



S1816 Series

Continuous Monitoring Particle Counter

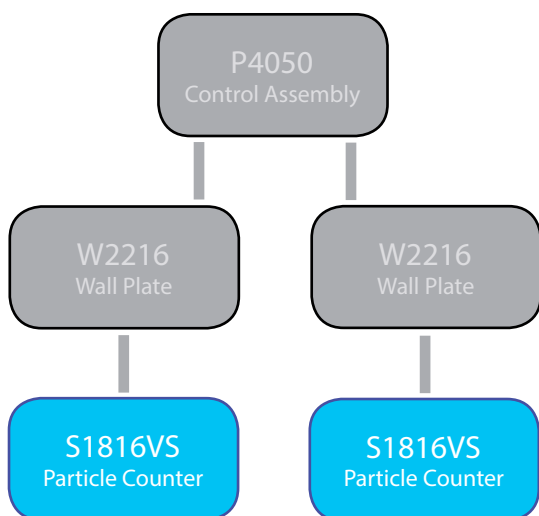
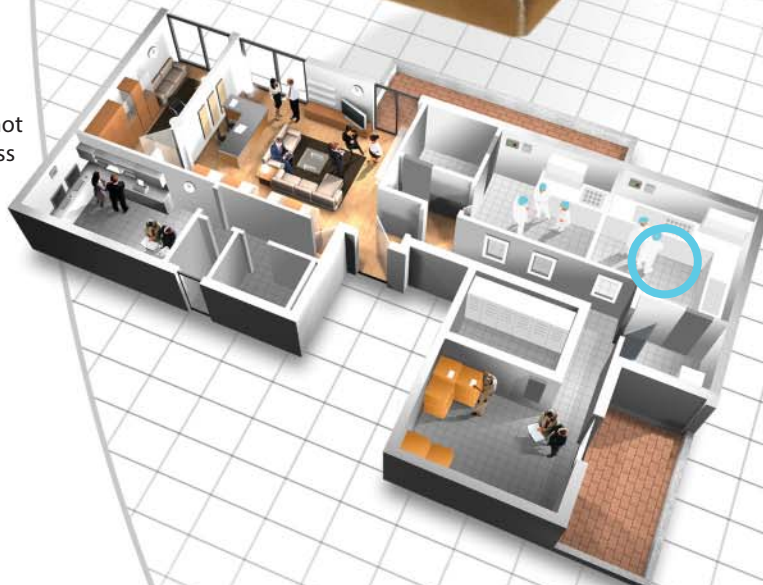
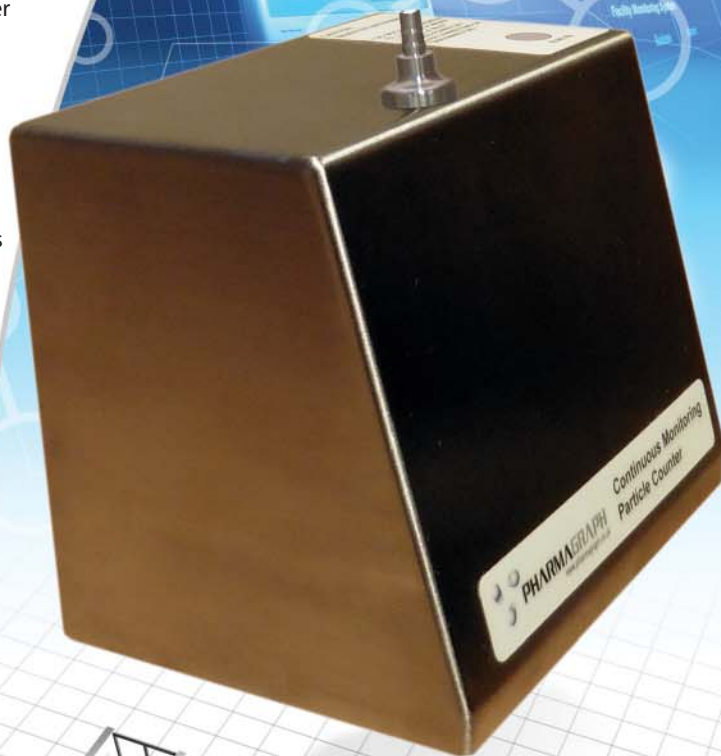
The S1816 Series continuous monitoring particle counter has been designed from the ground up to meet the requirements of the pharmaceutical industry. Housed in an IP65 sealed stainless steel enclosure, the instrument is ideal for use within equipment such as isolators or filling machines. Quick release connectors for vacuum and power/communications allow the unit to be quickly removed for service or calibration. The particle counter sensor itself features a 10 year MTBF laser diode and has integral flow measurement to ensure that you get reliable counts or a clear indication of flow failure if a cap is left on following sanitisation.

The S1816VS uses Modbus RTU serial RS485 protocol using standard CAT5 cabling and accessories, with the spare cores in the cable being used to carry power to the counter. These units do not require to be re-programmed with an address when being swapped because the address is provided by the control assembly located outside the clean room. This allows the particle counter to be changed by clean room staff ensuring that production continues with the absolute minimum down time.

The optional Control Assembly (P4050) houses a power supply, control electronics and vacuum pumps and can greatly simplify on-site installation. A single serial communications cable runs from the PC to the Control Assembly that provides control and power for the up to four particle counters. Up to four vacuum pumps can be mounted on the base of the Control Assembly which also provides the address mapping for up to four S1816VS particle counters. Where more than four particle counters are required, slave versions of the Control Assembly are available to expand system capacity.

Optional wall plates with quick release connectors are also available, together with umbilicals that connect between the wall plates and the particle counters. Alternatively, vacuum and power can be brought to the S1816VS via customer supplied containment.

The S1816VE model uses Modbus TCP protocol over CAT5 Ethernet cable with the power supplied through spare cores. This model is not swappable as it requires to be programmed with a unique IP address per location and requires the P4050E Control Assembly.



S1816VS Particle Counter Specification

- Met One 6015: 2 Channels 0.5 μ and 5.0 μ with counts per cubic foot.
2 channels 0.5 μ and 5.0 μ calculated counts per cubic metre
- Flow rate: 1cfm with integral flow measurement
- Fully compliant with ISO21501-4
- Vapourised Hydrogen Peroxide tolerant sample path for routine disinfecting and cleaning
- False Count Rate: <1 per 5 minutes
- Counting Efficiency: 50%+/-20% @ 0.5 μ . 100%+/-10% @5.0 μ
- Coincidence Loss: 5% @ 14,000,000 particles per cubic metre (400,000 per cubic foot)
- Supports Isolator gassing operations using with VHP/HPV when used with optional Stainless Steel ball valve and CC9058 controller module
- 304 Stainless Steel rated at IP65
 - Width 160mm
 - Height 130mm (excluding connectors on base and nozzle on top)
 - Depth 110mm @ base, 85mm @ top (excluding mounting pegs on rear)
 - Weight 2.45kg
- Power supply
 - 9 to 28VDC
 - 3.3W
- Vacuum supply
 - At least 40.6 cm (16 inches) Hg
- Interfaces
 - Serial: RS485 Modbus RTU protocol
- Environmental
 - Operating temperature 10 to 32°C
 - Storage temperature -40 to 70°C

W2216 Wall Plate Specification

- 304 Stainless steel face plate
 - Width 180mm
 - Height 90mm
- Plastic back box
 - Width 135mm
 - Height 75mm
 - Depth 38mm

Ordering Information

- S1816VS: Continuous Monitoring Particle Counter complete with Met One 6015 1cfm, 0.5 μ and 5.0 μ channels, with Modbus serial RS485 interface
- S1816VS-01-2: Modbus Serial, 0.1cfm, 2 channel variant
- S1816VS-01-4: Modbus Serial, 0.1cfm, 4 channel variant (0.3 μ , 0.5 μ , 1 μ and 5 μ)
- S1816NC01 Enclosure without particle counter
 - Includes 0.1cfm nozzle and internal fittings
- S1816NC10 Enclosure without particle counter
 - Includes 1.0cfm nozzle and internal fittings
- U1816-1500 1.5m long Vacuum/Power/Communication umbilical between S1816VS or S1816VE and W2216
 - Consult sales office for other lengths
- SP15 0.15m long service port adapter cable to accommodate Metone service port cable
- MP1816 Stainless Steel Mounting Plate

Optional Accessories

- P4050-4G Power and Vacuum Control Assembly
 - for up to 4 S1816VS
- P4050-2G Power and Vacuum Control Assembly
 - for up to 2 S1816VS
- CC9058 Counter Controller for gassing support
- BV1024 Stainless Steel Ball valve for gassing support

Specification

