QuickStart™ Modular Sensing Solutions

Unparalleled Control for System Flow & Pressure

IDEX HEALTH & SCIENCE

Intelligent Solutions for Life™

Fluidics | Optics | Consumables | Assemblies

Quickly monitor and control your fluid flow and pressure to achieve accurate instrument output and maximized system capabilities with QuickStart™ Sensors from IDEX Health & Science

Now you can easily manage flow and pressure across your entire fluidic system, and save crucial problem-solving time by using our dynamic family of in-line sensors. Our experts have applied decades of knowledge, and over five years of extensive life testing and innovation, to deliver the most advanced transducer technology inside compact, plug-and-play sensors. A fusion of modularity, multiplexing, and intelligent sensing make demanding tasks effortless, giving you exceptional control over every region of your flow path. Each sensor automatically monitors and provides accurate, real-time data with digital output, allowing you to predict failure, mitigate risk of damage, and optimize your system to maintain maximum performance with ease. Super responsive yet small, our modular sensors are simple to integrate into instruments of any size, and can be installed in arrays to deliver essential data in real time.

PRESSURE SENSORS

Immediately detect blockages and mitigate risk — *before* important samples are compromised — with QuickStart™ Pressure Sensors from IDEX Health & Science. Meticulously engineered and broadly tested for precision sensing, our premium QuickStart Pressure Sensors continually monitor system parameters to provide you the information you need to keep your instrument operating reliably. QuickStart Pressure Sensors connect in-line to your system easily, with minimal solution carryover and bubble trapping.

PRESSURE RANGE
.25 – 14 bar absolute

OPERATING TEMPERATURES
+5 °C – +50 °C

SMALL FOOTPRINT
1.1 x 1.5 in
Smaller than most other models on the market.

APPLICATIONS
IVD, BIO & POC
Chemically compatible with most reagents.

OUTPUT
DIGITAL

› MONITOR PRESSURE
› DETECT BLOCKAGES
› PREVENT FAILURE

SMALL DEVICES, HUGE RESULTS

MODULAR FLOW-THROUGH DESIGN

Each sensing device has been engineered with an adaptive flow-through design to reduce carryover and prevent bubble trapping with a fully swept sensor flow path. Routine maintenance and replacement is fast too, significantly reducing your instrument downtime.

HIGH ACCURACY

Each sensor is fully calibrated, with verified performance, for high-precision plug-and-play applications.

LOW POWER CONSUMPTION

Expertly designed with proprietary processing architecture, our sensing devices deliver a high level of performance with an efficiency that maintains lower temperatures and reduces overall power consumption.

ARRAY CAPABILITIES

Built-in intelligence allows you to receive fluidic information across your entire instrument when using multiple sensing devices connected simultaneously.

STANDALONE OR MANIFOLD MOUNT

Sensors are available as a stand-alone inline component, or can be integrated with a manifold using 4 in-lbs of assembly torque.

SMALL FOOTPRINT

Optimized to make the most of a compact design, our sensors work with any instrument, large or small.

REAGENT COMPATIBILITY

Made from chemically inert materials, our sensors allow you to operate with the majority of reagents used in IVD, BIO and POC applications.

FLOW SENSORS

FLOW RATES
-1,000 – 1,000 µl/min

OPERATING TEMPERATURES
+5°C – +50° C

SMALL FOOTPRINT
1.6 x 1.0 x 1.2 in
Smaller than most other models on the market.

APPLICATIONS
IVD, BIO & POC
Chemically compatible with most reagents.

OUTPUT
DIGITAL

› CONTROL FLOW
› MITIGATE RISK
› MEASURE PERFORMANCE

Easily manage your flow rates and receive accurate, instantaneous data on system performance — saving critical analysis time — with IDEX Health & Science QuickStart Flow Sensors. Extensively designed and thoroughly tested for demanding fluid sensing applications, our superior QuickStart Flow Sensors identify flow rate variances to keep you informed of system sensitivities and potential problems that may require immediate attention. QuickStart Flow Sensors are easy-to-mount with a quick in-line connection, and are optimized for real-time analysis.

QuickStart™ Pressure Sensors

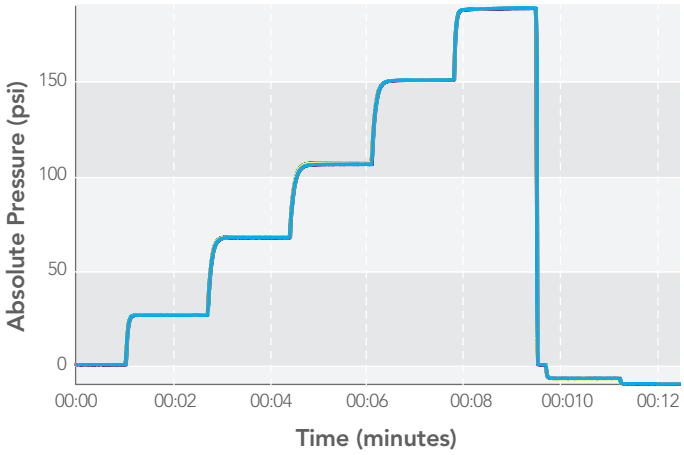
PART NUMBERS AND ACCESSORIES

Part #	Description
I2C PS200F	200 psi Pressure Sensor Standalone Fitting Option
I2C PS200M	200 psi Pressure Sensor Manifold Option
I2C PS200F EVAL	200 psi Pressure Sensor Evaluation Kit
PSCK-I2C	Pressure Sensor I²C Connection Kit

SPECIFICATIONS

Parameter	Specification
Output Signal	Digital
Operating Voltage	5.0 V
Digital Communication Bus	I²C
Full Scale Pressure Range	0.25 – 14 bar absolute
Accuracy Below Full Scale	< 1% full scale
Repeatability Error from Zero to Full Scale	1% of measured value or 0.05% of full scale (whichever error is larger)
Pressure Detection Response Time	67 ms
Operating Temperature	+5 °C – +50 °C
Ambient Storage Temperature	-30 °C – +100 °C
Proof Pressure	400 psi
Burst Pressure	800 psi

TYPICAL PRESSURE SENSOR OUTPUT



This graph shows the overlaid output from ten pressure sensors monitoring the same fluidic channel. High reproducibility and the capability for simultaneous reading of multiple sensors make the units extremely valuable for instrumentation applications. In this plot, the sensors are responding to a series of pressure increases over the sensor range.

QuickStart™ Flow Sensors

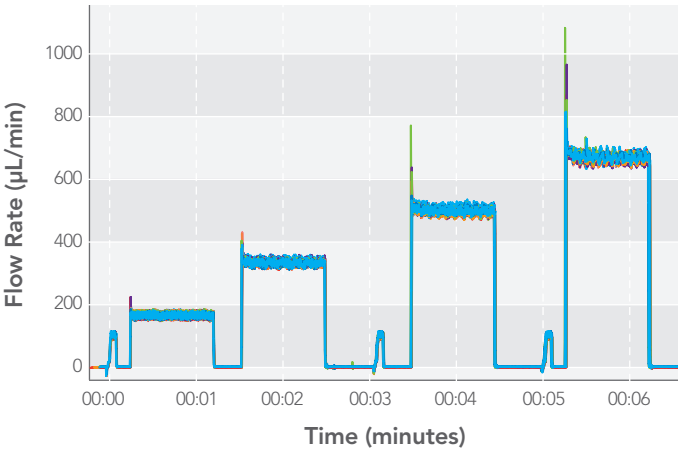
PART NUMBERS AND ACCESSORIES

Part Number	Description
I2C FS1000F	1,000 µL Flow Sensor Standalone Fitting Option
I2C FS1000M	1,000 µL Flow Sensor Manifold Option
UART FS1000F	1,000 µL Flow Sensor Standalone Fitting Option
UART FS1000M	1,000 µL Flow Sensor Manifold Option
I2C FS1000F EVAL	1,000 µL Flow Sensor Evaluation Kit
FSCK-I2C	Flow Sensor I²C Connection Kit
FSCK-UART	Flow Sensor UART Connection Kit

SPECIFICATIONS

Parameter	Specification
Output Signal	Digital
Operating Voltage	3.3 V – 5.0 V
Digital Communication Bus	I²C / UART
Full Scale Flow Rate	1,000 µL/min
Sensor Output Limit	1,500 µL/min
Accuracy Below Full Scale	5% of measured value or 0.25% of full scale (whichever error is larger)
Repeatability Error from Zero to Full Scale	.5% of measured value or 0.025% of full scale (whichever error is larger)
Flow Detection Response Time	40 ms
Operating Temperature	+5 °C – +50 °C
Ambient Storage Temperature	-40 °C – +80 °C
Proof Pressure	40 psi (3 bar)
Burst Pressure	100 psi (7 bar)

TYPICAL FLOW SENSOR OUTPUT



This graph shows the overlaid output from ten flow sensors that are used to monitor the same fluidic channel. In this application, a pump and valve are used to infuse fluid through the fluidic circuit at varying rates. A variety of flow rate changes are observed on the sensors, indicating system response to pump flow and valve switching. Simultaneous monitoring of multiple sensors in such a way can easily show how minute adjustments to system components can affect the measured flow in the fluidic circuit.

IDEX HEALTH & SCIENCE

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