






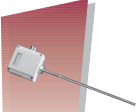


Mass Flow Meters and Controllers

	Description	Accuracy Flow range	Gas & Max. Pressures	Input Power	Output Signals	Features
 820 Top-Trak®	Low-cost gas mass flow meter with tiltable digital readout; nylon or aluminium construction.	Accuracy: $\pm 1.5\%$ of full scale Flow Range: Model 822/824: 0-10 sccm to 0-50 slpm Model 826/827: 0-75 slpm to 0-175 slpm	Gas: Air and non corrosive, non reactive gases Max. Pressure 150 psig (10 barg)	12 to 18 VDC, 24 VDC (optional)	0-5 VDC, 4-20 mA	Low cost nylon body. Blind meters and controllers available.
 820-S Top-Trak®	Low-cost gas mass flow meter with tiltable digital readout; stainless steel construction.	Accuracy: $\pm 1.5\%$ of full scale $\pm 1\%$ of full scale (optional) Flow Range: 0-10 sccm to 0-500 slpm	Gas: All clean gases including corrosives and reactives. Max. Pressure: 500 psig (34 barg)	12 to 18 VDC, 24 VDC (optional)	0-5 VDC, 4-20 mA	Low cost stainless steel body. Blind meters and controllers available.
 830/840 Side-Trak®	High performance gas mass flow meters and controllers; stainless steel construction.	Accuracy: $\pm 1\%$ of full scale Flow Range: 0-10 sccm to 5600 slpm	Gas: All clean gases including corrosives and reactives. Max. Pressure: 500 psig (34 barg)	± 15 VDC	0-5 VDC, 4-20 mA	High accuracy. High capacity / flow rate. Blind meters and controllers available.
 100 Series Smart-Trak®	Digital high performance gas mass flow meters and controllers; multi-gas capability; stainless steel construction.	Accuracy: $\pm 1\%$ of full scale $\pm 0.7\%$ of reading plus 0.3% of full scale (optional) Flow Range: 0-4 sccm to 0-1000 slpm	Gas: All clean gases including corrosives and reactives. Max. Pressure: 500 psig (34 barg) Dial-A-Gas: 10 pre-programmed gases, user selectable	24 VDC, 12 VDC (optional)	RS-232, 0-5 VDC, 0-10 VDC 1-5 VDC, 4-20 mA	Pilot module for function control. Dial-A-Gas® technology. Fast response control valve. Digital.



Multivariable Vortex Mass Flowmeters

	Description	Accuracy Flow range	Gas & Max. Pressures	Input Power	Output Signals	Features
 240/241 Innova-Mass®	Insertion & In-Line Multivariable Mass Flow Meters; Hazardous Area Approvals: FM, CSA, & CE, Smart Electronics; Insertion probe lengths 2" to 72"; In-Line flow body sizes from 1/4' to 8"	Mass Flow (liquids): $\pm 1.0\%$ of reading; Mass Flow (gases): $\pm 1.5\%$ of reading; Temperature: $\pm 1.0^\circ\text{C}$; Pressure $\pm 0.4\%$ of full scale; Flow Range: up to 67000 scfm (air) up to 330000 lb./hr. (saturated steam)	Any gas, liquid or steam (240 cST is ideal for steam custody transfer) Max. Pressure: 1500 psia (100 Bara) Max. Temperature: 400°C	9-36 VDC, 500 mA 85-240 VAC, 50/60 Hz, 25 Watts (optional)	4-20 mA three simultaneous signals Pulse Output HART RS-485	30:1 Rangeability Reduced Sensitivity to Pipeline vibration 0.2% of mass flow rate repeatability. Steam custody transfer model available. AGA-8 Algorithms for monitoring natural gas.

Smart Industrial Thermal Mass Flowmeters

	Description	Accuracy Flow range	Gas & Max. Pressures	Input Power	Output Signals	Features
 620S Fast-Flo™	Fast Response (200 millisecond) Insertion mass flow meter; Smart Electronics; probe lengths 3.7" to 24"; NEMA 4X (IP65)	+/-1% of full scale & 0.2% repeatability Flow range up to 20000 sfpm	Most non-combustible, non-corrosive gases	18-30 VDC	0-5 VDC 0-10 VDC 4-20 mA	Field Validation Low pressure drop Alarms Totaliser, Low-flow cut off Fast response
 640S Steel-Mass™ 780S Flat-Trak™	Insertion & In-Line mass flow meters; NEMA 4X and Hazardous Area Approvals: FM, ATEX, CSA, EEx, PED, CE, Cenelec; Smart electronics; Insertion probe lengths 6" to 36" In-Line flow body sizes from 1/4" to 8"	+/- 2% of reading from 10% to 100% of calibrated range & 0.5% of full scale below 10%; 0.2% repeatability Flow range up to 20000 sfpm	Most gases compatible with 316 L stainless steel	18-30 VDC 100 to 240 VAC, 50/60 Hz (optional)	0-5 VDC 0-10 VDC 4-20 mA Pulse Modbus FFB Profibus RS232	Field Validation Low pressure drop Alarms and Totaliser Low-flow cut off Robust Built in flow conditioners provide compact installation
 780S UHP™	Ultra-High-Purity In-Line mass flow meter; NEMA 4X and Hazardous Area, Approvals: FM, ATEX, CSA, EEx, PED, CE, Cenelec; Smart electronics; flow body sizes from 3/8" to 6".	+/- 2% of reading from 10% to 100% of calibrated range & 0.5% of full scale below 10%; 0.2% repeatability Flow range up to 20000 sfpm	Most gases compatible with 316 L stainless steel	18-30 VDC 100 to 240 VAC, 50/60 Hz (optional)	0-5 VDC 0-10 VDC 4-20 mA Pulse Modbus FFB Profibus RS232	Field Validation low pressure drop, Alarms, Totaliser, low-flow cut off, 7-10 Ra or 20-25 Ra finish

Portable Ultrasonic Flow Meters

	Description	Accuracy Flow range	Gas & Max. Pressures	Input Power	Output Signals	Features
 210 Innova-Sonic™	Fully field portable ultrasonic system complete with spare battery pack, non-invasive clamp-on transducers, mounting hardware and a unique PalmOne® Personal Digital Assistant (PDA) interface for a totally self-contained measurement package.	±1.0% of reading 0 to ±40 ft/s (0 to ±12 m/s)	Liquids - non-intrusive so not subject to liquid type or pressure. Pipe Size: 25mm to 5000mm	Power Supply: 12VDC(10~36VDC) Battery Power (continuous operation of main battery 8 hours + spare battery for 24 hours)	Analogue: 0/4 to 20 mA (max load 750Ω)	PalmOne® 256 MB Tungsten™ T5 PDA with Bluetooth wireless facility. Battery power supply with recharge port and spare battery as standard.
 205 Innova-Sonic™	Ultrasonic flowmeter system incorporating digital signal processing. Innova-Sonic offers a low power consumption, clear display and user friendly menu selection.	±1.0% of reading 0 to ±40 ft/s (0 to ±12 m/s)	Liquids - non-intrusive so not subject to liquid type or pressure. Pipe Size: 25mm to 5000mm	Power Supply: 90 to 245 VAC (48-63 Hz) 10 to 36 VDC	Analogue: 0/4 to 20mA (max load 75Ω), Pulse output: 0 to 9999Hz, OCT, (min. and max. frequency is adjustable), Relay output: RS232, RS485	Wall mounted, panel mounted or energy meter versions available.

These products conform to PED and EMC and optionally to ATEX/UL