**Introduction**

Anderson-Negele’s "SL" Level Transmitter is the latest innovation for measuring liquid level in sanitary applications. The "SL" Transmitter incorporates state of the art design to provide superior accuracy and long term signal stability. The field tested performance of the "SL" transmitter means the elimination of expensive, repetitive re-calibrations along with protection against costly overflow/run-dry situations that can occur with less stable level transmitters. The 0.2% accuracy experienced at installation can now be expected a year later!

We've also incorporated a field calibration feature that provides “one-touch” sensor zeroing as well as simple range calibration, without the need for special tools and fixtures, pressure sources, or removal of the transmitter from the tank. This translates to real cost savings during installation or when adjusting for new application requirements. With the addition of our standard quick disconnect receptacles; we have even extended our two-year warranty to cover water ingression.

Of course the "SL" Transmitter is available in all standard fitting and range combinations you’ll need to fit any sanitary tank application. All variations are CE compliant, meet applicable 3-A Sanitary Standards, and are backed by a 2-year warranty.

**Features**

- Fewer tune-ups
- No more overflows
- More reliable inventories
- 3-A compliant; Third party verified

**Special Features Include:**

- Quick Disconnect Receptacles with optional Field Wiring Connectors
- One-Touch Field Calibration
- Available with Hart Communication

**Applications**

- Inventory Control
- Batching/Mixing Control
- Both Conductive and Non Conductive Fluids
Specifications

**PERFORMANCE**

**Level Measurement**

Ranges: (Factory calibrated at no charge and easily field calibrated within the parameters listed below)

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum (URL*)</th>
<th>Proof Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL1 &amp; SL5 Series</td>
<td>0-30 &quot; w.c.</td>
<td>0-140 &quot; w.c.</td>
</tr>
<tr>
<td>SL2 &amp; SL6 Series</td>
<td>0-140.1 &quot; w.c.</td>
<td>0-415 &quot; w.c.</td>
</tr>
<tr>
<td>SL3 &amp; SL7 Series</td>
<td>0-415.1 &quot; w.c.</td>
<td>0-830 &quot; w.c.</td>
</tr>
<tr>
<td>SL4 &amp; SL8 Series</td>
<td>0-830.1 &quot; w.c.</td>
<td>0-1385 &quot; w.c.</td>
</tr>
</tbody>
</table>

Ranges to accommodate vacuum available on request

Calibrated Accuracy: (includes repeatability, hysteresis, and linearity)

Calibration Stability: Within ±0.2% of URL at stable calibration temperature

Resolution: Infinite

Process Temperature Limits: 0°F to 265°F (-18°C to 130°C)

Ambient Temperature Limits: 15°F to 120°F (-9°C to 49°C)

Compensated Temp. Range: 0°F to 250°F (-18°C to 121°C)

Temperature Stability: ±0.2% of Upper Range Limit (URL) per 10°F (5.5°C)

Over-Range Capacity: 2 times the URL (see table above)

Response Time: 526 mSec

**POWER SIGNAL**

Loop Power

Excitation: 24 V (12-36 vdc)

Input Current Rating: 35mA

Output: 4-20mA dc, 2-wire. Internal test points supplied

Loop Resistance: 1550 ohms (max.) at 40 vdc, 750 ohms (max) at 24 vdc

Cable Recommended: 2 conductor, stranded, 18-24 AWG, shielded with ground. 0.17 - 0.26" Cable Sheath OD for use with field wiring connector.

Anderson molded cord set recommended for best EMI and water protection.

Receptacle: 5-pin M12 Quick Disconnect Receptacle

**MATERIALS/CONSTRUCTION**

Housing Material: 304 and 316 stainless steel finished to 25Ra max

Wetted Parts: 316L stainless steel finished to 25Ra max

Enclosure Protection: Designed and factory tested to NEMA 4X, IP66, IP67; Suitable for use in wet locations at up to 100% relative humidity.

**AGENCY APPROVALS**

Electromagnetic Compatibility (EMC): Fully CE Compliant when equipped with shielded molded cord set

Standards: 3-A compliant; Third Party Verified

Designed and manufactured to sound engineering practices in accordance with Article 3.3 of the PED 97/23/EC

ETL Listed

Conforms to UL Std 61010-1 3rd Ed(with Hart options)

Certified to CSA Std C22.2 61010-1 3rd Ed(with Hart options)

**Warranty:** All units are covered by a two (2) year warranty against defects in material and workmanship when installed and maintained according to the instruction manual provided

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**Electrical Connections and Wiring Options**

**Molded Cordset**

- Loop+(red) wire Pin 1
- Loop-(black) wire Pin 2
- Shield (clear or bare) wire - not connected to nut

**Shield Cordset**

- Loop+(red) wire Pin 1
- Loop-(black) wire Pin 2
- Shield (bare) wire - connected to nut

**Field Wireable Connector**

- P/N: 42119B0000 (without cable)

**90° Field Wireable Connector**

- P/N: 42119A0000 (without cable)

*Dielectric Grease

P/N: 5662400000

0.17-0.26" Cable Sheath Diameter

* URL = Upper Range Limit

** w.c. = water column
Order Information

SPAN RANGE
1 0-30" min to 0-140" max with Hart
2 0-140.1" to 0-415" max with Hart
3 0-415.1" to 0-830" max with Hart
4 0-830.1" to 0-1385" max with Hart
5 0-30" min to 0-140" max
6 0-140.1" to 0-415" max
7 0-415.1" to 0-830" max
8 0-830.1" to 0-1385" max

FITTING
089 Anderson Flush Mount Long
(71060-A3, A5, A7, A9)
088 Anderson Flush Mount Short
(71060-A4, A6, A8)
091 Cherry Burrell Flush Mount Long
(insulated tank)
090 Cherry Burrell Flush Mount Short
(uninsulated tank)
092 King Gage Flush Mount Long
(1777-3)
093 King Gage Flush Mount Medium
(1777-1, -6 Standard)
094 King Gage Flush Mount Short
(1777-2 non-insulated)
097 Tank Mate Flush Mount Long
(208WVE)
096 Tank Mate Flush Mount Medium
(205WVE)
095 Tank Mate Flush Mount Short
(200WVE)
004 1-1/2" Tri-Clamp
005 2" Tri-Clamp
007 3" Tri-Clamp
059 1-1/2" NPT
147 Continental (long)
146 Continental (short)
141 Rosemount / Foxboro Sanitary Spud - Short
142 Rosemount / Foxboro Sanitary Spud - Long
154 Endress & Hauser Universal Adaptor - Short
155 Endress & Hauser Universal Adaptor - Long
169 Liquid Scale Flush Mount Medium

DIAPHRAGM
1 SS-316L Electropolished
2 Hastelloy "C"
   (N/A with King-Gage, Tank Mate, or Endress & Hauser Fittings)

1 Requires Tank Mate Shell Adapter:
57200A0001 (insulated)
57200A0002 (uninsulated)

2 Requires Liquid Scale Shell Adaptor: 4593600000

3 Sensors with these fittings are non-cancellable/
non-returnable for credit

4 Not 3-A compliant

Note:
Calibration of span is in units "inches water column".
Consult factory for assistance.

ACCESORIES
Anderson Weld-In Shells for Flush Mount Level Transmitters
73106A0003 Insulated Vessel - Standard Flange - 316L
71060A0004 Uninsulated Vessel - Standard Flange - 316L
71060A0005 Insulated Vessel - Pressure Vessel Flange - 316L
71060A0006 Uninsulated Vessel - Pressure Vessel Flange - 316L
71060A0009 Insulated Vessel - H/D Press. Vessel Flange - 316L

Shell Adaptor
Tank Mate, uninsulated  57200A0002
Tank Mate, insulated  57200A0001

Gaskets for Flush Mount Level Transmitters
Anderson  44348A0001
Cherry Burrell  44292A0001
King Gage  36240S3212
Tank Mate  36240S3123
Continental  5658900000
Rosemount  36240S3341

Sensor Calibration Adaptors
Anderson fitting  73198A0001
Cherry Burrell fitting  73198A0002
King Gage Fitting  73198A0003
Tankmate  73198A0004

Cord Sets
Molded w/25' cable  42117K0025
Molded w/50' cable  42117K0050
Molded w/100' cable  42117K0100
5-Conductor w/25' cable  42117H0025
5-Conductor w/50' cable  42117H0050
5-Conductor w/100' cable  42117H0100

CALIBRATION **

### Height in inches w.c.*
(to nearest tenth)

Examples:
10850  1,085.0 inches
00305  30.5 inches

SENSOR WIRING
01 Quick Disconnect Receptacle (QDR) & Field Wireable
   Connector (FWC) w/No Cable (std.)
00 QDR w/No Cable, no FWC
05 QDR w/25 ft Standard Molded Cordset
10 QDR w/50 ft Standard Molded Cordset
20 QDR w/100 ft Standard Molded Cordset
99 1/2" NPT No QDR, no FWC and no Cable
   (No sensor warranty for water damage)

MOUNTING
0 Horizontal
1 Vertical
2 Other (specify angle from vertical or from horizontal)

*Note:
Calibration of span is in units "inches water column".
Consult factory for assistance.

**Note:
Orders not accepted without calibration data or completed
worksheet.
Sensor Fittings and Dimensions

<table>
<thead>
<tr>
<th>ANDERSON SHELL TYPE</th>
<th>&quot;A&quot;</th>
<th>NON INSULATED</th>
<th>2-3/16</th>
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<tbody>
<tr>
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<td></td>
<td>INSULATED</td>
<td>6-1/2</td>
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<th>KING SHELL TYPE</th>
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<tr>
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<td>STANDARD</td>
<td>6-9/16</td>
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<td>LONG</td>
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<th>CHERRY BURRELL SHELL TYPE</th>
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<table>
<thead>
<tr>
<th>TANK MATE SHELL TYPE</th>
<th>&quot;A&quot;</th>
<th>SHORT</th>
<th>5-7/32</th>
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<tr>
<td></td>
<td></td>
<td>MEDIUM</td>
<td>7-19/64</td>
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<tr>
<td></td>
<td></td>
<td>LONG</td>
<td>10-3/16</td>
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</table>

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<thead>
<tr>
<th>FITTING</th>
<th>&quot;A&quot; DIM.</th>
<th>&quot;B&quot; DIM.</th>
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<tbody>
<tr>
<td>ROEMOUNT SHORT</td>
<td>2.11&quot;</td>
<td>5-1/2&quot;</td>
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<tr>
<td>ROEMOUNT LONG</td>
<td>6.11&quot;</td>
<td>9-1/2&quot;</td>
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<tr>
<th>DESCRIPTION - USE</th>
<th>&quot;A&quot; DIM.</th>
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<tbody>
<tr>
<td>E+H LONG (6&quot; SHELL)</td>
<td>6.60</td>
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<tr>
<td>E+H SHORT (1-9/16&quot; SHELL)</td>
<td>2.16</td>
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<table>
<thead>
<tr>
<th>CONTINENTAL SHELL TYPE</th>
<th>&quot;A&quot;</th>
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<td>NON INSULATED</td>
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<tr>
<td>INSULATED</td>
<td>6-3/16</td>
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Dimensions

05006 / 2.2 / 2016-03-21 / PW / NA