Model OLS50
Conductivity Sensor

Inductive conductivity sensor for medium to high conductivity measurements from 0 to 2000 mS/cm
- Electrodeless design provides error-free measurement in viscous and aggressive media where contacting sensors can fail
- Inductive sensor opening is not affected by blockage or clogging of up to 40%
- Sensor body available molded in PFA for high chemical resistance or PEEK for temperatures up to 180°C (356°F)
- Pt100 RTD temperature element
- Wide variety of industrial mounting options:
  - 1”MNPT
  - ANSI Flange
  - DIN Flange
  - JIS Flange
- Certified for use in hazardous areas - ATEX, FM, CSA and TIIS
- Each electrode is factory serialized and performance tested

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Measuring range</td>
<td>0 - 2000 mS/cm</td>
</tr>
<tr>
<td>Cell constant</td>
<td>Approximately 2 cm⁻¹</td>
</tr>
<tr>
<td>Meas. value accuracy for -20 to 100°C</td>
<td>±(5 µS/cm + 0.5 %) of measured value</td>
</tr>
<tr>
<td>Meas. value accuracy for &gt;100°C</td>
<td>±(10 µS/cm + 0.5 %) of measured value</td>
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<tr>
<td>Temperature sensor</td>
<td>Pt100 RTD</td>
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<tr>
<td>Temperature response t₉₀</td>
<td>Time to 90% of upper temperature display limit</td>
</tr>
<tr>
<td>- PEEK version</td>
<td>Approx. 7 min</td>
</tr>
<tr>
<td>- PFA version</td>
<td>Approx. 26 min</td>
</tr>
<tr>
<td>Minimum installed pipe diameter</td>
<td>≥ 3” (DN80)</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-20 to 180°C (-4 to 356°F)</td>
</tr>
<tr>
<td>Hazardous area rated</td>
<td>- ATEX II 1G EEx ia IIC T6/4</td>
</tr>
<tr>
<td></td>
<td>- FM IS (NI) Cl.1, Div1&amp;2, Gr.A,B,C,D</td>
</tr>
<tr>
<td></td>
<td>- CSA IS (NI) Cl.1, Div1&amp;2, Gr.A,B,C,D</td>
</tr>
<tr>
<td></td>
<td>- TIIS EEx ia IIC T6/4</td>
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For use in process applications including concentration of acids and alkalis, product quality monitoring, plant effluent monitoring and chemical products in tanks and pipelines
Order Code

Accessories

Dimensions

Sensor Selection Chart

Weidcoxed Analytical, Inc.
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Fax: 1-714-577-5688
www.WedgewoodAnalytical.com

Expanding The Science of Analysis

Conductivity Sensor Selection Chart

OLS 50 - Toroidal Sensor
Inductive
2000 mS/cm

OLS 21
2 Electrode
k = 1.0
20 mS/cm

OLS 19
2 Electrode
k = 0.1
200 S/cm

OLS 19
2 Electrode
k = 0.01
20 S/cm

OLS 16 Hygienic Sensor
2 Electrode
k = 0.1
500 S/cm

Conductivity Sensor Selection Chart

OLS 50- (select from below for complete order code)

Classification
A General Purpose
G ATEX II 1 G Ex ia IIC T6 / T4
O FM IS (Ni), Cl, I, Div. 1&2, Grp. A, B, C, D
S CSA IS (Ni), Cl, I, Div. 1&2, Grp. A, B, C, D
T TIIS Ex ia IIC T6 / T4

Process Connection Type
1 G 3/4"
2 1" NPT
3 DN50 PN16 Flange, 316Ti Stainless Steel
4 ANSI 2" Class 300 Flange, 316Ti Stainless Steel
5 DN50 PN16 Flange, 316Ti Stainless Steel with PTFE Flange Seal
6 ANSI 2" Class 300 Flange, 316Ti Stainless Steel with PTFE Flange Seal
7 JIS 10K 50A Flange, 316Ti Stainless Steel with PTFE Flange Seal
A DN50 PN10 Lap Joint Flange, PVDF
B ANSI 2" 150 lbs Lap Joint Flange, PVDF
C JIS 10K 50A, Lap Joint Flange, PVDF

Sensor Body and Seal Material
A PFA Body with PTFE Seal
B PEEK Body with Viton Seal
C PEEK Body with PTFE Seal

Temperature Rating and Cable Length
1 Max. Temperature 125°C with 5m Cable
2 Max. Temperature 125°C with 10m Cable
5 Max. Temperature 180°C with 5m Cable
6 Max. Temperature 180°C with 10m Cable

Double Shielded Conductivity Extension Cable
50085473 Per Meter
50003987 NEMA 4X Junction Box with High Impedence Terminals

Replacement Kits
51500482 PTFE Seal Kit
51500481 Viton® Seal Kit
51500483 PTFE Disk Kit for DN50 Flange
51500484 PTFE Disk Kit for 2" ANSI/JIS 10K 50A Flange

Installation Housings
OYA611 Immersion Housing