

Series 940 & 945

Transmitter / Controller

Specification

Base Unit

- Allows active sampling through a Teflon tube employing a vacuum pump
- Provides water ingress protection
- Allows remote sampling from inaccessible areas (eg. Controlled Atmosphere environments)
- Improved performance in pressure and flow fluctuating environments

Typical application

Short distance remote monitoring for:-

- Low Oxygen environments (3-5% O₂)
- Indoor air quality – duct sampling
- Filtered air sampling

Power (user supplied)

24VDC, 500mA (range 22-26 VDC)

Analogue output

4-20 mA (opto-isolated), 12-24 V

External signal type

Transistor Output

External signals

4

External signal functions

Low Alarm, High Alarm, Control & Diagnostics (Optional)

LED Display

Inputs

Standby toggle

Communication

RS485

Jumpers

J1, J2, J3 termination resistors

Connectors

Screw

ID

1 (Default)

User configurable from 1 - 255

Alarm set points (2)

User configurable

Control set point

User configurable

RS485 protocol

Aeroqual proprietary product

Removable / replaceable sensor head

Yes

Sampling Pump

12VDC, long life, brushless, diaphragm pump

Enclosure rating

IP41 & NEMA 2 equivalent

Enclosure size

230W x 140H x 95D (mm); 9"W x 5½"H x 3¾"D (in)

Enclosure casing

Fibre reinforced polycarbonate

Weight

< 1100 g; < 1 lb 3 oz

Approvals

Part 15 of the FCC Rules

EN 50082-1: 1997

EN 50081-1: 1992

Temperature and Humidity Sensors (for Series 945 only)	Accuracy	Resolution	Range
Temperature	± 0.3 [K] @ 25°C	0.04 min resolution	range -40°C to 124°C
Humidity	±1.8% RH	0.4 min resolution	range 0 – 100%



Example: Series 940 Ozone Monitor
(Format differs dependent on gas)

Ozone Sensor Head Specifications

Sensor Heads	Low	High	Leak
Measurement range	0.000 - 0.500 ppm	0.50 - 20.00 ppm	0.00 - 50.00 ppm
Accuracy	< 0.008 ppm (0 - 0.100 ppm) ± 10% (0.100 – 0.500 ppm)	± 10% (0.20 - 2.00 ppm) ± 15% (2.00 - 20.00 ppm)	± 20%, 15 seconds after Reset
Resolution	0.001 ppm	0.01 ppm	0.01 ppm
Controlled Atmosphere Version	Available on Request	Available on Request	Available on Request
T90 Response	< 60 seconds (T90)	< 35 seconds (T90)	< 10 seconds
Sensor type	Gas-sensitive semiconductor		
Operating temperature range	-5°C to 50°C; 23°F to 122°F (sensor head and base unit)		
Relative humidity limit	95% maximum (sensor head and base unit)		

VOC Sensor Head Specification *

Measurement range	0 to 400 ppm toluene
Accuracy	< +/- 10 ppm (0 – 200 ppm) < +/- 10% (> 200 ppm)
T90 response	< 60 s
Sensor type	Gas-sensitive semiconductor
Operating temperature range	-20°C to 60°C
Operating relative humidity range	5 to 95% non-condensating

* Specific Calibrations to other VOC's available – contact Aeroqual Sales

Ammonia Sensor Head Specification

Measurement range	0 to 1000 ppm
Accuracy	< +/- 5 ppm (0 – 100 ppm) < +/- 10% (100 – 1000 ppm)
T90 response	< 60 s
Sensor type	Gas-sensitive semiconductor
Operating temperature range	-20°C to 60°C;
Operating relative humidity range	5 to 95% non-condensating

CO Sensor Head Specification

Measurement range	0 to 2000 ppm carbon monoxide
Accuracy	< +/- 10 ppm in the range 0 to 400 ppm
T90 response	< 150s
Sensor type	Gas-sensitive semiconductor
Operating temperature range	0°C to 70°C;
Operating relative humidity range	5 to 95% non-condensating
Approvals	UL 2034, BS 7860