



OPAL 100S

Opacity & Dust Monitoring Systems



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



- **Double pass technology**
- **Dual outputs and alarms**
- **Keypad calibration & testing**
- **Total system package**
- **Complete range of accessories**

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

IP65 weatherproof
1.8 Kg
-10 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/m³)
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/m³), scaleable span 10 – 500 mg/m³
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

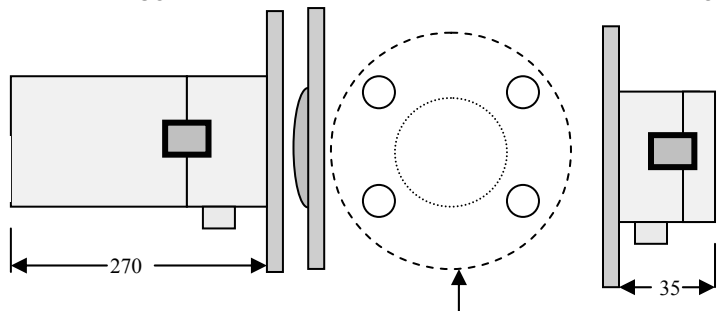
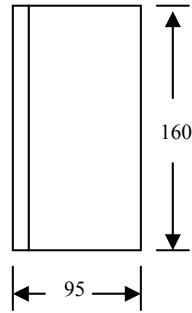
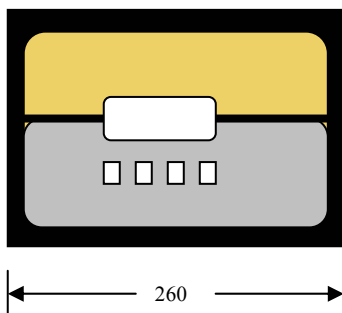
Double pass transmissometer using high power LED light source with electronic light modulation
IP65 weatherproof
2.5Kg transceiver, 0.8Kg retroreflector
Flange mount purge modules - 65NB flange with 4 x 18mm holes on 127pcd
300mm to 360mm
32mm air hose connection for air blower (Optional 8mm plant air hose connection kit).
4-20mA signal testing sockets at stack location, push button - SPAN / ZERO calibration.
-10 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.
75m³/hr filtered purge blower, suitable for wall mounting. Includes 6 metres x 32mm flexible air hose.
Clip on fitment, used for transceiver alignment.
Screw attachment to flange plate – designed for direct sunlight protection.

CONTROL UNIT

TRANSCIEVER

RETRO



SS316 Flange: 165 dia x 8mm thick
65 NB with 4 x 18mm holes on 127pcd