SDI SERIES
For Pipe Sizes 1-½" To Over 36"

SDI1D1N20-0200

SDI0H1N20-0200
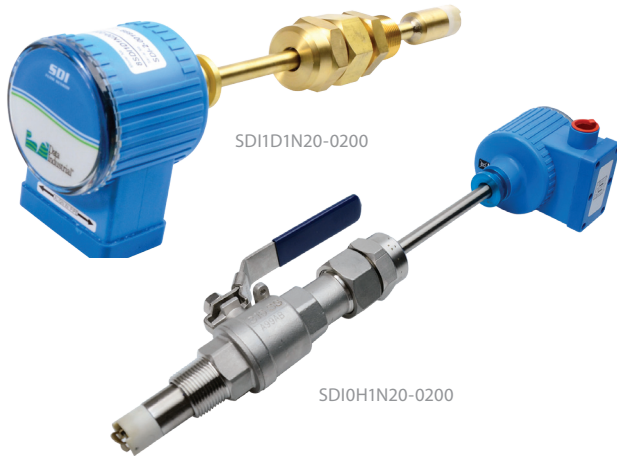
NEMA 4 housing
Rugged and weather-proof

Multiple outputs
Scaled pulse and 4 to 20 mA output available

Fewer leaks
Viton® O-ring seal standard

Highly durable
Stainless steel impeller, tungsten carbide shaft and Torion® bearing

Material options
Other materials available. See chart on facing page.

The direct insert style liquid flow sensor with stainless steel/PPS plastic or PEEK plastic tip combines flow sensing with a built-in transmitter for an all-in-one flow measuring system. This device fits all 1-1/2" to over 36" (38 to 915 mm) pipes, and it is intended for direct installation into the pipe through a 1" NPT hole.

This sensor is available with or without hot tap capability. In the hot tap installation, the sensor is mounted in the pipe under pressure by attaching a service saddle or weld-on fitting to the pipe. Then the sensor assembly is attached to an isolation valve & extended into the pipeline to measure flow. Hot tap installations are often required in retrofit projects, but even in new construction, a hot tap sensor can be desirable for service considerations.

Software and programming cable are required to operate these meters. If the meter will be used for hot tap installation, the A1027 tool is also needed (see Ordering Information).

APPLICATIONS

- Flow measuring projects
- True hot tap installations
- BTU applications (requires temperature sensors and transmitter/monitor)

SPECIFICATIONS

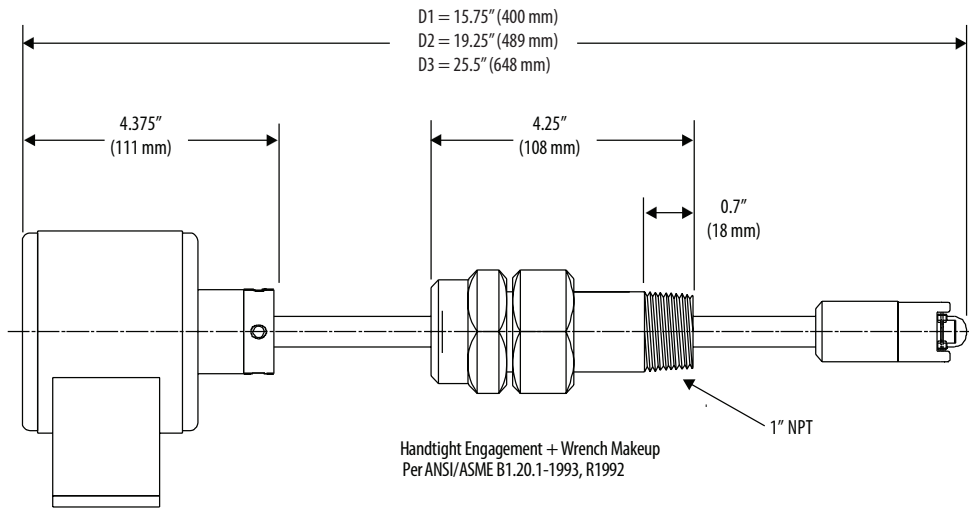|	
Recommended Design Flow Range	0.3 to 20 ft./sec
Pressure Rating	1000 psi @ 21 °C (70 °F)
Maximum Temp Rating	135 °C (300 °F)
Operating Temperature	Electronics: 20 to 65 °C (14 to 150 °F)
Pressure Drop	0.5 psi or less @ 10 ft/sec for all pipe sizes 1.5" diameter and up
Accuracy	±1% of rate over optimum flow range*
Repeatability	±0.5%
WARRANTY	
Limited Warranty	1 year

* ≥10 upstream and ≥5 downstream straight pipe diameters, uninterrupted flow.

SDI1D1N20-0200
Dimensional Drawing

D1 = 15.75" (400 mm)
D2 = 19.25" (489 mm)
D3 = 25.5" (648 mm)

4.375"
(111 mm)

4.25"
(108 mm)

0.7"
(18 mm)

1" NPT

Handtight Engagement + Wrench Makeup
Per ANSI/ASME B1.20.1-1993, R1992

SDI0H1N20-0200
Dimensional Drawing

isolation valve, top view

7.75"
(197 mm)

1" NPT

H1 = 19.0" (483 mm)
H2 = 21.5" (546 mm)
H3 = 27.5" (699 mm)

7.9"
(201 mm)

4.4"
(112 mm)

2.9"
(74 mm)

isolation valve, side view
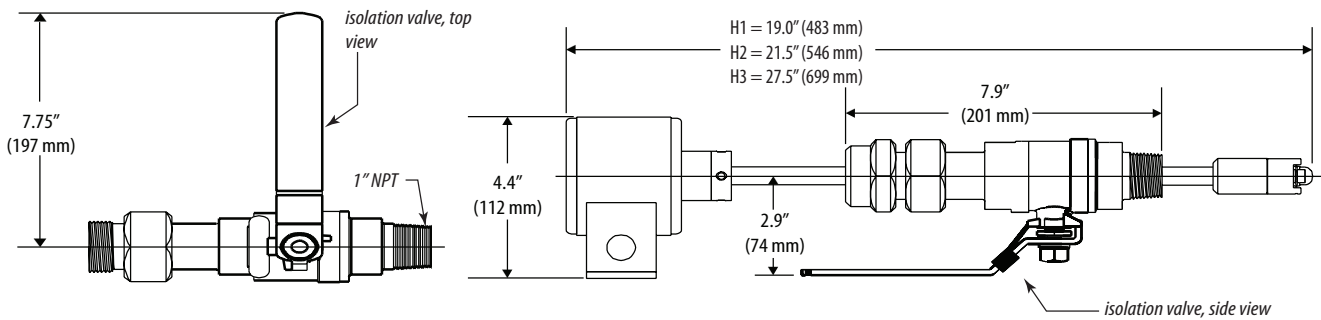
ORDERING INFORMATION

MODEL	MANUF. PART #	DESCRIPTION
U001-0020	A301-20*	Flow, Programming Cable with CD for Badger/DI Prod, Serial PC Connector
U001-0149	40134-0002*	Flow, Programming Data Converter with Cable and CD, USB PC Connector
U001-0021	SDI0D1N10-0200	Flow, SDI, SS, 1.5 to 10, 4 to 20 mA, No Display
U001-0022	SDI0H1N10-0200	Flow, SDI, Hot Tap, SS, 1.5 to 10, 4 to 20 mA, No Display
U001-0050	A1027**	Flow, Tool, Hot Tap Adapter, 1" Machine to 1" NPT
U001-0063	SDI0D1N00-0200	Flow, SDI, SS, 1.5 to 10, Frequency, No Display
U001-0064	SDI0H1N00-0200	Flow, SDI, SS, 1.5 to 10, Hot Tap, Frequency, No Display

* Software and programming cable are required for analog, Modbus, LonWorks, BACnet transmitter and meter products.

** A1027 required to adapt SDI hot tap sensor 1" machine thread to 1" NPT for hot tap drilling tools.

Other models available:

	Material	Type	Electronic Housing	Output	Display	O-Ring	Shaft	Impeller	Bearing
SDI			N			-		0	0

Material
0 = Stainless Steel/ PPS plastic Tip
1 = Brass/PPS plastic Tip (no Hot Tap)
2 = Stainless Steel/ PEEK plastic Tip

Type
D1 = Direct Insert for Pipe 1½ - 10"
D2 = Direct Insert for Pipe 12 - 36"
D3 = Direct Insert 36" and up
H1 = Hot Tap for Pipe 1½ - 10"
H2 = Hot Tap for Pipe 12 - 36"
H3 = Hot Tap 36" and up

Electronic Housing
= NEMA 4X

Output
0 = Frequency (standard)
1 = Analog 4 to 20 mA
2 = Scaled Pulse
5 = Bidirectional, analog, 4 to 20 mA (hot tap SS only)
6 = Bidirectional, scaled pulse (hot tap SS only)

Display
0 = No Display
1 = LCD Option (requires output option 1 or 2)

O-Ring
0 = Viton® (standard)
1 = EDPM
2 = AFLAS®

Shaft
0 = Zirconia Ceramic (optional)
1 = Hastelloy® C-276 (optional)
2 = Tungsten Carbide (standard)

Impeller
0 = Stainless Steel

Bearing
0 = Stainless Steel

Example:

SDI	1	D3	N	6	0	0	2	0	0