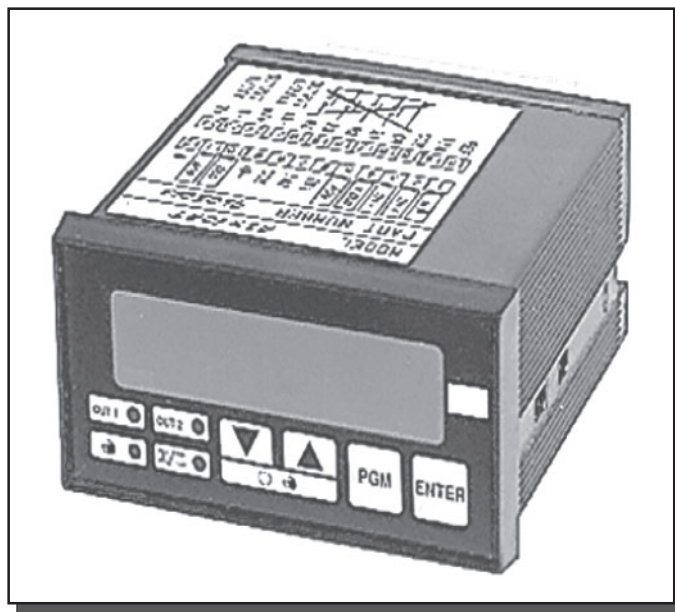


AGRITHERM10

Display and control unit inside silos temperature detected system

Technical data

Case:	panel mount 48x96 frontal IP54 for external installation with enclosure IP65
Case material:	Noryl
Keyboard:	4 membrane pushbuttons
Display:	5+1 digit, max displayed value +99999
LEDs :	4 red
Connections:	2 terminal strips, 12 pole
Power supply:	115/223Vca; +-10% depending on model
Power consumption:	3,3VA (3W)
Measuring input port:	RS485 for MUX units connection
Data memory:	EEPROM
Alarm limits:	2 relays
Relays rating:	5A 250V
Converter resolution:	+/- 20000 punti
Linearity:	0,0025%
Operating temperature:	-10°C ÷ +50°C
Conformity to CEE guidelines:	93/68 CEE



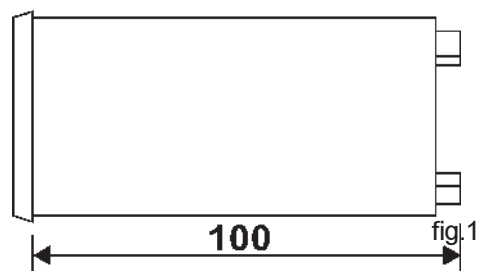
AGRITHERM 10 is designed to detect the temperature inside in the **CEREAL** silos.
By means a serial communication type **RS485** with the multiplexer unit **MUX** (inside in the BOX.), AGRITHERM 10 display the individual temperature of each **point** of each **TT** or **TH** rope **sensor** of each **silos**.

AGRITHERM10 Models

AGRITHERM10

	Power supply
1	230Vac 3VA -15 +10%
2	24Vac 3VA -15 +10%
	Alarm limits
2	2 Relays
	Accessories
IP54	Frontal window protection
IP65	Frontal window protection

AGRITHERM10 Mechanical



The AGRITHERM10 is a 48 x 96 panel instrument for mounting in a 45 x 92mm template. Installation depth is 100mm connection terminals included.



TT.. sensor, original mechanical system for long time stability

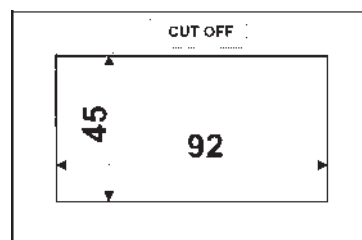


fig.2



AGRITHERM10 Configuration

Following to the order information, the AGRITHERM 10 unit must be intended as **factory-configured-device**. Consequently **it isn't necessary to configure the instrument during the start-up.**

The above performance makes the AGRITHERM10 a easy unit to be connected and to be use without any further calibration or others it can be named "plug and play unit"

AGRITHERM10 Operating mode

3 operating mode are possible:

" 0 " RANDOM ACCESS

" 1 " MANUAL SEQUENTIAL

" 2 " AUTOMATIC CYCLING / SEQUENTIAL

" 2 " CYCLING / SEQUENTIAL.,

automatic temperature reading scrolling each point of each sensor rope TH..

So programmed the AGRITHERM 10 doesn't require any push-button pressing. The temperature value of each singular point of each sensor will be displayed starting from point 1 of sensor 1 up to the the last point of the last sensor. After the reaching the ended point the system automatically restart from the begin.

Every point first will be displayed as a configured name and than after 1s the relevant temperature value.

Example:

The AGRITERM 10 shows:

n001P01 and successively **20.5** = (SENSOR 1 POINT n 1 20,5 Celsius relevant temperature value)

n001P02 and successively **21.5** = (SENSOR 1 POINT n 2 21,5 Celsius relevant temperature value)

n001P03 and successively **20.5** = (SENSOR 1 POINT n 3 20,5 Celsius relevant temperature value)

n001P04 and successively **22.5** = (SENSOR 1 POINT n 4 22,5 Celsius relevant temperature value)

n002P01 and successively **20.5** = (SENSOR 2 POINT n 1 20,5 Celsius relevant temperature value)

n001P01 and successively **19.5** = (SENSOR 2 POINT n 2 19,5 Celsius relevant temperature value)

Don't forget that point n.1 is in the upper part of the Sensor rope TH..

AGRITHERM10 Operating mode

In any moment is possible to change the operative mode of the AGRITHERM10.

For instance, from

" 2 " **AUTOMATIC CYCLING/SEQUENTIAL** to

" 0 " **RANDOM ACCESS** or " 1 " **MANUAL SEQUENTIAL**

" 0 " **RANDOM ACCESS,**

selection by-means push-buttons, the selected sensor number and point number to have the display of the temperature of the relevant point

" 1 " **MANUAL SEQUENTIAL,**

by pressing the arrow key it is possible to scroll from the displayed point to the successive sensor point

AGRITHERM10 Change operating mode

The selection of the operating mode can be made pressing the **PGM** key,

than will display

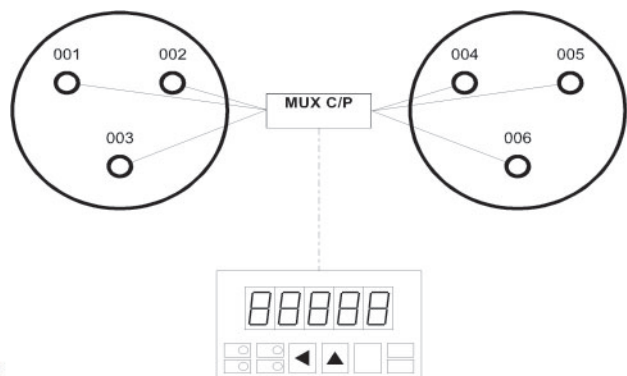
C 000000

put the **210** number (access code)

using the keys up and down to increment or decrement the flashing digit and the arrow for left shifting to move at the new left digit.

After the number 210 is editing press **ENTER** key.

Now the unit display, will show the present operating mode, you can modify the number using the up and down key and again **ENTER** to confirm the new operating mode.



AGRITHERM10 Relays alarm setting

Agritherm10 has 2 relays R1, R2 addressable to two temperature set-points-alarm:

SEt1 and SEt2 (SEt1<SEt2)

SEt1 must be considered a "warning temperature" while SEt2 a "dangerous-temperature"

To set the above temperature set-points, press the **PGM** key, than will display

C 000000

put the **222** number (access code) and confirm with **PGM** key again.

The display will shows **SEt1** and successively its value, using the keys up to increment the flashing digit and the arrow for left shifting to move at the new left digit put the temperature value you need and press **PGM** key to set the **SEt2** value in the same way, press **ENTER** key.to exit. (suggested value: SEt1=35.0°C; SEt2=45.0°C).

To address the set-points action to the relevant selected relay, press the **PGM** key, than display will shows

C 000000

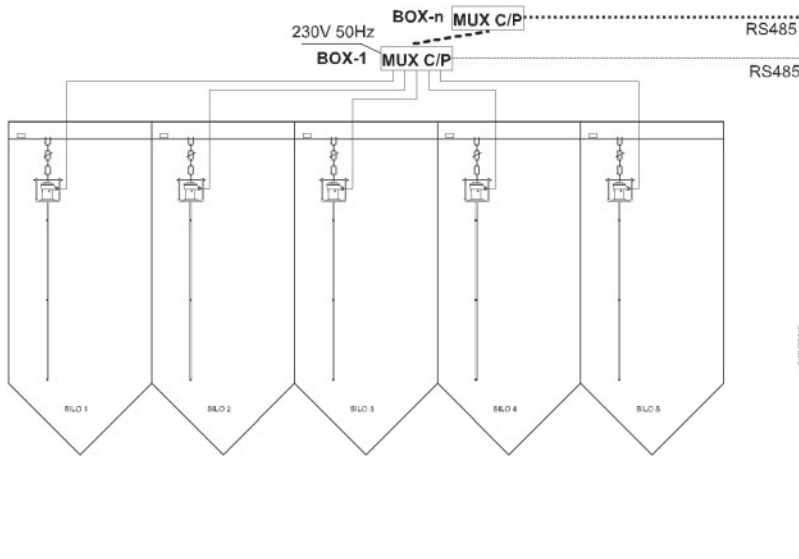
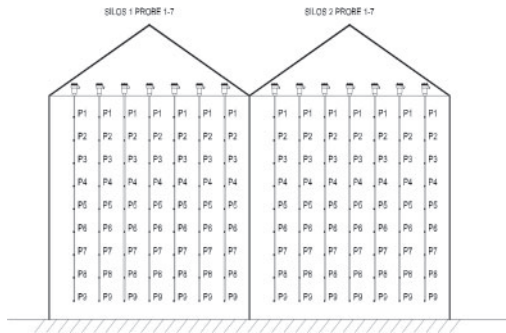
put the **210** number (access code) and confirm with **PGM** key again.

Scroll the parameters pressing **PGM** key cheking/set the following values:

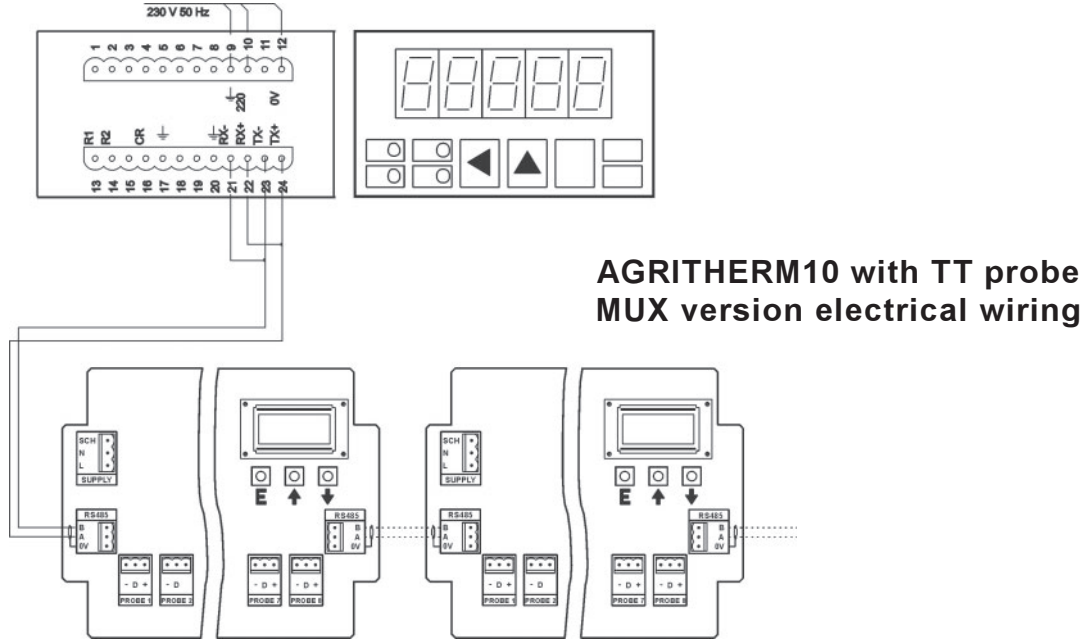
F = 2
SIC1 = -99.9
SIC2 = 999.9
Out1 = 0
Out2 = 1
LEV1 = 1
LEV2 = 1
C = 3

The above programming enable the two relays to be energized in the normal condition (contacts closed). Now if one point or more points have the temperature over than SEt1-value R1 switch-off and if the temperature go over the SEt2-value R2 switch-off , too.

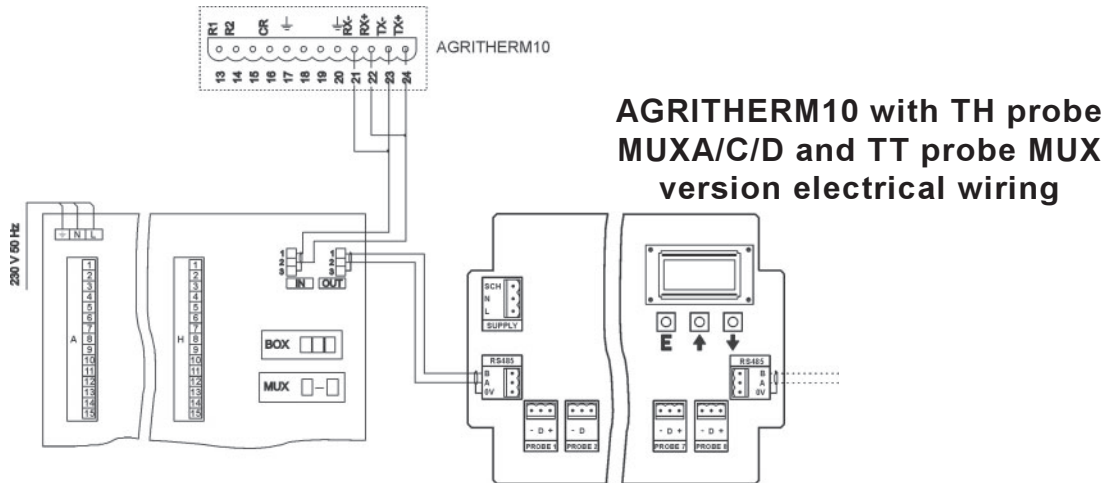
To display the points having the temperature over the SEt1-value, press the **PGM** key, than it will display **C 000000** , put the **310** number (access code) and confirm with **PGM** key again. The unit will show automatically by scroll the alarmed points and the relevant values.
 If no alarm, "no Err" will be displayed. Press **ENTER** to exit.



AGRITHERM10 electrical connections



AGRITHERM10 with new MUX unit and old MUX unit



AGRITHERM10 Warranty

Products supplied by SGM LEKTRA are guaranteed for a period of 12 (twelve) months from delivery date according to the conditions specified in our sale conditions document. SGM LEKTRA can choose to repair or replace the Product. If the Product is repaired it will maintain the original term of guarantee, whereas if the Product is replaced it will have 12 (twelve) months of guarantee. The warranty will be null if the Client modifies, repair or uses the Products for other purposes than the normal conditions foreseen by instructions or Contract. In no circumstances shall SGM LEKTRA be liable for direct, indirect or consequential or other loss or damage whether caused by negligence on the part of the company or its employees or otherwise howsoever arising out of defective goods.

AGRITHERM10 Factory check Certificate

Conforming to the production procedure herewith we certify that the device:

AGRITHERM10..... serial number

complies with the values specified in the TECHNICAL DATA

Quality control manager

.....

Date of manufacture:

.....



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