SENECA

S Line

EN S315
Module: Advanced loop powered analog indicator with 4 digits display.

Installation manual

Contents:

SENECA s.r.l.
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General description

The S315 can read input signal current (4-20 mA). Power supply is given by loop of measure. All parameters and display configuration can be set by menu. The input will be shown and scaled on 4 digit display according to the setup.
S315 has an excellent resolution, precision and temperature stability. The compact dimensions allow to improve the assembly in electrical switchboard.

General features

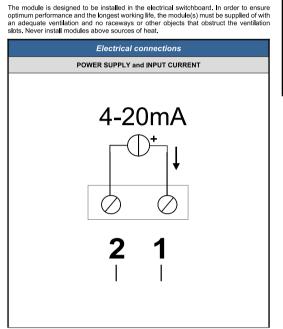| HW	✓ Power supply by loop of measure. ✓ Current Input 4-20mA. ✓ Loop voltage drop 6,2V + (50Ω x 4-20mA). ✓ ADC to 16bit. ✓ Loop powered measure (30V Max). ✓ Easy navigation on the programming menu through three buttons on the front panel. ✓ Protection index IP65 (with the provided seal).
SW	✓ Input parameters and display configuration can be setting from menu. ✓ Programming menu with password.

Technical features

POWER SUPPLY	
	By loop
Drop fall of voltage	Max 7 Volt

ERRORS REPORTED TO MAXIMUM INPUT RANGE VOLTAGE AND CURRENT MEASURED:	
Resolution	16 bit, 40000 dots max
Accuracy	0,05%
Thermal coefficient	0,005%/°K

Linearity error	0,05%
Electromagnetic interference	<1%

ENVIRONMENTAL CONDITIONS:	
Operating temperature	-10..+65 °C
Storage temperature	-30.. +85 °C
Humidity	30 ..90 % non-condensing
Altitude	Up to 2000 m above the sea level
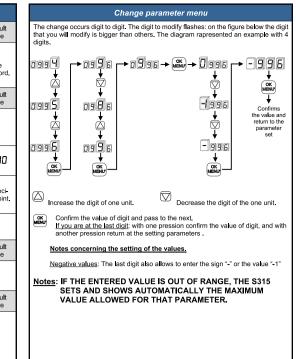
CONNECTIONS	
Terminal block	Removable 2-way screw terminals, 5,08mm pitch (Power supply)

DIMENSION / BOX	
Size (L x W x H)	96 x 48 x 40 mm
Weight	200 g
Protection degree	IP 65
Case	Plastic

ISOLATIONS / STANDARDS	
Standards	EN61000-6-4/2007 (electromagnetic emission, industrial environment) EN61000-6-2/2005 (electromagnetic immunity, industrial environment) EN61010-1/2001 (safety). All circuits must be insulated from the other circuits under dangerous voltage with double insulation. The power supply transformer must comply with EN60742: "Insulated transformers and safety transformers"

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Installation Rules

The module is designed to be installed in the electrical switchboard. In order to ensure optimum performance and the longest working life, the module(s) must be supplied of with an adequate ventilation and no raceways or other objects that obstruct the ventilation slots. Never install modules above sources of heat.

Electrical connections

POWER SUPPLY and INPUT CURRENT

4-20mA

2 1

Parameter menu

Parameter	Function	C.O.n.F.	Default value
PASS	Enable the password from the access menu	If you set a different value from 5477, the password (5477) will always be required at the start of menu.	5477: Disable password.

Parameter	Function	S.C.A.L.	Default value
LO-d	Start scale of display	Integer values between the following limits: minimum =- l999 and maximum= 9999	0
HI-d	Full scale of display	Integer values between the following limits: minimum =- l999 and maximum= 9999	1000
dP-d	Decimal point position on display	0= no decimal point 1= Decimal point in the first digit: 000,0 2= Decimal point in the second digit:	No decimal point.
FILt	Filter level	0= no filter 1....5 = Active	0

Parameter	Function	S.Y.S.	Default value
dFLt	Default setting	1= Overwrite the set parameter with default value and exit from menu.	0

Parameter	Function	E.H.I.t.	Default value
	Exit from menu	If you confirm with **OK\MENU'** the impostated parameter will be saved in a flash memory. The module is already ready to use with new setting.	

Error Types

Display	Description of errors.
n.n.n.n.	A) The value to be shown is greater than 3% regarding the value of HI-d. B) The value to be shown is greater than 9999
U.U.U.U.	A) The value to be shown is lower than 3% regarding the value of LO-d. B) The value to be shown is lower than - l999

Change parameter menu

The change occurs digit to digit. The digit to modify flashes: on the figure below the digit that you will modify is bigger than others. The diagram rapresented an example with 4 digits.

△ Increase the digit of one unit. ▽ Decrease the digit of the one unit.

OK/MENU' Confirm the value of digit and pass to the next.
If you are at the last digit: with one pression confirm the value of digit, and with another pression return at the setting parameters .

Notes concerning the setting of the values.

Negative values: The last digit also allows to enter the sign "-" or the value "-1"

Notes: IF THE ENTERED VALUE IS OUT OF RANGE, THE S315 SETS AND SHOWS AUTOMATICALLY THE MAXIMUM VALUE ALLOWED FOR THAT PARAMETER.

Parameter configuration example

If you would set the S315 with the filter and that the display shows the minimum value at **11.11** (that match 4 mA in input) and the maximum value at **99.99** (that match 20 mA in input), following the instruction below.

- Enter upon menu pressing for 3 seconds **DOWN + MENU' /OK** until C.O.n.F. menu appear (If is necessary enter the password). Press **DOWN** for next menu.
- Open S.C.A.L. menu and modify the following parameters:
  LO-d= 1111,   HI-d= 99.99,   dP-d= 2
  F.I.L.t.= 1

For a complete diagram of programming show the **page number 9.**

Terminals and buttons position

FRONTAL SIDE: BUTTONS

REAR SIDE: REMOVABLE SCREW TERMINALS

Programming Diagram

Back to EHIt

Back to COnF

Change PASS

Change LO-d

Change HI-d

Change dP-d

Change FILt

Change dFLt

Exit from menu and return to visualization modality

ACCESS TO PROGRAMMING MENU

▽ + OK/MENU' Push the two buttons at the same time for 3 seconds

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Size and dimension

S315

96,0mm   40,0mm   48,0mm

Waste disposal

CSQ - IQNet
ISO9001-2000

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