

APPLICATION NOTE

Airbus A380

MINISONIC CLAMP ON ULTRASONIC FLOWMETERS - FROM ULTRAFLUX

BACKGROUND:

AIRBUS had a requirement to measure fuel flow within the fuel supply system on a full scale fuel test rig to model the fuel distribution during the refueling process. This modeling is important so that refueling times can be assessed and improved and individual fuel tanks can be monitored.

THE PROBLEM:

From the outset the requirement was for a completely non intrusive system so that the actual measurement did not affect the actual fueling process by the creation of back pressures as would be found with mechanical systems (i.e. Turbines, Pitots etc.). Also the system had to have ATEX certification to Zone 0 as JET-A1 would be used after the initial testing with water.

FLOWLINE'S METERING SOLUTION:

The MINISONIC 600 was offered as a completely non intrusive system, offering measurement where other systems would have had an effect on the fuel distribution. It was supplied in two forms, the first a single channel system where one converter measures the flow in one pipe, the other was a 2 channel system where one converter measures the flow in 2 separate pipes. The measurement system had to be rated ATEX ZONE 0

The MINISONIC range of flowmeters were also selected for their range ability and ease of installation. Where pipework has been installed, clamp-on meters can be selected for their retrofit capability. Flows are not interrupted or by-passed and the installation can be easily checked by the in-built diagnostics. Temperatures to 180 C are a standard option (and now down to -50 C) pipe sizes of 10-3300 mm are offered through firmware and sensor options. 2 channel and a 2 chord versions are available. The 'ESC' autofocus function increases the performance of the meter in extreme conditions.



Further Information



For Further information on the MINISONIC range of Clamp on Ultrasonic Flowmeters contact Flowline on 020 8207 6565

www.flowline.co.uk
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EQUIPMENT DESCRIPTION:

EQUIPMENT SPECIFICATION:

MINISONIC 600 pipe i. d. up to 600mm,

MINISONIC 2000 pipe i. d. up to 3300 mm.

Single / Dual Channel / Chord Options.

Probe Types, Clamp On and Wetted.

Outputs, 2x 4-20mA, 2 relays for alarm, flow direction, flow threshold, totaliser, fault, RS232 and 485, JBUS-MODBUS Protocol.

Power Supply 10-30 VDC, 9-18 VAC,

Consumption < 5W Typical Accuracy +/- 1% of reading, repeatability +/- 0.05%

Now available with ESC (Echo Shape Control), and the new high technology probes for difficult applications.

These meters now have an integral keypad, display and an incredible autofocus/noise rejection capability. Full user lists and references are available.

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SPECIALISTS IN FLOW MEASUREMENT