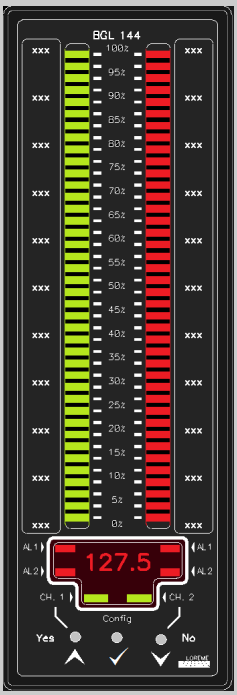
LED BARGRAPH METER single or dual channel 4...20mA, 0...10V inputs, dimensions 144 x 48mm **BGL144**

- ***Process Input:*** *mA, mV, V (Configurable)*
- ***Display:*** *40 segment LED array, 10 000 pts led display*
  Available in Red, Green, Yellow, Blue
- ***BGL144-1:*** *Single strip light with display version*
- ***BGL144-2:*** *Dual strip light with display version*
- ***BGL144-L:*** *Low cost version, without display*
- ***BGL144/R:*** *option: alarms relays*
- ***BGL144/S:*** *option: analog output 4...20mA / 0...10V*
- ***BGL144/R:*** *option: communication*
  Modbus, Profibus, Ethernet Modbus TCP, SNMP
- ***BGL144 H:*** *Horizontal mounting version*



BGL144 device is a digital bar graph that allows with it's LED bar to quickly appreciate the measure order of input as well as it's variation. The digital display provide a more accurate reading of input.

DESCRIPTION:

Inputs:
The two input channels are independently configurable for voltage or direct current measurement.
- Voltage on 3 input ranges : 0….200mVdc, 0...20Vdc, 0….200Vdc
- Current 0..4....20 mA,
(all inputs scales can be carried out in ranges limits)

Measures:
- Physical unit range conversion (custom scale in front face)
- Square root extraction
- Non linear scale (multi-segment)

Front panel:
- Measure visualization strip light; 40 segment LED array
  (two display mode : dot or bar)
- alarm threshold display with high lighting dot
- 4 digits led alphanumerical display; 10 000 points resolution
- Display of channel 1 or 2 value selectable in front panel
- indication LED for displayed channel
- Alarm status indication LED
- Three buttons keyboard for full device setting
(input type, thresholds setting, communication, output)
- keyboard locking available on RS232 link.

Relays:
Up to 4 relay outputs which can be used in alarm or regulation mode
(input current loop breaking detection)
Threshold, direction, hysteresis and delay configurable for each relays (on & off delay)

Analog output:
in option: one isolated analog output per measure channel
configurable in current or voltage: 0 ... 4 ... 20 mA ; 0...1...5...10 V
configurable response time and burn-out value for each output.

Communication interface:
Several communication protocol available in option for measure reading:
- RS485 : Modbus , Profibus
- Ethernet : Modbus TCP, SNMP

Setting:
the device is fully configurable via the front face or via RS232 link with every terminal emulating system. Example: HyperTerminal Windows
The USB-RS232 Cable is supply separately.
- Firmware update possible via the serial link.

Features:
- DIN panel case: 3/16 DIN (144mm x 48mm x 85mm HxLxD)
- fixing with lateral mounting clips
- Connection with pluggable screw or spring terminal blocks (1mm² maxi)
- Conformal coating
- protection rating IP20
- Galvanic isolation Input / output / power supply / relays / communication
- Not polarized universal AC-DC power supply

Versions and order codes:

BGL144-1:	Single channel with 4 digits display version
BGL144-2:	Dual channel with 4 digits display version
BGL144L:	Low cost version (without 4 digits display)
BGL144H:	Horizontal mounting version

OPTION :

/R1:	1 relay dedicated for channel 1, channel 2 or both
/R2:	2 relay dedicated for channel 1, channel 2 or both
/R3:	3 relay dedicated for channel 1, channel 2 or both
/R4:	4 relay dedicated for channel 1, channel 2 or both
/S:	Analog output one for each measure channels
/CM	RS485 MODBUS / JBUS link
/CP	RS485 PROFIBUS-DP link
/CMTCP	Ethernet MODBUS TCP link
/SNMP	Ethernet link SNMP protocol

Remarks:
* /R3, R4, /S, /CM, /CP, CMTCP options should not be combined !
* default display color: red

Connectors : pluggable screw terminal blocks by default
spring terminal block on request

90 days accuracy (20 °C +/- 2 °C) **THIS DATASHEET CAN BE DOWNLOADED ON** WWW.LOREME.FR

TECHNICAL SPECIFICATIONS

INPUT (12 bits resolution)

TYPE	*RANGE*	*ACCURACY*
Voltage	200 mV	+/- 0.3mV
Input impedance	>1 MOhms	
Voltage	20 V	+/- 0.015 V
Input impedance	250 kOhms	
Voltage	200 V	+/- 0.15 V
Input impedance	2 MOhms	
Current	20 mA	+/- 0.01 mA
Input impedance	100 Ohms	

Response time: 125 ms per channel (8 measures per seconds)

ANALOG OUTPUT

TYPE	*RANGE*	*ACCURACY*
Current	0 ... 4 ... 20 mA	+/- 10 µA
Maximum load	750 Ohms	

RELAYS

Changeover contact - Switching power : 1 A / 250 Vac

COMMUNICATION

Modbus RTU on RS485 from 1200 to 38400 bauds
Profibus DP on RS485 from 9600 to 1.5M bauds.
Connection : wires on 2 terminal blocks
Modbus TCP on Ethernet 10/100 base T (RJ45 connection)

POWER SUPPLY

(to be defined at order)
20 to 265 Vac / Vdc, 3 VA
9 to 30 Vdc, 3 W
Reverse polarity protected

ENVIRONMENT

Operating temperature	-20 to +60 °C
Storage temperature	-25 to +85 °C
thermal Drift	0.005 % / °C (of full scale)
Humidity	85 % (non condensed)
Weight	~ 400g
Protection rating	IP20, (IP54 in option)
Dielectric strength inputs / power supply / relays	1500 Vrms continuous
MTBF (MIL HDBK 217F)	> 4 000 000 Hrs @ 25°C
Life time	> 200 000 Hrs @ 30°C

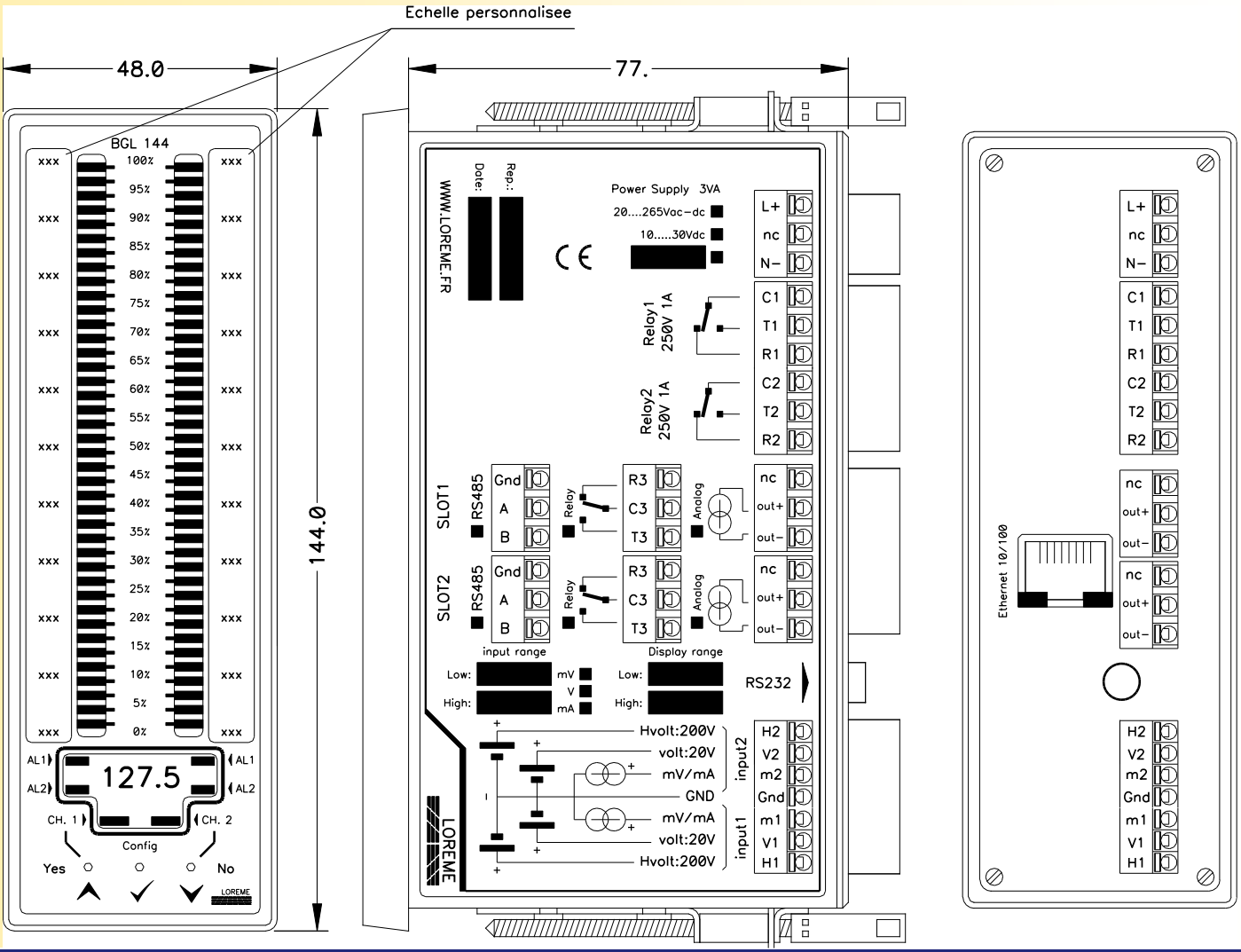
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	*EN 61000-4-8 AC MF*	*EN 55011* *group 1* *class A*
EN 61000-4-3 RF	*EN 61000-4-9 pulse MF*	
EN 61000-4-4 EFT	*EN 61000-4-11 AC dips*	
EN 61000-4-5 CWG	*EN 61000-4-12 ring wave*	
EN 61000-4-6 RF	*EN 61000-4-29 DC dips*	

CE

WIRING AND OUTLINE DIMENSIONS:

Cut-off size : 44 x 139mm



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