



# Laser Dust & Opacity Analyzer D10



YourAutomation Partner



**D10 is a type-approved measuring device which combines the advantages of the measuring principles transmittance and single pass opacity. 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 reference-points as well as a contamination monitoring.**

## Product Overview

### Dust & Opacity Analyzer

- Combination of transmittance and single pass measurement.
- Medium to high dust concentrations.
- Automatic check of zero and reference point.
- Contamination monitoring and compensation on both sides.
- Automatic self-alignment.
- For medium to large dust diameters.

### Application

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

Model		Description
6 Meter	30 Meter	Scanning Distance
DM-LK-D10-5	DM-LK-D10-30	Dust & Opacity Meter Complete Set
DM-LK-D10-C5	DM-LK-D10-C30	Controller Unit
SDS-V6.5	SDS-V6.30	Sender
SDR-V4		Receiver
HPB-82S		Auto Cleaner

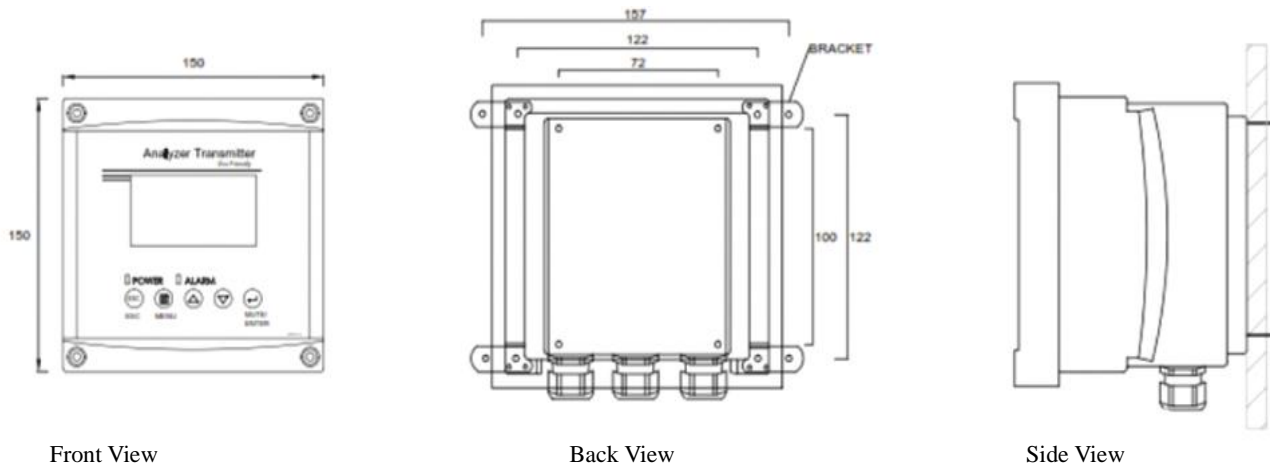
## Controller Unit

- Continuous monitoring in % (Opacity) and mg/m<sup>3</sup> (Dust).
- 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.
- Certification CE Mark by TUV.



Model	D10
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), 50 - 1000mg/m <sup>3</sup> (Dust)
Sender Source	Laser
Scanning Distance	0 ~ 6 Meter ; 0 ~ 30 Meter
Engineering Unit	Percent Obscuration (%) - Opacity mg/m <sup>3</sup> - Dust Concentration
Mounting	Panel or Wall
Panel Cut-Out Size	W137 ± 1 x H137 ± 1 x D90 (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
Certification	CE Mark by TUV (AE50247427 0001)
Report No.	16036955 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

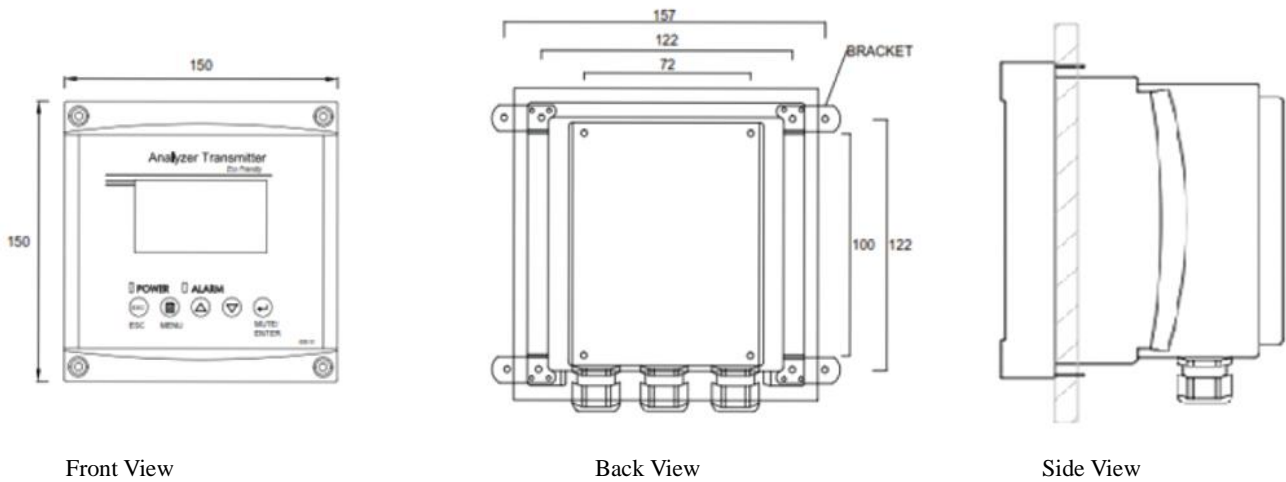


Front View

Back View

Side View

## Flush Panel Mounting



Front View

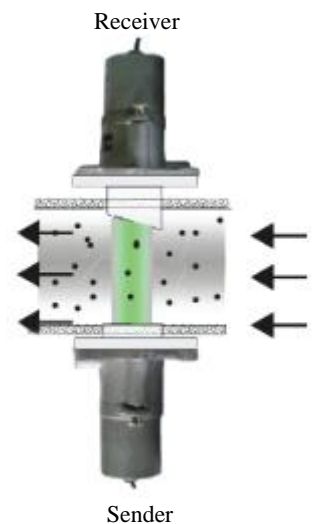
Back View

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-SV6.5 / SDS-LK-SV6.30
Receiver Model	SDR-LK-RV4
Enclosure Class	IP65
Sensor Body Material	Aluminium Alloy
Sender Element	Laser (0-6 Meter & 0-30 Meter)
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	CE Mark by TUV

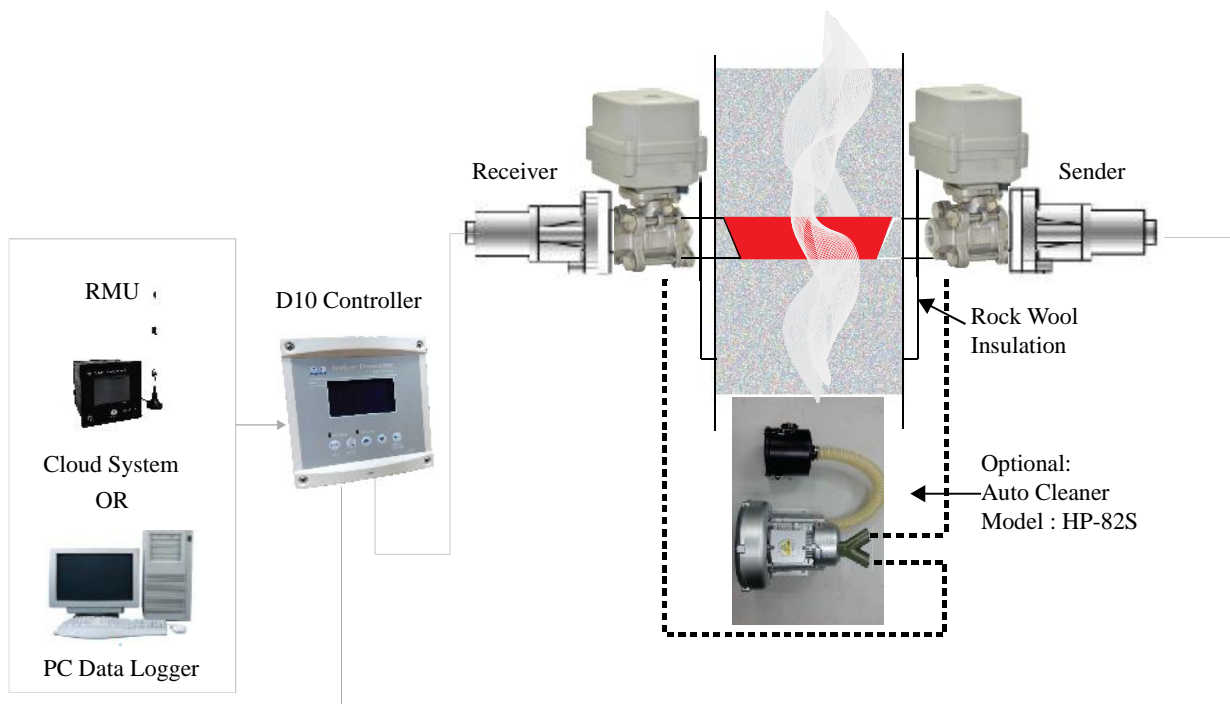


## Auto Cleaner

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	140m <sup>3</sup> /Hr
Weight	40Kg
Accessories	Hose x 10 meter, Y-Joint x 1 & Hose Clip x 6



## Typical Installation



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