

S-LINE

S311A

Indicator-totaliser with universal input

S-LINE

Modular Indicator - Totaliser



4 Digits



6 Digits



8 Digits



7+4 Digits

- ▶ Display LED 4, 6, 8, 4+7 digit
- ▶ Input: mA, V, potentiometer, Pt100, TC (J, K, R, S, T, B, E, N)
- ▶ Output: - analogue mA/V
- digital, npn
- ▶ View of the instantaneous and/or integrated input value
- ▶ Power supply 80-265 Vac; 10-40 Vdc / 19-28 Vac
- ▶ Power for transducers
- ▶ Data retention on EPROM type memory
- ▶ Optional: nr 2 SPDT relay alarms, RS485 ModBUS RTU interface, reset

TECHNICAL DATA

Indicator - totalizer



GENERAL FEATURES

Power supply S311A-XX-L: 10-40 Vdc, 19-28 Vca 50-60 Hz, max 3W
S311A-XX-H: 85-265 Vac 50-60 Hz, max 3W

Max consumption 3 W

Transducers Power Supply Max 18 V, 25 mA

Rejection 50 – 60 Hz

CPU 8 bit

Memories EEPROM data memory 10 years

VISUALIZATION AND MEASUREMENT

Display LED 4, 6, 8, 11 (4+7) figures

Status indicators 2 alarms led on threshold

Front Buttons Three buttons for navigation

Errors on display Alarm, burn-out

Accuracy 0,1%

Stability 0,01%/K

Linearity 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)

Cold junction ±1,5°C

INPUT DATA

Channel 1

Type and range Voltage 0 – 10 V
Current active/passive (0-20 mA)
Potentiometer: (1K – 100K)
Pt100 2,3,4 wires (IEC 751 / EN 60751-ITS90)
Thermocouple J, K, R, S, T, B, E, N

Resolution 14 bit

Frequency Minimum sampling 20 ms

Reset Yes: by digital input and by front buttons

ORDER CODES

Modello	S311A	Indicator-totaliser with digital / frequency input
Display	-4	4 digits
	-6	6 digits
	-8	8 digits
	-11	4+7 digits
Power Supply	-H	80-265 Vac
	-L	10-40 Vdc / 19-28 Vac
Options	-O	Optional card with serial output RS485 Modbus isolated and 2 alarms relay + optoisolated digital input
	/T	Cabling and configuration service

OUTPUT DATA

Analogue channels	1
Type and Range	0-10 V (min 1K) 0-20 / 4-20 mA (max 500 ohm)
Impedance	NA
Resolution	10.000 points
Transducers Power Supply	Yes, max 20 mA
Optional Card	N° 1 serial output ModBus RTU Slave RS485 + N° 2 relay output SPDT 220 Vac 5A (resistive load), 2A (inductive load) + n° 1 digital input with reset function

THERMOMECHANIC DATA

Functioning Temperature	-10..+60 C°
Stocking Temperature	-20..+65 C°
Umidity	min 30% max 90% not condensing
Case	PPO autoextinguish by DIN 43700
Front Protection	IP65
Terminals	Extraction, step 5
Dimensions	96x48x98 mm
Drill Gauge Dimensions	91x45 mm
Weight	200 g

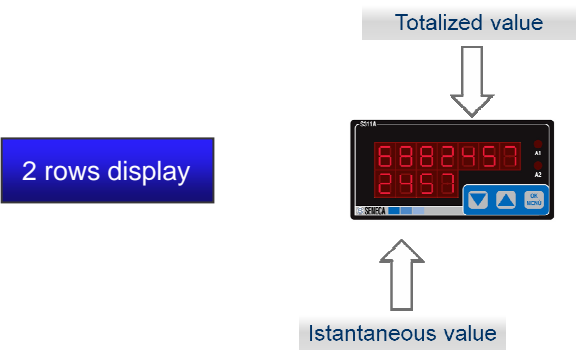
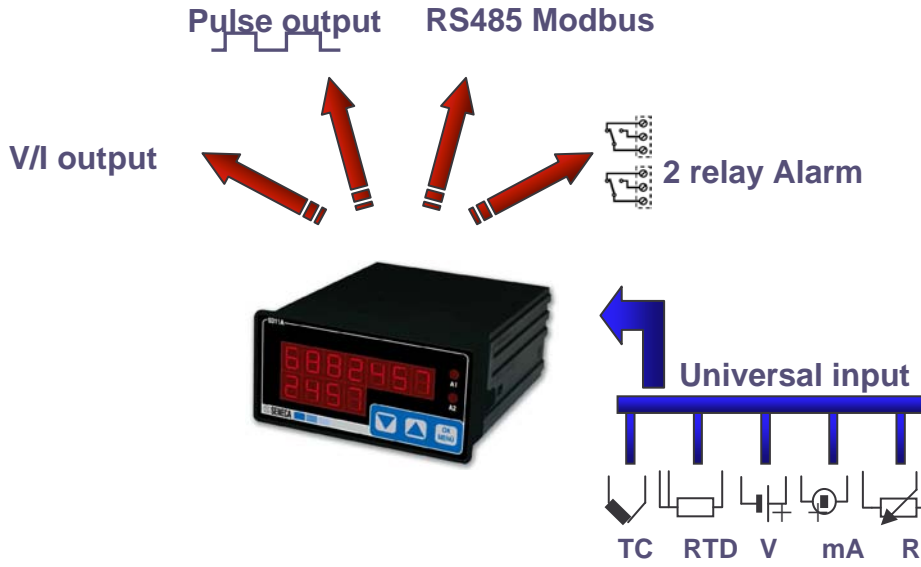
SETTINGS AND RULES

Software Settings
Menu Integrate
External Buttons

Input type, end-scale, start-scale, decimal point, visualization end-scale, visualization start-scale, filter time, alarm threshold, hysteresis (alarm), activation-deactivation alarms delay, type and scale output re-transmitted, parametres ModBUS (address, parity, delay, baud rate), contrast and display brightness, burn-out thermocouple and Pt100, integrator visualization, reset totalizer

Dip Switch Settings	No
Cabling	Yes, in factory
Compliance	EN 61000-6-4/2002, EN 61000-6-2/2005, EN 61010-1/2001

FUNCTIONS



Double functionality: indicator and totaliser

S311A-4.....

S311A-6.....

S311A-8.....

3 FUNCTIONS

- 0 – Istantaneous value and totalized: scrolling page Up/DOWN
- 1 – Just Istantaneous
- 2 – just totalized

4 different display for all kind of application: you can create your personal indicator (how many digit do you need?)

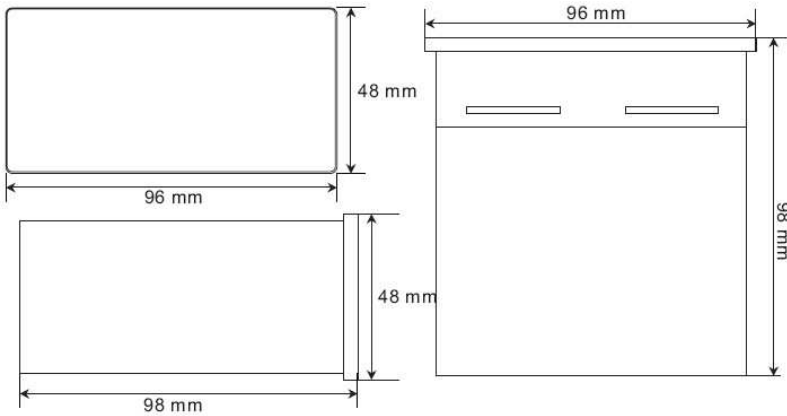
S311A-4.....

S311A-6.....

S311A-8.....

S311A-7+4.....

DIMENSIONS



CONNECTIONS

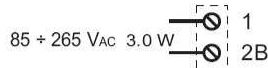
POWER SUPPLY AND INPUT

POWER SUPPLY: Verify the code on the applied label.

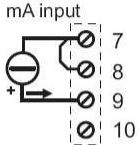
Code S311A-XX-L



Code S311A-XX-H

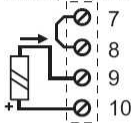


CURRENT INPUT



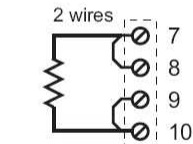
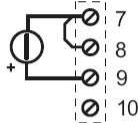
The loop is powered by the sensor

mA input (2 wires)

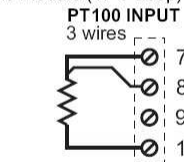


The loop is powered by the module (17 V Loop)

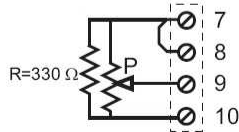
VOLTAGE INPUT



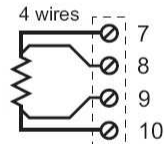
THERMOCOUPLE INPUT



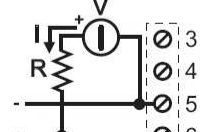
POTENTIOMETER INPUT



Resistance $R=330 \Omega$ (not provided),
 $P=1 \text{ k}\Omega \div 100 \text{ k}\Omega$

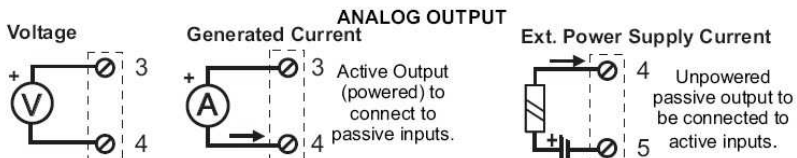


DIGITAL OUTPUT

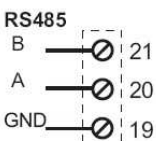


$I_{max}=V/R=50 \text{ mA}$

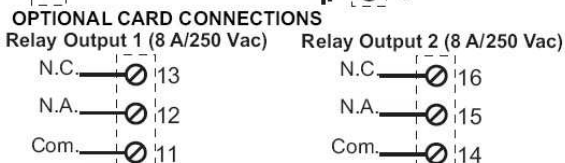
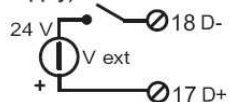
ANALOG OUTPUT AND OPTIONAL CARD



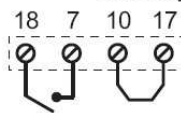
ANALOG OUTPUT



Digital Input: Integrator Reset (external power supply)



Example of Integrator Reset by digital input, Internally supplied by the module



This connection is possible only for Input 1, 2 or 3. In this case the internal power supply of the module may be used.