

## FOX MODEL FT1 FLOW METER PROCUREMENT SPECIFICATION

- 1. The flow meter shall operate on the Constant Delta Temperature (Constant  $\Delta$  T) thermal mass principal.
- 2. A DDC-Sensor<sup>™</sup>, or direct digitally controlled sensor, shall be standard.
- 3. The Gas-SelectX<sup>®</sup> menu will offer pre-programmed and selectable gases and gas mixtures.
- 4. The flow meter shall have a built-in display of flow rate, flow total, temperature, and elapsed time. The read-out shall utilize a backlit LCD display consisting of two lines each 16 characters.
- 5. A 4-key keypad will be employed for user programming. Input parameters shall be protected by use of a password. Nonvolatile memory will retain the last totalizer value and user parameters.
- 6. One 4-20mA output programmable for flow rate or temperature is required HART communication option; a second output for pulse, RS485 Modbus RTU, or BACnet MS/TP option is selectable.
- 7. The flow meter shall have a built-in microprocessor allowing field programmability of the 4mA setting, 20mA setting, pulse output setting, pipe diameter, zero flow cutoff, standard temperature and pressure (STP) and alarm settings.
- 8. The flow meter shall have approvals from CE, FM/FMc, ATEX, and IECEx for use in potentially explosive atmospheres.
- 9. The flow meter shall measure gas flows over a velocity range of 15-15,000 standard feet per minute. Sensor response time shall be 0.8 seconds for a one (1) time constant.
- 10. In an operating temperature range of -40°F to 250°F, accuracy shall be  $\pm 1.0$  percent of reading,  $\pm 0.5$  percent of full scale for air calibrations;  $\pm 1.5$  percent of reading,  $\pm 0.5$  percent of full scale for other gases. Repeatability shall be  $\pm 0.2$  percent of full scale.
- 11. All wetted parts are to be 316SS utilizing an all welded design.
- 12. All electronics to be mounted in a single NEMA 4X enclosure. Input power will be 10-30VDC.
- 13. USB serial communication port is standard; the following communication options are also available: RS485 Modbus RTU or BACnet MS/TP.
- 14. The manufacturer shall provide an NIST-traceable calibration certificate for the instrument.
- 15. The flow meter will have the Zero CAL-CHECK® calibration validation feature and internal self-diagnostics without requiring external equipment to evaluate meter performance.
- 16. A Zero CAL-CHECK<sup>®</sup> Calibration Validation Certificate can be printed upon completion of a Zero CAL-CHECK<sup>®</sup> test initiated from the Fox FT1 View<sup>™</sup> software.
- 17. The instrument will be the Model FT1 manufactured by Fox Thermal, 399 Reservation Road, Marina, CA 93933 Phone: 831-384-4300, Fax: 831-337-5786, Email: sales@foxthermal.com, Website: www.foxthermal.com