Expansion of the Gas-SelectX® Menu

Perfect for applications with changing gas compositions, the Gas-SelectX® calibration gas menu feature for the Model FT4A and FT4X flow meters allows the user to choose from a menu of several common gases or gas mixtures for their application.

The Gas-SelectX® feature has three gas menus with the following available gases:

<table>
<thead>
<tr>
<th>Pure Gas Menu</th>
<th>Mixed Gas Menu</th>
<th>O&amp;G Gas Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td>Air</td>
<td>Methane (C1)</td>
</tr>
<tr>
<td>Argon</td>
<td>Argon</td>
<td>Ethane (C2)</td>
</tr>
<tr>
<td>Butane</td>
<td>Butane</td>
<td>Propane (C3)</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>Carbon Dioxide</td>
<td>i-Butane (C4)</td>
</tr>
<tr>
<td>Methane</td>
<td>Methane</td>
<td>n-Butane (C4)</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>Nitrogen</td>
<td>Pentanes (C5)</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>Oxygen</td>
<td>Hexanes (C6)</td>
</tr>
<tr>
<td>Oxygen</td>
<td>Helium</td>
<td>Carbon Dioxide</td>
</tr>
<tr>
<td>Helium</td>
<td>Hydrogen</td>
<td>Nitrogen</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>Propane</td>
<td>Heptanes (C7)</td>
</tr>
<tr>
<td>Propane</td>
<td></td>
<td>Octanes (C8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nonane+(C9+)</td>
</tr>
</tbody>
</table>

The meter’s proprietary algorithms allow the user to switch gases or gas mixes in the field, as needed. The Pure and Mixed Gas Menus make the FT4A and FT4X ideal for measurement of biogas/digester gas, Liquefied Petroleum Gas (LPG) and a variety of mixed industrial gases. The O&G Menu is geared for use in upstream Oil & Gas applications. Whether you need to measure natural gas, air, flare gas, vent gas, or digester gas, Gas-SelectX® brings these options and more to the user with a quick push of a button.
### Performance Specs

**Flow Accuracy:**
- Air: ±1% of reading ±0.2% of full scale
- Other gases: ±1.5% of reading ±0.5% of full scale

Accuracy specification applies to customer’s selected flow range

- **Maximum range:** 15 to 60,000 SFPM (0.07 to 280 NMPS)
- **Minimum range:** 15 to 1,000 SFPM (0.07 to 4.7 NMPS)

Flow Repeatability: ±0.2% of full scale

Flow Response Time: 0.8 seconds (one time constant)

Temperature Accuracy: ±1°F (±0.6°C)

Flow Repeatability: ±0.2% of full scale

Calibration:
- Factory Calibration to NIST traceable standards
- CAL-V®: In-situ, operator-initiated calibration validation

### Operating Specs

**Gas-SelectX** Gas Selections:
- Pure Gas, Mixed Gas, and Oil & Gas Mixed Gas Menus to suit any application. See the Fox website for more information on availability of current gases.

**Units of Measurement:**
- Gas Pressure retractor: 150 psig (10.3 barg) max.
- Gas Pressure insertion meter: 500 psig (34.5 barg) max.
- Flow Velocity Range: 15 to 60,000 SFPM (0.07 to 280 NMPS)
- Turndown: up to 1000:1; 100:1 typical

**Pipe Diameter**
- 12-inch (300mm) to 18-inch (450mm)

Note: To determine if the meter will operate accurately in other pipe sizes, divide the maximum flow rate by the pipe area. The application is acceptable if the resulting velocity is within the velocity range above.

Check Fox website for velocity calculator.

### Physical Specs

**Sensor Material:** 316 stainless steel

**Enclosure:** NEMA 4, aluminum, dual ¾” FNPT conduit entries.

Enclosure: -40 to 158°F (-40 to 70°C)*

**Gas Pressure insertion meter** 150 psig (10.3 barg) max.

**Gas Pressure retractor** 500 psig (34.5 barg) max.

**Relative Humidity:** 90% RH maximum; non-condensing

**Temperature:**
- DDC-Sensor™: -40 to 250°F (-40 to 121°C)
- Enclosure: -40 to 158°F (-40 to 70°C)*

*Note: Display dims below -4°F (-20°C); function returns once temperature rises again.

**Probe Lengths** (LL*) in inches (cm):
- 6-inch (150mm): 6-inch
- 8-inch (200mm) to 12-inch (300mm): 9-inch
- 14-inch (350mm) to 18-inch (450mm): 12-inch

*See dimensional drawing on page 3.

### Dimensional

**Probe Diameter:** ¾”

**Input power:** 12 to 28 VDC, 6 watts max. (CE requirement)

**Full input power range:** 10 to 30 VDC

**Outputs (FT4A):**
- One standard isolated 4-20mA output for flow or temperature; fault indication per NAMUR NE43; HART communication option.
- Second output for pulse or RS485 Modbus RTU.
- Isolated pulse output: 5 to 24VDC, 10mA max., 0 to 100Hz for flow (the pulse output can be used as an isolated solid state output for alarms).

**Approvals**

**CE Mark:** Approved

**EMC Directive:** 2014/30/EU

**Emissions and Immunity Testing:** EN61326-1:2013

**FM (U.S.) & FMc (CANADA):** Approved

- Class I, Division 1, Groups B, C, D; Class II, Division 1, Groups E, F, G; and Class III, Division 1; T4, Ta = -40° to 70°C; Class I, Zone 1
- AEx/Ex db IIB + H2 T4; Gb Ta = -40°C to 70°C; Type 4X, IP66/67

**ATEX (FM16ATEX0013X):** Approved

- II 2 G Ex db IIB + H2 T4; Gb Ta = -40°C to 70°C; IP66/67
- II 2 D Ex tb IIIC T135°C; Db Ta = -40°C to 70°C; IP66/67

**IECEx (IECEx FMG 16.0010X):** Approved

- Ex d IIB + H2 T4; Gb Ta = -40°C to 70°C; IP66/67
- Ex tb IIIC T135°C; Db Ta = -40°C to 70°C; IP66/67

**ATEX and IECEx Standards:**

- EN 60079-0:2012 + A11:2013
- EN 60079-1:2014
- EN 60079-2:2014

**EN 60079-31:2014**