INSTALLATION MANUAL

S311AK

S311AK-4-L version

Analogue panel indicator with 4-digit display

EN



DOCUMENTATION

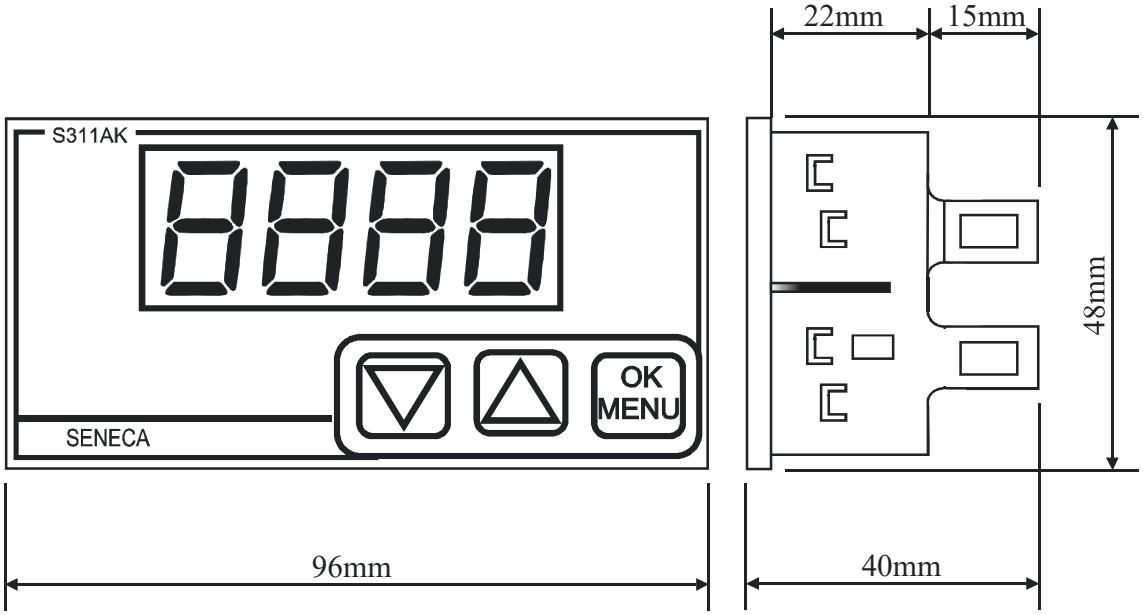
SENECA

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For manuals in other languages and the configuration software,
visit www.seneca.it/products/s311ak-4-l

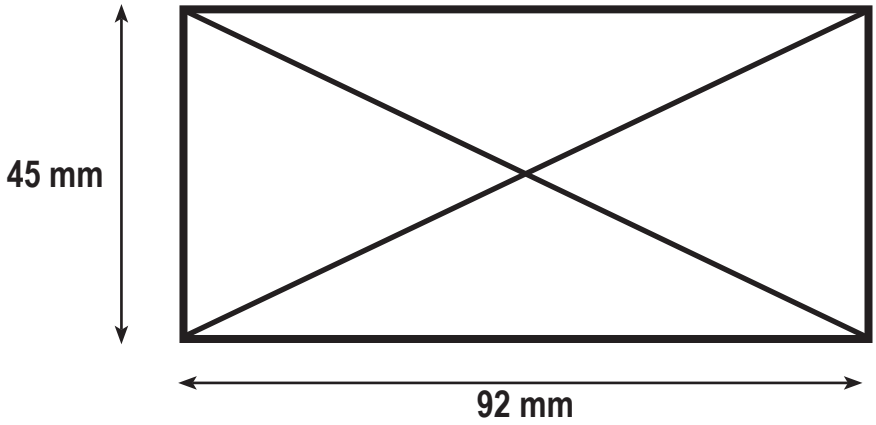
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MODULE LAYOUT



Weight: 100 g; **Enclosure:** UL94-V0 self-extinguishing PC/ABS material, black.

DRILLING TEMPLATE



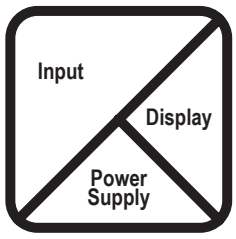
PRELIMINARY WARNINGS

The word **WARNING** preceded by the symbol ⚠ indicates conditions or actions that put the user's safety at risk. The word **CAUTION** preceded by the symbol ⚠ indicates conditions or actions that might damage the instrument or the connected equipment. The warranty shall become null and void in the event of improper use or tampering with the module or devices supplied by the manufacturer as necessary for its correct operation, and if the instructions contained in this manual are not followed.

	**WARNING:** The full content of this manual must be read before any operation. The module must only be used by qualified electricians. Specific documentation is available using the QR-CODE shown on page 1.
	The module must be repaired and damaged parts replaced by the Manufacturer. The product is sensitive to electrostatic discharges. Take appropriate measures during any operation.
	Electrical and electronic waste disposal (applicable in the European Union and other countries with recycling). The symbol on the product or its packaging shows the product must be surrendered to a collection centre authorized to recycle electrical and electronic waste.

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TECHNICAL SPECIFICATIONS

STANDARDS	**EN61000-6-4** Electromagnetic emissions, industrial environment. **EN61000-6-2** Electromagnetic immunity, industrial environment. **EN60950** Safety
INSULATION	 **—1500 Vac**
POWER SUPPLY	Voltage: 10 ÷ 40 Vdc, 19 ÷ 28 Vac; max. absorption 0.9 W
VOLTAGE INPUT	0 ÷ 10 V, input impedance 100 kΩ, resolution 10,000 points
CURRENT INPUT	0 ÷ 20 mA, input impedance ~50 Ω, resolution 10,000 points
ENVIRONMENTAL CONDITIONS	Temperature: -10°C ÷ +65°C Humidity: 30% ÷ 90% non condensing. Storage temperature: -30°C ÷ + 85°C Altitude: up to 2000 m above sea level
ERRORS REFERRING TO THE MEASUREMENT RANGE FOR INPUT VOLTAGES AND CURRENTS	
SOLUTION	16 bit, 40000 points max
ACCURACY	0.05%
THERMAL COEFFICIENT	0.005 %°K
LINEARITY ERROR	0.05%
SENSOR POWER SUPPLY	16V (Max 25mA)
CONNECTIONS	2-way removable screw terminals, 5.08 mm pitch (Supply) 3-way removable screw terminals, 5.08 mm pitch (Inputs)

INSTALLATION REGULATIONS

The module is designed to be panel mounted. For optimal operation and duration, ensure adequate ventilation.
Avoid mounting modules over heat-generating equipment.

MENU PARAMETER MODIFICATION

The modification is done digit by digit. The digit to be modified flashes: in the figure this digit is larger than the others.
The example diagram below refers to 4-digit indicators.

 Increases the value of the figure by one unit.

 Decreases the value of the digit by one unit.

 Confirms the value of the digit and moves to the next one. If last digit: confirms the value of the digit and subsequent pressing returns to the parameter just set.

N.B.: Negative values:
The last digit allows to enter even the "-" or the value "-1".

⚠ CAUTION

THE VALUES OF THE PARAMETERS ENTERED OUTSIDE THE RANGE ARE AUTOMATICALLY RESET WITHIN THE RANGE AND THEN DISPLAYED.

Example:

If parameter *HI -E* is set with a value of 40.0 this will be automatically set to the maximum value that is 20.00. The same applies to negative values.

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PARAMETER CONFIGURATION EXAMPLE

You want to set the instrument to display a 0 ÷ 10 V voltage input with activated filter:

Access the menu by pressing DOWN + MENU / OK for 3 seconds until the I .nPt menu appears;

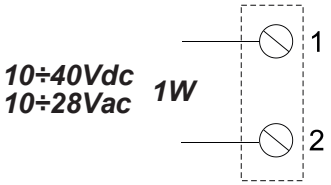
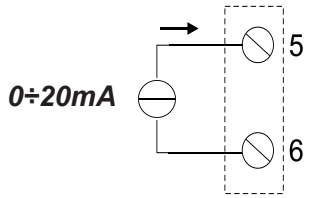
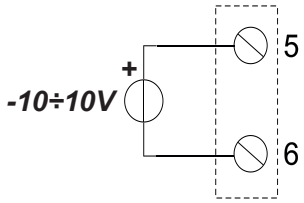
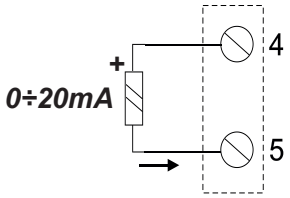
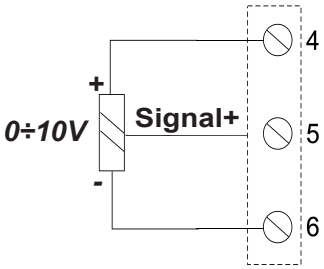
Press the OK/MENU button and access the I .nPt sub-menu and set:

tYPE = 0. LO-E = 00.00 HI-E = 10.00

Press the OK/MENU button and access the SCAL sub-menu and set:

LO-E = 0. HI-d = 1000. dP-d = 2 FILt = 1

ELECTRICAL CONNECTIONS

POWER SUPPLY	CURRENT INPUT	VOLTAGE INPUT
	 With external power supply from sensor	 With external power supply from sensor
	 With power supply supplied by instrument	 With power supply supplied by instrument

ERROR TYPE

nnnn	A) The value to be displayed is 3% higher than the HI-d parameter set. B) The value to be displayed is higher than 9999
UUUU	A) The value to be displayed is 3% higher than the LO-d parameter set. B) The value to be displayed is higher than -1999
nnnn UUUU	Quick transition from nnnn to UUUU: overcurrent protection activated (input > 25mA).

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MENU PARAMETER

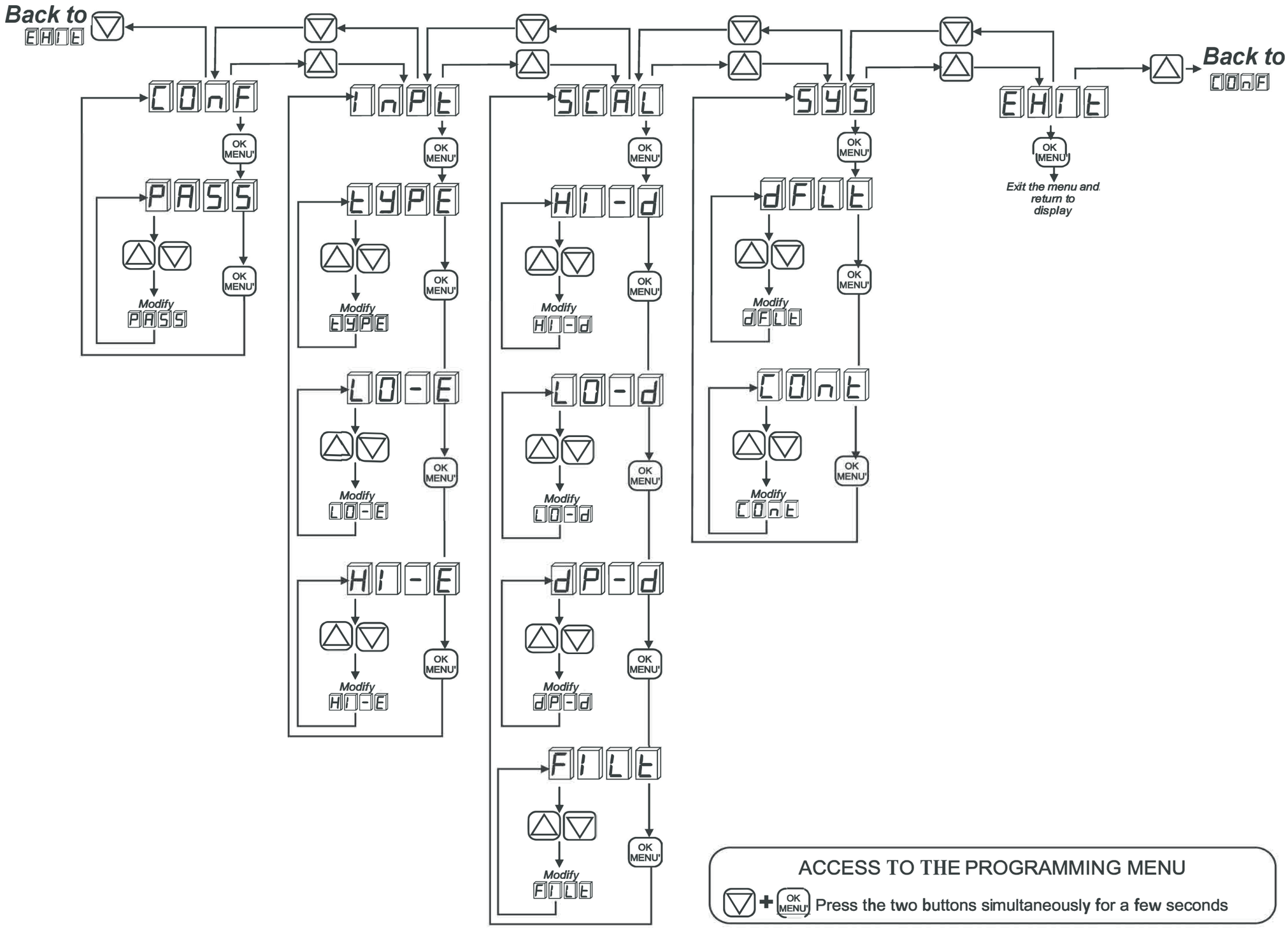
PARAMETER	FUNCTION	CONF	Default value
PASS	Password enabling for menu access	By setting a value other than 5477, the password will be requested to access the menu (always 5477)	5477: Password disabled.
PARAMETER	**FUNCTION**	**INPT**	**Default value**
TYPE	Input type	1= Current 0= Voltage	1
LO-E	Electrical Scale Start	Start of scale in volts (voltage input) or in mA (current input). It also defines the value of the input quantity associated with the minimum value shown on the display (LO-d). Minimum settable value 0 (current input), -10.00 (voltage input), maximum value 20.00 (current input), 10.00 (voltage input).	4.00 (mA)
HI-E	Electrical full scale	Full scale in volts (voltage input) or in mA (current input). It also defines the value of the input quantity associated with the maximum value shown on the display (HI-d). Minimum settable value 0 (current input), -10.00 (voltage input), maximum value 20.00 (current input), 10.00 (voltage input).	20.00 (mA)
PARAMETER	**FUNCTION**	**SCAL.**	**Default value**
HI-d	Display full scale	Integer values between a minimum of -1999 and a maximum of 9999	1000
LO-d	Start of the display scale	Integer values between a minimum of -1999 and a maximum of 9999	0
dP-d	Position of decimal point	0= No decimal point 1= Decimal point on the 1st digit 000.0 2= Decimal point on the 2nd digit 00.00 etc.	No decimal point
FILt	Filter level	0= No filter 1....5 = Filter activated with level 1 ... 5	0
PARAMETER	**FUNCTION**	**SYS.**	**Default value**
dFLt	Default settings	1 = Overwrites the set parameters with the default values and exits the menu	0
CONt	Contrast	0...3= Adjusts the display contrast.	1
PARAMETER	**FUNCTION**	**EXIT**	**Default value**
	Menu exit	By confirming with **OK \ MENU,** all the set parameters are saved on the flash memory. The module can be used immediately with the new settings without the need for a reboot.	

CONTACT INFORMATION

Technical support	supporto@seneca.it	Product information	commerciale@seneca.it

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CONt
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Exit the menu and return to display
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ACCESS TO THE PROGRAMMING MENU
Press the two buttons simultaneously for a few seconds