



OPASTOP® GP 2001 H

Dust emission concentration measurement.



For the exhaust stack monitoring,

the OPASTOP® GP 2001 has over 2000 references, in dust monitoring and opacity measurement.

An original probe patented for an optimum performance.

The OPASTOP®, a product from the PILLARD range.

1 - APPLICATIONS

The OPASTOP® GP 2001 H is particularly adapted to the following applications:

- Continuous monitoring of dust emission concentration.
- Monitoring of filtration system emissions.
- Monitoring of flue gas opacity for maximum burner combustion.

2 - PRINCIPLE

A cone of light transmitted by fibre optic cable from a light source is shone into the measuring area from the scanner head. A fibre optic receiving cable transmits the reflected light from the suspended particles to a photosensitive cell.

Light reflection is a complicated phenomena which depends to a large extent on the angle of both incident and diffuse light. Because of this, the measuring volume is not just limited to the particles which are directly subject to the light cone, but also those which result from inter-particle reflection. The intensity of reflected light is proportional to the concentration of dust in the measuring area.

In order to overcome any parasitic light sources, the light network is modulated and signal processing of reflected light is synchronised to this modulation. Two microprocessors are responsible for managing all the information.

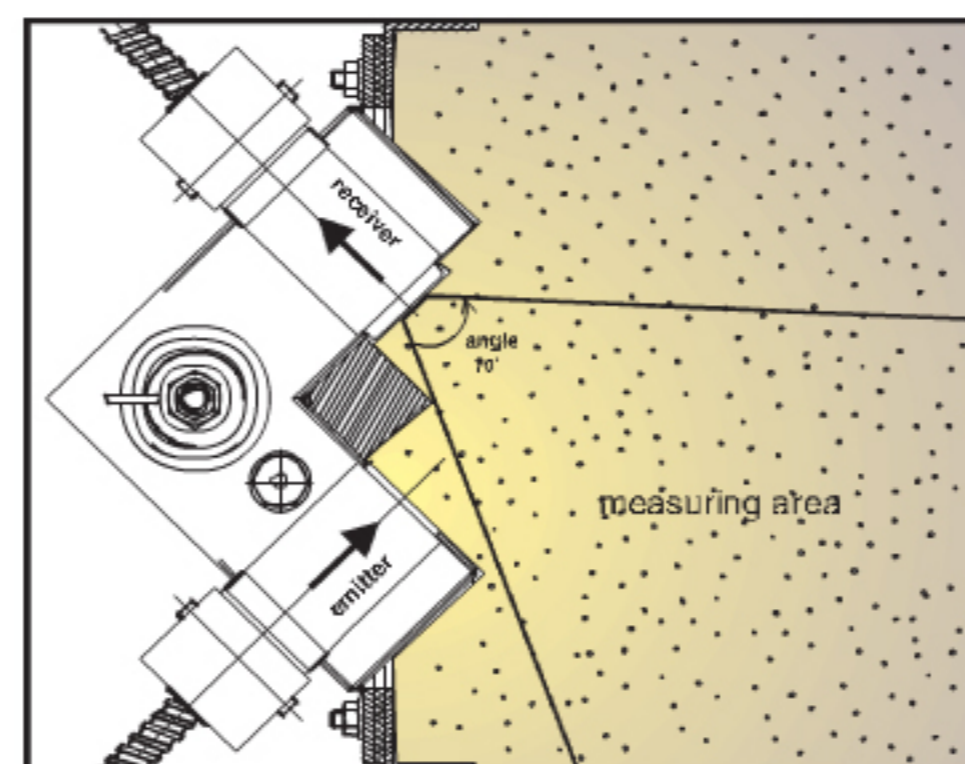


Fig.1 - measuring principle

3 - ADVANTAGES

Four generations of equipment with over 30 years experience in the field have given the GP 2001 H the following advantages:

- **Reflection type measuring system, in-situ**, giving:

- The best available sensitivity to low dust levels.
- Rapid response time.

- **A single scanner head, completely separate from the electronics panel**, giving :

- Easy to fit assembly.
- No scanner alignment required.
- High tolerance to temperature and vibration.

- **Large back-lit interactive LCD screen**, showing clear instructions making it easy to understanding and use.

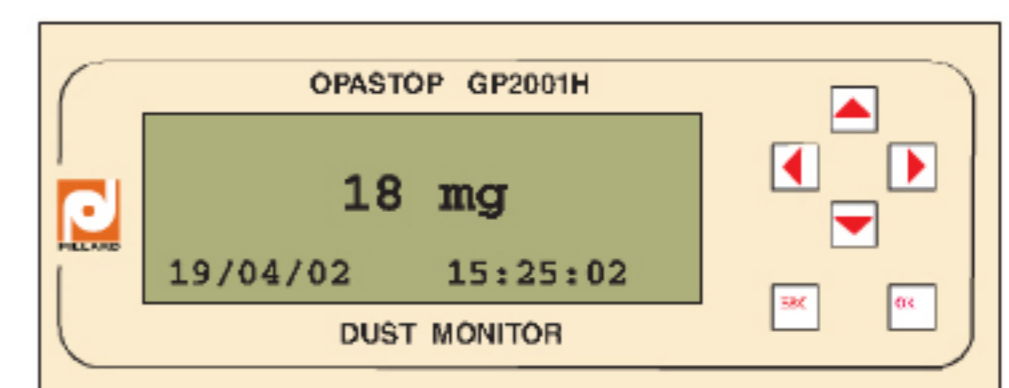


Fig.2 - control panel

- **Modulated light source** eliminating parasitic light reflection.

- **Modular design**, enables easy maintenance and parts replacement.

- **Automatic scale switch-over from low to high dust content** enables a permanent reading of the measured value.

- **Scanner head fits in place of all the preceding generations of OPASTOP®** can replace all versions of GP 1000 H / GP 2000 H OPASTOP® scanner heads without modification.

CHARACTERISTICS

Analyser panel

Protection class	: IP55 as per EN60529 (IP65 on request)
Covering	: Epoxy metallic paint standard RAL7032, (stainless steel.304L on request)
Electrical supply	: 230 V / 115 V (+10/-15%) 50 Hz/60 Hz
Power consumption	: 400 VA (with scanner head heated)
Operating temperature	: -20 to +60°C (over temperature on request)
Storage temperature	: -20 to +60°C
Measuring range	: 0 to 1000 mg/(N)m ³
Reading scale	: adjustable, minimum 50 mg/(N)m ³
Display correction	: to 1 mg/(N)m ³
Signal damping time	: 6 to 120 s, adjustable
Twin measuring scale	: automatic scale switch-over
Analogue output	: 4-20 mA for 750 Ohms (adjustable for 0-24 mA) with possibility of fault display
Digital processing	: 3 programmable relays on scale, threshold and general fault.
Data records	: Faults and excess signal level history, daily average over 30 days.
Printer/calculator port	: RS 232
Dimensions (mm)	: 500 x 400 x 200
Weight	: 18 kg

Scanner head

Shell	: Stainless steel.304L
Heating element	: Electrical resistor 300 W
Sweeping air pressure/flow rate	: 0.3 to 0.4 barg/3 Nm ³ /h
Maximum flue gas temperature	: 350°C (475°C as option)
Automatic self-checks	: air presence and temperature control
Weight	: 4,8 kg

Fibre optic

Receiver tip and shielding	: Stainless steel 304L
Length	: 1.2 m or 2.2 m as standard, (others on request)
Radius of curvature, minimum	: 100 mm
Temperature range for fibre	: -20 to 220°C

Standards and approvals

- Approval n°78.1.01.923.1.0 by the French Ministry of Industry for heating installations over 300 kW.
- Meets standard NFX 43-302.
- In conformity with the European directive concerning electromagnetic compatibility.



شرکت آل‌پرداز ممیبا

تهران - خیابان آزادی - مابین خیابان شادمهر
و بزرگراه یادگار امام - شماره ۴۱۷ - واحد ۵

تلفن: ۰۲۱-۶۶۰۲۸۱۷۲-۵
E-mail: info@apm-co.ir
فکس: ۰۲۱-۶۶۰۲۰۵۰۹
Website: www.apm-co.ir

The above data is given as indication and is susceptible to variation

LEAFLET 0201 G Rev. 3

 **PILLARD**
COMBUSTION EQUIPMENT & CONTROL SYSTEMS

GROUPE FIVES-LILLE

FRANCE	13, rue Raymond Teissère	13272 MARSEILLE cédex 8
	Tel. (33) 4 91 80 90 21	info@pillard.com Fax (33) 4 91 25 72 71
GERMANY	Aarstraße 168 Postfach 1455	65222 TAUNUSSTEIN 1
	Tel. (49) 6128 2420	info@pillard.de Fax (49) 6128 242 112
SPAIN	C/. Almazara, 7 (Pol. Industrial)	28760 Tres Cantos (MADRID)
	Tel. (34) 91 803 1284	pillard@nauta.es Fax (34) 91 804 3261
ITALY	Palazzo A/5 Milanofiori	20.090 ASSAGO (MI)
	Tel. (39) 2 57 50 42 05	pillard@iol.it Fax (39) 2 57 51 20 90
CHINA (PRC)	Beijing Henderson Center	100005 BEIJING
	Tel. (86) 10 6518 9101	info@pillard.cn Fax (86) 10 6518 9103