



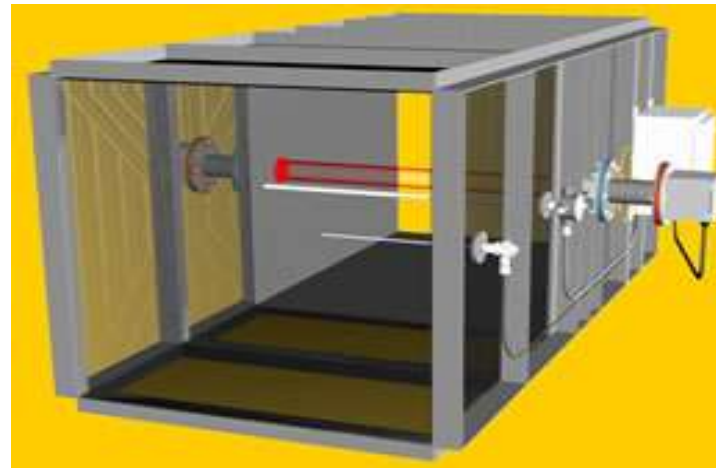
# OFS-2000C™ Combustion Air Flow



## OFS-2000C™ Advantages

- Optimized for Primary and Secondary combustion air
- Temperature and pressure corrected flow or mass flow output (includes RTD temperature probe)
- Cross stack/duct/pipe line measurement for more accurate flow readings.
- Non-interfering; nothing in flow path.
- Easy installation and optical alignment.
- Minimal upstream/downstream diameters; typically 1 & 2
- Long-term reliability: no blowers or moving parts; operates unattended - 24 / 7 / 365.
- Ultra low maintenance design.
- Rugged; designed for harsh environments.
- Built in continuous self-test diagnostics.
- Measurement unaffected by path length & media pressure, moisture & opacity.
- No flow media high temperature limits.
- Wide versatility, NIST tested and unbeatable combination of advanced technology, high performance and proven reliability!

OSi's patented **Optical Flow Sensor (OFS)** makes drift-free measurements across the entire stack, duct or pipe diameter and calculates an accurate average flow reading. It is the only flow sensor that gives a true non-contacting cross-stack flow measurement of the process. The OFS uses our EPA Method 14 approved optical scintillation technology. The optical scintillation technique relies on advanced Digital Signal Processing (DSP) electronics to "see" and measure the movement of turbulence found in a gaseous flow stream to provide highly accurate, path-averaged air velocity measurements. The accuracy of the OFS has been proven both in NIST's wind tunnel and in numerous real-world installations.



### OFS-2000C™ Options:

- Order [Z-Purge Option](#) for Class I Div I/II applications.
- Optional remote display unit.
- Two 4-20 ma output standard. Optional 4-20 ma output available (up to four 4-20 ma outputs)

### OFS-2000C™ Accessories:

- [MZ-1179-00](#) Fiber Optic Modems(FOM) for distance to 1 mile(2 required)
- [MZ-0649-00](#) Limited Distance Modems (LDM) for distances 100 feet to 3 miles. (2 required)
- [1910-804](#) Laptop DB9 serial communications cable



**Transmitter**



**Receiver**



**Control Unit**



**Activator Heater & RTD Temp Probe**

<b>Flow Performance</b>	
Measurement Technique	Optical Scintillation (OSi Patented)
Velocity Range	1.0 to 40 m/sec
Accuracy (absolute)	2% of reading
Resolution	0.1 m/s
Long Term Drift	<1% >6 month
Time Constants	0.3 sec response, 3 sec update, 3 to 600 sec. averaging selectable
Diagnostics	Continuous self-test of voltages, performance, optics, etc.
<b>Media / Environmental</b>	
Path Distance	0.3 to 3 meters (1 to 10 feet) Contact factory for other lengths
Media Temperature	No upper limit (for cold air applications an 'activator' is required)
Media Transparency	Up to 90% opacity (consult factory for high opacity applications)
Ambient Temperature / Humidity	-50 to 60 C (-58 to 140 F) / 0 - 100% condensing
<b>Physical Specifications</b>	
Light Source	Eye-safe 670 nm visible red LED, 5 deg. divergence angle
Sensor Heads (w/ 4" sch.40 flange extender)	9 x 9 x 13 inches, 13 lbs. (15 x 15 x 14 cm ea 5kg ea)
Control Unit: NEMA4 Wall Mount	12 x 14 x 8 inches, 15 lbs. (30 x 40 x 25 cm. 7kg)
Purge Air for Heads	1-2 CFM is typical. Purge source is plant air or passive negative draft
<b>Electrical Specification</b>	
User Interface	RS-232 serial I/O and up to four 4-20 mA optically isolated current loops. Two sets of relay contacts for fault and error indication.
Power for Transmit Head	Universal 100-240 VAC, 50/60 Hz, 12 VA (fused & surge protection)
Power for Control Unit	Universal 100-240 VAC, 50/60 Hz, 40 VA (fused & surge protection)
Cable between Control Unit & Receive Head	25 foot fixed (shielded, 10 cond., 22 AWG)

[Specifications are subject to change without notice.]



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