B142 Series

**FEATURES**
- Consistent, reliable gas flow measurement
- Wafer mounting configuration...better fit in limited spaces
- Lightweight balanced rotor...instantaneous response to changes in flow rate
- No mating flange design...allows quick and easy installation
- Durable construction material...reliable performance in harsh environmental conditions

**DESCRIPTION**
B142 Series gas turbine flow meter offers reliable measurement of natural gas flow rates in boiler systems. The stainless steel housing and tungsten carbide shaft and bearings are durable in any environment. The unique wafer style design is fast and easy to install between two 2” ANSI flanges, reducing costly downtime. The B142 meter is compatible with the B3000 flow monitor for a complete flow monitoring system. The B142 is also compatible with most standard computers, simplifying configuration within existing systems.

**APPLICATIONS**
- Monitoring flow of natural gas in boilers or other industrial systems

---

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>FLOW MEASUREMENT RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B142-20L</strong></td>
</tr>
<tr>
<td>7-70 ACFM*; 10-100 MCFD**;</td>
</tr>
<tr>
<td>423-4230 MBH†</td>
</tr>
<tr>
<td>365 pulses per ACF (12900 pulses per m³)</td>
</tr>
<tr>
<td><strong>B142-20M</strong></td>
</tr>
<tr>
<td>14-210 ACFM*; 20-300 MCFD**;</td>
</tr>
<tr>
<td>846-12690 MBH†</td>
</tr>
<tr>
<td>190 pulses per ACF (6710 pulses per m³)</td>
</tr>
<tr>
<td><strong>B142-20H</strong></td>
</tr>
<tr>
<td>35-350 ACFM*; 50-500 MCFD**;</td>
</tr>
<tr>
<td>2115-21150 MBH†</td>
</tr>
<tr>
<td>85 pulses per ACF (3000 pulses per m³)</td>
</tr>
</tbody>
</table>

**SYSTEM**
- **Working Pressure**: Vacuum to 2220 psig (15.3 MPa)
- **Pressure Drop**: 3” of water column (7.5 mbar) at maximum rated flow rate (dry air)
- **Pressure Port**: 1/8” NPTF (plugged)
- **Operating Temperature Range**: -40º to 330ºF (-40º to 165ºC)
- **Output Voltage**: 100 mV_P-P minimum when used with B111113 magnetic pickup

**ACCURACY**
- **Linearity**: ±2% of reading over the specified measurement range
- **Uncertainty**: ±1% of reading when calibration data is entered into an intelligent monitor/transmitter
- **Repeatability**: ±0.5%

**CONSTRUCTION**
- **Body and Cartridge**: 316/316L stainless steel
- **Bearing Mounts**: 304 stainless steel
- **Set Screws and Pressure Port Plug**: 316 stainless steel
- **Bearings and Rotor Shaft**: Tungsten carbide
- **Rotor**: 410 stainless steel

**CONNECTIONS**
- **Pickup**: Mates with AN3106A-10SL
- **Conduit**: 1” NPT (25 mm)

**COMPLIANCE INFORMATION**
- **Agency Approvals**: UL913; CSA 22.2 No. 157-92; Class 1 Division 1 Groups C,D
- **Explosion Proof**: UL1203; CSA 22.2 No. 30-M1986; Class 1 Division 1 Groups C,D
- **Seal**: ANSI/ISA 12.27.01-2003

Mounts between two 2” ANSI raised face flanges, ideally sized for 2” schedule 40 or 80 pipe; horizontal or vertical orientation.
- * Actual cubic feet per minute at 0 psig (0 bar) and 15.6°C (60°F)
- ** Thousands of cubic feet per day
- † Thousands of BTU per hour of natural gas
### DIMENSIONAL DRAWINGS

**B142 Meter with B111113 Magnetic Pickup Installed**

- 3.0” (75 mm) long
- 1.0” NPT (25 mm) diameter
- 3.6” (92 mm) diameter
- 0.125” NPTF Port (3 mm)
- 3.1” (79 mm) height
- 1.8” (46 mm) height

### APPLICATION EXAMPLE

- Isolation Valve
- B142 Flow Meter
- B3000 Series Monitor
- Isolation Valve
- B142 meter
- B111113 magnetic pickup
- B142-20-150KIT hardware kit
- Complete Gas Quickert Assembly (not including the two 2” ANSI flanges)

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>PART #</th>
<th>MANUFACTURER PART #</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>U021-0001</td>
<td>B142-20L</td>
<td>Flow, Gas, Quickert, 2”, SS, Low Rate, Pulse</td>
</tr>
<tr>
<td>U021-0002</td>
<td>B142-20M</td>
<td>Flow, Gas, Quickert, 2”, SS, Med Rate, Pulse</td>
</tr>
<tr>
<td>U021-0003</td>
<td>B142-20H</td>
<td>Flow, Gas, Quickert, 2”, SS, High Rate, Pulse</td>
</tr>
<tr>
<td>U021-0004</td>
<td>B111113</td>
<td>Flow, Gas, Quickert, Magnetic Pickup, SS</td>
</tr>
<tr>
<td>U021-0005</td>
<td>B142-20-150KIT</td>
<td>Flow, Gas, Quickert, Bolt and Gasket Kit</td>
</tr>
</tbody>
</table>

### ACCESSORIES

- **B30xx Series Monitor** for a complete flow monitoring system
- **B220 remote cable assembly**

- **B30xx** (shown with the B142 meter connected)