

 **MID**
Measuring Instruction Directive
2014/32/UE Complied



Ultrasonic Flow/ Heat Meters VIR-850 SERIES - Inline



High-precision Measurement: Utilizes advanced ultrasonic technology to deliver accurate flow and heat measurement, ensuring reliable data for billing and energy management.

In-Line Carbon Steel Body : Features a robust carbon steel body that complies within 14343 standard class 2 accuracy wet calibrated, designed for durability and long-term performance in demanding HVAC/Industrial environments.

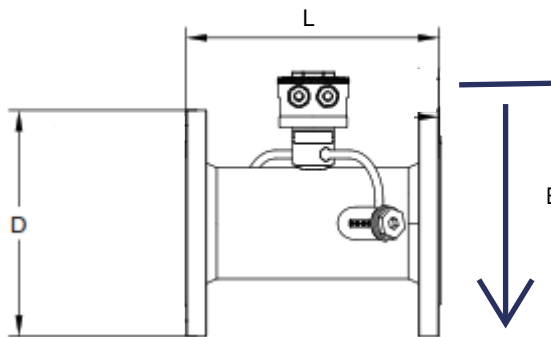
Digital Connectivity: Equipped with advanced communication protocols (e.g., Modbus, M-bus, BACnet –IP) for seamless integration into smart metering and building management systems.

Analog Output: 4-20mA signal for CPM connection for chiller application.

Medium: Suitable for applications involving medium temperatures up to 90°C, making it ideal for heating and cooling systems in commercial and industrial setups.



VIR 850 Ultrasonic In-Line Flanged Type: Flow & Heat Meter		
Main Unit	Accuracy	Class 2 -EN 1434 Standard
	Repeatability	Better than 1%
	Principle	Transit-time measuring principle
	Measurement Period	500ms
	Display	LCD with backlight, display accumulated flow/heat, instantaneous flow/heat, velocity, time etc.
	Output	Analog output: 4-20mA or 0-20mA current output. Impedance 0.1kw. Accuracy 0.1%
		OCT output: Frequency signal (1-9999HZ)
		Relay output: Programmable (no signal, reverse flow etc.)
		RS-485 serial port
	Input	1 analog input
	RTD For Heat Meter only	Two 2-wire, 3-wire Pt100/Pt1000/Pt 500 RTD 12-bit inputs; Range of –40° C...200° C; Clamp-on resistor kits available
	Other functions	Automatically record the totaliser data upto 5 years and 16 years option
	Energy total (Heat Meters)	British Thermal Unit (Btu), MWH KWH
Pipe	Material	Steel, Stainless steel, Cast iron, Cement pipe, Copper, PVC, Aluminium, FRP etc. Liner is allowed
	Size	50-800mm
	Straight pipe section	In the upstream it must be beyond 10D, in the downstream it must be beyond 5D. In the upstream the length must be beyond 30D from the access of the pump. (D Stands for pipe diameter)
Liquid	Types	Water, sea water, industrial sewage, acid and alkali liquid, alcohol, beer, all kinds of oils which can transmit ultrasonic single uniform liquid
	Temperature	Standard : -10° C - 160° C
	Turbidity	Less than 10000ppm, with a little bubble
	Flow Direction	Bi-directional measuring, net flow/heat measuring
Environment	Ambient Temperature	Main Unit: –4...140° F (–20...60° C)
	Altitude Restriction	Up to 2000 m (6561 ft)
	Humidity	Main Units:0...85%, non-condensing Transducer : water-immersible, water depth less than 3m
Cable	Screened Cable	Contact the manufacturer for longer cable requirement. RS-485 interface, transmission distance up to 1000m.
Power Supply	SMPS	DC24V
Power	Consumption	Less than 1.5W
Protocol	Communication Option	MODBUS-RTU Protocol Standard. Option of BACnet MS/TP or IP with MC-603 Kamstrup make calculator available.

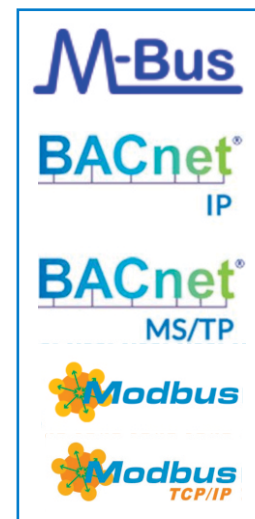
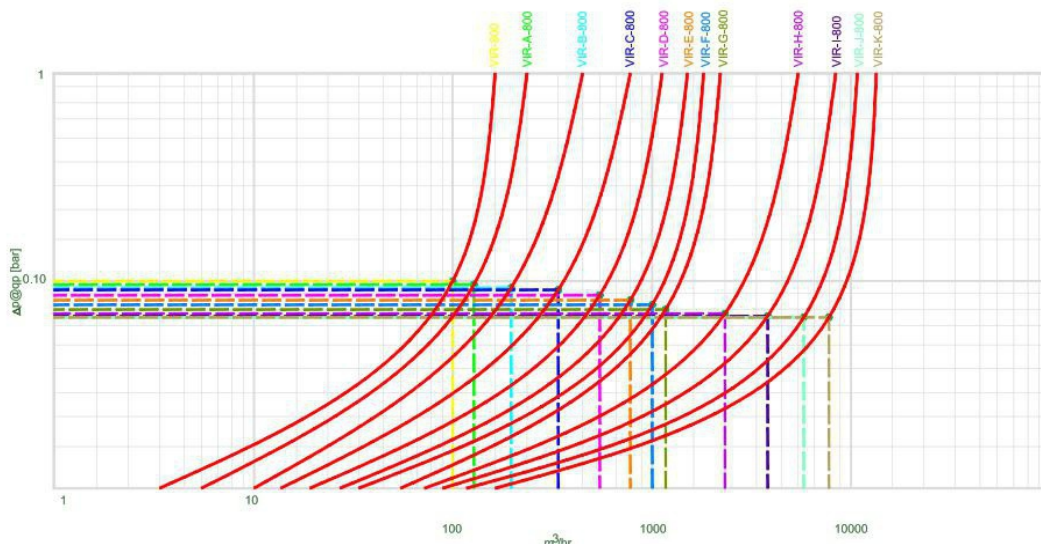


Model - Flow - Dia - Dimension Selection -

Model	DN-(mm)	Nom.Flow qp(M3/hr)	Min.Flow qi(M3/hr)	Max.Flow qs(M3/hr)	D	E	L	Weight	p@qp (bar)	Material	Pressure rating Bar
65-UF-VIR-850	125	100	4	200	250	428	275	20	0.1	CARBON STEEL	PN-16
65-UF-A-VIR-850	150	150	6	300	285	459	300	25	0.097	CARBON STEEL	PN-16
65-UF-B-VIR-850	200	250	10	500	340	511	350	41	0.095	CARBON STEEL	PN-16
65-UF-C-VIR-850	250	400	16	800	405	569	450	54	0.092	CARBON STEEL	PN-16
65-UF-D-VIR-850	300	600	24	1100	460	621	500	77	0.09	CARBON STEEL	PN-16
65-UF-E-VIR-850	350	800	32	1600	500	666	550	92	0.087	CARBON STEEL	PN-16
65-UF-F-VIR-850	400	1000	40	2000	565	697	600	116	0.084	CARBON STEEL	PN-10
65-UF-G-VIR-850	450	1200	58	2400	615	774	700	167	0.08	CARBON STEEL	PN-10
65-UF-H-VIR-850	500	3000	60	6000	700	870	800	167	0.077	CARBON STEEL	PN-10
65-UF-I-VIR-850	600	4400	88	8500	780	931	1000	288	0.077	CARBON STEEL	PN-10
65-UF-J-VIR-850	700	6200	124	12400	860	1021	1100	356	0.075	CARBON STEEL	PN-10
65-UF-K-VIR-850	800	8000	160	16000	975	1129	1200	427	0.075	CARBON STEEL	PN-10

*All Dimensions in mm. +/- 3% variation.

PRESSURE DROP CURVE



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