



# More process reliability in phase transition

## Inline Conductivity Meter ILM-4

### EXTENDED WARRANTY

#### Experience our quality promise:

The ILM-4, now comes with an extended warranty of 5 years. The general terms and conditions apply. For further information see [www.anderson-negele.com](http://www.anderson-negele.com)



### Benefits in production and CIP / SIP

ILM-4 with Flex-Hybrid Technology (IO-Link and 4...20 mA) enables an active, automated, and temperature compensated phase transition. This applies production processes and the CIP / SIP return of acid / caustic / water.

These fluids can be drained or returned to the recovery tanks in the highest possible grade thanks to the high precision of the inline conductivity measurement in real time. The multiple use of the cleaning media ensures maximum cost efficiency and environmental protection.

### Benefits in cleaning chemicals' control

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

### Advantages of the ILM-4

- **Minimum response time (1.2 s)** for maximum efficiency
- Ready for IoT: **digital IO-Link interface and analog 4...20 mA** data transmission in parallel
- **Precise phase transition** 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 fixed time
- **Precise concentration control of the chemicals**
- **Reliable product monitoring / quality assurance**
- **Very favorable price-performance ratio**



Remote version ILM-4R

### Technical specifications at a glance

- **Extremely compact & robust sensor**
- **Flex-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-cost basic version** to the **high-end model**
- **Wetted sensor head made of 100 % PEEK prevents thermal stress cracking**
- **Measuring range selectable: 1...999 mS/cm**
- **High reproducibility  $\leq 1\%$  of measured value**
- **Compensated detection up to 266 °F ( 130 °C), CIP/SIP cleaning up to 302 °F (150 °C) / 60 min.**
- **Remote version with Smart Replace Design:** Easy plug&play replacement of components



## SENSORS FOR FOOD AND LIFE SCIENCE.

**Modular Sensor platform with IO-Link and 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	Inductive conductivity sensor								
ILM-4R	Inductive conductivity sensor - remote version, remote cable must be ordered separately								
	<b>Submersion length of toroid</b>								
	L20	20 mm							
	L50	50 mm							
		<b>Process connection (Ⓐ: 3-A conform, Ⓔ: EHEDG approval)</b>							
	S01	CLEANadapt G1" hygienic Ⓐ Ⓔ							
	TC1	Tri-Clamp 1½" Ⓐ Ⓔ							
	TC2	Tri-Clamp 2" Ⓐ Ⓔ							
	T25	Tri-Clamp 2½" Ⓐ Ⓔ							
	TC3	Tri-Clamp 3" Ⓐ Ⓔ							
	V25	Varivent type F, DN 25 Ⓐ Ⓔ							
	V40	Varivent type N, DN 40/50 Ⓐ Ⓔ							
		<b>Head orientation (not selectable for ILM-4R)</b>							
	H	Horizontal head orientation							
	V	Vertical head orientation							
		<b>Signal module</b>							
	I42	IO-Link and 1x 4...20 mA conductivity							
	I62	IO-Link and 2x 4...20 mA conductivity/temperature selectable							
	I63	IO-Link and 2x 4...20 mA conductivity/temperature selectable, external range switching							
		<b>Electrical connection</b>							
	P	Cable gland M16x1.5							
	D	2x cable gland M16x1.5							
	M	1x M12 connector, 4 pin output/power supply							
	N	2x M12 connector, 4 pin output, 5 pin input/power supply							
	A	2x M12 connector, 4 pin output/power supply, 5 pin output/input							
	C	1x M12 connector, 5 pin analog output and IO-Link							
	R	2x M12 connector, 4 pin analog and switching output, 3 pin IO-Link and input							
		<b>Interface/Display</b>							
	X	Without							
	S	Simple User Interface with small display (not for ILM-4R)							
	L	Large User Interface with big display							
		<b>Enclosure</b>							
	X	Plastic cap without sight glass							
	P	Plastic cap with sight glass							
	M	Stainless steel cap without sight glass							
	W	Stainless steel cap with sight glass							
		<b>Configuration</b>							
	X	Default factory settings							
	S	Special customer settings							
ILM-4 /	L20 /	S01 /	V /	I63 /	D /	S /	P /	X	
ILM-4R /	L20 /	S01 /		I63 /	D /	L /	P /	X	

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