

- **Process input**  
(V, mA, sensor power supply, potentiometer)
- **2 insulated analog outputs**
- **Fully configurable (RS232)**
- **Simulation mode (loop calibration)**
- **Low response time: 55 ms**
- **Universal power supply**  
20 to 265 V / Vdc or 10 to 30 Vdc



**CNL23L is a digital converter for process inputs, with 2 independently configurable analog outputs (loop insulator, signals duplex, load increasing...)**

**FONCTIONALITY:**

**Measures:**

- current, from -8 mA to 25 mA in active or passive input, sensor power supply available.
  - voltage, from -20 Vdc to 50 Vdc,
  - potentiometer, from 1 kOhms to 100 kOhms.
- Each range is programmable under these limits.

**Outputs:**

The CNL 23L has 2 individually configurable analog outputs in standard:

- current, from 0 to 20 mA,
- voltage, from 0 to 10 V.

**General characteristics:**

- Switching power supply, 2 available versions:
  - low, 20 Vac/Dc to 80 Vac/dc,
  - high, 80 Vac/dc to 265 Vac/dc,
- Low consumption: 3,2 VA,
- RS232 digital link (configuration),
- Symmetrical or asymmetrical DIN rail mounting,
- Connection on 2.5 mm<sup>2</sup> screw-terminals.

**SECURITY :**

- noise immunity, better than European standard EMC,
- regeneration of internal parameters for each measurement,
- saving of the configuration settings in FLASH, safety of data holding > 10 years,
- watchdog supervising the program process,
- galvanic insulation input / outputs / power supply,
- Tropicalization varnish.

**CONFIGURATION:**

The CNL 23L can be connected via the serial RS 232 link (jack 3.5) with any system terminal, under any operating system. Free supply of cable on single request.

Warning: The RS 232 link is not insulated from input. Check if there is no hazardous voltage on input before any configuration.

Through the terminal, the user will be able to:  
visualize the measure,  
make the configuration of the device,  
shift the measure.

The configuration mode allows to choose:  
type and range of input signal,  
type and range of output signals.  
response time and burn out value of each output.

**CALIBRATION / SIMULATION :**

An external "SML20" device allows output simulation on three points (0 %, 50 %, 100 %) without complex materials using. The simulator connection, allowing loop verification, is made on RS232 link (automatic switching of converter in simulation mode, blinking led power).



**INPUT (resolution : 16 bits)**

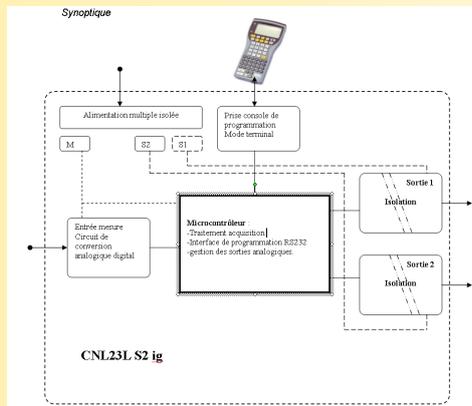
TYPE	RANGE	ACCURACY
Voltage	-20 Vdc to 50 Vdc	+/- 0.02 V
Input impedance	250 kOhms	
Current	-8 mA to 20 mA	+/- 0.01 mA
Input impedance	24 Ohms	

**AUXILIARY**

Sensor power supply	22 V smoothed (50mA)
Potentiometer reference	5 V regulated (20mA)

**POWER SUPPLY**

20 to 265 Vac/Vdc, 3.2 VA  
Protected for reverse polarity



**OUTPUT (resolution : 12 bits)**

TYPE	RANGE	ACCURACY
Current S1 and S2	0 ... 4 ... 20 mA	+/- 20 µA
Maximum load	750 Ohms	
Voltage S1 and S2	0 ... 10 V	+/- 10 mV
Impedance	500 Ohms	

Response time 55 ms

**RECOMMENDED OPERATING CONDITIONS**

Operating temperature	-10 to +60 °C
Storage temperature	-20 to +85 °C
Influence	0.004 % / °C (% of full scale)
Relative humidity	85 % (not condensed)
Weight	~ 200 g
Protection	IP20
Dielectric strength	1500 Veff continuous 2500 Veff 1 minute.

**Electromagnetic compatibility**

Generic standards: NFEN50081-2 / NFEN50082-2



EN55011	meet	group 1 / class A		
EN61000-4-2	no influence	B	ENV50140	< +/- 5 % A
EN61000-4-4	< +/- 5 %	B	ENV50141	< +/- 10 % A
EN61000-4-5	< +/- 5 %	B	ENV50204	no influence A
EN61000-4-8	no influence	A		
EN61000-4-11	< +/- 5 %	B	DBT	73/23/CEE

**WIRING AND OUTLINE DIMENSIONS:**

