

New FCI ST50 Air/Gas Flow Meter Goes Wireless With IR Link For PDA Communication

For Wastewater Aeration Treatment Applications



San Marcos, CA

Wastewater treatment plant engineers looking for a more convenient, time-saving and lower cost way to communicate with aeration and compressed air flow meters will find the new ST50 Flow Meter from Fluid Components International (FCI) not only provides best-in-class measurement and value for line sizes from 2 to 24 inches (51 to 610mm), but it also is now available with an exclusive wireless communication option.

Utilizing a wireless IR technology built-in to the ST50 flow meter and a standard, low cost PDA, field technicians can obtain measurements, make setting changes and read troubleshooting codes without ever having to open the instrument. This industry unique feature is ideal in applications for flow meters that are installed in hard-to-reach locations or where opening the instrument is inconvenient or labor intensive.

The wireless IR link eliminates the need for expensive proprietary programmers, which simplifies maintenance and reduces the overall cost of use. FCI's wireless IR sensing capability is included in all ST50 aeration flow meters with a digital display readout. To complete the system, FCI also supplies the easy-to-use user interface software for downloading into any Palm-OS based PDA.

Now wastewater treatment plant engineers no longer have to trade-off between accuracy, installation, maintenance, convenience and economy. The ST50 flow meter utilizes thermal dispersion flow measurement technology in an easy to install, single-tap point inserted design. It provides precision aeration flow measurement over a wide turn-down range, with and its no-moving-parts design needs virtually no maintenance. With prices beginning at \$995.00--it meets the challenge of lowest total installed cost when compared to orifice plates, differential pressure, vortex shedding and other thermal instruments. It is ideal for use in municipal and industrial wastewater aeration control, and blower systems, as well as aeration flow control in lakes, ponds or aquaculture.

The new ST50 insertion-type flow meter is designed with a fully temperature-compensated thermal flow sensing element constructed with precision, lithography etched platinum RTDs embedded in FCI's patented equal-mass miniature diameter thermowells. Combining microelectronics with FCI's precise calibration, the ST50 achieves superior accuracy, fast response and virtually maintenance-free operation with negligible pressure drop. Whenever performance, long-life and lowest total installed costs are all important process considerations, the ST50 offers the best flow instrument value in its class. Operating over a wide range, the ST50 measures air flow from 1 to 125 SFPS (0.3 to 38 NMPS), nitrogen from 1 to 150 SFPS (0.3 to 46 NMPS) and compressed air from 4 to 400 SFPS (1.2 to 122 NMPS). Accuracy is $\pm 2\%$ of reading, $\pm 0.5\%$ of full scale, with repeatability of $\pm 0.5\%$ of reading.

The versatile ST50 is field configurable for flow range in standard mass flow or volumetric engineering units. In addition to the wireless IR I/O, it features dual analog outputs, 4-20 mA and 0-10 Vdc, which are field assignable as flow rate or temperature and a RS232C I/O port. A 0-1kHz pulse output for totalizing flow is also available as an option. All configurations are easily user set in the field with any standard laptop to the RS232C port and/or via the wireless IR link/PDA.

Designed for long-life in outdoor and field installation conditions, the ST50's sensing element is constructed of stainless steel with Hast-C tips, and its electronics are housed in an all-aluminum, epoxy-coated enclosure that is NEMA 4X (IP66) rated and FM/CSA approved for hazardous location installations. It withstands operational pressures up to 500 psig [34 bar (g)] and operates in media temperatures up to 250°F (121°C). Optional process connections are 1/2-inch MNPT or 3/4-inch MNPT with a stainless steel or Teflon ferrule. It is available in three field adjustable U-length probes, 6", 12" and 18" (152mm, 305mm, and 457mm) to accommodate pipe sizes 2-124" (51 to 610mm). Instrument powering options include both DC (18-36V) and AC (85-265V). The ST50 comes with a 1-year standard warranty.

Fluid Components International is a global company committed to meeting the needs of its customers through innovative solutions to the most challenging requirements for sensing, measuring and controlling flow and level of air, gases and liquids.