



# OPAL 100S

## Opacity & Dust Monitoring Systems



- Opacity
- Optical Density
- Dust (mg/m<sup>3</sup>)



- *Double pass technology*
- *Dual outputs and alarms*
- *Push button calibration & testing*
- *Total system package*
- *Complete range of accessories*
- *Optional oxygen sensor output*

“ Australian environmental technology ”

## CONTROL UNIT

Enclosure  
Weight  
Ambient Temperature  
Power Supply  
Display  
Top Line Display  
Lower Line Display  
Operator Indicating LED's  
Outputs -analogue

Output Signal Averaging  
Outputs - Relay  
Alarms  
Control Features

## OPTICAL SYSTEM

Technology  
Enclosure  
Weight (total)  
Installation  
Path Length  
Lens Protection  
Control Features  
Ambient Temperature  
Process Temperature  
Ambient Light Immunity  
Accuracy  
Spectral Response  
Angle of View and Projection  
Response Time  
Zero and Span Calibration  
Calibration test  
Cable Data

## ACCESSORIES

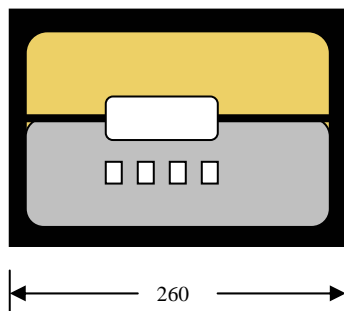
Audit Test Kit  
Air Blowers  
Optical Alignment module  
Weather Cover Set  
Oxygen Sensor

IP65 weatherproof  
1.8 Kg  
-20 to +50 Deg C  
120 or 240vac, 50/60Hz, 125va  
Alphanumeric, two line x 16 character x 4mm LCD, backlit  
Opacity %, resolution 0.1%  
Selectable – Oxygen, Lens Dirt %, alarm & system status, dust (mg/m<sup>3</sup>)  
Power, Alarm active, Setup mode, opacity autozero in progress  
Dual 4-20mA output channels with selectable outputs:  
i) Linearised Opacity %, scaleable span 10 – 100% opacity  
ii) Optical Density, scaleable span 0.05 – 2.0  
iii) Quantitative (mg/m<sup>3</sup>), scaleable span 10 – 500 mg/m<sup>3</sup>  
Standard : 1 - 20 seconds EPA version: 1 – 60 minutes  
Four (4) programmable SP-NC, 0.5A at 24vdc ( 50vac / 30vdc maximum)  
Transmissometer Fail, Service Mode, Lens Dust High, High Emissions, Probe Fail  
Manual or automatic lens dirt compensation

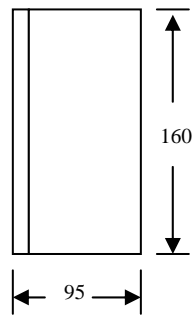
Double pass transmissometer using high power LED light source with electronic light modulation  
IP65 weatherproof  
2.5Kg transceiver, 0.8Kg retroreflector  
Flange mount purge modules - 65NB flange with 4 x 18mm holes on 127pcd  
300mm to 400mm (option: 8000mm)  
32mm air hose connection for air blower (Optional 8mm plant air hose connection kit).  
4-20mA signal testing sockets at stack location, push button - SPAN / ZERO calibration.  
-20 to +50 ° C  
Up to 450 ° C standard  
Nil effect from sunlight or artificial light sources.  
Less than or equal to +/- 2% opacity  
515 to 585 nm, less than 10% of peak response outside 400 to 700 nm  
<4.0° from optical axis  
< 2 seconds, to 90% of actual value  
Push button calibration to clean stack (0%) and blocked stack (100%) opacity.  
Manual operation, using optional zero / span filter audit test module.  
Standard: 2 metre flex with quick release plug. (Maximum 120 metres x 6 core screened.)  
Optional: 2 to 10 metre conduited cable with termination box.

Carry case includes clip on audit module and 3 x factory certified test filters.  
75m<sup>3</sup>/hr filtered purge blower, suitable for wall mounting. Includes 6 metres x 32mm flexible air hose.  
Clip on fitment, required for off stack transceiver alignment.  
Clamps between stub flange and purge / alignment flange – designed for direct sunlight protection.  
System permits connection of a zirconia oxygen sensor for combustion process applications.

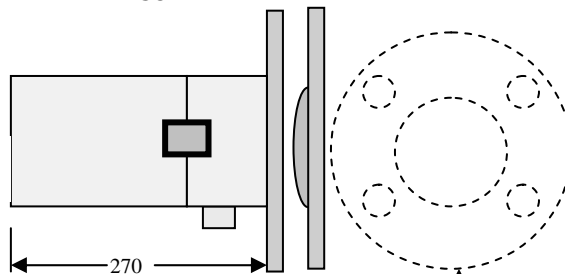
CONTROL UNIT



260

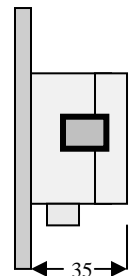


TRANSCIEVER



Flange: 125 dia x 8mm thick  
50 NB with 4 x 12mm holes on 100 pcd

RETRO



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