



CAMSYS™

iCAM RH™

Remote Head



Sampling head and detector separated from main control and display unit.

DESCRIPTION

The iCAM RH head forms part of the CAMSYS product line. In many CAM (Continuous Air Monitor) stack or duct sampling applications the optimum sampling point may be a long distance from a convenient mounting location for the display and control unit. This can lead to the use of long sampling pipes, causing increased losses due to sample deposition in the pipes, and delays in response to releases.

The iCAM Remote Head option provides a solution to both of these problems by allowing the user to separate the sampling head and pump from the control and display unit – by up to 50 m (164 ft) if required. It allows the display unit to be positioned for easy access and best visibility and audibility of the alarms.

FEATURES

- ✓ Up to 50 m from head to controller
- ✓ Amplifiers, flow and DP measurement all in the head
- ✓ Avoids particulate losses in long sampling pipes
- ✓ Faster response time
- ✓ Lower pump loading – no pipes between head and controller
- ✓ Allows sampling in inaccessible locations
- ✓ Square format allows mounting with air inlet on top, left or right hand side

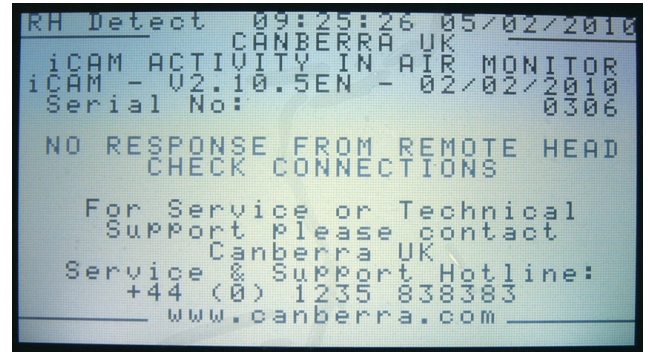
iCAM RH™ REMOTE HEAD

ICAM REMOTE HEAD

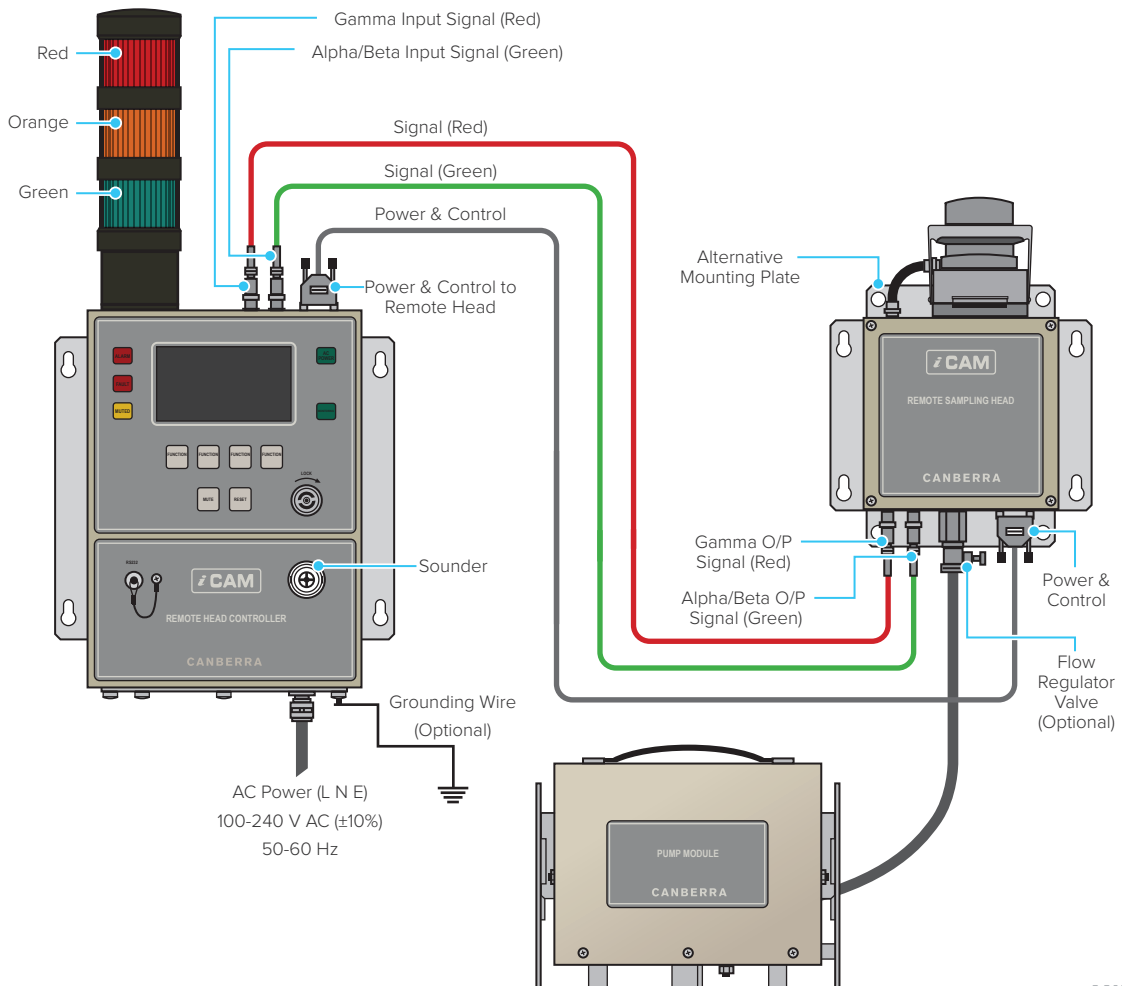
The remote head can have either the fixed filter or the moving filter mechanism mounted onto it. It contains the amplifiers and bias generator to run the PIPS® detector(s) and transmits buffered analogue signals for the alpha/beta detector and the gamma detector to the iCAM control unit up to 50 m away through two coaxial cables. These signals are received in the iCAM controller via a special interface board and are then treated and processed exactly as if the sampling head and detectors were mounted directly on top of the iCAM as in a standard unit. The performance of the remote head system is thus identical to the performance of the standard unit.

The remote head also contains the standard iCAM flow and differential pressure sensors. The values from these are read continuously by a processor in the head and are transmitted to the control unit via an RS-485 serial link whenever the processor in the head is polled for data by the controller. Nominal 12 Vdc power is also supplied to the head from the controller via the RS-485 cable connection. If the cable connection to the head is broken then this is immediately detected by the controller and the Monitoring LED on the front panel is extinguished and the Red beacon flashes.

A fault screen is also displayed:



Normal operation is restored automatically once communications are restored. Calibration of the head is carried out as with a standard iCAM. There are no adjustments in the head. If any adjustments are required during calibration these are made at the control unit where the user can read the calibration screens and adjust accordingly.



iCAM RH™ REMOTE HEAD

PHYSICAL CHARACTERISTICS

- All performance specifications are identical to the standard iCAM version with the same head/filter.

MECHANICAL CHARACTERISTICS

- Dimensions:
 - Enclosure only: 175 mm x 175 mm x 128 mm (6.9 in x 6.9 in x 5 in)
 - Overall (with fixed filter air inlet and exhaust pipe adaptor): 318 mm x 175 mm x 128 mm (12.5 in x 6.9 in x 5 in)
- Weight (with fixed filter air inlet): 5.4 kg (11.9 lb)

ICAM RH CONNECTIONS

FUNCTION	DESCRIPTION	PIN FUNCTION
Gamma output	50 Ohm BNC socket (Red)	Analog signal (max 10 V)
Alpha/beta output	50 Ohm BNC socket (Green)	Analog signal (max 10 V)
Power & control	9 way D plug	Power and RS485 data

- Earth Stud – M5 earth stud for optional chassis ground.

ICAM/RHC CONTROLLER CONNECTIONS

FUNCTION	DESCRIPTION	PIN FUNCTION
Gamma output	50 Ohm BNC socket (Red)	Analog signal (max 10 V)
Alpha/beta output	50 Ohm BNC socket (Green)	Analog signal (max 10 V)
Power & control	9 way D plug	Power and RS485 data

- Cabling:
 - Two coaxial cable: MM15/50 superscreened cable
 - Power and control cable: Belden type 8162 screened twin twisted pair

SIGNALING

- Single green power LED

OPTIONS

- Fixed filter head or moving filter head
- Cable length: 2 m, 5 m, 10 m, 15 m, 20 m or 50 m (6.5 ft, 16.4 ft, 32.8 ft, 49.2 ft, 65.6 ft or 164 ft)

ACCESSORIES

- Most standard iCAM accessories can be used with the Remote Head iCAMs



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