



Quick-Start ILM-4

1. Application/intended use

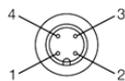
- Inductive measurement of specific conductivity and concentration of fluid media in the range of
- 0...999 mS/cm
- For use in hygienic applications of the food, beverage and pharmaceutical industries
- Not suitable for use in explosive atmospheres
- Not suitable for safety-related unit parts (SIL)

2. Wiring diagram

2.1 M12 plug connection

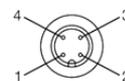
Version N (Electronics A63)
M12 connector top (4 pol.)

- 1: Output 1+
- 2: Output 2+
- 3: Output 2 -
- 4: Output 1 -



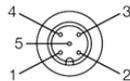
Version M (Electronics A42)
M12 connector (4 pol.)

- 1: Power supply +24 VDC
- 2: Output 1+
- 3: Output 1-
- 4: Power supply -

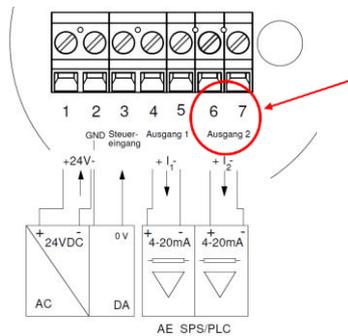


M12 connector bottom (5 pol.)

- 1: Power supply +24 VDC
- 2: not connected
- 3: not connected
- 4: Power supply -
- 5: Digital input



2.2 Cable gland



When electronics A42 (only 1 output) is selected, terminals 6 and 7 and thus output 2 and the control (terminal 3) input are disabled.

3 Delivery status

Output 1 (terminals 4 and 5 or PINs 1 and 4): conductivity 1 with measurement range 0...200 mS

Output 2 (terminals 6 and 7 or PINs 2 and 3): temperature with measuring range 0...150 °C

In the parameter list included with the sensor, the setting of the sensor for output 1 (terminals 4 and 5) can be found under **X45a**, for output 2 (terminals 6 and 7) under **X67**.

The parameters can be set either via the PC-based MPI-200 programming adapter or the Simple User Interface directly on the sensor.

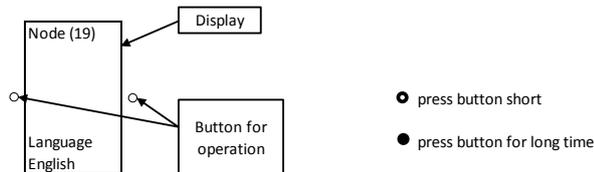
The sensor, the user interface and the software are subdivided into **Display, Electronics (signal interface)** and **Sensors (conductivity measurement)**.

4 Setting the conductivity meter to the desired parameters

The sensor can either be set directly on the device via the Simple User Interface or via a programming adapter on the PC.

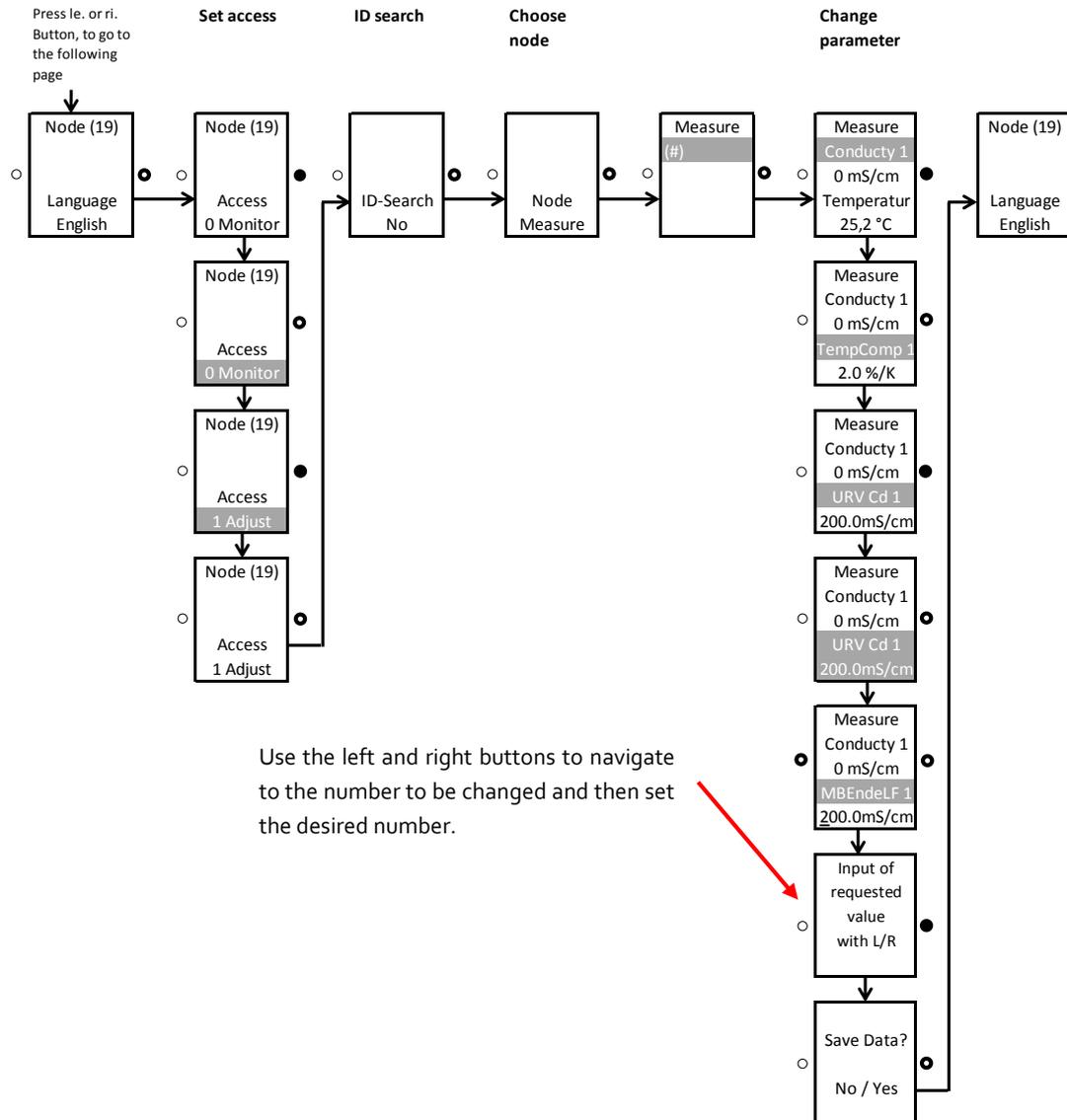
4.1 Settings using the Simple User-Interface

The interface is operated using two operating buttons to the left and right of the display. To change from the screen saver – in which the process values are displayed one after the other – to the start page, briefly press one of the two buttons. The buttons function as follows:

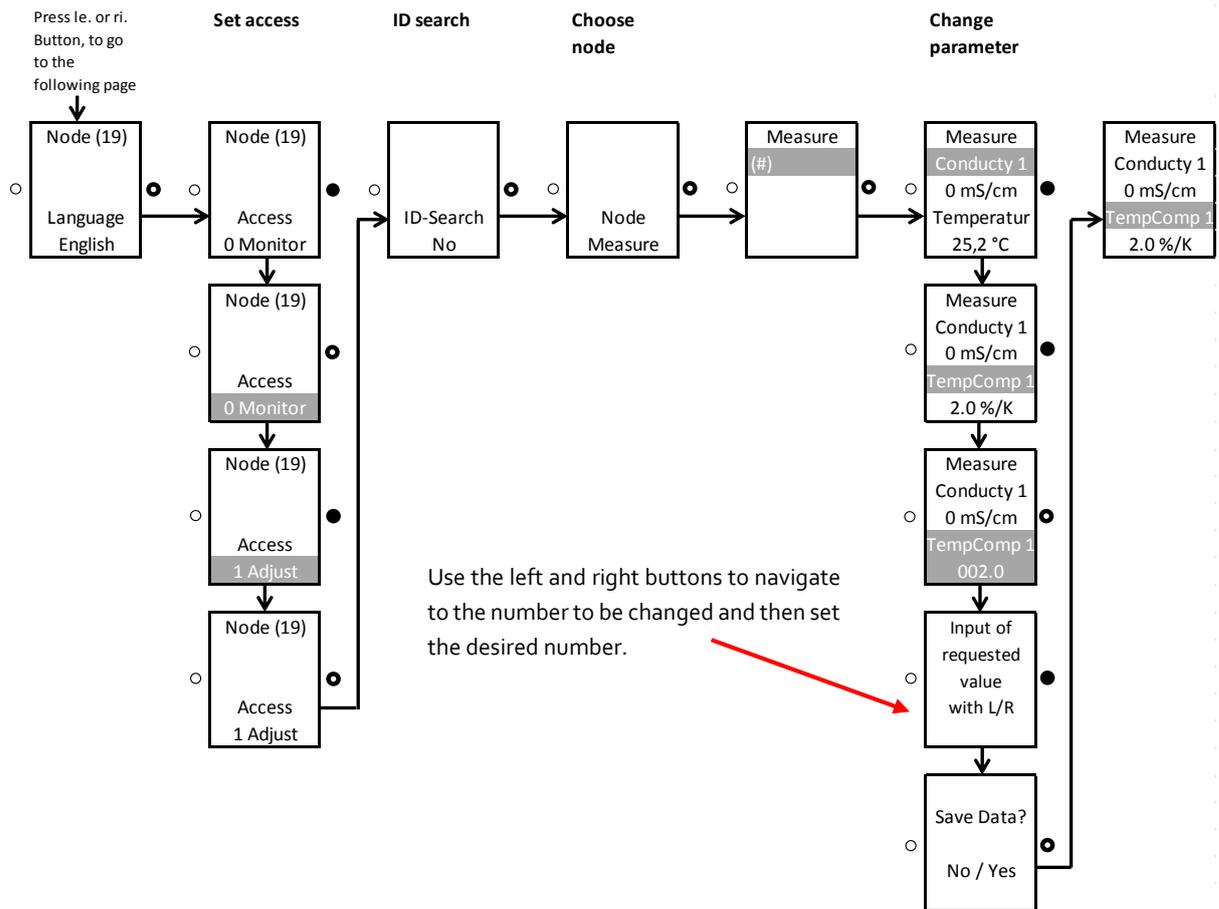


4.2 Examples for changing parameters via the Simple-User-Interface without ID-Code

4.2.1 Setting measurement range 1 to 200 m/S



4.2.2 Setting temperature coefficient 1 for conductivity 1



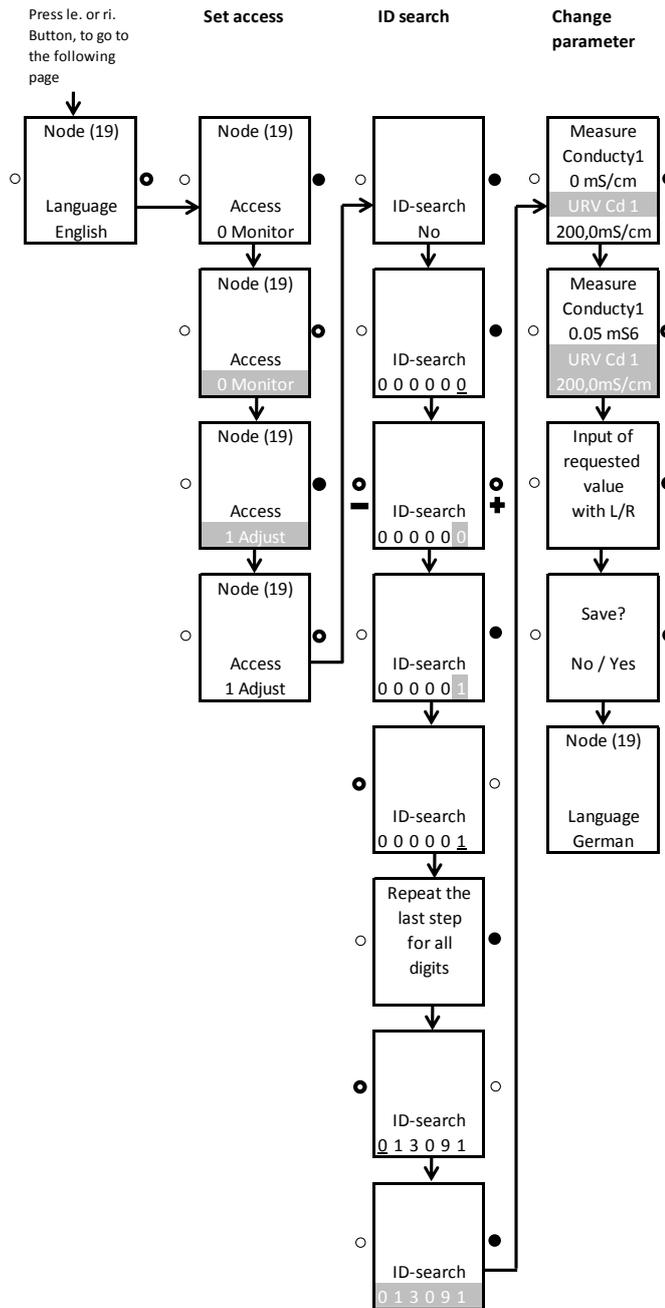
4.3 List of ID-codes for setting the sensor via Simple-User-Interface

Besides the setting of parameters via navigation it is possible to change parameters by entering ID-codes. In the following chart the most important ID-codes are listed:

Parameter / Parameter name	Access/Setup mode (must be set before the change is made)	Search number (ID number)	Node / module	Value name
Contrast	1 Adjust	451020	4 Display	(#)
Backlight	1 Adjust	451030	4 Display	(#)
Temp. Comp. 1	1 Adjust	013031	0 Measure	Conductivity 1
Range Cond. 1	1 Adjust	013051	0 Measure	Conductivity 1
Temp. Comp. 2	1 Adjust	013033	0 Measure	Conductivity 2
Range Cond. 2	1 Adjust	013053	0 Measure	Conductivity 2
Unit Temperature	1 Adjust	013144	0 Measure	Temperature
Unit Temperature coeff.	1 Adjust	013021	0 Measure	(#)
4mA Setpoint*	2 Setup	330113	3 Signal int	X67 loop signal
20mA Setpoint*	2 Setup	330193	3 Signal int	X67 loop signal

* Setting of temperature range

Example: Setting measurement range 1 to 200 m/S with ID-Code 013091:



Change of parameter via ID search: press and hold the right button, then enter the ID number from right to left.

You have to proceed as follows: a.) **Select the desired position (navigation with the right/left buttons).** At the desired position, press and hold the right button until the field becomes gray → Then enter the numerical value using the right/left buttons and confirm by pressing and holding the right button until the grey area disappears. Then enter the next digit.