

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: 0.000001g/cm³/°C (corrected) see Note 1
 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 1/3 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
 Ideally 30-300 litres/min
Flow range:
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
 Accuracy better than ±0.2% reading plus 0.05% at reference conditions
 Local display option
System:
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 3/4" 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/m ³
B	15 to 80 kg/m ³
C	75 to 250 kg/m ³
D	200 to 500 kg/m ³
E	500 to 1000 kg/m ³
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	1 1/2" 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, 1 1/2" BSP screwed body with adaptors, intrinsically safe.

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