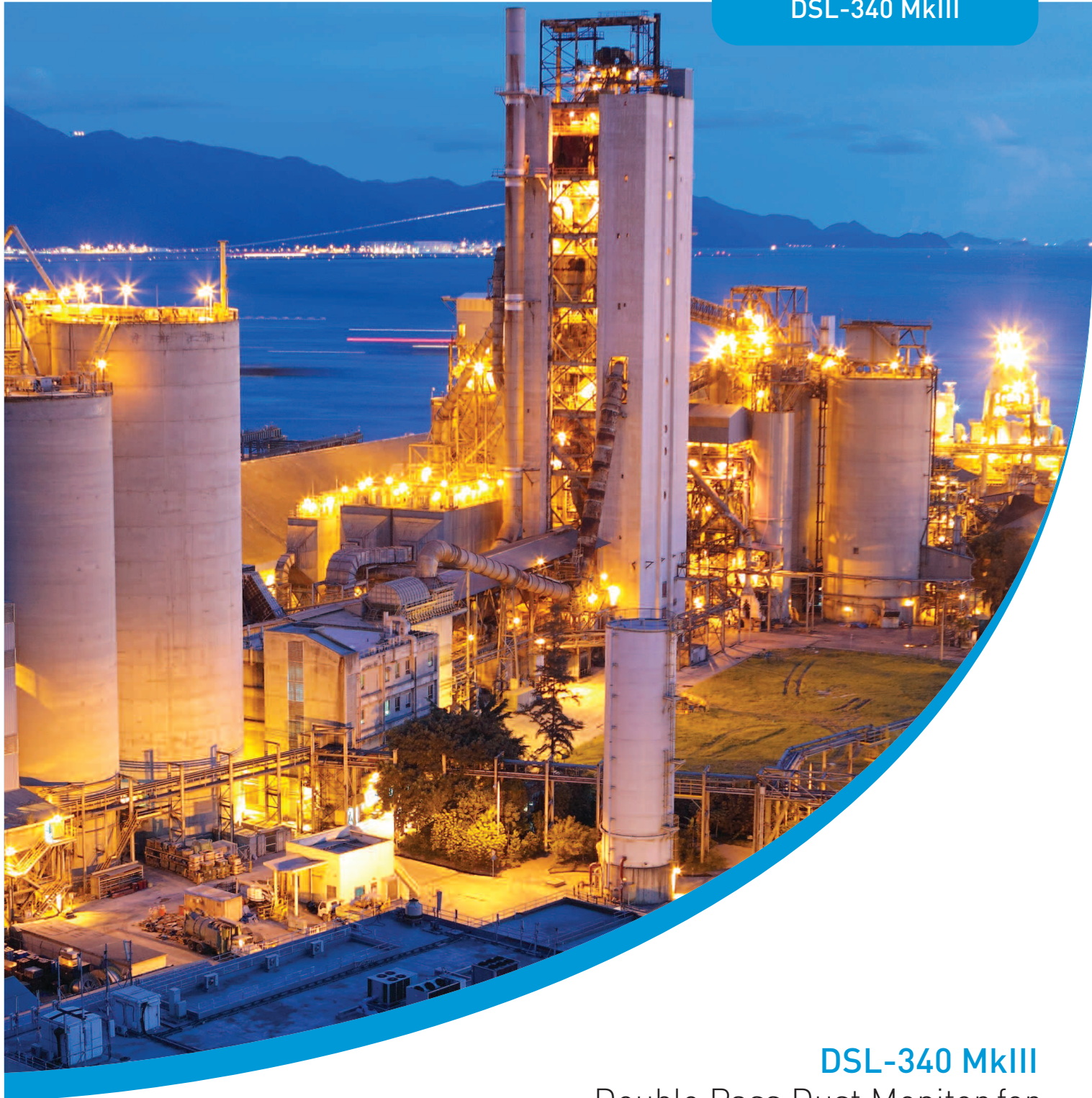


DSL-340 MkIII



DSL-340 MkIII

Double Pass Dust Monitor for monitoring dust emissions using DDP



DYNOPTIC

DSL-340 MkIII

Double Pass Dust Monitor for monitoring dust emissions using DDP



FEATURES

- Innovative Dynamic Detection Principle (DDP) measurement technique
- Immune to gradual reductions in absolute intensity of the light signal so less susceptible to drift
- Measurement reading as mg/m^3 (when calibrated against standard reference measurements)
- Rugged 316 stainless steel construction
- Choice of interface options enabling easy integration
- Free utility software for PC based set-up, control and data logging
- Optional Operator Interface with different mounting configurations

BENEFITS

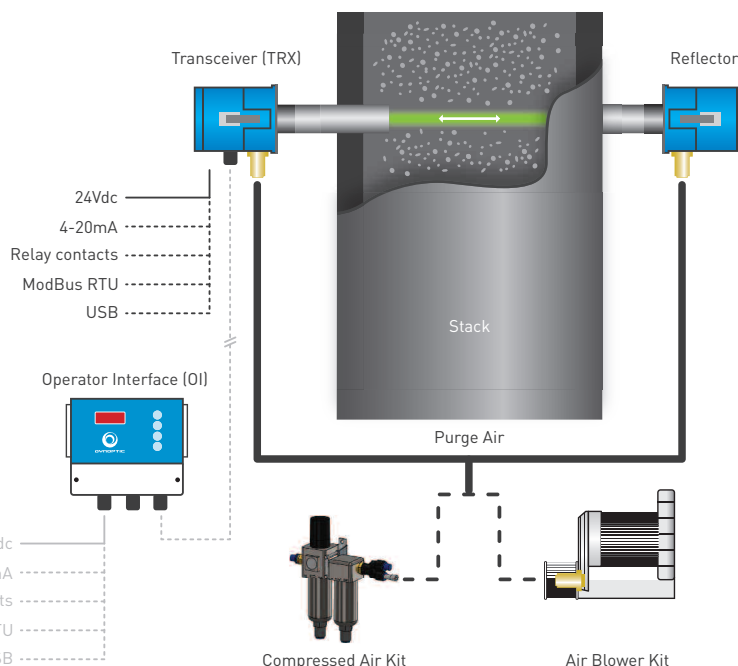
- Significantly less susceptible to drift than standard opacity monitors
- Better accuracy over shorter path lengths, i.e. smaller duct diameter
- Simple to install, commission and operate with an excellent reliability record
- Rugged design with no moving parts so low maintenance
- Latched head and lid design to enable ease of access for installation and maintenance

THE TECHNOLOGY

The DSL-340 Dust Monitor is an optical instrument designed to measure the concentration of dust or particulate matter in exhaust gas passing through a duct, stack or flue. The DSL-340 uses the innovative Dynamic Detection Principle (DDP) which measures fluctuations in the intensity of a light beam, using a folded beam Transceiver / Reflector arrangement. Increased dust or particulate density in the stack causes the amplitude of these fluctuations to increase. When calibrated against standard reference measurements, the amplitude of this signal relates directly to the dust concentration in the stack and this can be presented as a reading in mg/m^3 .

APPLICATIONS

- Cement works
- Steel plants
- Air filtration processes such as electrostatic precipitators
- Other industrial applications with larger particle size and relatively high dust loading



OPTIONAL ACCESSORIES

- Operator interface (OI)
- 90 – 260 Vac model available
- Mounting flange installation kit
- Laser alignment tool to assist with installation
- Air purge blower kit (110 Vac / 230 Vac / 415 Vac)
- Compressed air purge kit
- Fail safe shutter kit

TECHNICAL SPECIFICATION

Parameter	Comment
Measuring Principle	Dynamic Detection Principle, DDP (Scintillation)
Operating Wavelength	510 – 540 nm (green LED)
Measurement Reading	Concentration (mg/m ³)
Measuring Range	0 – 1000 mg/m ³ (user configurable)
Path Length (duct diameter)	0.5 – 10 m (flange-to-flange separation)
Accuracy	+ / - 2 %
Flue gas flow rate	≥ 1.0 m/s
Resolution	0.1 mg/m ³ (display resolution)
Damping	1 – 60 s (user selectable)
Drift with Temperature	< +/- 0.5 %

POWER & AIR REQUIREMENTS

Voltage	+24 Vdc (optional 90-260 Vac PSU available)
Nominal Current Consumption	400 mA
Power Up Current Consumption	400 mA
Purge Air Supply Volume	50 – 200 L/min (to each air purge body)
Purge Air Quality	Suitably filtered, oil free and dry

INTERFACE OPTIONS

Serial Comms	ModBus RTU via RS485 Internal USB (OI) External USB (RX)
Analogue Outputs	4.0 – 20 mA (isolated and scalable)
Relay Contacts	3 A @ 30 Vdc (signal level and service alarms)

PHYSICAL

Ambient Operating Temperature	-20 – +55 °C (air temperature around the equipment)
Exhaust Gas Temperature	Up to +600 °C (heat insulating gaskets included)
Ambient Operating Humidity	0 – 100 %
Ingress Protection	IP65 for external use
Materials	316 Stainless Steel (powder coated)
Dimensions	153 x 120 x 122 mm (measuring head)
Weight	2.5 kg per head

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