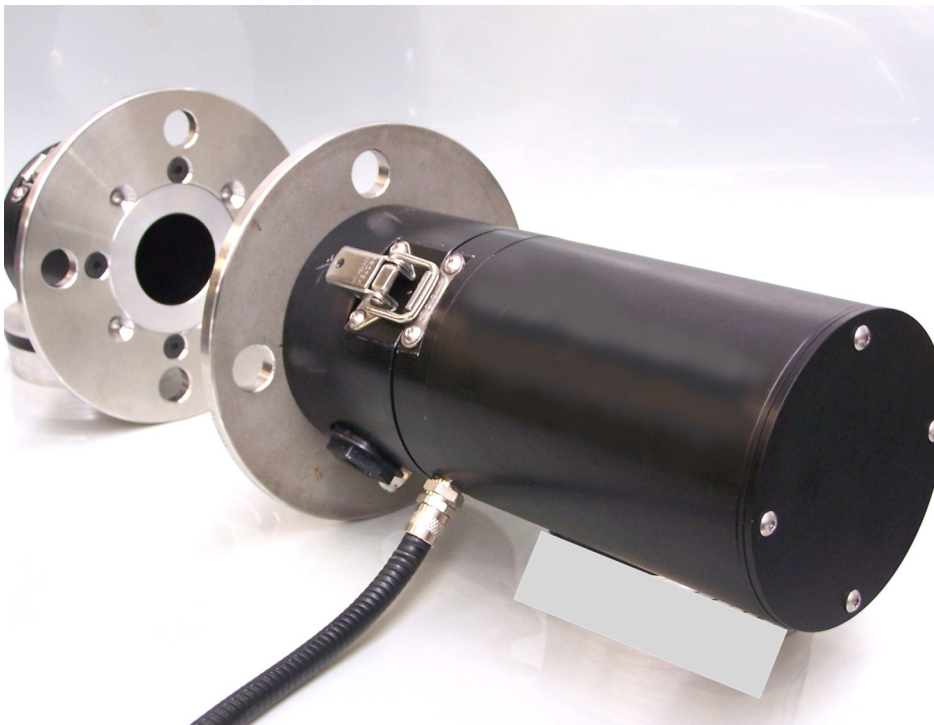


Concept OPL 100S

Smoke Density /Opacity Monitoring Systems



- ◆ Opacity
- ◆ Optical Density
- ◆ Dust (mg/m³)



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

Concept OPL 100 Series Smoke Density Meter

CONTROL UNIT

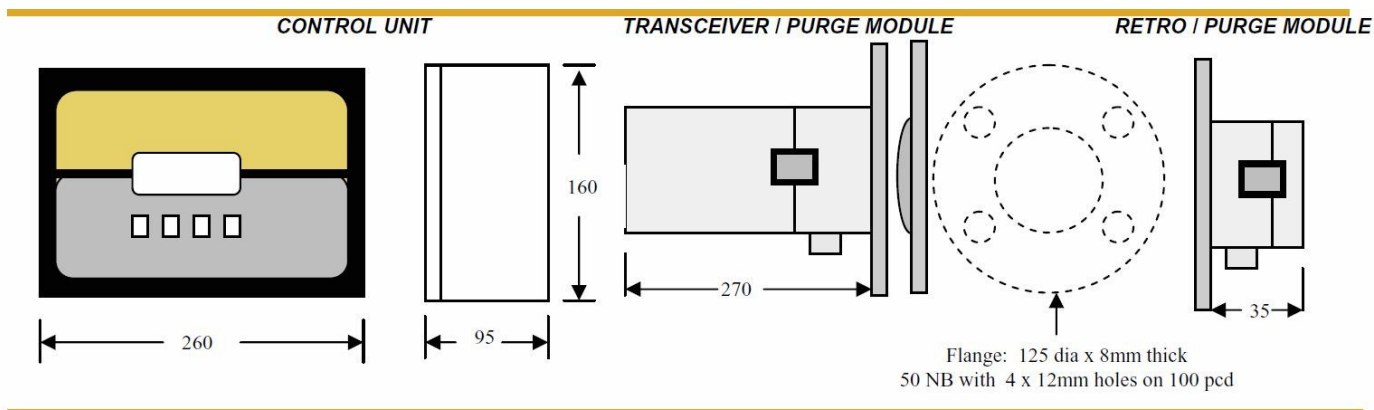
Enclosure	IP 65 Weatherproof
Weight	1.8kg
Ambient Temperature	-20 to +50 Deg C
Power Supply	120 or 230v, 50/60Hz, 125va
Display	Alphanumeric, two line x 16 character x 4mm LCD, backlit
Top Line Display	Opacity %, resolution 0.1%
Lower Line Display	Selectable—oxygen, lens dirt %, alarm and system status, dust (mg/m ³)
Operator Indicating LED's	Power, Alarm active, Setuo mode, Opacity autozero in progress
Output—analogue	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 lii) Quantitive (mg/m ³), scaleable span 10 - 500mg/m ³
Output Signal Averaging	Standard: 1– 20 seconds EPA version: 1—60 minutes
Outputs—Relay	Four (4) programmable SP-NC, 0.5A at 24 vdc (50vac/30vdc maximum)
Alarms	Transmissometer Fail, Service Mode, lens Dirt High, High Emissions, probe fail
Control Features	Manual Or automatic lens dirt compensation

OPTICAL SYSTEM

Technology	Double pass transmissometer using high power LED light source with electronic light modulation
Enclosure	IP65 weatherproof
Weight (total)	2.5Kg transceiver, 0.8Kg reflector
Installation	Flange mount purge modules—50NB flange with 4 x 12mm holes on 100pcd
Path length	300mm to 400mm
Lens Protection	38mm air hose connection for air blower (Optional 10mm plant air hose connection kit).
Control Features	4—20mA signal testing sockets at stack location, push button calibration.
Ambient Temperature	-10 to +55°C
Process Temperature	Up to 250°C standard (refer factory for higher temperatures)
Ambient Light Immunity	Nil effect from sunlight or artificial light sources.
Accuracy	Less than or equal to +/-2% opacity
Special Response	515 to 585 nm, less than 10% of peak response outside 400 to 700nm
Angle of View and Projection	<4.0° from optical axis
Response Time	<2 seconds, to 90% of actual value
Zero and Span Calibration	Push button calibration to clear stack (0%) and blocked stack (100%) opacity.
Calibration Test	Manual operation, using optional zero/span filter audit test module.
Cable Data	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.

ACCESSORIES

Audit Test Kit	Carry case includes clip on audit module and 3 x factory certified test filters.
Air Blowers	75m ³ /hr filtered purge blower, suitable for wall mounting. Includes 4 metres x 38mm flexible air hose.
Optical Alignment module	Clip on fitment, required for off stack transceiver alignment.
Weather Cover Set	Clamps between stub flange and purge/ alignment flange—designed for direct sunlight protection.
Oxygen Sensor	System permits connection of a zirconia oxygen sensor for combustion process applications.



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