

# More process reliability in phase separation

Inline Conductivity Meter ILM-4

## **EXTENDED WARRANTY\*** for all orders before 30. April 2021

\* Experience our quality promise: When you purchase an ILM-4 from now until 30.04.2021, we grant you an extended warranty of 5 years. The general terms and conditions apply. For further information see www.anderson-negele.com





### Benefits in production and CIP / SIP processes

ILM-4 with IO-Link and 4...20 mA enables an active, automated and temperature compensated phase separation. This applies both to different media in production processes and to the CIP / SIP return flow of acid / caustic / water.

These media can be drained or returned to the storage tanks in the highest possible grade by means of precise inline conductivity measurement. The multiple use of the cleaning media ensures in addition maximum cost efficiency and environmental protection.

#### Benefits in cleaning agents control

For an optimal and reproducible cleaning result, each cleaning agent must be concentrated to the specified value by re-dosing with concentrate and fresh water. This is ensured by the highly precise measurement of conductivity with the ILM-4.

#### Advantages of the ILM-4 conductivity sensor

- Extremely short response time (1.2 s) for maximum efficiency
- Ready for industry 4.0: digital IO-Link interface and analog
   4...20 mA data transmission in parallel
- Precise phase separation of different media means less product loss and cost minimization
- **Optimum multiple use** of the cleaning chemicals due to correct return to the respective tanks
- **Minimization of cleaning time and water consumption:** inline conductivity analysis for active switching after reaching the desired value and not after a passive, fixed time
- Precise concentration control of the cleaning agents
- · Reliable product monitoring / quality assurance
- $\cdot$  Very favourable price-performance ratio





**Remote version ILM-4R** 

#### Technical data at a glance

- Extremely compact & robust conductivity sensor
- Hybrid technology with digital + analog interface (IO-Link + 4...20 mA): from simple data transfer to intelligent communication
- Fast sensor response time: approx. 1.2 s
- Modular design: configurable from the low-priced basic version to the high-end model
- Product-contacting sensor head made of 100 % PEEK prevents thermal stress cracking
- Measuring range freely selectable: 1...999 mS/cm
- **High reproducibility** of ≤ 1 % of measured value
- Fully compensated measurement **up to 130 °C**, CIP/SIP cleaning up to **150 °C / 60 min**.
- Remote version with Smart Replace Design: Easy replacement of each component just by plugging it in

#### SENSORS FOR FOOD AND BIOPHARMA.



#### Modulare Sensorplattform mit IO-Link und 4...20 mA

The **Flex-Hybrid Technology** with **IO-Link and 4...20 mA** combines the best of both worlds: Data from the sensor can be transmitted digitally, analogously or in parallel. The bidirectional communication enables status control and preventive maintenance at any time to avoid production downtimes. Installation and commissioning are time- and cost-saving thanks to plug-and-play technology, and sensor replacement is easier than ever before thanks to "Smart Replace Design" with automatic detection, configuration and parameterization.

#### Order code

| ILM-4 | (induct   | (inductive conductivity sensor)                 |  |                             |   |                        |  |   |   |  |
|-------|---|---|--|-----------------------------|---|------------------------|--|---|---|--|
|       |   | rsion ler                                       |  | f toroid                    |   | Note:                  |  |   |   |  |
|       | L20<br>L50  | (20 mr<br>(50 mr                                |  |                             |   |                        |  |   | Order code for the                            |  |
|       |   |   |  |                             |   |                        |  | mpliant)  | remote version ILM-4R<br>and the remote cable |  |
|       |   | SO1<br>TC1                                      | (Tri-  | ANadapt<br>Clamp 1          | ∕₂")  | ygieni                 | C)   |   | see product information                       |  |
|       |   | TC2<br>T25                                      |  | Clamp 2'<br>Clamp 2         |   |                        |  |   |   |  |
|       |   | TC3<br>V25                                      | (Tri-Clamp 3")<br>(Varivent type F, DN 25)   |                             |   |                        |  |   |   |  |
|       |   | V40   | (Var   | (Varivent type N, DN 40/50) |   |                        |  |   |   |  |
|       |   |   | Head orientation         H       (horizontal head orientation)         V       (vertical head orientation) |                             |   |                        |  |   |   |  |
|       |   |   |  |                             |   |                        |  |   |   |  |
|       |   |   | Signal module<br>A42 (1x 420 mA conductivity)  |                             |   |                        |  |   |   |  |
|       |   |   |  | 142<br>162                  | 2 (IO-Link and 1x 420 mA conductivity)  |                        |  |   |   |  |
|       | <ul> <li>Io2</li> <li>Io2</li> <li>Io3</li> <li>(IO-Link and 2x 420 mA conductivity/temperature selectable external range switching)</li> </ul> |   |  |                             |   |                        |  |   |   |  |
|       |   |   |  |                             | Electrical connection   |                        |  |   |   |  |
|       |   |   |  |                             | <ul> <li>P (cable gland M16x1.5)</li> <li>D (2x cable gland M16x1.5)</li> </ul>                                     |                        |  |   |   |  |
|       |   | M (1x M12 connector, 4 pin output/power supply) |  |                             |   |                        |  |   |   |  |
|       | A (2x M12 connector, 4 pin output/power supply, 5   |   |  |                             |   |                        |  | pply, 5 pin output/input)   |   |  |
|       |   |   |  |                             | C (1x M12 connector, 5 pin analog output and IO-Link)<br>R (2x M12 connector, 4 pin analog and switching output,    |                        |  |   |   |  |
|       | 3 pin IO-Link and input)  |   |  |                             |   |                        |  |   |   |  |
|       |   |   |  |                             |   | Display<br>X (without) |  |   |   |  |
|       |   |   |  |                             | <ul> <li>S (Simple User Interface with small display)</li> <li>L (Large User Interface with big display)</li> </ul> |                        |  |   |   |  |
|       | Enclosure   |   |  |                             |   |                        |  |   |   |  |
|       |   |   |  |                             |   |                        | <ul><li>X (plastic cap without sight glass)</li><li>P (plastic cap with sight glass)</li></ul> |   |   |  |
|       |   |   |  |                             |   |                        | M<br>W   | (stainless steel cap without sig<br>(stainless steel cap with sight g |   |  |
|       |   |   |  |                             |   |                        |  | Configuration   |   |  |
|       |   |   |  |                             |   |                        |  | X (default factory setting<br>S (special customer setting             |   |  |
| +     | 4   | +   | ¥  | ¥                           | ¥   | 4                      | +  | 4   |   |  |
| ILM-4 | L20 /   | S01/  | V/   | A63 /                       | D/  | <b>S/</b>              | Ρ/   | х   |   |  |

600XX / 1.3 / 2020-01-27/ MH

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