

• **16 digital inputs 127Vdc or 48Vdc**

- 1 output relay per input (copy of input status)
- 3 output relays of grouping alarms (2 SPDT contacts)
- choice of alarm group for each inputs
- tricolour LED for alarm group visualization

• **Memorized and fugitive alarms**

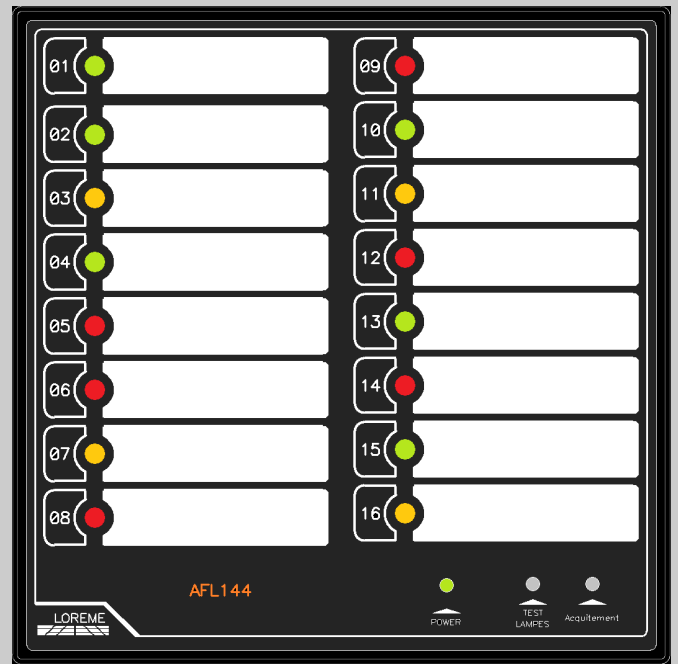
- LED status indication memorized for each channel
- Fugitive relays output for alarm groups ( pulse )
- Acknowledge in front face or by digital input
- "Test lamps" in front face or by digital input

• **Passive technology**

Increase functional safety

• **Large format : 144 x 144 mm**

• **Power supply: 127Vdc +/- 20% or 48Vdc +/-20%**



The AFL144 is an alarm annunciator, including all necessary functions to signal alarm locally or remotely: Holding alarm state, Acknowledgement, individual output and 3 alarms groups. DIN panel enclosure, the device can be directly mounted in cabinet, bay or control panel.

**Principle of operation:**

- The apparition of an alarm or a default (presence of 127Vdc - 48Vdc) causes :
  - The turning ON the LED of the corresponding channel (holding state)
  - The copy of the channel state (127V - 48V) (not memorized, follow of input state)
  - The activation of one of three alarm group relay (if selected). 3 alarms group available (named: D, N, U). Each channel have 2 pulse relay who provide a 3 seconds pulse at every new alarm occurrence on an input, allowing indication of a flood of default
- For each input, a switch is used to select the alarm group (D,N,U) or the information channel (i). The information channel don't activate the relays but drive only the display (green led with holding)
- At the occurrence of an alarm on input, the colour of the LED show the alarm group selected :
  - channel D : Green ; channel U : Red; channel N : Yellow
- A relay output (normally close) monitor the internal voltage and is activated on internal fault or power supply loss.

**Test Lamp:**

The device have a built-in test of front LEDs.  
 The outputs relays are not affected by this test procedure  
 The "Test Lamps" is possible with the front face button or by digital input (127V-48V) at the rear of device.

**Acknowledge:**

The reset is made by pressing the "Acknowledge" front panel button or by closing the digital input at the rear.  
 ( An input still active is not affected by the Acknowledge )  
 At this state, the occurrence of an other default carry the lit ON of the channel LED and the temporary activation of alarm group pulse relays.  
 When the defaults disappear, an action on the button "Acknowledge" turn OFF the LED.

**Setting :**

A switch on the rear face allows the choice of the alarm group or the inhibition of each channel.

**Front face description :**

- 2 rows of 8 tricolour LED, 5mm diameter, High luminosity.
- 1 « ACKNOWLEDGE » button
- 1 « TEST LAMPES » button
- 1 LED « POWER »
- 16 label holders for custom tag of channel

**Rear face description :**

- 16 digital inputs 127Vdc - 48Vdc
- 16 digital outputs 127Vdc - 48Vdc (copy of input status)
- 3 relays outputs, 2 x SPDT contact, pulse output (2 output for each alarm group)
- 1 relays outputs « POWER OK », changeover contact
- 1 digital input, « ACQUITTEMENT », 127Vdc - 48Vdc
- 1 digital input, « TEST LAMPES », 127Vdc - 48Vdc
- 16 switches for alarm group selection.

**Features :**

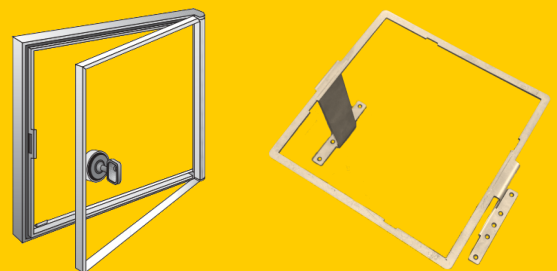
- Long life time for LED,
- plastic DIN panel case, 144 x 144 x 91 mm,
- fixation brackets,
- pluggable screw terminal blocks (1 mm<sup>2</sup> section),
- conformal coating,
- galvanic isolation input/power supply/relays
- Power supply : 127Vdc or 48Vdc +/-20%

**Version and order code:**

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- AFL144 HV:** 16 x 127Vdc digital inputs, 127Vdc power supply
- AFL144 MV:** 16 x 48Vdc digital inputs, 48Vdc power supply

**option:** IP55 front face protective cover, surface mounting bracket

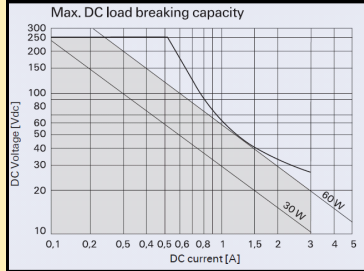


**DIGITAL INPUTS**

Type : Voltage  
 polarization internal voltage 127 / 48 Vdc typical +/- 10%  
 Input impedance ~ 10Kohms  
 inrush current ~ 10 mA

**RELAYS**

isolated changeover contact 2500 Vac  
 switching power 3A / 250 Vac  
 mechanical life time 15 x 10<sup>6</sup> operations  
 electric life time 3 x 10<sup>5</sup> @ 230Vac 0.5A  
 DC switching power : (graph below)



time rising / falling 5ms / 5ms  
 Pulse duration (fugitive output) 3sec typical +/-20%  
 Recovery time 10 sec. maxi

**POWER SUPPLY**

universal : 127Vdc +/- 20% or 48Vdc +/- 20%, 8 VA

**ENVIRONMENT**

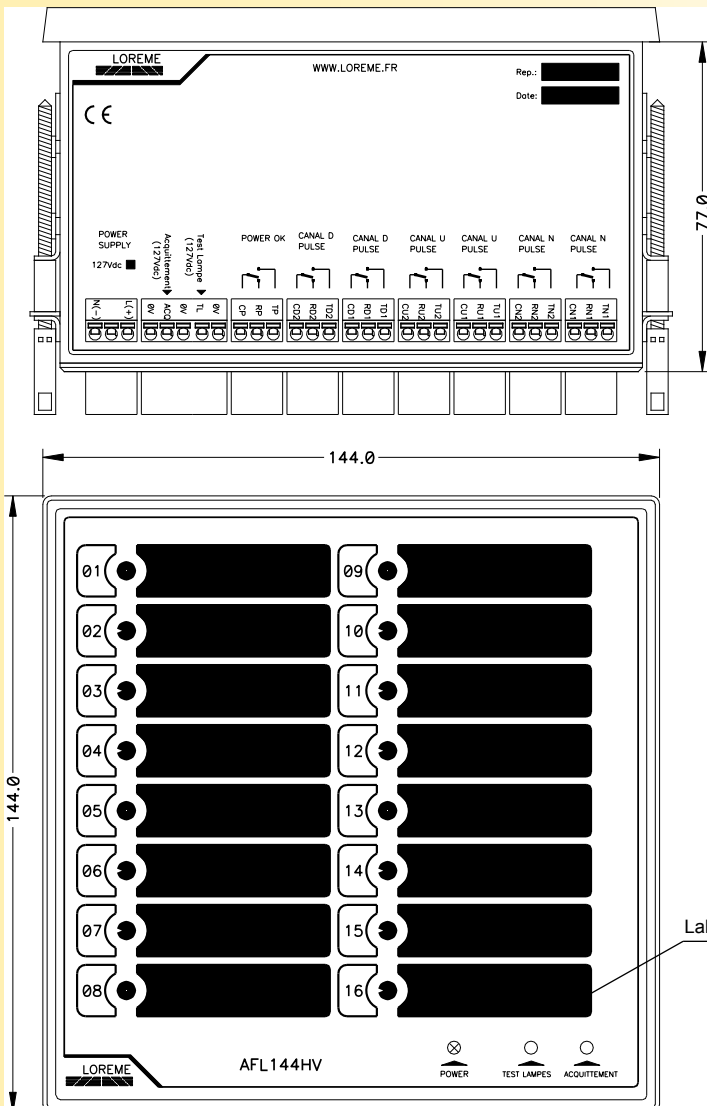
Operating temperature -20 to 60 °C  
 Storage temperature -25 to +85 °C  
 Humidity (non condensed) 85 %  
 Weight ~ 500 g  
 Protection rating IP20  
 Dielectric strength inputs / power supply / relays 2500 Vac continuous

**Electromagnetic compatibility 2004/108/CE / Low Voltage Directive 2006/95/EC**

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	

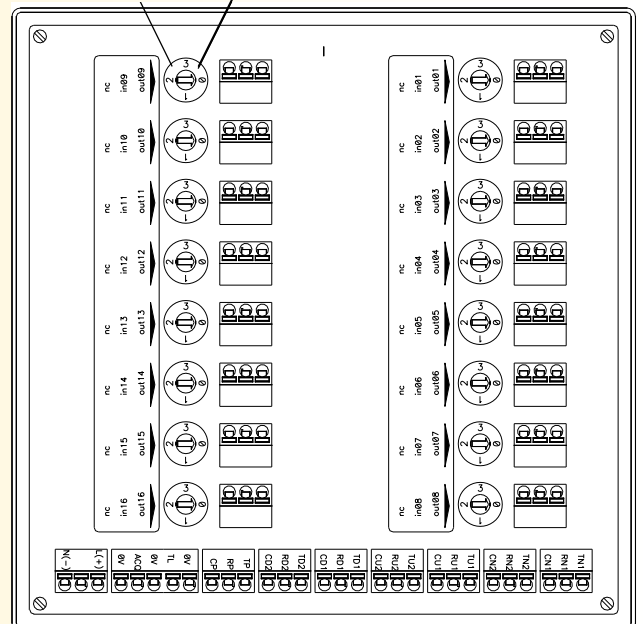


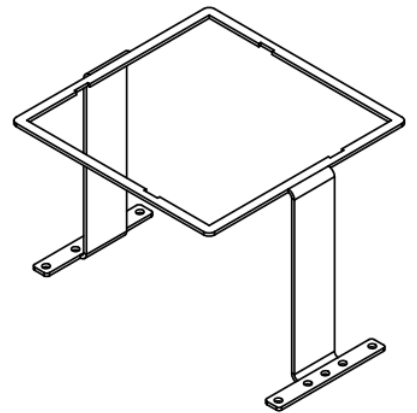
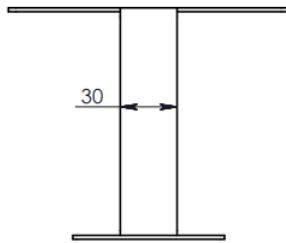
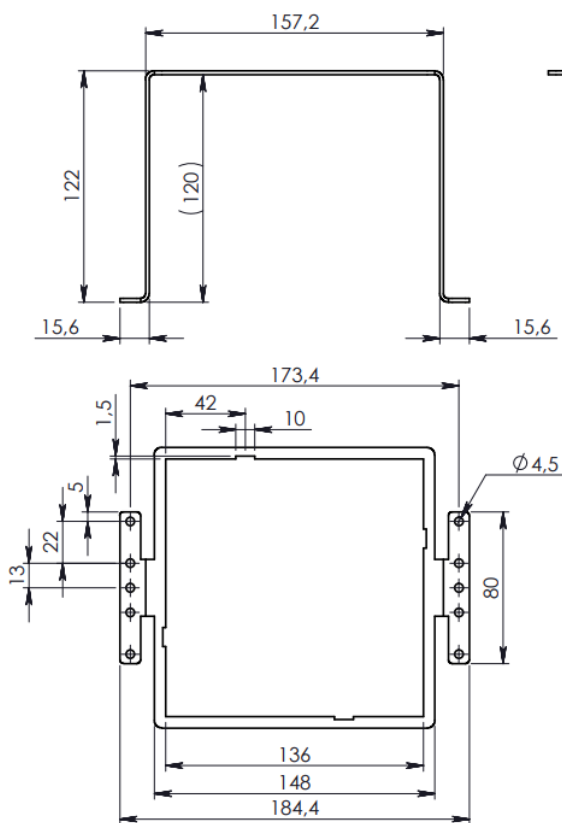
**WIRING AND OUTLINE DIMENSIONS:**



**Remark :**  
 The input are isolated from power supply.  
 Do not forget to wiring the 0V pin on the "Acknowledge/test lamps" terminal block.

Selection switch for alarm group  
 "0" position: I alarm group (green led, no relay activation)  
 "1" position: D alarm group (green led)  
 "2" position: U alarm group (red led)  
 "3" position: N alarm group (yellow led)





Material: 20/10 stainless steel sheet