



OUT



SPONSLER PRECISION PRODUCTS

O V E R V I E W

PRECISION TURBINE FLOWMETERS



- High Resolution
- Simple Installation
- Versatile Mounting
- Low Pressure Drop
- AC Sinewave Signal
- Variety of Endfitting Choices

Sizes

¼ to 12" (0.635 to 30.48 cm)
Consult factory for other sizes

Flowrates

0.375 to 12,000 US GPM
(1.42 to 45,425 LPM)
0.05 to 12,000 ACFM

Temperature Range

-430° to 450° F +1000° F *optional*
(-256.7° to 232.2° C +537.8° C
optional)

Accuracy

Liquid: ± 0.5% Linear over a limited
10 to 1 range
±0.25 or 0.15 available on request
Gas: ± 1% of full scale

Repeatability

Liquid: ± 0.02% over a limited 10 to
1 range
Gas: ± 0.25%

Standard Endfittings

AN Flare, NPT, Flanged

Standard Material

300 Series Stainless Steel

WAFER SERIES FLOWMETERS

- High Accuracy
- Attitude Insensitive
- Cost and Space Efficient
- AC Sinewave Signal
- Fits Between Flanges
- 300 Series Stainless Steel (Standard)



Sizes

½ to 4" (1.9 to 10.2 cm)

Flowrates

1.25 to 1,250 US GPM
(4.73 to 4,732 LPM)

Temperature Range

-430° to 450° F +1000° F *optional*
(-256.7° to 232.2° C +537.8° C
optional)

Accuracy

± 1% Linear

Repeatability

± 0.1%

Standard Endfittings

Fits between two existing flanges,
Optional alignment rings available

Standard Material

300 Series Stainless Steel

SANITARY SERIES FLOWMETERS

- Clean in Place with Low Pressure Steam
- 3A Approved and Standard Sanitary — Built to Wisconsin Dairy Standards
- High Accuracy
- AC Sinewave Signal
- Vertical or Horizontal Installation
- Flexible Applications



Standard Sanitary Sizes
¾ to 3" (0.635 to 7.62 cm)

3A Approved Sizes
½ to 4" (1.9 to 10.2 cm)

Flowrates
0.25 to 650 US GPM
(0.95 to 2,461 LPM)

Temperature Range
-100° to 450° F (-73.3° to 232.2° C)

Accuracy
± 0.5% Linear

Repeatability
± 0.1%

Standard Endfittings
Tri-clamp

Standard Material
300 Series Stainless Steel



CORROSIVE SERIES FLOWMETERS



- High Accuracy
- Simple Installation
- Versatile Mounting
- AC Sinewave Signal
- Low Pressure Drop
- Flexible Applications

Sizes

¼ to 4" (0.635 to 10.16 cm)
Consult factory for other sizes

Flowrates

.25 to 1,250 US GPM
(0.95 to 4,732 LPM)

Temperature Range

-100° to 280° F (-73.3° to 232.2° C)

Accuracy

± 0.5% Linear

Repeatability

± 0.1%

Standard Endfittings

Flanged to ANSI B16.5

Standard Materials

CPVC, Kynar, PTFE



LO-FLO SERIES FLOWMETERS

- Low Maintenance Cost
- Liquid and Gas Measurement
- 12 Overlapping Flow Ranges
- AC Sine Wave Signal Output
- Encapsulation Options Available for High Pressure, High or Low Temperature or Extreme Corrosive Environments



Orifice Sizes

0.020 to 0.175" (0.05 to 0.444 cm)

Flowrates

.002 to 3 US GPM
(7.6 to 11356.24 cc/min)
In 12 overlapping ranges

Temperature Range

-430° to 450° F +1000° F *optional*
(-256.7° to 232.2° C +537.8° C *optional*)

Repeatability

± 0.25%

Standard Endfittings

AN Flare, NPT, Flanged

Standard Material

300 Series Stainless Steel



- Portable
- Low Maintenance Costs
- AC Sinewave Signal
- Installation and Removal without Disabling Line
- Hand Wheel Insertion Flowmeter for High Pressure Lines*
- Custom and Standard Design

Size

1½" (3.81 cm), fits inside 2" (5.08 cm) NPT riser

Flow Range

Liquid: 2 to 40 ft/sec
(0.057 to 1.13 m/sec)
Gas: 2 to 200 ft/sec
(0.057 to 1.13 m/sec)

Temperature Range

-100° to 350° F (-73.3° to 176.67° C)

Accuracy

± 2% Linear of rate of liquid or gas

Repeatability

± 0.25%
Over nominal rated flow range for liquids or gases

Maximum Pressure

Liquid: 150 psig
Gas: 100 psig

Standard Material

300 Series Stainless Steel

**Handwheel units are required for pressures above 150 psig and any high temperature application*

IT 400: RATE INDICATOR AND TOTALIZER



- **Battery Operated**
- **20 Point Linearization**
- **Independent Rate Indicator and Totalizer**
- **Resettable Totalizer**
- **Backlit Display**
- **Datalog Feature Available as Option (RS-232 Option Required)**
- **User-friendly Programming**

Input Power

5 to 48 VDC, Reverse Polarity Protected

Internal Power

D Lithium Battery

Temperature Rating

Operating: -22° to 167° F
(-30° to 75° C)

Storage: -40° to 185° F
(-40° to 85° C)

Enclosure

Explosion Proof Aluminum

Serial Communications

RS-232 (optional)

Signal Input

Magnetic, RF Modulated (external power required), Pulse

Temperature Compensation

Two Wire RTD (optional)

Outputs

Scaled Pulse, Rate (4-20 mA), Alarm (optional)

Approvals

NMI approved, meets all Handbook 44 requirements for cryogenics

INDUSTRIAL SERIES AMPLIFIERS TRANSMITTERS

- **Output Proportional to Flow**
- **Short Circuit Protection**
- **Explosion Proof Enclosure**
- **Mounted Directly to Meter**
- **Sensitivity Field Adjustable**
- **Low Cost**



3-Wire Analog Transmitter (SP711-3)

- 0 to 5 or 0 to 10 VDC Output
- 12 to 28 VDC
- Linearly converts frequency output to an equivalent voltage output

Loop Powered 4-20 mA Transmitter (SP712-2)

- 2-Wire 4-20 mA Loop Powered Output
- Linearly converts frequency input to an equivalent 4-20 mA current output

Pulse Amplifier (SP714)

- 6 to 28 VDC
- 5 mA @ 24 VDC
- Linearly converts sinewave output to a square wave pulse

Modulated Carrier Amplifier (SP717)

- 6 to 28 VDC
- 30 mA @ 24 VDC
- Converts a carrier frequency to a square wave pulse (RF pickup coil required)

Modulated Carrier Analog Transmitters for Current or Voltage (SP718)

- Input Voltage: 110 VAC, 60 Hz, or 12 to 16.5 VDC
- Linearly converts carrier frequency to equivalent analog output

Loop Powered Modulated Carrier 4-20 mA Transmitter (SP720-2)

- Combines modulated carrier with the convenience and accuracy of 4-20 mA transmitter

CRYOGENIC DELIVERY SYSTEMS

- Dual Microprocessors
- 10 Point Linearization
- User-friendly Menu-driven Programming
- Temperature Compensation for 8 Individual Products
- Complete Audit Trail
- Complete System Alarm Display
- Versatile Mounting Configurations



Input Power

9 to 26 VDC, 3W Typical 8W Maximum

Internal Power

Lithium Battery Pack

Temperature Rating

-40° to 125° F (-40° to 50° C)

Physical Dimensions

9.75" x 7.5" x 3.75"
(24.8 x 19.1 x 9.5 cm)

Display

240 x 128 Full Graphic with CCFL
Backlight

Signal Input

0 - 2500 HZ, 50mv RMS @ 10 HZ

Sensor Inputs

(1) RTD and 4-20 mA Loop or
(2) 4-20 mA Loops

RTD

Platinum 1000 Ohms

Outputs

(2) Form C 2A Relays, 4-20 mA for
Rate, I.R. Data Port, Optional RS-
232, and Optional Bluetooth

FLOW COMPUTERS FOR LIQUID AND GAS APPLICATIONS



SP4000 Shown
SP3850 also available

- Internal Data Logging
- Isolated Pulse and Analog Outputs
- DDE Server and HMI Software Available
- Attractive Wall Mount Enclosure
- Liquid Gas, Steam, and Heat Flow Equations*

Input Power

110 VAC, 220 VAC, 12 VDC (10 to 14
VDC), 24 VDC (14 to 28 VDC)

Inputs

(1) Pulse, (1) Analog

Temperature Range

Operating: 32° to 122° F (0° to 50° C)
Storage: -40° to 185° F (-40° to 85° C)

Outputs

(2) Form C 5 A Relays, (2) Analog
Pulse—0-20 mA or 4-20 mA, (1)
Isolated Pulse—open collector NPN
or 24 VDC pulse

Physical Dimensions

6.18" x 3.43" x 6.15"
(157 x 87 x 156 cm)

Serial Communications

RS-232 and RS-485

Display

2 Line 20 Characters, VFD

Keypad

16 Key Membrane Keypad Sealed to
NEMA 4

*SP4000 only

LIQUID CONTROLS GROUP

The Liquid Controls Group provides custody transfer solutions for the control and management of high-value fluids and gases. In 2001, IDEX combined Corken, Liquid Controls and Sampi to form the Liquid Controls Group. Together, they used their combined resources to design valuable new products and offer cost-effective pump and meter solutions. They laid the foundation for LCG's successful program of collaboration and innovation. With the additions of Liquid Controls Sponsler, Toptech Systems and Faure Herman, LCG quickly became a dependable, single source provider, large enough to supply comprehensive solutions yet flexible enough to customize solutions for unique needs. Today, the Liquid Controls Group has a strong global presence with seven business units in five countries, over 500 distributors on six continents, and six industry leading brands.



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