

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 directly related to 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 an insertion probe type or a Complete Spool type with proper end connection. The insertion probe can be installed directly on the pipe carrying compressed air, with the help of clamps supplied along with the probe.

Features

- Direct measurement of mass flow
- No pressure or temperature compensation required
- 40:1 turndown ratio
- Wireless data transfer is possible
- Remote readings available on the Mobile App
- Pulse, milliamps or RS-485 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 the 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 Flow rate |
| 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 % / 0C 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 PO/PWR : Pulse Output, Wireless | | |

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

