



## Type SLI03-6-S

**modular @ analyse**

### Intelligent Modular conductivity measuring unit

#### Advanced features

- ▶ Inductive Measuring system for conductivity measurement in processes
- ▶ New small compact construction
- ▶ Heavy duty in hygienic design
- ▶ Effective range free configurable, via display or software
- ▶ Housing made of high-grade steel 1.4305
- ▶ LCD display for conductivity, temperature and handling
- ▶ Extremely fast response times:  
Temperature:  $t_{90} < 9 \text{ sec.}$   
Conductivity:  $t_{90} < 1 \text{ sec. (Damping=1)}$
- ▶ FDA, EHEDG-conformal

#### Technical features

- ▶ Analogue output for conductivity and temperature, each 4...20 mA
- ▶ 14 basic measuring ranges
- ▶ 4 measuring ranges switchable externally
- ▶ Intelligent temperature compensation
- ▶ Temperature application range:  
Medium (steady): 0 °C up to 100 °C  
Medium max. (1h) 0 °C up to 150 °C
- ▶ modular process connection system
- ▶ Installation in pipings from nominal size DN 50

#### Aufbau und Wirkungsweise

The SLI 03 is an extremely compact measuring system for inductive conductivity measurement.

By using a combination of high grade steel and peek, the sensor is extremely robust!

It is available in the following mechanical versions:

- modular, hygienic process connection with polymer-free sealing system G1 "modular@process"



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für wachstum  
Zentrales Innovationsprogramm  
Mittelstand

#### Example modular process connections



Look data sheet process connections

**modular @ process**

#### Favoured fields of application are e.g.:

- ▶ Food technologie
- ▶ Chemical + Pharmaceutical industrie
- ▶ Medical technology
- ▶ Environmental technology
- Media + phase segregation, concentration adjustment
- Intensification of CIP-equipment
- Monitoring of the product quality
- Detection of production remnants in the cleaning return

#### ATTENTION!

At lower deviation of dew points water condensation is possible, that can destroy the sensor. At stress with change of temperatures, e. G. a cold water jet on the hot sensor, it can come to absorption of fluids in to the sensor. (Requirements cf. DIN EN 60068-2-14) At applications with dew point, temperature shock or thermal shock stresses we recommend a part or better to full grouting.

The tightness classification after IP68 does not mean that these parts are suitable! for applications with lower deviation of dew point or temperature shock. (DIN 60068-2-14)

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### Elektrical Data

Supply Voltage	18...32 VDC
Domestic Electricity	Max. 100mA (pulsed);
Display	parameterization, display
User Interface	3 Keys
Feature	Parametrizable via PC-Software
Application	Low cost phase separation and simple analysis tasks
Accuracy	2% from final value
Temperature Coefficient	Adjustable for every measuring range: 0...10%/K
Measuring Range Temperature	-20°C...150°C
Connection Type	2x M12 plug
Outputs	2x 4-20mA
Connections internal	none
Process Connection	G 1"
Material	SensorDip Peek/1.4404(316L) Housing/ Pressure Connect. 1.4305
Approvals	EHEDG; 3A in progress
Protection Class	IP69K; IP68
Ambient Temperature	-20°C...60°C
Process Temperature	0°C ...100°C; 150°C
Operating Pressure	10 bar
Meas.Range Conductivity	div. Meas.Ranges external switchable; 0...0.5mS/cm up to 0...999mS/cm

### Specifications Conductivity

Accuracy	+/-2% accumulated val. +/- 20 µS/cm
Reproducibility	<1% of measured value
Long time stability	+/- 0,5% of accumulated value +/- 20µS/cm
Response time	t90 < 1 sec. (Damping=1)

### Resolution of conductivity:

<1 mS/cm	1µS/cm
1...10mS/cm	10µS/cm
10...100mS/cm	100µS/cm
100...999 mS/cm	1000µS/cm

### Specifications Temperature

Resolution	0,1°C
Repeatability	0,2% of measured value
Response time	t90 < 9 sec.

### 4...20 mA Analogue Outputs:

Temperature drift	<(100...150 ppm/°C)
Accuracy	0,1% of meas. value; +/- 10µA
Range 20...50°C	<+/-0,2°C
Range-20...150°C	<+/-1,5°C
Response time	t90 < 1 seconds

### Installation

The device may only be installed in our modular process connection system „modular@process“.

### OrderCode SLI03

SLI03-06-

### High-Grade-Steel Connecting Head

With high grade steel connecting head and 2xM12 plug

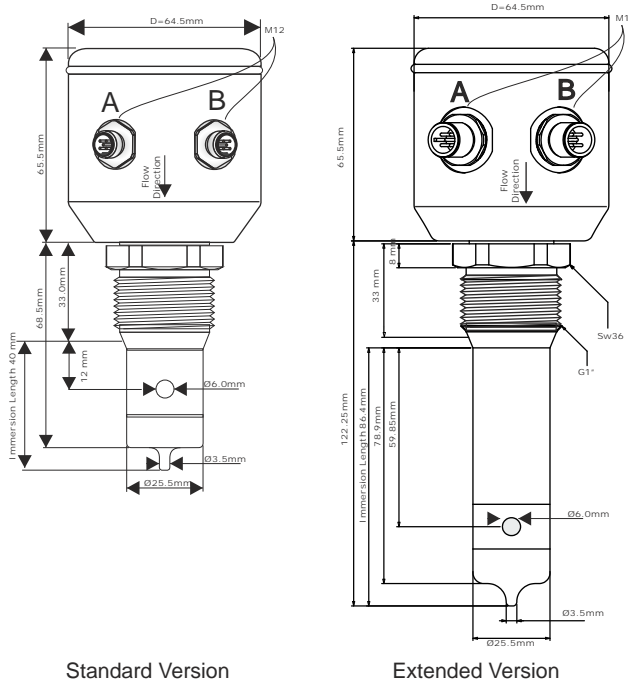
### Version

Standard (Immersion Length = 40mm)

Extended Version (Immersion Length = 86.4 mm)

S  
V

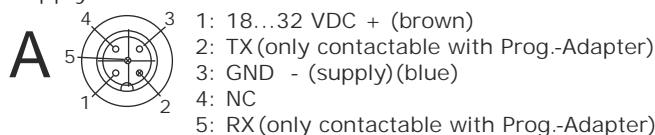
### Dimensional Drawing



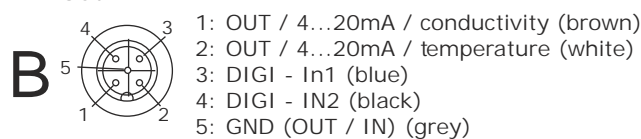
### Electrical Connection

Plug: 2 x M12 5-pole;  
no screw terminal provided

Supply



In - Out



### Accessories (optional)



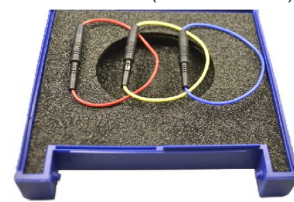
PC USB Interface (SMW-PA-M12)



M12 cableadapter for connection to PC USB Interface (ST-M12-Y-AD)



Terminal Box KGS...



Conductor loop set (FP-00357) for simulation of conductivity and test of the sensor

Stand 10/2016