



OPAL 100T

Opacity & Dust Transmitter



- Opacity
- Optical Density



- **Link select single output transmitter unit**
- **Integrated air purge & alignment modules**
- **Simple maintenance design**
- **Ideal for boiler & baghouse control system integration**

“ Australian environmental technology ”

JUNCTION BOX

Enclosure
Weight
Ambient Temperature
Power Supply
Connection

Output

IP65 weatherproof
0.8 Kg
-10 to +50 Deg C
120 or 240vac, 50/60Hz, 125va (specify on order)
5 pin quick connector (female) on 1.0 metre flying lead – to transceiver.
Mains – 240vac 50 / 60Hz
Re-transmitted 4-20mA signal via terminal connections via customer supplied output cable.
Link select 1. *OPACITY*: 4-20mA = 0 – 50%
Link select 2. *OPTICAL DENSITY*: 4-20mA = 0 – 0.3

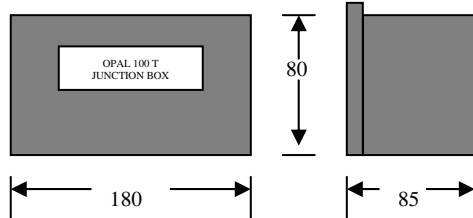
OPTICAL SYSTEM

Enclosure
Weight
Installation
Connection

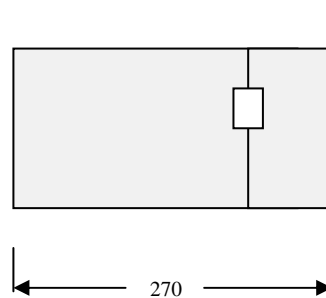
Path Length
Optical System
Lens Protection
Ambient Temperature
Process Temperature
Ambient Light Immunity
Accuracy
Spectral Response
Angle of View
Angle of Projection
Response Time
Zero Calibration
Span Calibration
Maximum cable length
Control Features
Output selection

IP65 weatherproof
3.5Kg transceiver, 1.2Kg retroreflector
Via 65NB stub flanges. (4 x 18mm holes on 127 pcd and 75mm bore)
5 pin quick connector (male) to flying lead on OPAL 100T junction box.
(Option steelflex conduit cable to Junction box – max 20 metres)
300mm to 3600mm
Double Pass system using high power LED light source with electronic light modulation
Optional air purge fittings for either air blower or plant instrument air.
-10 to +50 ° C (Optical system is digitally temperature stabilised)
Up to 400 ° 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
<4.0° from optical axis
< 2 seconds, to 90% of actual value
via transceiver control pad – set clean stack conditions and press WHITE button
via transceiver control pad – set blocked stack conditions and press BLACK button.
100 metres
4-20mA signal testing sockets at stack location, push button calibration procedure,
Via transceiver link selection: 1. Transmittance 0 – 100% (fixed range)
2. Opacity 0 – 50% (fixed range)
3. Optical Density 0 - 0.3 (fixed range)

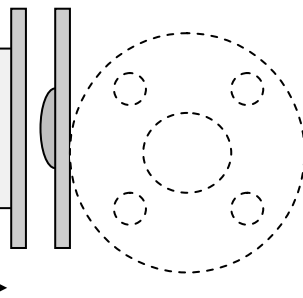
JUNCTION BOX



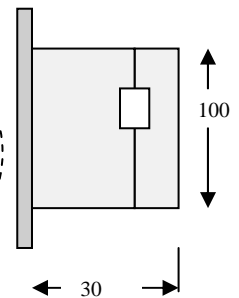
PURGE MODULE(S)



TRANSCIEVER



RETROREFLECTOR



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



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DISTRIBUTOR