# Dust & Opacity Analyzer D10-DP







**Your Automation Partner** 

### Introduction

D10-DP is a type-approved measuring device which combines the advantages of the measuring principles transmittance and scattered light forward. Therefore, it is ideal for measurement of very low to high dust concentrations. The automatic self-alignment optimized the position of the measuring beam and prevents incorrect measurement. An automatic check of zero and referencepoints as well as a contamination monitoring.

### **Product Overview**

#### **Dust & Opacity Analyzer**

- Combination of transmittance, opacity and scattered light measurement.
- For very low to high dust concentrations.
- Automatic check of zero and reference point.
- Contamination monitoring and compensation on both sides.
- Automatic self-alignment.

#### **Application**

- Solid Fuel Boiler
- · Gas Fuel Boiler
- Tunnel for Visibility
- Generator Emission
- Diesel Car Emission
- Rubbish Incinerator
- Power Plant Boiler
- Furnance
- Waste Incinerator

#### Field Application

- Emission Monitoring of power stations and waste incinerator plants.
- Monitoring of filter facilities.
- Measurement of dust concentrations in exhaust gas and exhaust air ducts up and downstream of a filter

#### **Benefits**

- Suitable for highly fluctuating dust concentrations.
- Reliable application due to redundant measurement.
- Low maintenance due to self-monitoring function.
- Future-proof for decreasing limit values.

## Ordering Information (Double Pass System)

Model	Description				
DM-LK-D10-DP	Dust & Opacity Meter Complete Set				
DM-LK-D10-C30	Controller Unit				
SDS-V6	Sender				
SDR-V4	Receiver				
SDM-RL3	Reflector				
HPB-82S	Auto Cleaner				

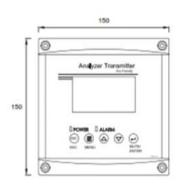
## **Controller Unit**

- $\bullet$  Continuous monitoring in % (Opacity) and mg/m³ (Dust).  $\bullet$  Alarm contact for exceeded limit.
- Aid to Efficiency of combustion.
- Meet to the Department of Environmental Emission Standard Regulation.
- Acknowledge Buzzer function.
- 4-20mA Analog output for Dust and Opacity.
- RS485 Modbus Communication.
- Automatic Zero and Span check.
- Certified by TUV.

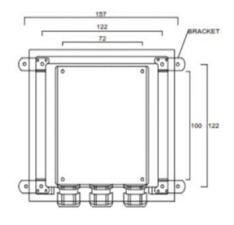


Model	D10-DP				
Screen Width	LCD 70 x 38mm				
Power	85-260 VAC; 50/60 Hz				
Power Consumption	20 Watt				
Ambient Temperature	-10 ~ 50°C				
Alarm Contact	Max 5A / 240VAC - SPDT Relay				
Measuring Range	0 - 100% (Opacity), 0 - 4000mg/m³ (Dust)				
Engineering Unit	Percent Obscuration (%) - Opacity mg/m³ - Dust Concentration				
Mounting	Panel or Wall				
Panel Cut-Out Size	$W137 \pm 1 \times H137 \pm 1 \times D90 \text{ (mm)}$				
Dimension	W150 x H150 x D110 (mm)				
Weight	1 Kg				
Sampling Time	0.2 seconds				
Display Accuracy	±1.0% F.S				
Operating Temperature	0°C to 55°C				
Operating Humidity	20 to 80% RH Max. (Non-condensing)				
Protection	IP65 Front Panel				
TUV Certification No.	TUV AE50297785 0001				
Report No.	15075935 001				
Conformity	2004 / 108 / EC				
Emission	EN 61326-1 : 2013				
Compensation to mg/NM3	Required Temperature & Pressure Measurement				
Fail Safe Shutter	Optional				
Double Pass Beam	Optional				

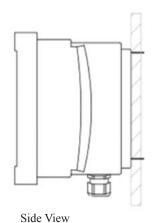
# **Surface Wall Mounting**



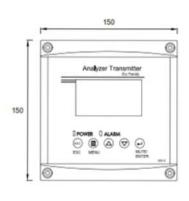




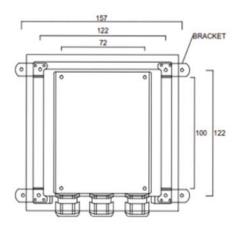
Back View



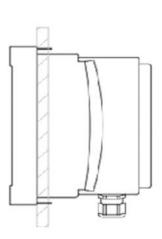
# **Flush Panel Mounting**







Back View

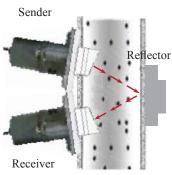


Side View

### Sensor

- Mounted on opposite sides of the stack or duct.
- Sender light beam is at right angles to the flow or flue gases and give unrestricted illumination of the receiver solar cell.
- Preferable that unit installing where the temperature is at minimum.

Sender Model	SDS-LK-SV6			
Receiver Model	SDR-LK-RV4			
Enclosure Class	IP65			
Sensor Body Material	Aluminium Alloy			
Sender Element	Laser			
Flange Mounting Size	146mm P.C.D, Ø18mm Holes, C.T.C : 102mm			
Air Pressurized Adapter	1/4" BSP Thread			
Design Body	Weather proof IP65			
Max. Ambient Temperature	70°C			
Max. Stack Temperature	1200°C			
Swing Door	90° minimum			
Weight	2.0 Kg			
Certification	TUV			

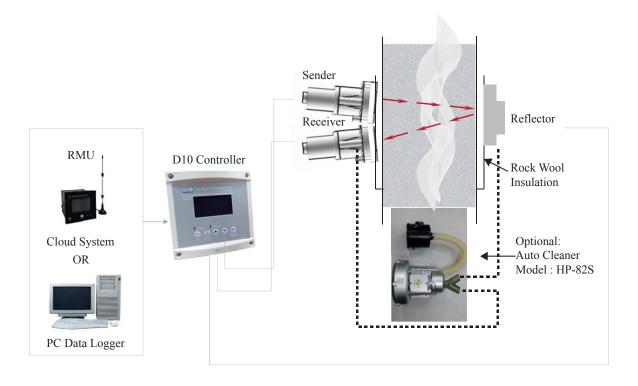


## **Auto Cleaner**

Model	HPB-82S			
Ambient Temperature	25°C and 50°C			
Power Supply	Single Phase :200-240VAC, 50Hz 3 Phase : 345-415VAC, 60Hz			
Material	Cast Aluminium			
Connection	DN40 BSP			
Static Pressure	120 mbar			
Capacity	140m³/Hr			
Weight	40Kg			
Accessories	Hose x 10 meter, Y-Joint x 1 & Hose Clip x 6			



# **Typical Installation**



Distributor:		

