ThermoMeasurement

Specification

Transducer:	
Operating range:	0 to 1g/cm³ (see ordering information)
Accuracy:	±0.1% reading (±0.000002g/cm³ from 0 to 0.002g/cm³)
Repeatability:	±0.01% span
Temperature effect: (corrected) see Note 1	0.000001g/cm³/°C
Process temperature:	-200 to +200°C (see ordering information)
Operating pressure:	170 bar maximum or flange pressure/temperature rating
Materials of construction:	Spool – Ni-Span-C or FV520B Body – AISI 316L stainless steel Electronics housing – copper free aluminium grey epoxy finish
NACE MR0175 conformity:	NACE specification option
Temperature measurement:	High accuracy ⅓ DIN Integral 4 wire PT100
General:	
Environmental protection:	IP65
Hazardous area certification:	FD900F EEx ia IIC T6 FD900H EEx ia IIC T4

Weight:	Without flange: nett 4.5kg max Shipping 6.5kg max With integral flange: nett 7kg max Shipping 9kg max
Flow range:	Ideally 30-300 litres/min
Outputs:	
F option:	Frequency related to density on 2 wire current modulated loop 6mA to 18mA 4 wire PT100
H option:	Analogue 4-20mA related to density or density derived parameter HART® protocol
System:	Accuracy better than ±0.2% reading plus 0.05% at reference conditions Local display option
Electrical:	
Power supply:	
F option:	13-28 VDC 10mA average (peak 18mA)
H option:	2 x 13-28 VDC 25mA
Connections:	Screw terminals
Cable entry:	2 x ¾" NPT
Operating temperature (ambient):	-20 to +70°C

Note 1 - Corrected temperature effect after applying correction coefficients

Ordering Information

Density meter model code format	
FD900	Sarasota By-Pass Density Meter

Signal output	
F	Frequency output
H	Smart headmount electronics

Density range	
A	0 to 20 kg/m³
B	15 to 80 kg/m³
C	75 to 250 kg/m³
D	200 to 500 kg/m³
E	500 to 1000 kg/m³

Temperature range	
A	-200 to +75°C
B	-20 to +75°C
C	-20 to +200°C Ni-Span-C spool not available

Spool material	
Z	Ni-Span-C (Max process temperature +75°C)
Y	FV520B

Process connections	
A	1" ANSI B16.5 Class 600 RF
C	1½" ANSI BSP screwed body with adaptors
X	Other flange type (see note)

Certification	
S	Non hazardous / safe area application
I	Intrinsically safe

Options	
L	Local display (with FD900H only)
M	Wetted parts material certificates (DIN 50049 BS EN 10204 3.1b)
N	NACE conformance
T	Traceable calibration certificate

Note: Where an X option is chosen the option must be described fully, in writing. Please contact sales office for pricing.

Example:	FD900-F-A-B-Z-C-I

FD900 by-pass density meter with frequency output, suitable for 0-20kg/m³ range, standard temperature range of -20 to +75°C with Ni-Span-C spool, 1½" BSP screwed body with adaptors, intrinsically safe.

Thermo Measurement Ltd
King's Worthy
Winchester, Hampshire
SO23 7QA, United Kingdom

Tel: +44 (0) 1962 625000
Fax: +44 (0) 1962 885530
email: sales@thermomeasurement.com
www.thermomeasurement.com

Thermo Measurement Ltd
9303 W. Sam Houston Parkway South
Houston
Texas
77099 – 5298 USA

Tel: +1 (713) 272 2218
Fax: +1 (713) 272 2214

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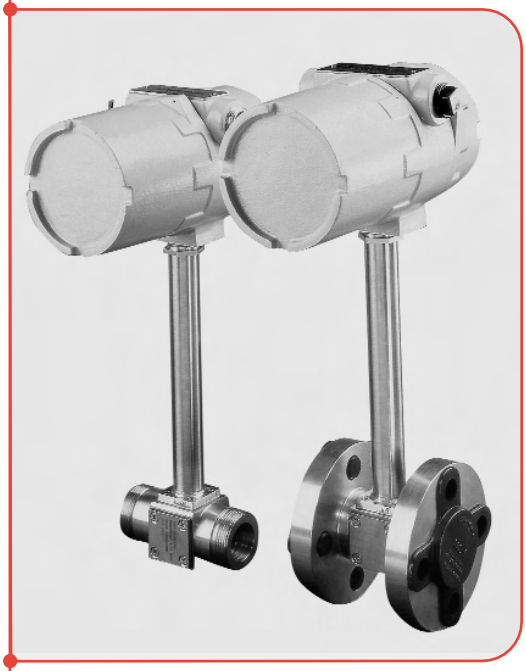
Sarasota By-Pass Density Meter FD900



The Sarasota FD900 density meter is designed for high accuracy measurement of gases, liquefied gases and low viscosity fluids.

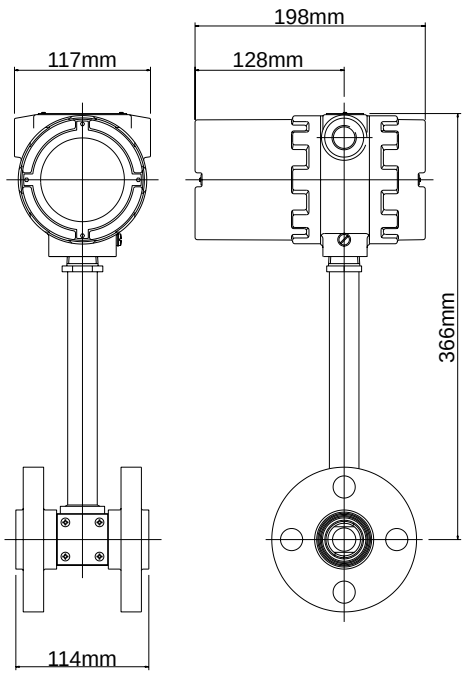
Features

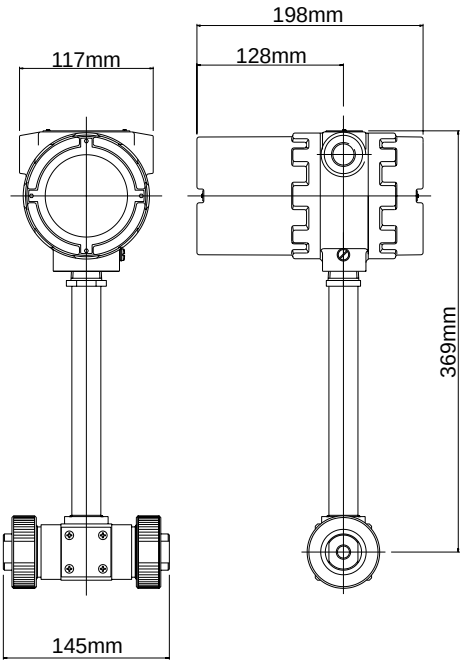
- continuous on-line density measurement
- accuracy to 0.1% reading
- installation via sample by-pass or direct in-line
- smart headmount electronics option
- compact design
- insensitive to plant / pipeline vibration
- local display option
- intrinsically safe design
- wide operating temperature span
- ideal for analyser applications
- no on-site calibration required

Applications

• process control • quality control • fuel gas monitoring • process monitoring

Dimensional drawing





Detailed specification and ordering information: see overleaf

Thermo Measurement reserves the right to alter specifications without notice.

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