

# S LINE • Displays and Panel Mounting Units

## S312A

Indicator with universal input, analog retransmission, N.4 Relay outputs and Modbus RTU interface



CE

### Power supply Universal Input

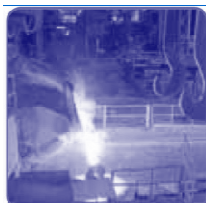
80-265 Vac; 10-40 Vdc / 19-28 Vac  
**Thermocouple** (J,K,R,S,T,B,E,N)  
**RTD** (PT100) with 2,3,4 wire connections  
**Voltage** 0..10 V  
**Current** 0/4..20 mA

### Output

**Potentiometer** 1K $\Omega$  -100 K $\Omega$   
- Analog output 0/4..20 mA, 0..10 V  
- N.4 Relays  
- Modbus RTU interface

### Configuration Operating temperature

Through free software EASY-S312A  
-10..+60 °C



➔ For further information, please visit [www.seneca.it](http://www.seneca.it)

# S312A Indicator with universal input, analog retransmission, N.4 Relay outputs and Modbus RTU interface



## ORDER CODE

<b>Model</b>	<b>S312A</b> Indicator with universal input, analog retransmission, N.4 Relay outputs and Modbus RTU interface
<b>Power Supply</b>	<b>S312A-4H-4R</b> High power supply 80-265 Vac <b>S312A-4L-4R</b> Low power supply 10-40 Vdc / 19-28 Vac
<b>Programming Kit</b>	<b>S117P1</b> (RS485-USB converter) + Easy-S312 software

## TECHNICAL FEATURES

### GENERAL FEATURES

<b>Power supply</b>	80-265 Vac; 10-40 Vdc / 19-28 Vac
<b>Max consumption</b>	3 W
<b>Channels number</b>	1 input
<b>Galvanic isolation</b>	1.5 kVac, 2 ways
<b>Tranducers power supply</b>	Max 18 V, 25 mA
<b>Programming</b>	Through Easy-S312A software
<b>Dimensions (wxhxd)</b>	96 x 48 X 88,5 mm
<b>Operating temperature</b>	-10..+60°C
<b>Connections</b>	Screw clamps (EN 60175)
<b>Approvals</b>	CE, EN 61000-6-4/2002, EN 61000-6-2/2005, EN 61010-1/2001

### INPUT

<b>Channels</b>	1
<b>Potentiometer</b>	1 K $\Omega$ .... 100 K $\Omega$
<b>Thermocouple</b>	Type J,K,R,S,T,B,E,N
<b>RTD</b>	Type PT100 with 2,3,4 wire connections, Excitation current 1,1 mA
<b>Voltage</b>	0...10 V, Input impedance 100 K $\Omega$
<b>Current</b>	0..20 mA, Input impedance 20 $\Omega$

### VISUALIZATION AND MEASUREMENT

<b>Display</b>	4 LED figures
<b>Status Indicators</b>	4 alarms led on threshold
<b>Front Buttons</b>	Three buttons for navigation and configuration also
<b>Errors on display</b>	Alarm, fault sensor
<b>Accuracy</b>	0,1%
<b>Stability</b>	0,01%/K
<b>Linearity</b>	0,2°C (Pt100) 0,5°C (TC J,K,E,T,N) 1°C (TC R, S) 2°C (TC B) 0,05% (0-10 V, 0-20 mA)
<b>Cold junction</b>	$\pm 1,5^\circ\text{C}$

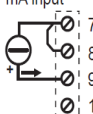
### OUTPUT

<b>Type</b>	- N.1 CH 0/4..20 mA (500 $\Omega$ load resistance), 0..10 V (1K $\Omega$ load resistance) - N.4 relays 5 A, 250 Vac - RS485 Modbus RTU interface
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## SCHEMES, PROGRAMMING

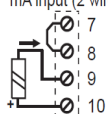
### INPUTS

#### CURRENT INPUT



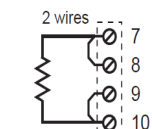
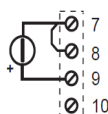
The loop is powered by the sensor

#### mA input (2 wires)

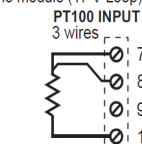


The loop is powered by the module (17 V Loop)

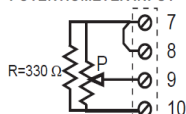
#### VOLTAGE INPUT



#### THERMOCOUPLE INPUT



#### POTENTIOMETER INPUT

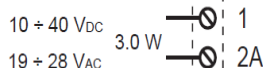


Resistance R=330  $\Omega$  (not provided), P=1 k $\Omega$  ÷ 100 k $\Omega$

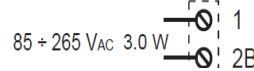
### OUTPUT & POWER SUPPLY

POWER SUPPLY: Verify the code on the applied label.

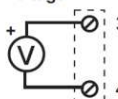
#### Code S312A-4-L-4R



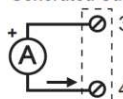
#### Code S312A-4-H-4R



#### Voltage



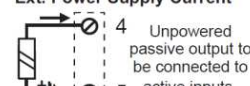
#### Generated Current



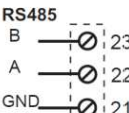
#### ANALOG OUTPUT

Active Output (powered) to connect to passive inputs.

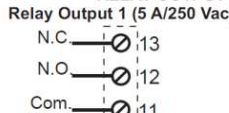
#### Ext. Power Supply Current



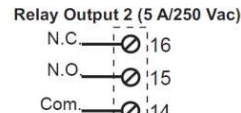
#### RS485



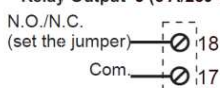
#### RELAY OUTPUT



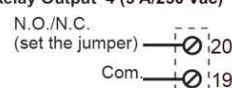
#### Relay Output 2 (5 A/250 Vac)



#### Relay Output 3 (5 A/250 Vac)



#### Relay Output 4 (5 A/250 Vac)



Default: N.O. normally open

Default: N.O. normally open



via Germania, 34 • 35127 Padova - Italy - Ph +39 049 87.05.359 (.408)  
Fax +39 049 87.06.287 • www.seneca.it • info@seneca.it

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