

AMS THERMO PDR1100 DUST LEVEL TRANSMITTER



The AMS Thermo Dust Level Transmitter is derived from the Thermo PDR1000 Personal Dust Monitor which serves as the measuring device for this instrument. It utilizes the scattered light principal of measuring which is widely used in the measuring of Respirable Dust. Many of these instruments are currently being used in the underground mining industry and have an excellent track record for performance and reliability. It has an on-board 4...20mA output signal which is useable on most telemetry/Scada systems.

The PDR1100 Transmitter was developed specifically for real-time area monitoring in underground mines. The 4...20mA output signal which is connected to backbone of a telemetry/Scada system makes the remote real-time data available at the control centre. This facilitates immediate interventions in areas where overexposure could occur.

The PDR1000 is housed in a steel enclosure which protects it from contamination by airborne pollutants which affect the background level adversely. The housing is designed to entrain air at a very low velocity across the Sensor Bridge. This also separates the larger unwanted particles from the measurement.



FEATURES:

- High accuracy and repeatability
- Rapid response to changes in dust levels
- Linear output providing quality graphs and trending
- Low maintenance as there are no moving parts or filters to be replaced
- Easy zeroing/calibration in-situ
- Easy flushing of residual dust particles in-situ
- Popular 4...20mA output signal

SPECIFICATIONS:	
RANGE	0.001 to 4.000 mg/m ³ auto-ranging
REPEATABILITY OVER 30 DAYS	+/- 2% of reading or 0.005 mg/m ³ whichever is greater, for 1 second averaging. +/- 0.2% of reading or 0.0005 mg/m ³ whichever is greater, for 60 second averaging.
ACCURACY	+/- 5% of Reading +/- precision
RESOLUTION	0.1% of reading or 0.001 mg/m ³ whichever is greater
PARTICLE SIZE RANGE OF MAX RESPONSE	0.1 to 10 µm
POWER SUPPLY	24 V DC
POWER CONSUMPTION	5mA + loop current (4-20mA)
OUTPUT SIGNAL	4...20 mA, 3-wire or 0 to 5 V
SERIAL INTERFACE	RS232, 4800 baud rate
HOUSING	Mild Steel – Powder Coated RAL5005.
OPERATING CONDITIONS:	Temp: -10 ...+50°C RH : 10. 95.0% (non condensing)

