PROGRAMMABLE GENERATOR

GNL 48

Totaly configurable

Total isolation

Low power

High precision: 0,1%

The GNL 48 is a programmable generator. The GNL 48 furnishing an output current or voltage, which limits and the slew rate are configurable.

FUNCTIONNALITY :

The GNL 48 furnishing
- voltage: 0-10 V,...
- or current: 0-20 mA, 4-20 mA,...

With two external buttons the user can choice the output value.

The GNL 48 is easily adaptable to all the industrial environments :

- Power supply : 110 and 230 Vac,
- Configurable output voltage or current,
- Low power : 3.2 VA,
- Wall and rail DIN mounting (Sym.).

DIALOGUE - CONFIGURATION :

The GNL 48 is configurable with a numerical connection from serial RS 232-C.

As a result of its programmation simplicity, the user is able to make a complete reconfiguration in a record time: less than one minute.

The GNL 48 generator is able to dialogue without any interface but simply with any terminal emulation system (Cable and disk supply on demand).

Transmission format :
- 9600 BAUDS
- 1 start bit, 8 data bits, 1 stop bit.

With the terminal, the user will be able to :
- Visualize the resident configuration,
- Make a new configuration of the GNL 48.

The configuration modes allows the choice of :
- The slew rate,
- Output signal type and limits,
- the initial value.

SECURITY :

The GNL 48 has been conceveid in accordance with the problems met in the industrial environment :
- Galvanic isolation Output/Supply,
- Parameters saveguard on EEPROM,
- Noise immunity,
- WATCH DOG which supervises the program process,
- Stability towards ambiant temperature variation,
- Precision 0.1 %.

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TECHNICAL SPECIFICATION :

OUTPUT SPECIFICATIONS

TYPE	SCALE	PRECISION
CURRENT	0 / 20 mA	+/- 10 µA
CURRENT	4 / 20 mA	+/- 10 µA
Max. LOAD : 750 Ohms		
VOLTAGE	0 / 10 V	+/- 5 mV

SUPPLY

110/230 Vac 50-60 Hz ± 10%,3.2 VA Max.
24 Vcc 3.2 VA Max (on demand)

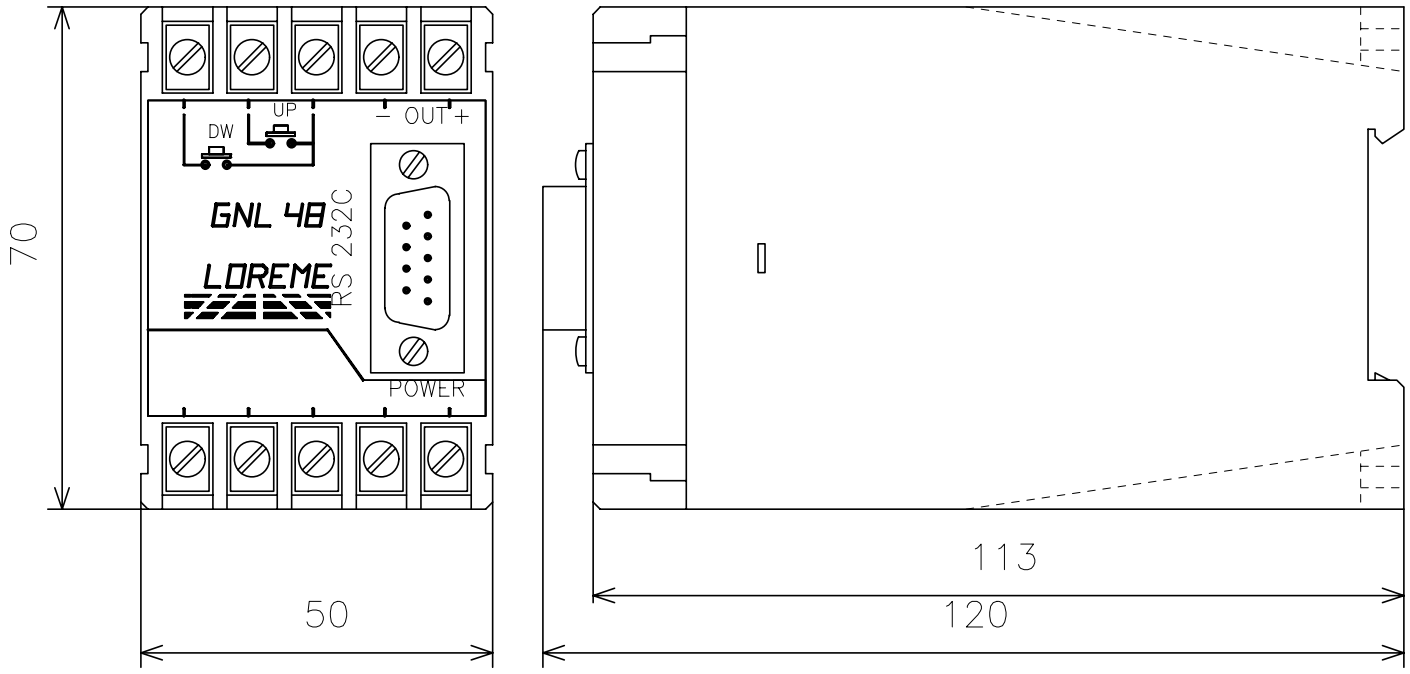
ENVIRONMENT

Operating temperature ra nge : 0 to 60°C
Storage temperature range : -20 to +85 °C
Ambient t° influence : < 0.005% / °C

Hygrometry degree : 85 % (not condensed)
Dielectric rigidity : 1500 Vac
(Supply/Output)

Immunity to electromagnetic perturbance in compliance with the CEI 801-4 / Level 3 standard

CONNECTIONS AND LITTER :



To guarantee their technical specifications we recommand a spacing of at least 5 mm beetween each appartus

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CONFIGURATION OF GNL 48

ACCESS TO TERMINAL MODE BY PSION:

Before all manipulation, put the plug "COMMS LINK" on the PSION.
To start-up the PSION, Dwell on the touch **ON** At this moment, the PSION displays a menu.

ACTION	DISPLAY	REMARKS
ON	**RECH** SAUV AGENDA CALC PROG EFFACE	Starting of the PSION
C	RECH SAUV AGENDA **CALC** PROG EFFACE	
C	DATE INFO ALARME **COPIE** RAZ COMMS	
C	DATE INFO ALARME COPIE RAZ **COMMS**	
EXE	**TRANSMIT** RECEIVE SETUP TERM AUTO	Enter in the COMMS subroutine
T	TRANSMIT RECEIVE SETUP **TERM** AUTO	
EXE	–	Enter in terminal mode.

Now you must link the PSION to the GENERATOR, by plugging in the RS 232.

ACCESS TO TERMINAL MODE BY PC:

To use GENERATOR with a PC, we must configure the PC in TERMINAL mode. For that, a terminal emulation programme called "KERMIT" (IBMâ-PC KERMIT-MS V2.26) is available. When the PC starts, (if you have this programme) type "KERMIT".

ACTION	DISPLAY
K **E** **R** **M** **I** **T** AND **ENTER**	IBM-PC kermit-MS V2.26 type ? for help kermit-MS>
S **E** **T** ␣ **B** **A** **U** **D** ␣ **9** **6** **0** **0** AND **ENTER**	kermit-MS>
C **O** **N** **N** **E** **C** **T** AND **ENTER**	[Connecting to host, type Control-C to return PC]

Now you got to TERMINAL mode, so, link the PC to the GENERATOR, by plugging in the RS 232.

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EXPLICATION OF CONFIGURATION:

REMARK: You must use CAPITAL letters for communication into terminal and generator.

For access to the menu press the touch "C".

ACTION	TOUCH	DISPLAY	REMARK	
Asked to configuration	C	CONFIGURATION		
Choice in the menu	F E	LANGUAGE --->F ---->E	Language: F rench E nglish	
		CFG. LEC RECONF ---> C ---> R		
Choice in the menu	C R	RECONFIGURATION	Read C onfiguration R econfiguration	Chapter 1 Chapter 2

1) READING RESIDENT CONFIGURATION:
The reading has been asked by action on touch "C"

ACTION	TOUCH	DISPLAY	REMARK
Output resident configuration.		OUTPUT CURRENT LOW LIMIT 4 mA HIGH LIMIT 20 mA INITIAL VALUE 4 mA	type of output Limit low and high Initialization value
		SLEW RATE 75 s	Slew rate
End of reading		RET. MENU END ---> R ---> E	Menu presentation
	R E		R eturn to head menu E nd of configuration.

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2) RECONFIGURATION:
The reading has been asked by action on touch "R"

ACTION	TOUCH	DISPLAY	REMARK	
Reconfiguration		OUTPUT O - N ?	Asked to output reconfiguration	Chapter 2.1
	N		No, menu continue	
		SLEW RATE O - N ?	Asked to slew rate reconfiguration	Chapter 2.2
	N		No, menu continue	
		RET. MENU END ---> R ---> E	Proposition of return to the begining of menu or end	
	R E	CONF RECONF --> C --> R ** OK **	Return to head menu End of configuration	

2.1) OUTPUT RECONFIGURATION:

At the question " **OUTPUT Y - N ?** " we have answered " **Y** "

ACTION	TOUCH	DISPLAY	REMARK	
Reconfiguration		CURRENT O - N ?	Proposition of output current	Chapter 2.1.1
	N		No, menu continue	
		VOLTAGE O - N ?	Proposition of output voltage reconfiguration	Chapter 2.1.2
	N		No, return to the beginig of menu	

2.1.1) CURRENT OUTPUT CONFIGURATION:

At the question " **CURRENT Y - N ?** " we have answered " **Y** "

ACTION	TOUCH	DISPLAY	REMARK
		LOW LIMIT ---> EXE	
Vaue of low limit	DIGITS AND **ENTER**	Type value	type the value (in mA) and enter
		HIGH LIMIT ---> EXE	
Value of high limit	DIGITS AND **ENTER**	Type value	Type the value (in mA) and enter
		INITIAL VALUE ---> EXE	
Initial value	DIGITS AND **ENTER**	a	Type the value (in mA) and enter

We now go to the proposition of slew rate : Chapter 2

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2.1.2) VOLTAGE OUTPUT RECONFIGURATION:

At the question " **VOLTAGE Y - N ?** " we answered " **Y** "

ACTION	TOUCH	DISPLAY	REMARK
		LOW LIMIT ---> EXE	
Low limit value	DIGITS AND **ENTER**	Type value	Type the value (in V) and enter
		HIGH LIMIT ---> EXE	
High limit value	DIGITS AND **ENTER**	Type value	Type the value (in V) and enter
		INITIAL VALUE ---> EXE	
Initial value	DIGITS AND **ENTER**	Type value	Type the value (in V) and enter

We now go to the proposition of slew rate reconfiguration : Chapter 2

2.2) SLEW RATE RECONFIGURATION:

At the question " **SLEW RATE Y - N ?** " we answered " **Y** "

ACTION	TOUCH	DISPLAY	REMARK
		SLEW RATE ---> EXE	
Value of slew rate	DIGITS AND **ENTER**	Type value	Type the value (in s) and enter

Reconfiguration is ending we can go to the begining of menu or stop configuration : Chapter 2

Remark:In configuration mode , it possible, if you see an error to return at the answered by action on "R".