SumoFlo CSEN-8103-032
With Extended Range

LOW FLOW SINGLE-USE CORIOLIS FLOW METER

PSG BIOTECH

Precision flow measurement with expanded range makes the SumoFlo Single-Use Coriolis Flow Sensor one of the most innovative meters for the bioprocessing industry. The accuracy is still uncompromised for the SumoFlo CSEN-032 sensor with its increased flow range. No matter the changes in viscosity or temperature the SumoFlo CSEN-8103-032 sensor retains its % of reading. The SumoFlo CSEN-8103-032 has an increased flow range of .02 kg/min to 3kg/min and has a 150:1 turndown ratio. The SumoFlo CSEN-8103-032 sensors updated design meets the needs of bioprocessing applications.

The SumoFlo CSEN-8103-032 sensor was designed to work with the Integral Display Transmitters. The Integral Display Transmitters come in optional panel mount, benchtop with display, and benchtop display with cradle for the SumoFlo CSEN-8103-032 sensor.

The Display Transmitters are enclosed in a Nema enclosure and are IP 65 to meet your production needs.

FEATURES

- Outstanding Accuracy: ±1% of mass flow rate reading; unaffected by flow regime, or variations to the velocity profile, allowing for accurate measurements of bubbly or frothy fluids
- Measurement is independent of changes in viscosity or temperature
- Fluid measurement performance is independent of fluid properties, eliminating the need to calibrate on different fluids
- Specially designed for measuring liquids in high-purity bio-pharmaceutical and other applications that require all gamma-sterilizable wetted surface – PEEK sensor is compatible with gamma irradiation to 40 kGy

Designed and Assembled in California, USA, from American and imported materials. This product is protected by U.S. and International patents.

FEATURES

- The chemical compatibility and cleanliness of PEEK flow path is ideal for Single-Use applications
- High turndown ratio of 150:1 allowing the meter to measure a flow range of 20g/min to 3000g/min
- Compact size to go from bench to scale-up
- Uses the same cradles and transmitters as existing U08 and 031 sensors, so retrofitting to existing systems is easy

MEASUREMENT SPECIFICATIONS

Model CSEN-8103-*	032
Accuracy	±1% of rate for 10% to 100% of full scale rated flow ± (1% of rate + Z.O.S) for <10% of full scale rated flow rate
Temperature	Ambient: 0°-50° C Fluid: 4°-40° C
Operating Pressure	60 psig (414 KPA gauge) max
Flow Range[1]	0.02-3 kg/min

MATERIAL SPECIFICATIONS

Model CSEN-8103-**	032
Process Connections[2]	1/8" barb 1/4" barb
Wetted Materials	Unreinforced PEEK (Polyether Ether Ketone), Adhesive compliant with ISO 10993, 316L stainless steel. All polymeric wetted materials are USP Class VI compliant.
Interconnecting Cable Length	Standard 3M, Maximum up to 30M
Ingress Rating for Connectors	IP65

ELECTRICAL SPECIFICATIONS

Supply Voltage	24 V DC ±10%
Power Consumption	Max 6 W
Programming	Operator parameter configuration through configuration port with a PC
Analog Output Module	1x 4–20 mA, 2x 4–20 mA, or 4x 4–20 mA
Digital Input/Output Module	0x D/O, 1x D/O, or 2x D/O; Configurable as frequency or digital I/O
Frequency Output	0 to 10 kHz proportional to flow rate
Digital Output over MODBUS[3]	Mass Flow Rate, Volumetric Flow Rate[4], Density[4], Temperature[5]

[1] Lower minimum flow rates available with special calibration fee.
[2] Consult the factory for other types of process connection options.
[3] Requires CELE-8103 model configured for MODBUS communications.
[4] Requires CELE-8103 and CSEN-8103 models configured for density measurement.
[5] Requires CELE-8103 and CSEN-8103 models configured for temperature compensation.

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