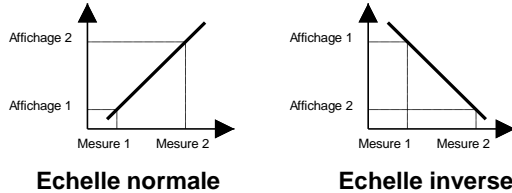


1. Operation

1.1. Display range

Setting the display range allows the input signal to be scaled to obtain a reading in the desired unit. This consists of defining 2 measurement points/display to establish a proportional relationship between the input signal value and the display value.



It is always preferable to choose the 2 measurement/display points at both ends of the signal evolution to obtain the best possible accuracy. The coordinates of these 2 points can be entered directly from the keyboard or by learning by matching a value measured by the indicator to the displayed value.

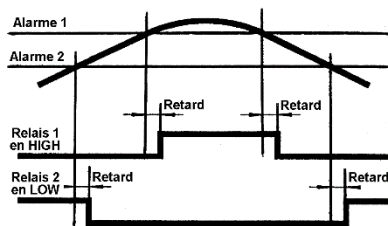
1.2. Alarm outputs

The indicator has 2 optional alarms with relay outputs. The activation of the outputs is programmable in HIGH mode, i.e. when the displayed value passes the threshold in the increasing direction, or in LOW mode, i.e. when the displayed value passes the threshold in the decreasing direction.

The operating mode of the alarms is also programmable:

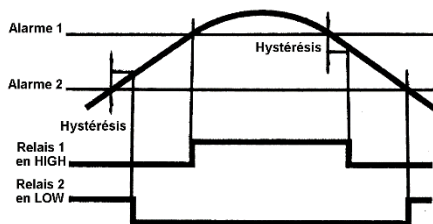
a) Delayed action

The time delay acts on either side of the alarm threshold when the display value passes through it in an ascending or descending direction. This delay can be programmed in seconds from 0 to 99.

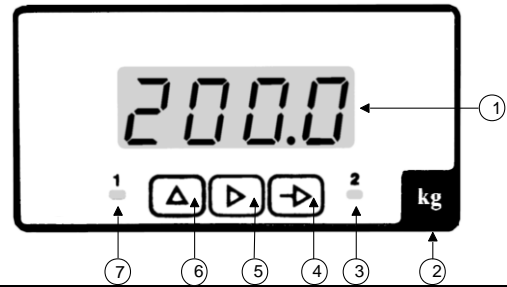


b) Hystérésis asymétrique

L'activation de la sortie est immédiate lorsque la valeur d'affichage passe par le seuil d'alarme ; par contre la désactivation de la sortie est effectuée après la bande d'hystérésis programmée en unités d'affichage de 0 à 9999.



2. Keyboard and display presentation



N°	Designation	RUN function	PROG function
1	DISPLAY	Data display area	
2	LABEL	Slot for sticking the unit label	
3	LED 2	Activation of output 2	Program. alarm 2
4	← key	Entering PROG mode	Selection of the lines to be programmed
5	▶ key	Display of MIN and MAX values	Selection of the digit to be modified
6	Δ key	TARE registration	Incrementing of the selected digit
7	LED 1	Activation of output 1	Program. alarm 1

3. Consultation and programming

CONSULTATION mode

The indicator is in this mode when the power is turned on. It is in this mode that the values of the 2 alarm thresholds can be consulted and modified.

MAX/MIN key

Each press of this key displays the MAX and MIN values in succession and then returns to the display of the current measurement value. The displayed MAX or MIN value can be reset by pressing and holding the key for 3 seconds. The MAX and MIN values are saved in the event of a power failure. The display of these values can be disabled by programming, see chapter 5 - Programming access control

TARE key

The display can be reset at any time by pressing the TARE key (Δ) and the input signal value is stored as an offset; as soon as a tare is detected, the decimal point of the right digit flashes on the display. The TARE memory can be reset by holding down the TARE key for 5 sec. The TARE function can be disabled by programming.

PROGRAMMING mode

The programming mode allows you to fully configure the operation of the indicator. It is divided into 3 modules identified by a name on the display :

- InP input configuration
- dSP display configuration
- SET configuration of alarm outputs

Access to the programming mode, to a configuration module and the scrolling of the different lines to be programmed is done with the ← key.

The selection of a configuration module to be programmed, an operating option or a digit to be changed is made with ▶.

The selected digit is incremented with the **▲** key

Operating mode

1° Press the button **→** once, [Pro] is displayed and LEDs 1 & 2 flash. Press the **→** key a second time to go to the selection of the module to be programmed.

2° Use the **▶** key to select the module to be programmed, the identification of the different modules is made by a name.

3° Confirm the selected module with the **→** key and program the different lines with the buttons **→**, **▶** and **▲**

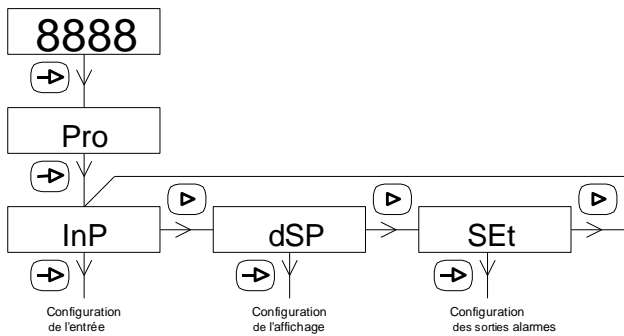
After programming a module, the memo indicator memorizes the changes by displaying the [Stor] message during saving, and automatically exits the programming mode.

4° If necessary, program the other modules.

5° Lock the programming mode, if necessary, by removing the programming lock jumper located on the base board inside the unit. See at the end of this guide for the procedure to open the indicator housing.

Once the programming is locked, it will still be possible to access the various configuration modules to check their contents. In this case, [DATa] will be displayed instead of [Pro] when entering the programming mode.

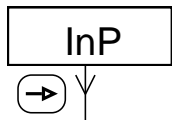
Synoptic display of the configuration modules



The alarm output configuration module is only accessible if the indicator is equipped with the corresponding option.

2.1. Keyboard display range

1. Input configuration



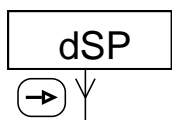
Input range selection

- Maximum voltage 30 mV
- Maximum voltage 300 mV

Sensor power supply

- 10 VDC
- 5 VDC

2. Display configuration



In the first step of the module you can select **▶** key. It is identified by a name.

Display range settings

- Keyboard mode
- Teach-in mode
- Stabilization filter



Value of the 1st measuring point

- Programmable value from -9999 to 9999
-

Value of the 1st display point

- Display value for the input signal value defined in the previous step, programmable from - 9999/-1999 to 9999
-

PD of the 1st display point

- Position of the decimal point for the previously programmed display value

Value of the 2nd measuring point

- Programmable value from -9999 to 9999
-

Value of the 2nd display point

- Displayed value for signal value input defined in the previous step, programmable from -9999/-1999 to 9999; the position of the decimal point is fixed by the decimal point of the value of the 1st display point.
-

2.2. Teachable display range

TEACH



InP1

Value 1st measuring point

0000

The value of the signal applied to the input is taken into account

dSP1

Value 1st display point

0000

Programmable value from -9999 to 9999

Decimal point of dSP1

00.00

Position of the decimal point for the dSP1 value defined in the previous step

InP2

Value 2nd measuring point

0000

The value of the signal applied to the input is taken into account.

dSP2

Value 2nd display point

0000

Display value for the input signal value defined in the previous step, programmable from -9999/-1999 to 19999; the position of the decimal point is fixed by the decimal point of the value of the 1st display point.

2.3. Stabilization filter

FILtP



Filter value

0

Programmable value from 0 to 9 using the **▶** key

The stabilization filter prevents unwanted fluctuations in the display. Increasing the value of the filter results in a smoother response of the display to changes in the input signal. A value of 0 deactivates the stabilization filter.

3. Configuration of alarm outputs

SEtP



In the first step of the module you can select **▶** key. It is identified by a name.

SEt1

Limit comparator no.1

SEt2

Limit comparator no.2

3.1. Limit comparator no.1

SEt 1



Threshold value

0000

Programmable from -9999 to 9999

Limit comparator activation

Hi

Output activation as HIGH

Lo

Output activation as LOW

Etat au repos des sorties relais

no

Normally Open

nc

Normally Closed

Output mode

dLY

Delayed action

HYS

Hysteresis

Configuration value

0000

Programming of the delay (dLY) from 0 to 99.9 sec or hysteresis (HYS) in dots over the entire display range

3.2. Limit comparator no.2

The configuration principle is identical to limit comparator 1, and so on, up to output no.4.

4. Programming of alarm thresholds

This programming is independent of the programming of the configuration modules and can be carried out at any time.

Operating mode

1° Press the **→▶** key, and [Pro] is displayed.

2° Press the **▲** key to access the modification of the first threshold.

SEt 1

Alarm no.1

0000

Value of threshold no.1, to be modified using the **▶** and **▲** keys.

3° Press the **→▶** key to access the 2nd threshold.

SEt 2

Alarm no.2

0000

Value of threshold no.2, to be modified using the **▶** and **▲** keys.

4° Press the **→▶** key to confirm the programmed thresholds and return to consultation mode.

5. Programming access control

To prevent unintentional changes to the indicator's programming, the programming can be protected :

- Totally restricted.

Once the programming is locked, it will still be possible to access the various configuration modules to check their contents. In this case, [DATA] will be displayed instead of [Pro] when entering the programming mode.

- **Partially restricted**, by selecting the configuration modules to be locked. Once the programming is locked, it will still be possible to access the different configuration modules to check their contents.

Operating mode

1° Press the **→▶** key for 3 seconds, and [CodE] is displayed.

2° Entering the access code protecting the programming access control configuration module. The default factory code is "0000".

Value to be entered using **▶** and **▲** keys.

3° The next step in this module allows you to select with ► key. It is identified by a name.

- LiSt** List of editable menus and sub-menus
- CHAn** Changing the access code

LiSt



- tLoC** **Programming lock**
- No** Partial: the sub-modules can be configured independently
- YES** Total: the indicator memorises the option and exits programming mode

- SEt1** Configuring threshold 1
- SEt2** Configuring threshold 2
- InP** Input configuration
- dSP** Display configuration
- tArE** Setting the TARE key
- MAH** Devaluation of MIN/MAX values to the display

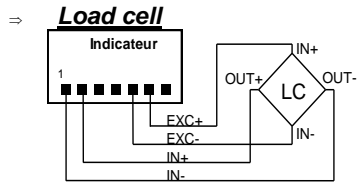
Lines SEt1 and SEt2 only appear if the indicator is equipped with the alarm output option.

CHAnG



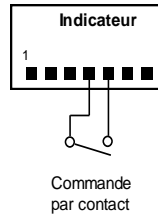
- 0000** **Access code**
- If the access code is changed, the indicator stores the code and exits programming mode.

Examples for connection

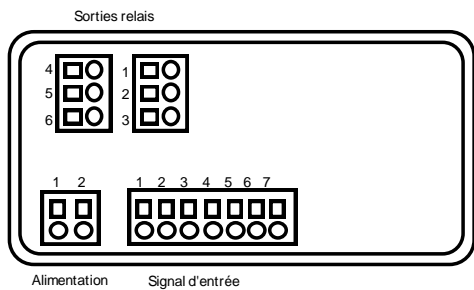


Only one load cell can be connected directly to the indicator. The sensor excitation voltage delivered by the indicator must be 5 V or 10 V / current max. 30mA. If several load cells are used, they must be connected in parallel with an external power supply.

External TARE



6. Connection



Power supply

Version	VAC	VDC
Pin 1 :	L	-
Pin 2 :	N	+

Signal d'entrée

Pin 1 :	IN -
Pin 2 :	30/300 mV IN+
Pin 3 :	NC
Pin 4 :	TARE +
Pin 5 :	Sensor power supply - / TARE -
Pin 6 :	Sensor power supply +
Pin 7 :	NC

Sorties relais

Pin 1 :	NO switch	relais 1
Pin 2 :	com	
Pin 3 :	NC switch	
Pin 4 :	NO switch	relais 2
Pin 5 :	commun	
Pin 6 :	NC switch	