GENERAL

THE ALSONIC-FX series is a fixed-mount, transit-time ultrasonic flowmeter, with clamp-on transducers for non-invasive liquid flow rate measurement. Our microprocessor based, user friendly, field programmable flow measurement technique creates no interruption of the process flow and has low installation costs.

FEATURES

- 2 line LCD display with flowrate, totalizer & diagnostics
- Stores up 64 Day/months totalizer daily values
- Batch control function
- Measures wide range velocities from 0.03 ~ ± 175ft/s
- Transducers for pipe size from ½” to 240” (15 to 8000mm)
- High accuracy of ±1% of reading
- Transducers include magnetic insert, for installation on metal pipe without mounting belt
- Data logger function; includes date, totalizer, signal condition & diagnostic code status
- Response time less than 1 second

SPECIFICATIONS

- Measuring Principle: Transit time ultrasonic
- Pipe size
  - S Type : ½”~4” (15 mm~100 mm)
  - M Type : 2”~28” (50 mm~700 mm)
  - L Type : 12”~240” (300 mm~6000 mm)
- Pipe Material: Cast Iron, Stainless Steel, Ductile Iron, Copper, PVC, Aluminum, Asbestos, Fiberglass, etc.
- Liner Material: Tar Epoxy, Rubber, Mortar, Polypropylene, Polystyrol, Polystyrene, Polyester, Ebonite, Polyethylene, Teflon, etc.
- Display: 2 Line LCD with backlight 5 digits with decimal point 8 digits, Forward, Reverse & Net values
- Flowrate
  - Million Gallon, Cubic Feet, US Barrels, Imperial Barrels, Oil Barrel
- Totalizer
  - Second, Minute, Hour, Day
  - Velocity, Date, Time, Signal condition
- Engineering Units
- Other
- Accuracy: ± 1% ~ ± 2% (0.3 ~ 10 m/s)
  - ± 0.5% (online calibration)
- Repeatability: ±1% of reading
- Communication: RS485, M bus
- Keypad: Up to 16 key with tactile action
- Response Time: Less than 1 second
- Flow Velocity: 0.03 ~ ±105ft/s (0.3 ~ ±10m/s)
- Resolution: 0.0001m/s
- Ambient Temperature: -5 ~ 122°F (-20 ~ +60°C)
- Mounting: Wall mounting, panel, local or DIN Rail
- Max. Cable Length: 500’ (150m)
- Power Consumption: Less than 2W
- Power Supply: Std – 85 ~ 264Vac, 50/60 HZ
  - Opt – 24Vdc
- Data Storage: Operation parameters, totalization, date are stored by EEPROM
- Power output: 4-20mA, 0-20mA
- Pulse Output: 1-9999 Hz
- Data Logger: SD card for wall mount, 64 data points including flowrate, totalizer time, data
- Alarm: High/Low with buzzer
- Protection: Converter - IP54, IP65
  - Sensor - IP65 (Std), IP68 (Opt)
### Ultrasonic Flowmeter Model ALSONIC Series

#### STANDARD TRANSUDCER
Fluid Temperature: -22 ~ 195°F (-30 ~ +90°C)
Accuracy: 1%

<table>
<thead>
<tr>
<th>Model</th>
<th>SCS (Small Size)</th>
<th>SCM (Medium Size)</th>
<th>SCL - (Large Size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Size</td>
<td>½&quot;~4&quot; (DN15-100mm)</td>
<td>2&quot;~40&quot; (DN50-600mm)</td>
<td>12&quot;~240&quot; (DN300-6000mm)</td>
</tr>
</tbody>
</table>

#### INSERTION TRANSUDCER
Fluid Temperature: -22 ~ 320°F (-30 ~ +160°C)
Accuracy: 1%

<table>
<thead>
<tr>
<th>Model</th>
<th>Pipe Size</th>
<th>Pipe Size Wall Thickness</th>
<th>Pipe Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIS (Standard)</td>
<td>3&quot;~40&quot; (DN80-1000mm)</td>
<td>≤¾&quot; (20mm)</td>
<td>Carbon Steel, SS, etc.</td>
</tr>
<tr>
<td>SIL (Large Size)</td>
<td>12&quot;~240&quot; (DN300-6000mm)</td>
<td>≤2½&quot; (70mm)</td>
<td>PVC, steel, concrete, etc.</td>
</tr>
</tbody>
</table>

#### HIGH TEMPERATURE TRANSUDCER
Fluid Temperature: -22 ~ 320°F (-30 ~ +160°C)
Accuracy: 1%

<table>
<thead>
<tr>
<th>Model</th>
<th>SHS (Small Size)</th>
<th>SHL (Medium Size)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Size</td>
<td>½&quot;~4&quot; (DN15-100mm)</td>
<td>2&quot;~240&quot; (DN50-600mm)</td>
</tr>
</tbody>
</table>

#### INLINE TYPE
Fluid Temperature: -22 ~ 320°F (-30 ~ +160°C)
Accuracy: 1%

All dimensions in mm

Note: all dimensions are mm unless stated otherwise.

- Worm Gear Clamp
- Mounting Belt
- Thickness Gauge
- Data Logger
### WALL MOUNT

**Size:** 7.08" x 6.70" x 2.25" (180*170*57mm)

**Setting data:** Flow unit, zero, clear total flow, K-factor, passwords, data linearity factor

**Input:** 3 channel 4-20mA analog input, Three-wire PT100 resistor input

**Output:** Isolated RS232/RS485 output, 1 channel OCT, 1 channel 4-20mA output, 1 channel relay output, SD card Data logger (option)

**Protection:** IP65

### PANEL MOUNT

**Size:** 6.30" x 6.80" x 2.95" (160*173*75mm)

**Setting data:** Flow unit, zero, clear total flow, K-factor, passwords, date, linearity factor

**Input:** 3 channel 4-20mA analog input, Three-wire PT100 resistor input

**Output:** Isolated RS232/RS485 output, 1 channel OCT, 1 channel 4-20mA output, 1 channel relay output

**Protection:** IP65

### DIN RAIL MODULE

**Size:** 3.58" x 1.50" x 3.58" (91*38*91mm)


**Input:** 3 channel 4-20mA analog input, Three-wire PT100 resistor input

**Output:** Isolated RS232/RS485 output, 1 channel OCT, 1 channel 4-20mA output

**Power Supply:** 8-36Vdc / 10-30Vac

### Diagrams

- **Valve:** > 10D > 5D
- **Reducer:** > 10D > 5D
- **Z Method:**
- **V Method:**
- **Tee Fitting:** > 20D > 10D
# ALSONIC-FX Series

**ALSONIC-FX Series**

**Example:** ALSONIC-FX-WLF-SCS-C1-NN

<table>
<thead>
<tr>
<th>ALSONIC-FX</th>
<th>MUF</th>
<th>WLF</th>
<th>PMF</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Mini Module with display and RS485</td>
<td>Flow Meter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wall mount with display</td>
<td></td>
<td></td>
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<tr>
<td>Remote panel mount</td>
<td></td>
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</tr>
</tbody>
</table>

**Transducers**

- Small transducer, ½" - 4" (15 - 100mm); (-30-90˚C) SCS
- Medium transducer, 2" - 40" (50 - 1000mm); (-30-90˚C) SCM
- Large transducer: 12" - 240" (300 ~ 6000 mm), (-30-90˚C), SCL
- High Temperature transducer, ½" - 4" (15 - 100 mm); (-30-160˚C) SCS
- High Temperature transducer, 2" - 40" (50 - 1000mm); (-30-160˚C) SCL
- Standard insertion sensor, 3"-240" (80 ~ 6000 mm); (-30-160˚C) SCS
- Long insertion sensor3"-240" (80 ~ 6000 mm); (-30-160˚C), SCS
- ¼" (DN6) - Polypropylene inline tube, 0.01-9 LPM, up to 60˚C UC6P
- SS #304 inline sensor, -22–284 °F (-30-140˚C) with pipe size *** DN
- **No Cables** NC
- 5M× 2 Cables C1
- 10M×2 Cables C2
- 15M×2 Cables C3
- **None Option** NN
- **Thickness' gauge** TT
- **Extra signal cable. **m * 2** Cable
- **Mounting Belt. **m * 2 / worm gear clamp** ST
- **Data logger for wall mount display** DL
- **IP68 Protection for transducer** 68

**TYPE OF FLUID**

- Please provide the name of your fluid, including operating density and viscosity

**FULL-SCALE FLOW RATE**

- Please provide the max and min flow rate, normal flow rate also

**LINE SIZE**

- Please provide the line size and connection

**PRESSURE & TEMPERATURE**

- We will calibrate your flow meter as close to your operating conditions as possible