

SPECIFICATION SHEET: SILICA MONITOR



Particulate sensing parameters	
Sensing technology	Optical refraction technology (ORT), Light-scatter photometer (OPC)
Particulate measurement	Target RCS identification range 1 μm - 10 μm
Max. typical dust loading	150 mg/m^3
Continuous range	25 mg/m^3
Displayed data	RCS mg/m^3
Resolution	1 μg (1,000th of a mg)
Averaging period	15 minutes, 1, 4, 8 and 12 hours
Sampling interval	1 - 60 seconds
Particle count	600 particles/second
Total airflow rate	~ 1.5 l/m (nominal)
Typical RCS accuracy	$\pm 25\%$
Technical specifications	
Operating temperature	-10°C - 45°C
Humidity	0 - 95 % RH (non-condensing)
Housing material	PC/ABS – stainless steel
Ingress protection	Main enclosure: IP65 Particle flow path, cap open: IP42
Weight	8.2 kg
Cable entries	3 x M20 with removable blanks 1 x M20 breather gland 1 x M20 USB connector
Nominal power supply	100 - 240 V ac 50/60 Hz 9 - 18 V dc
Communications	15 W
External power output	RS485 data output with MODBUS RTU protocol Ethernet (MODBUS TCP/IP)
Connectivity	15 V 1 A for powering external devices (e.g., 4G modem) 3 V 3 1 A
Data download	External USB interface
Instrument data storage	6 GB
User interface	128 x 64 dot matrix display with RGB backlight Navigation keypad (membrane)
Visual alarms	Custom alarm set points Latching/non-latching
Indicators	1 x green high brightness LED – sensor heartbeat 1 x blue high brightness LED – communications
Self-test routine	Sensor hardware, circuitry, and communications on 'power on' manual self-test during use
Certification	CE compliant