

## Conductivity Sensor Type ICS



Inline Conductivity Sensor

**ICS** the new inline conductivity sensor from AVS-Römer



Inline conductivity sensor for conductivity measurement of liquid media.

The ceramic conductivity measuring cell in conjunction with the established ELSA push-in connectors made of PPSU finds its use primarily in the food industry.

The integrated sensor electronics are temperature-compensated.

**Other features:**

- minimal dead space
- temperature-compensated evaluation electronics
- materials and constructional design especially optimised for food applications

**Variations / options:**

- other material for seal

### CHARACTERISTICS

#### GENERAL

|                                |   |
|--------------------------------|---|
| <b>Constructional design</b>   | ceramic conductivity measuring cell   |
| <b>Product name</b>            | Conductivity Sensor   |
| <b>Product type</b>            | ICS-958P3-...   |
| <b>Nominal diameter</b>        | DN 4  |
| <b>Connection</b>              | ELSA push-in connectors for pipe/tube OD 6                                  |
| <b>Ambient temperature</b>     | 0°C to +60°C  |
| <b>Medium temperature</b>      | 0°C to +140°C   |
| <b>Medium viscosity</b>        | up to approx. 35 mm <sup>2</sup> /s   |
| <b>Body material</b>           | PPSU (KTW- NSF- certified)  |
| <b>Measuring cell material</b> | Al <sub>2</sub> O <sub>3</sub> , Pt, glass                                  |
| <b>O-ring material</b>         | FKM (FDA-compliant) or EPDM (NSF-, KTW-approved)                            |
| <b>Mounting method</b>         | using spring clip, internal width Ø 30-32 (not included in scope of supply) |
| <b>Mounting position</b>       | Preferably upright  |
| <b>Approval</b>                | NSF/ANSI 169  |

#### PNEUMATIC - HYDRAULIC

|                         |   |
|-------------------------|---|
| <b>Nominal pressure</b> | PN 16   |
| <b>Pressure range</b>   | technical vacuum up to maximum allowable operating pressure OP in accordance with the specification table |
| <b>Flow rate</b>        | Kv-value in accordance with the specification table   |
| <b>Medium</b>           | Gases or liquids which do not corrode the materials specified   |

#### ELECTRIC

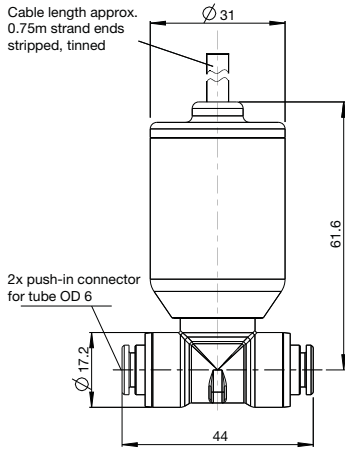
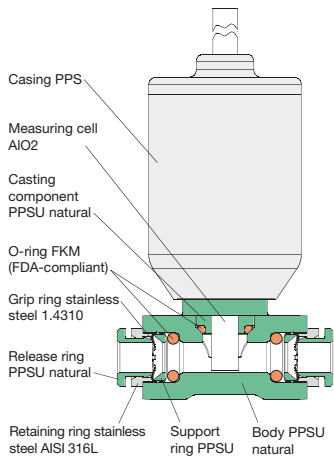
|                                   |  |
|-----------------------------------|--|
| <b>Supply voltage</b>             | 9 to 36 V DC   |
| <b>Conductivity output signal</b> | 0 to 5 V DC (linear over the entire measurement range) |
| <b>Temperature output signal</b>  | 0 to 5 V DC (linear over the entire measurement range) |
| <b>Electrical Connection</b>      | 4-pole screened cable 0.75 m (LiYCY 4xAWG24)           |
| <b>Protection class</b>           | IP65   |

#### MEASURING CELL

|                          | Conductivity    | Temperature |
|--------------------------|-----------------|-------------|
| <b>Measuring range</b>   | 0.2 to 20 mS/cm | 0 to 140°C  |
| <b>Accuracy</b>          | ± 2% F.S.       | ± 1°C       |
| <b>Temperature error</b> | ± 1% F.S.       | -           |
| <b>Response time</b>     | < 1 s           | < 1 s       |

**Caution!** PPSU should not be used in contact with aromatic hydrocarbons, oxidising acids, acetone, chlorinated hydrocarbons, ethers or ketones! Also, PPSU should not be placed directly in contact with anaerobic adhesives!

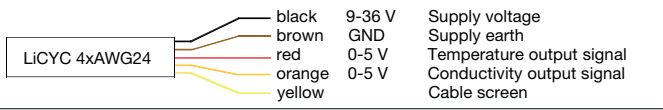
**Illustration**



**Conductivity Sensor, Type ICS**

Product group **23** PN 16 Max. Allow. OP at ambient temp.  $T_{min} 0^{\circ}C, T_{max} +60^{\circ}C$

NSF Plastic PPSU



| for tube OD | DN | Kv-value water [l/min] | Allow. OP [bar] at medium temp. |       |       | Seal material        | Type          | Order number | Price |
|-------------|----|------------------------|---------------------------------|-------|-------|----------------------|---------------|--------------|-------|
|             |    |                        | 20°C                            | 100°C | 140°C |                      |               |              |       |
| 6           | 4  | 8.1                    | 16                              | 12    | 6     | FKM (FDA-compliant)  | ICS-958P3-6FF | 390602       | a. A. |
| 6           | 4  | 8.1                    | 16                              | 12    | 6     | EPDM (FDA-compliant) | ICS-958P3-6PF | 390601       | a. A. |

**Characteristic curve 0-20 mS/cm or 0-140°C 0-5 V**

