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THERMAL DISPERSION MASS FLOW METER

Series Scirocco

The **Thermal Dispersion Mass Flowmeter, Series Scirocco 1000** measuring principle is based on the fact that heat is drawn from a heated body when a fluid flows past.

A **Thermal Dispersion Mass Flowmeter** contains two Platinum RTD temperature sensors for this purpose. One sensor measures the current fluid temperature as a reference. The second sensor is heated and has a constant temperature differential relative to the first sensor. When the flow of air/gas starts heat is taken away from the warmer sensor. The amount of heat taken away is having a direct relation with the mass velocity of the fluid.

This eliminates the need for temperature and pressure compensation.

Thermal Dispersion Mass Flowmeter, Series Scirocco 1000 is available with insertion probe type or Complete Spool type with proper end connection. Insertion probe can be installed directly on the pipe carrying compressed air, with the help of clamps supplied along with probe.

Features

- Direct measurement of mass flow
- No pressure or temperature compensation required
- 40:1 turndown ratio
- Wireless data transfer possible
Remote readings available on Mobile App
- Pulse, milliamps or RS485 output for networking



Thermal Dispersion Mass Flowmeter, Scirocco 1000

Available Sizes

Scirocco 1000-1 and Scirocco 1000-2

Nominal Size	Range Sm ³ /Hr.	Range SCFM
DN 15	69	40
DN 20	122	72
DN 25	190	112
DN 32	312	184
DN 40	487	287
DN 50	761	448
DN 65	1287	757
DN 80	1949	1147
DN 100	3046	1793
DN 150	6853	4034
DN 200	12184	7171

Table 1, Sm³/hr is defined at 21.11°C, 101.325 kPa
1. *This is only for clean and dry compressed air.
2. For other gases contact factory with more details.

Specifications

Scirocco 1000-1 and Scirocco 1000-2

Model No.	: Scirocco 1000-1 & Scirocco 1000-2
Scirocco 1000-1	: Sensor and transmitter, can be mounted directly on service pipe just by drilling holes with clamps provided
Scirocco1000-2	: Complete with spool with an end connection of flange /BSP(M) Threading
Service Fluid	: Dry & Clean compressed Air / Gas. (Ex. Biogas, CNG, LPG, PNG & LNG etc.)
Line Size	: DN15 to DN200 - DN125 not available (For others consult factory)
End Connection	: Clamp / Flange (DN20-DN200) Threaded (BSP-F) (DN15 - DN20)
Accuracy	: $\pm 2\%$ of Actual Flow Rate between 100% to 2.5% of Flowrate
Flow Velocity Range	: 5 m/s to 100 m/s max (at NTP Condition)
Flow Range	: As per Table 1 above
Display	: Blind/LCD 16/2
Output	: 4-20 mA/RS 485, Pulse, Wireless Data Transfer
Power Supply	: 24Vdc/300mA Operating voltage between 20V to 28V 230Vac with Adaptor
Operating Fluid Temp.	: 0 - 100°C
Operating Fluid Pressure	: 20 Bar Max (other on request)
Wireless	: Data on Communication
Mobile (mobile app available)	: Instantaneous flow rate and total flow display on mobile With or without External antenna - WiFi 2dBi 2.4Ghz flexible Antenna

Operating Ambient Temperature	: 0 - 50°C
Temperature Drift at Ambient Temp	: 0.008 % / °C maximum of Full Scale in the range 0 to 60°C
Ingress Protection	: IP 65 for Transmitter (Sensor Excluded)



Scirocco 1000-2 (Threaded)



Scirocco 1000-1 (Clamp type)



Scirocco 1000-2 (Flanged End)



Scirocco 1000-2 Encloser Gas Group IIB Exd IP66 (Flameproof)

ORDERING INFORMATION

Sample code explained: Scirocco - 1000-1 - DN 25 - RS4 - P O/P WR - 3

1000-1	Model No. 1000-1 : Without Spool 1000-2 : With Spool	RS4	Output or Communication Port mA : 4-20 mA RS4 : RS485	3	Power Supply 3 : 24 V Dc
DN 25	Flow Meter Size DN 15 : 1/2" DN 65 : 2 1/2" DN 20 : 3/4" DN 80 : 3" DN 25 : 1" DN 100 : 4" DN 32 : 1 1/4" DN 150 : 6" DN 40 : 1 1/2" DN 200 : 8" DN 50 : 2"	P O/P WR	Output Type P O/P WR : Pulse Output, Wireless		

Due to continuous development specifications are subject to change without prior notice.



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