

# Thermal Dispersion Mass Flow Meter

Model: Scirocco 1000



## Description

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
- ❖ 20:1 turndown.
- ❖ Wireless data transfer possible. Remote readings available on wireless.
- ❖ Pulse, milliamps or RS485 output for networking.



Thermal Dispersion Mass Flowmeter Scirocco 1000

## Available Sizes.: Scirocco 1000-1 & Scirocco 1000-2

Nominal Size	Max. Range Sm <sup>3</sup> /Hr.	Max. Range SCFM
DN15	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 125	4759	2801
DN 150	6853	4034
DN 200	12184	7171

Table 1, Sm<sup>3</sup>/hr is defined at 21.11 °C, 101.325 kPa

## SPECIFICATIONS

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	DN25 to DN50 (For others consult factory).
End Connection	Flange/BSP(M) Threading/ Direct clamp mounting.
Accuracy	±3 % of Actual Flow Rate between 100% to 5% of Calibrated range
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/150mA ( Without Wireless communication) 24Vdc/300mA ( With Wireless Communication).
Operating Fluid Temp.	0 - 100°C
Operating Fluid Pressure	12 Bar Max
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 1000-1



Scirocco 1000-2

**Scirocco**    1000-2    DN80    RS4    P O/p WR    3

Model No.
1000 - 1 : Without Spool
1000 - 2 : With Spool

Flow Meter Size	
DN15 : ½"	DN65 : 2½"
DN20 : ¾"	DN80 : 3"
DN25 : 1"	DN100 : 4"
DN32 : 1 ¼"	DN125 : 5"
DN40 : 1 ½"	DN150 : 6"
DN50 : 2"	DN200 : 8"

Power Supply
3 : 24 V Dc

Output Type
Pulse Output, Wireless

Output or Communication Port
mA : 4-20 mA
RS4 : RS485

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