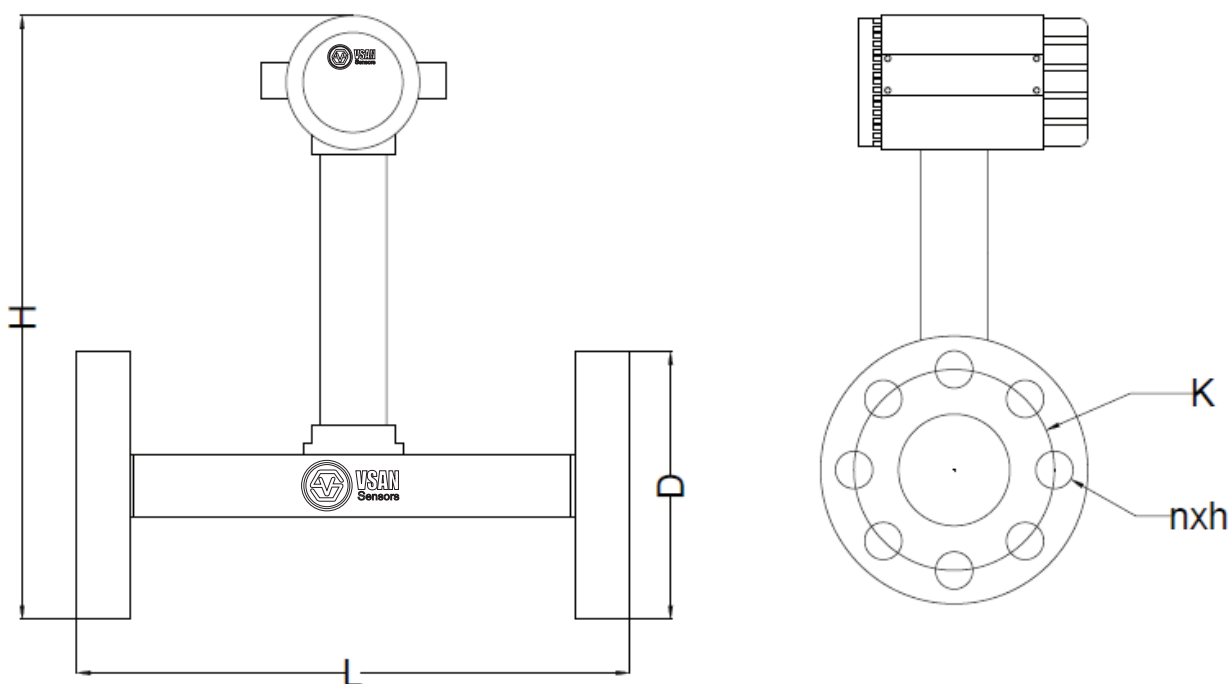
TECHNICAL SPECIFICATIONS

Size	15 to 100 mm	Power Supply	230 VAC, 24 VDC
Accuracy	± 1% to 2.5%	Output	4-20MA, PULSE, RS485 or HART
Sensor Type	Insertion (DN100 to DN500)	Velocity	0.1 to 100 Nm/s
	Flange (DN15 to DN100)	Flange Class	ANSI 150#, ANSI 300#,ANSI 600#, Others
Protection	IP 65		
Sensor	SS304 or SS316	Pressure	1.6 MPA, Others
Housing Mat			
Pipe Material	Carbon steel, Stainless Steel	Temperature	-30 to 200 deg C

FLOW RATE CHART

Model	Diameter (mm)	Air & N2 (Nm3/hr)	O2 (Nm3/hr)	H2 (Nm3/hr)
VSAN-TMFM-15	15	65	32	10
VSAN-TMFM-25	25	175	89	28
VSAN-TMFM-32	32	290	144	45
VSAN-TMFM-40	40	450	226	70
VSAN-TMFM-50	50	700	352	110
VSAN-TMFM-65	65	1200	600	185
VSAN-TMFM-80	80	1800	900	280
VSAN-TMFM-100	100	2800	1420	470

GA Drawing (# 150 Standard)



Model	Diameter (mm)	K (mm) PCD	n*h (mm)	L	H
VSAN-TMFM-15	88.9	60.45	4- ø15.7	250	332
VSAN-TMFM-25	108	79.25	4- ø15.7	250	342
VSAN-TMFM-32	117.3	88.9	4- ø15.7	250	354
VSAN-TMFM-40	127	98.6	4- ø15.7	250	359
VSAN-TMFM-50	152.4	120.7	4- ø19.1	280	370
VSAN-TMFM-65	177.8	139.7	4- ø19.1	280	388
VSAN-TMFM-80	190.5	152.4	4- ø19.1	280	661
VSAN-TMFM-100	228.6	190.5	8- ø19.1	280	671

MODEL CODE DESCRIPTION

1	2	3	4	5	6	7	8	9	10	11
VSAN	TMFM	DN15	A	A	A	A	A	A	A	A

1	BRAND NAME									
2	THERMAL MASS FLOW METER									
3	NOMINAL DIAMETER									
4	STRUCTURE									
	COMPACT	A	EXP-PROOF (REMOTE)				C			
	REMOTE	B								
5	MATERIAL									
	SS 304	A				SS 316			B	
6	PRESSURE (MPA)									
	1.6	A	4		B		SPEECIAL		C	
7	MEASURING MEDIUM									
	AIR	A	NITROGEN		C		ARGON		E	
	LPG/CNG/PN G	B	OXYGEN		D		OTHERS		F	
8	TEMPERATURE									
	BELOW 120 DEG C					A				
	40 to 250 DEG C					B				
	BELOW 400 DEG C					C				
9	END CONNECTION									
	ANSI 150# 100	A	INSERT 100 - 1200		B		TRICLAMP /TD		C	
10	POWER SUPPLY									
	230 VAC	A				24 VDC			B	
11	OUTPUT									
	4 TO 20MA + RS 485	A	4 TO 20MA + HART				B			



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