

DESCRIPTION

The ExactSteam V-Cone System's innovative design delivers repeatable accuracy of +0.5% of rate with up to a 50:1 flow range under the most difficult flow conditions. The ExactSteam V-Cone System acts as its own flow conditioner, fully conditioning and mixing the flow prior to measurement. Readings are always precise and reliable, even under changing flow situations.

With this unique ability to self-condition flow, the ExactSteam V-Cone System virtually eliminates the need for upstream or downstream straight pipe runs. Thus, the ExactSteam V-Cone System can be installed virtually anywhere in a piping system or easily retrofit into an existing piping layout, resulting in significant installation flexibility and cost savings. In addition, the ExactSteam V-Cone System has proven to provide long-term performance with no moving parts to replace or maintain.

KEY FEATURES

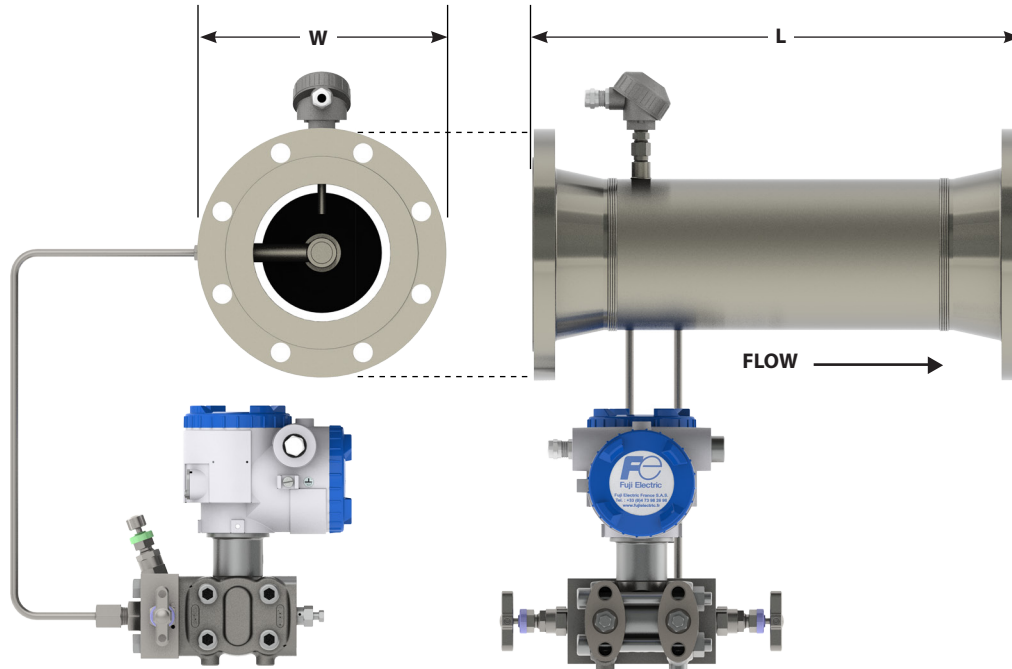
- A complete flowmeter for steam metering, factory configured for energy metering or mass flow
- Accurately measure steam across the entire range with technology-leading low flow cut off
- Makes retrofitting and new installations easier with minimum installation requirements – no flow conditioner required!
- V-Cone technology enables the lowest permanent pressure loss to maximize plant efficiency
- Reduce maintenance costs with the V-Cone flowmeter primary element's 25+ year lifespan

SPECIFICATIONS

Accuracy:	± 0.5% for primary element ±1% for total system
Repeatability:	±0.1% or better
Turn Down:	Up to 50:1 with stacked configuration or 10:1 with compact
Installation Piping Requirements:	0-3 diameters upstream, 0-1 diameters downstream
Materials of Construction:	Stainless Steel or Carbon Steel
Line Sizes:	2" to 12" / 50 mm to 300 mm
End Fittings:	Beveled or DIN PN16 or DIN PN40 flanges
RTD:	• Sensor Type: PT-100, thin film • Range: -58° to 752° F (-50° to 400° C)
Manifold:	Configuration: 3-Valve
dP Transmitter:	• Housing Material: F30 Aluminum • Membrane Material: 316L • Enclosure Rating: NEMA 4X/6P, IP66/67 • Electrical Connections: NPT1/2 thread
Flow Computer:	• Output: 4-20 mA, Isolated Pulse

Contact vconerfq@mccrometer.com for other sizes or configuration options.



Fitting Options: Beveled Ends, DIN PN 16 Flanges, DIN PN40 Flanges


McCrometer reserves the right to change design specifications without notice.

Size (in / mm)	2 / 50	3/80	4 / 100	6 / 150	8 / 200	10 / 250	12 / 300
Beveled Flanges							
Approx. Weight - lbs / kg (meter only)	12 / 6	18 / 8	25 / 11	50 / 23	110 / 50	120 / 55	157 / 72
W (width - in / mm)	2.375 / 60.3	3.5 / 88.9	4.5 / 114.3	6.625 / 168.3	8.625 / 219.1	10.75 / 273.1	12.75 / 323.9
L (length - in / mm)	11.63 / 295.4	13.5 / 343.0	15.5 / 393.7	21.5 / 546.1	25.25 / 641.4	27.25 / 692.2	29.25 / 743.0
DIN PN16							
Approx. Weight - lbs / kg (meter only)	26.5 / 12	33 / 15	44 / 20	86 / 39	158.7 / 72	189.6 / 86	255.7 / 116
W (width - in / mm)	6.5 / 165	7.9 / 200	8.7 / 220	11.2 / 285	13.4 / 340	15.9 / 405	18.1 / 460
L (length - in / mm)	14.9 / 379	17.2 / 436.6	19.3 / 491.2	25.6 / 649.7	29.9 / 759	32.5 / 825.8	35.2 / 892.6
No. of Bolts per Flange	4	8	8	8	12	12	12
DIN PN40							
Approx. Weight - lbs / kg (meter only)	26.5 / 12	39.7 / 18	53 / 24	103.6 / 47	205 / 93	264.6 / 120	328.5 / 149
W (width - in / mm)	6.5 / 165	7.9 / 200	9.3 / 235	11.8 / 300	14.8 / 375	17.7 / 450	20.3 / 515
L (length - in / mm)	15.2 / 385.1	17.8 / 452.6	20.4 / 517.4	27.2 / 689.9	31.9 / 811.0	35.3 / 895.9	38.1 / 966.7
No. of Bolts per Flange	4	8	8	8	12	12	16

Beveled: Overall length (A) tolerance varies with line size:

- ½" to 1", ±0.01" (±0.3mm)
- 1½" to 4", ±0.06" (±2mm)
- 6" to 10", ±0.12" (±4mm)
- 12", ±0.19" (±6mm)

DIN Flanges: Overall length (L) tolerance varies with line size:

- ½" to 1", ±1/16" (±2mm)
- 1½" to 10", ±1/8" (±4mm)
- 12", ±3/16" (±6mm)

ORDERING INFORMATION:

1. Select Nominal Pipe Size and include Maximum Flow Rate.
2. Specify units of measurement for both the flow rate indicator and totalizer.
3. For vertical installation, specify upflow or downflow.

Meter will be 10:1 flow range standard (i.e. 400 to 40 GPM)

NOTE: Larger meter sizes, special laying lengths, other flow ranges available by special order.



Primary Element

Steam Designation	Line Size		Materials		Schedule		Class		Process Connection	
	Code	Description (in / mm)	Code	Description	Code	Description	Code	Description	Code	Description
EVS	02*	2 / 50	A	All S316/L	D	Standard	21	Beveled	N	Traditional Mount (1/2" NPT 3000#)
	03*	3 / 80	G	Body	A333 Gr. 6 Low Temp Carbon Steel		23	DIN PN16 Weld Neck	W	Universal Mount for Vertical Flow
	04*	4 / 100		Cone	S316/L		24	DIN PN40 Weld Neck		
	06	6 / 150		Coupling and Flange	A350 LF2 CL1 Low Temp Carbon Steel					
	08	8 / 200								
	10	10 / 250								
	12	12 / 300								

*Carbon steel construction not recommended for line sizes less than 6". All line sizes are schedule standard.

Notes:

- RTD orientation is viewed from upstream.
- Standard RTD location (90° clockwise from HP tap viewed upstream).
- Steam package includes 3-valve traditional manifold.

Electronics

-	Make		DP Range*		LCD Display		Communication Protocol		Output*		Flow Computer*	
	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
-	E	Endress + Hauser DP Transmitter	1	Standard DP Range	N	No LCD	1	HART	A	Mass Flow Rate	1	Panel Mount
	S	Stacked Endress + Hauser DP Transmitters	2	Low DP Range	Y	LCD	0	None	B	Energy	2	NEMA 4X
	R	Rosemount DP Transmitter	3	High DP Range					N	None	0	No Flow Computer
	T	Stacked Rosemount DP Transmitters	0	None	* Manufacturer - DP Range				* Standard output Mass - lbs / hr Energy - BTU / hr		* Flow computer not available with multivariable transmitter.	
	M	Rosemount MV Transmitter	* Stacked transmitters recommended for Turndowns greater than 10:1. Not available with MV transmitter.		Endress+Hauser	1 - 200" WC	Rosemount	1 - 250" WC				
	N	No Transmitter				2 - 40" WC		2 - 25" WC				
						3 - 1200" WC		3 - 1000" WC				

Options

RTD Positioning Options	
Code	Description
-	90° (6 o'clock)
A	180° (9 o'clock)
B	270° (12 o'clock)
C	No RTD or thermowell

Required

Accreditation Included
PED

