

Insert Meter, Small Diameter Impeller (SDI)

SDI Series



SDI1D1N20-0200

SDI0H1N20-0200

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" dia and up |
| Accuracy | ±1% of rate over optimum flow range* |
| Repeatability | ±0.5% |

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

Ideal For Pipe Sizes 1-1/2" To Over 36"

FEATURES

- NEMA 4 electronics housing...rugged and weather-proof
- Scaled pulse and 4-20mA output available
- Viton® O-ring seal standard...reduces leaks
- Stainless steel impeller, tungsten carbide shaft and Torion® bearing...highly durable
- Other materials available. See chart on facing page.

APPLICATIONS

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

DESCRIPTION

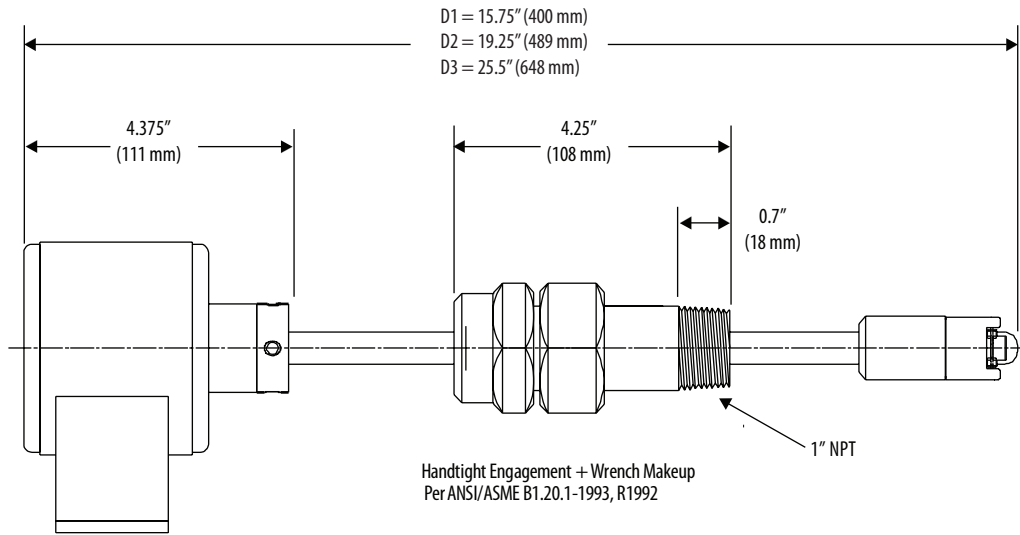
The direct insert style liquid flow sensor with stainless steel/PPS plastic or PEEK plastic tip combines flow sensing with a built-in transmitter for an all-in-one flow measuring system. This device fits all 1-1/2" to over 36" (38 to 915 mm) pipes, and it is intended for direct installation into the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

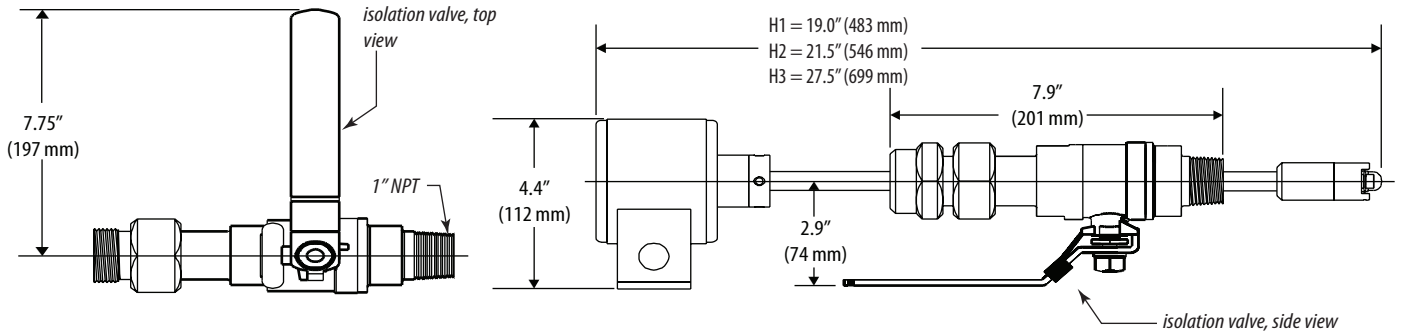
Software and programming cable are required to operate these meters. If the meter will be used for hot tap installation, the A1027 tool is also needed (see *Ordering Information*).

DIMENSIONAL DRAWINGS

SDI1D1N20-0200



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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, 4-20mA, No Display |
| U001-0022 | SDI0H1N10-0200 | Flow, SDI, Hot Tap, SS, 1.5 to 10, 4-20mA, No Display |
| U001-0050 | A1027** | Flow, Tool, Hot Tap Adapter, 1" machine to 1" NPT |
| U001-0063 | SD10D1N00-0200 | Flow, SDI, SS, 1.5 to 10, Frequency, No Display |
| U001-0064 | SD10H1N00-0200 | 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.

Example:

SDI 1 D3 N 6 0 0 2 0 0

Other models available:

| | | | | | | | | |
|--|--------------------------------------|--------------------------------------|---|---|--------------------------|---------------------------------|----------------------------|----------------------------|
| Material | Type | Electronic Housing | Output | Display | O-Ring | Shaft | Impeller | Bearing |
| SDI <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> N = NEMA 4X | <input type="checkbox"/> | <input type="checkbox"/> — <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 |
| 0 = Stainless Steel/PPS plastic Tip | D1 = Direct Insert for Pipe 1½ - 10" | | 0 = Frequency (standard) | 0 = No Display | 0 = Viton® (standard) | 0 = Zirconia Ceramic (optional) | = Stainless Steel | = Torion® |
| 1 = Brass/PPS plastic Tip (no Hot Tap) | D2 = Direct Insert for Pipe 12 - 36" | | 1 = Analog 4-20mA | 1 = LCD Option (requires output option 1 or 2) | 1 = EDPM | 1 = Hastelloy® C-276 (optional) | | |
| 2 = Stainless Steel/PEEK plastic Tip | D3 = Direct Insert 36" and up | | 2 = Scaled Pulse | | 2 = AFLAS® | 2 = Tungsten Carbide (standard) | | |
| | H1 = Hot Tap for Pipe 1½ - 10" | | 5 = Bidirectional, analog, 4-20mA (hot tap SS only) | | | | | |
| | H2 = Hot Tap for Pipe 12 - 36" | | 6 = Bidirectional, scaled pulse (hot tap SS only) | | | | | |
| | H3 = Hot Tap 36" and up | | | | | | | |