PD

PD 100A

Printing data system

Operating instructions **ENGLISH**

IMPORTANT:

Read these instructions carefully before installing and using the device; do not forget following all additional information.

Keep these instructions close to the device for future consultations.

100

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INDEX

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1 GENERAL INFORMATION

1.1 What is the use

PD 100A is a device able to acquire and print data coming from a network of instruments belonging to the FK series.

The network uses the standard RS 485, you can connect up to 8 instruments (the maximum distance between instruments is 100 m, 328 ft).

The device can acquire: main probe temperature, main probe alarms, lower and upper temperature alarms and execution of defrost cycles.

There are a good four printing modes: "Off Line Report" (the device stores the events; as soon as the acquisition interval passes, the device will also store the values the main probes will be reading; the device will print the data it has stored by using the proper button or the digital input for remote print), "Daily Report" (the device stores the events; as soon as the acquisition interval passes, the device will also store the values the main probes will be reading; the device will print the data it has stored at the time you have set), "Periodic Report" (the device stores the events; as soon as the acquisition interval passes, the device will also store the values the main probes will be reading; as soon as the print interval passes, the device will print the data it has stored) and "On Line Report" (the device prints and stores the events; as soon as the acquisition interval passes, the device will also print and store the values the main probes will be reading); for the first three modes it is possible to choose the data to print (historical of alarms, historical of temperatures or both).

PD 100A frontal size is 96 x 96 mm (3.77 x 3.77 in); the device has been studied for panel mounting, with screw brackets (they are supplied by the builder).

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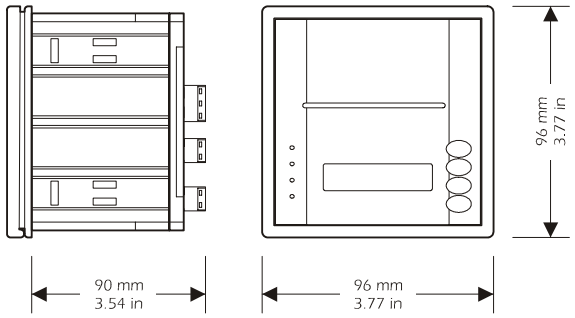
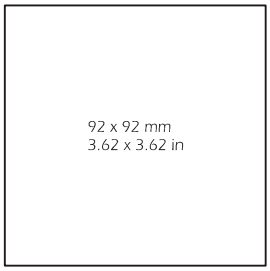
2 PREPARATIONS

2.1 Installation

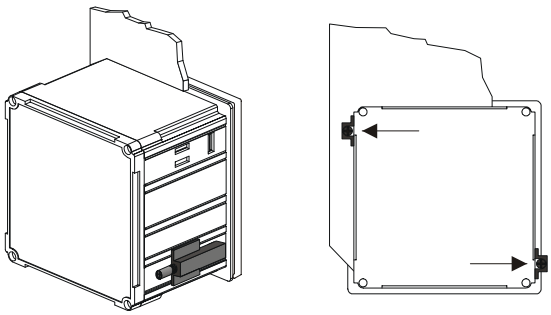
PD 100A has been studied for panel mounting, panel cut out 92 x 92 mm (3.62 x 3.62 in), with screw brackets (they are supplied by the builder).



overall dimensions



panel cut out



screw brackets (they are supplied by the builder)

Additional information

- *the panel has to be between 1 and 5 mm (0.04 and 0.19 in) thick*
- *moderate the clamping torque of screw brackets, in order not to damage box and screw brackets*
- *working conditions (ambient temperature, humidity, etc.) have to be between the limits indicated by the builder*
- *install the device in locations with suitable ventilation, in order to avoid the overheating of the device*
- *do not install the device close to surfaces able to obstruct the air-gratings (carpets, covers, etc.), heating sources (radiators, hot air ducts, etc.), locations subject to direct sunlight, rain, humidity, dust, mechanical vibrations or bumps, devices provided with big magnetos (big speakers, etc.)*
- *according to safety norms, the protection against electrical parts has to be ensured by a correct installation of the device.*

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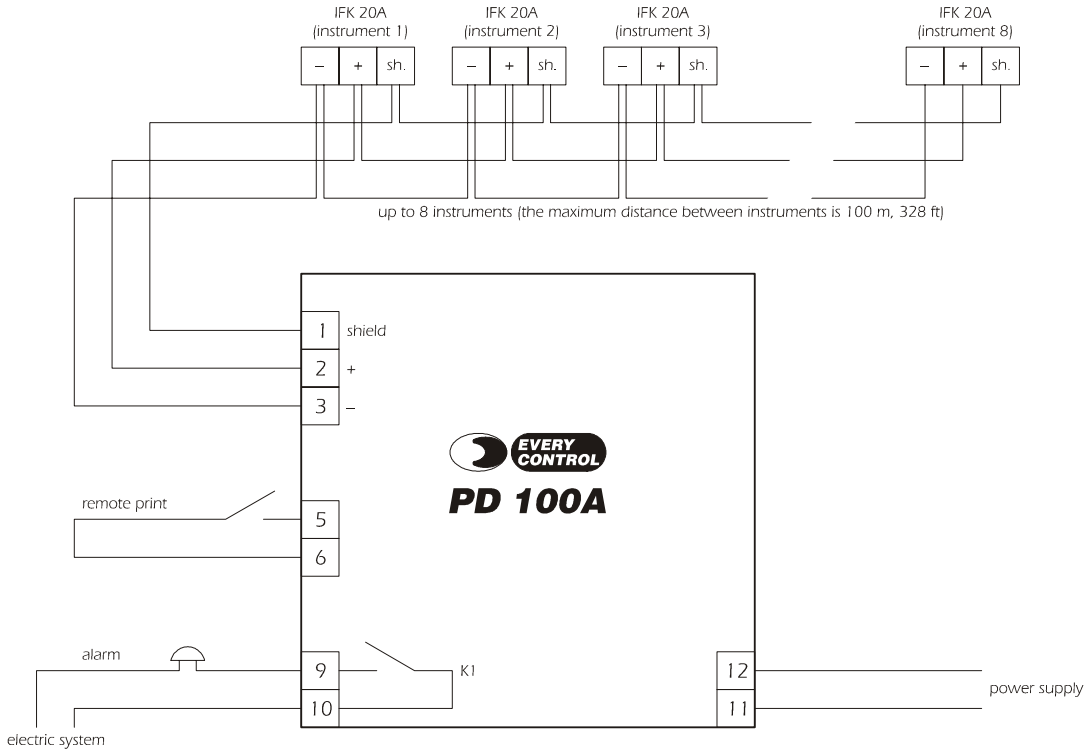
2.2 Electrical connection

PD 100A has got four extractable terminal blocks (at the back of the device); both of them are for cables up to 2.5 mm² (0.38 sq in).

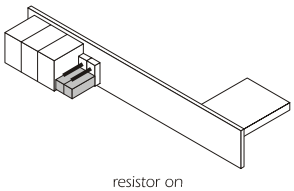
Additional information

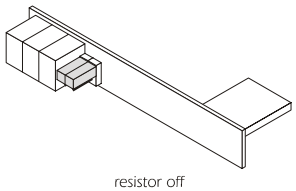
- *screwing and unscrewing has to be done with screwdrivers with a blade 3 mm (0.11 in) width (it would be better with parallel lateral parts), in order not to damage the plastic parts of the terminal blocks*
- *if you are operating on the terminal blocks with electrical or pneumatic screwers, remember adjusting the maximum clamping torque at 0.4 Nm*
- *if the device has been moved from a cold to a warm location, the humidity will condense on the inside; wait about an hour before supplying the device*
- *test the working power supply voltage, working electrical frequency and working electrical power of the device; they have to correspond with the local power supply*
- *the network uses the standard RS 485, you can connect up to 8 instruments (the maximum distance between instruments is 100 m, 328 ft)*
- *the instruments you can connect with the network are: FK 202A, FK 202T, FK 203A and FK 203T*
- *in order to realize the network of instruments you need as many IFK 20A as the instruments in the network are (IFK 20A is the hardware driver you need to interface instruments belonging to the FK series, with serial port, with a RS 485 network)*
- *realize the network of instruments by using a twisted pair*
- *in order to reduce the reflections on the signal transmitted through the cable, plug in the terminating resistor of the last instrument of the network*
- *if the device has been installed on vehicles, the power supply has to be derived directly from the battery of the vehicle*
- *provide the device with a protection able to limit the current absorbed in case of failure*
- *the device remains connected to the local power supply as long as terminals 11 and 12 are derived to the local power supply, even if the device appears OFF*
- *do not try sorting the device out; for the repairs apply to highly qualified staff*
- *for any further information or problem concerning the device, please consult Every Control.*



2.3 How to plug in the terminating resistor of IFK 20A

Plug the jumper in as follows.





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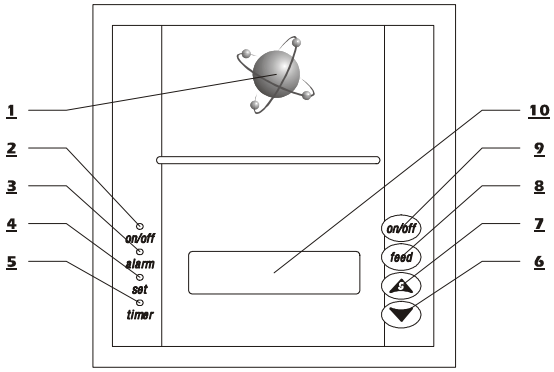
3 DEVICE DESCRIPTION

3.1 Frontal

At the front of PD 100A there are four LED, five buttons and one display.

For their meaning, look at the following paragraphs.



3.2 LED

2 LED ON/OFF: it indicates

- if it is lit, the device will be in the ON mode.

3 LED alarm: it indicates

- if it flashes, an alarm will be running.

4 LED set: it indicates

- if it is lit, a configuration parameters setting procedure will be running
- if it flashes, a configuration parameter modification will be running.

5 LED timer: it indicates

- if it is lit, the printing mode Daily Report will be running.

3.3 Buttons

1 button push to open: it allows

- to open the panel at the front of the device.

6 button down: it allows

- during the printing mode Off Line Report, to gain access the procedure to print the data the device has stored
- during the configuration parameters setting procedure, to select a parameter
- during the configuration parameters setting procedure, to decrease the value of the parameter.

7 button up: it allows

- during the printing mode Off Line Report, to print the data the device has stored
- to gain access the configuration parameters setting procedure
- during the configuration parameters setting procedure, to select a parameter
- during the configuration parameters setting procedure, to increase the value of the parameter.

8 button feed: it allows

- to feed the paper by hand.

9 button ON/OFF: it allows

- to turn the device ON
- to turn the device OFF.

For their use, look at the following chapters.

3.4 Display

10 display: it allows to show

- during the normal operation, the values the main probes are reading
- during the remaining conditions
  - the numerical values
  - the signs.

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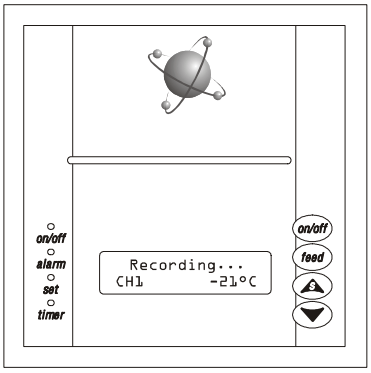
4 OPERATION

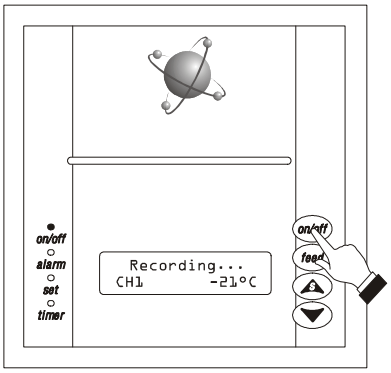
4.1 Set up

In order to adapt the device on the system, it would be better you to operate some settings:

a) as soon as you have supplied the device, check it is in the OFF mode.
During the OFF mode the device shows the values the main probes are reading cyclically and all LED are out.



b) if the device is in the ON mode, press and release button ON/OFF.
The device will move to the OFF mode.



c) set the value of parameter **Report Setup**.
Parameter **Report Setup** sets the printing mode, as follows:
OffLine = Off Line Report
Daily = Daily Report
Periodic = Periodic Report
OnLine = On Line Report.
For further information, look at the following chapters.

d) set the value of parameter **Report Type**.
Parameter **Report Type** sets the data to print by using the printing modes Off Line Report, Daily Report and Periodic Report, as follows:
All = historical of temperatures and historical of alarms
Historic = historical of temperatures
Alarm = historical of alarms.
It is important if parameter **Report Setup** has values different from OnLine.

e) set the value of parameters **Print Hour** and **Print Minute**.
If parameter **Report Setup** has value Daily, parameters **Print Hour** and **Print Minute** set the printing time by using the printing mode Daily Report.
If parameter **Report Setup** has value Periodic, parameters **Print Hour** and **Print Minute** set the time the device begins counting the print interval (that is parameter **Print Period**) by using the printing mode Periodic Report.

f) set the value of parameter **Print Period**.
Parameter **Print Period** sets the print interval by using the printing mode Periodic Report, that is the time between the time you have set with parameters **Print Hour** and **Print Minute** and the first print of the data the device has stored (and the time between two prints in succession of the data the device has stored).
It is important if parameter **Report Setup** has value Periodic.

g) set the value of parameter **Acq. Time**.
Parameter **Acq. Time** sets the acquisition interval, that is the time between two acquisitions in succession of the values the main probes are reading.

h) set the value of parameter **Min Setup**.
Parameter **Min Setup** sets the real minute.

i) set the value of parameter **Hour Setup**.
Parameter **Hour Setup** sets the real hour.

j) set the value of parameter **Day Setup**.
Parameter **Day Setup** sets the real day (of the month).

k) set the value of parameter **Month Setup**.
Parameter **Month Setup** sets the real month (in numbers).

l) set the value of parameter **Year Setup**.
Parameter **Year Setup** sets the real year.

m) set the value of parameter **N. Channel**.
Parameter **N. Channel** sets the number of instruments in the network.

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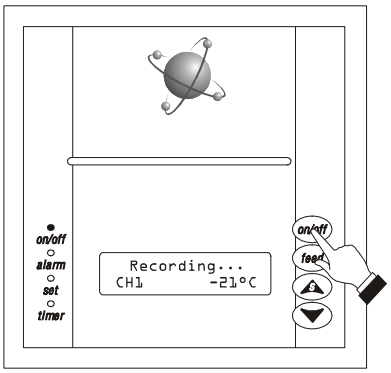
n) set the value of parameter **Baud rate**.
Parameter **Baud rate** sets the data rate in the network, as follows:
2400 = 2,400 baud
4800 = 4,800 baud
9600 = 9,600 baud
19200 = 19,200 baud.
Assign every instrument in the network the same baud rate (it is usually parameter L4).

o) assign every instrument in the network an address (it is usually parameter L1) univocally (to modify the value of the parameter look at the data sheet); assign the addresses in succession (for example, if you are using three instruments, assign the addresses 1, 2 and 3).

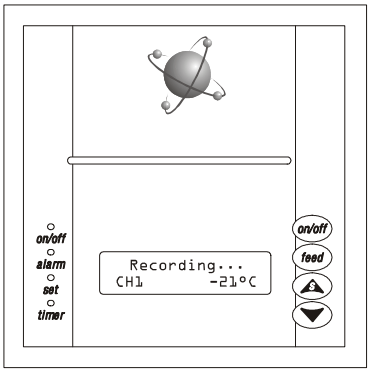
As far as how to operate these settings is concerned, look at the following chapters.

4.2 How to turn the device ON/OFF

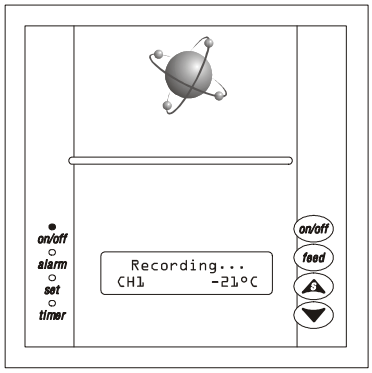
If you press and release button ON/OFF, you will turn the device ON (ON mode) or OFF (OFF mode).



During the OFF mode the device shows the values the main probes are reading cyclically and all LED are out; the device stores the values the main probes are reading and the events.

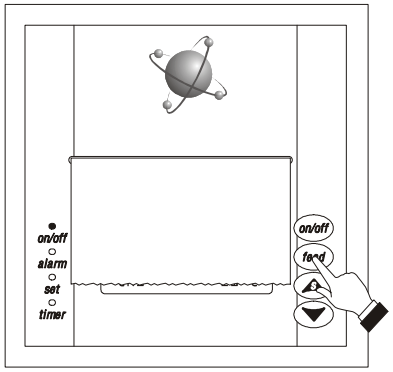


During the ON mode, in the course of the normal operation the device shows the values the main probes are reading cyclically and LED ON/OFF is lit; the device prints and/or stores the values the main probes are reading and the events.



4.3 How to feed the paper by hand

In order to feed the paper by hand press and hold button feed.

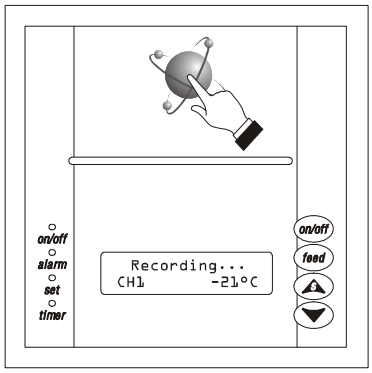


4.4 How to change the roll of paper

In order to change the roll of paper:

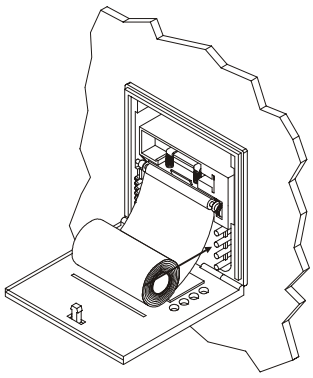
a) turn the device OFF.

b) press and release button push to open in order to open the panel at the front of the device.

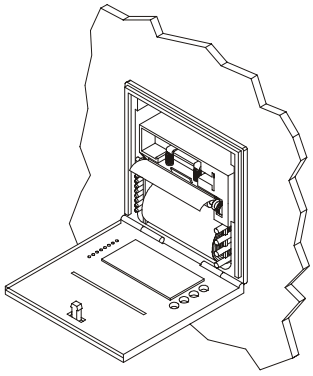


c) slip the roll of paper into the lower side of the roller.

d) press and hold button feed as long as the roller drags the roll of paper.



e) put the roll of paper into its box.



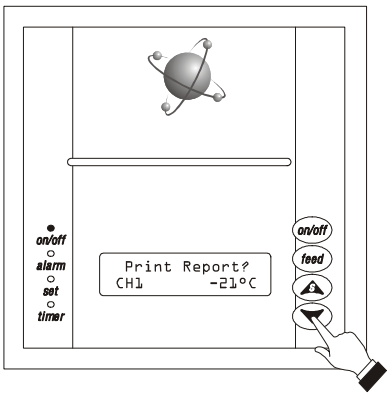
f) close the panel at the front of the device.

5 PRINTING MODES

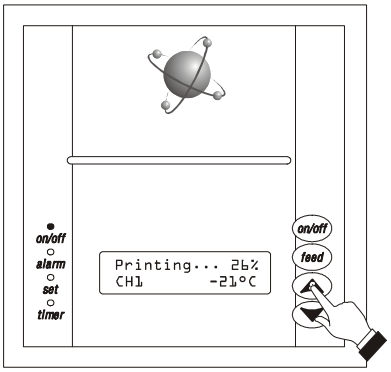
5.1 Off Line Report

By using this printing mode the device stores the events; as soon as the acquisition interval you have set with parameter **Acq. Time** passes, the device will also store the values the main probes will be reading.
In order to print the data the device has stored:

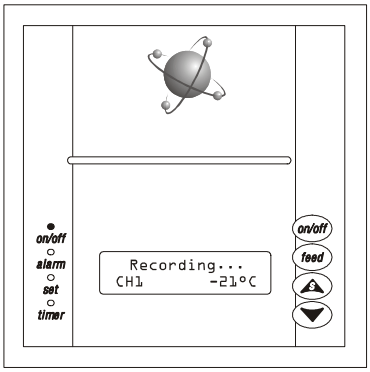
a) press and release button down.
The device will show " **Print Report?** ".



b) press and release button up within the time you have set with parameter **Timeout Setup**.
The device will show the progression of the percentage of the print of the data it has stored.



During this printing mode the device shows " **Recording...** " and all LED are out, except the ON/OFF one.
In order to activate this printing mode parameter **Report Setup** must have value OffLine.



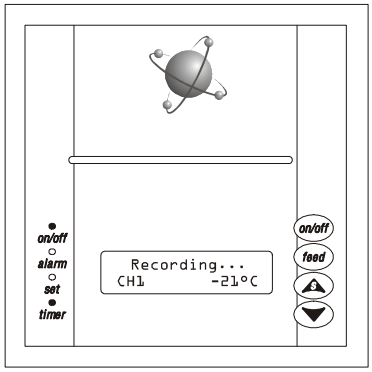
Parameter **Report Type** allows to choose the data to print (historical of alarms, historical of temperatures or both).

Additional information

- *if parameter **Remote Print** has value Yes, you can print the data the device has stored by using the digital input for remote print as well.*

5.2 Daily Report

By using this printing mode the device stores the events; as soon as the acquisition interval you have set with parameter **Acq. Time** passes, the device will also store the values the main probes will be reading.
The device will print the data it has stored at the time you have set with parameters **Print Hour** and **Print Minute**.
During this printing mode the device shows " **Recording...** " and LED ON/OFF and timer are lit.
In order to activate this printing mode parameter **Report Setup** must have value Daily.



Parameter **Report Type** allows to choose the data to print (historical of alarms, historical of temperatures or both).

Additional information

- *the device will print the data it has stored during the interval between two times you have set with parameters **Print Hour** and **Print Minute***
- *if at the time you have set with parameters **Print Hour** and **Print Minute** there is a lack of power supply, as soon as it will recover the device will print the data it has stored as long as the lack of power supply has taken place.*

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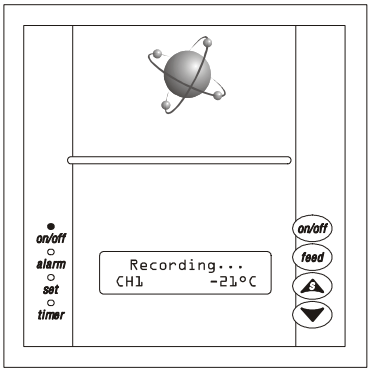
5.3 Periodic Report

By using this printing mode the device stores the events; as soon as the acquisition interval you have set with parameter **Acq. Time** passes, the device will also store the values the main probes will be reading.

As soon as the print interval you have set with parameter **Print Period** passes, the device will print the data it has stored.

During this printing mode the device shows "**Recording...**" and all LED are out, except the ON/OFF one.

In order to activate this printing mode parameter **Report Setup** must have value Periodic.



Parameter **Report Type** allows to choose the data to print (historical of alarms, historical of temperatures or both).

Additional information

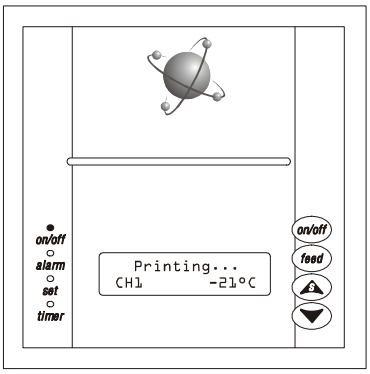
- *the device will print the data it has stored during the last interval you have set with parameter* **Print Period**
- *if at the end of the time you have set with parameter* **Print Period** *there is a lack of power supply, as soon as it will recover the device will print the data it has stored as long as the lack of power supply has taken place.*

5.4 On Line Report

By using this printing mode the device prints and stores the events; as soon as the acquisition interval you have set with parameter **Acq. Time** passes, the device will also print and store the values the main probes will be reading.

During this printing mode the device shows "**Printing...**" and all LED are out, except the ON/OFF one.

In order to activate this printing mode parameter **Report Setup** must have value OnLine.



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5.5 How to interpret the prints

10:15 The device has stored the temperature the main probe of instrument 1 is reading (the acquisition interval, that is param. **Acq. Time**, has value 15 min)

10:17 Main probe alarm on instrument 1 (an alarm and its return are stored immediately, independently on the acquisition interval)

10:19 Return after the main probe alarm on instrument 1 (an alarm and its return are printed in bold)

10:34 The device has stored again the temperature the main probe of instrument 1 is reading

10:36 Lower alarm on instrument 1

10:51 The device has stored again the temperature the main probe of instrument 1 is reading; a lower alarm on instrument 1 is running

10:57 Return after the lower alarm on instrument 1

11:12 The device has stored again the temperature the main probe of instrument 1 is reading

11:22 Alarm communication device-instrument 1

11:24 Return after the alarm communication device-instrument 1

11:39 The device has stored again the temperature the main probe of instrument 1 is reading

11:54 The device has stored again the temperature the main probe of instrument 1 is reading; a defrost is running on instrument 1

12:02 Lack of power supply

12:06 The power supply has been recovered

12:40 The device has come out of the configuration parameters setting procedure

The indication HISTORICAL REPORT precedes the print of the historical of temperatures

12:45 The indication ALARM REPORT precedes the print of the historical of alarms (the device stores the kind of alarm, the date, the time of activation and return)

The indication DAILY REPORT precedes the print of the data the device has stored by using the printing mode Daily Report

The indication PERIODIC REPORT precedes the print of the data the device has stored by using the printing mode Periodic Report

The indication ONLINE REPORT precedes the print of the data the device has stored by using the printing mode On Line Report

```
10:15 CH1          -21°C

10:17 CH1 Probe Err

10:19 CH1          -21°C

10:34 CH1          -21°C

10:36 CH1 AL       -28°C

10:51 CH1 AL       -28°C

10:57 CH1          -21°C

11:12 CH1          -21°C

11:22 CH1       COM Err

11:24 CH1          -21°C

11:39 CH1          -21°C

11:54 CH1 Def      -21°C

Power Off : 29/07/2003
12:02



 Power On : 29/07/2003
12:06 CH1          -21°C



  Set Up : 29/07/2003
12:40 CH1          -21°C


HISTORICAL REPORT

   ALARM REPORT
   12:45 29/07/2003
CH1 Probe Err
Start 10:17 29/07/2003
End   10:19 29/07/2003


   DAILY REPORT

  PERIODIC REPORT

   ONLINE REPORT
```


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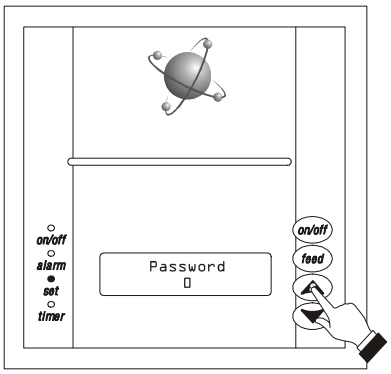
6 CONFIGURATION PARAMETERS

6.1 How to set configuration parameters

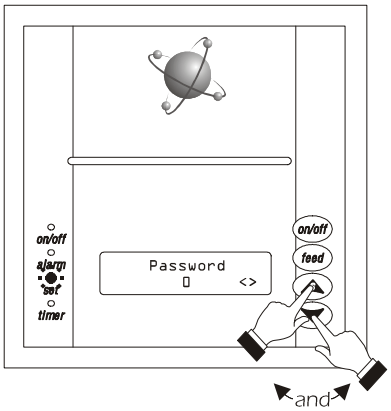
Configuration parameters are arranged on two levels.

In order to gain access the procedure:

a) press and release button up.
The device will show " password " and the actual value, take for example " 0 " .

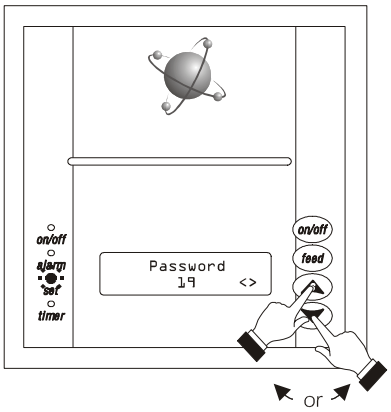


b) press buttons up and down at the same time.
The device will show the indication " <> " .

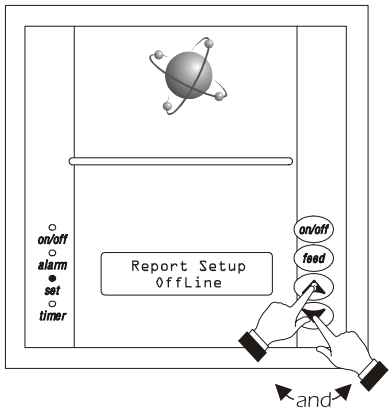


In order to gain access level "User" :

c) press and release buttons up or down as long as the device shows " 19 " .
If you press and hold buttons up or down, the value will be increased or decreased more quickly.

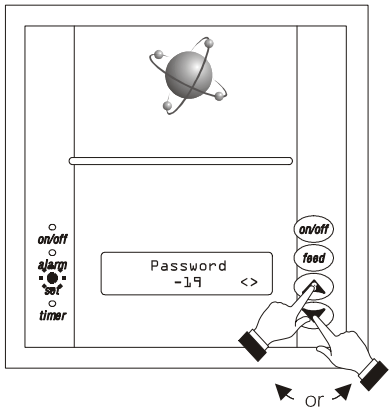


d) press buttons up and down at the same time.
The device will show the label " Report Setup " and the actual value, take for example " OffLine " .

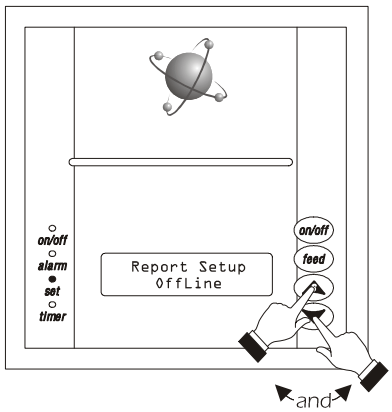


In order to gain access level "Installer" :

e) since b) press and release buttons up or down as long as the device shows " -19 " .
If you press and hold buttons up or down, the value will be increased or decreased more quickly.



f) press buttons up and down at the same time.
The device will show the label " Report Setup " and the actual value, take for example " OffLine " .



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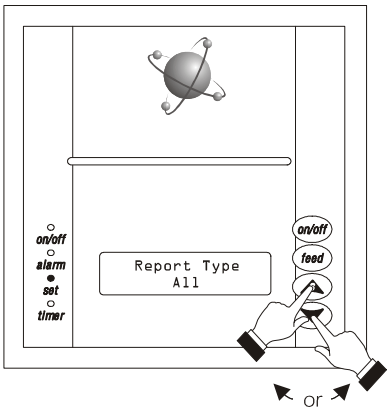
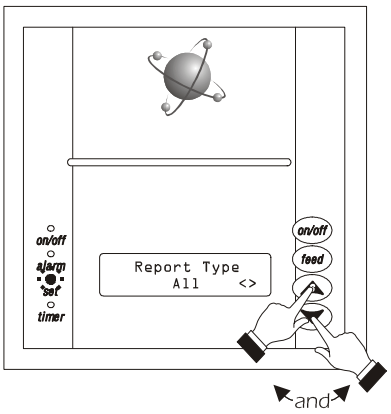
In order to select a parameter:

g) press and release buttons up or down as long as the device shows the label of the parameter you prefer, take for example "`Report Type`".

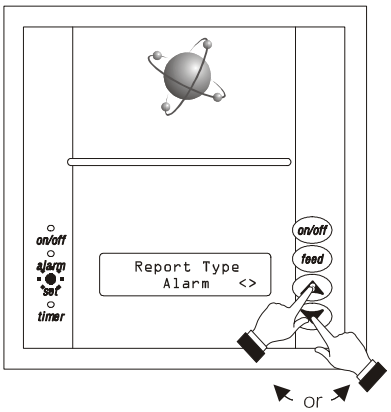


In order to change the value of the parameter:

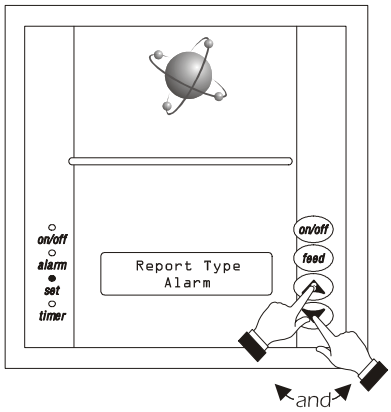
h) press buttons up and down at the same time.
The device will show the indication " **<>** ".



i) press and release buttons up or down as long as the device shows the value you prefer, take for example "`Alarm`".
If you press and hold buttons up or down, the value will be increased or decreased more quickly.



j) press buttons up and down at the same time.
The device will save the new value as soon as it will quit the setting procedure.



In order to quit the setting procedure:

k) do not operate for the time you have set with parameter `Timeout Setup`.

Additional information

- *if the unit of measure of the parameter is hour, minute or second, the modification will have effect since the end of the time you have just modified*
- *the value of parameters will be stored in a non volatile memory.*

7 CONFIGURATION PARAMETERS AND DEFAULT VALUES

7.1 Parameters belonging to level "User" (password 19)

LABEL	MIN.	MAX.	U.M.	DEF.	PASSWORD
Password	-99	99	---	0	password

LABEL	MIN.	MAX.	U.M.	DEF.	PRINTING MODE
Report Setup	---	---	---	OffLine	printing mode OffLine = Off Line report Daily = Daily Report Periodic = Periodic Report OnLine = On Line report
Report Type	---	---	---	All	data to print by using the printing modes Off Line Report, Daily Report and Periodic Report (it is important if Report Setup ≠ OnLine) All = historical of temperatures and historical of alarms Historic = historical of temperatures Alarm = historical of alarms
Print Hour	0	23	h	8	if Report Setup = Daily, printing time (hours) by using the printing mode Daily Report (look at Print Minute as well); if Report Setup = Periodic, time (hours) the device begins counting the print interval (that is parameter Print Period) by using the printing mode Periodic Report (look at Print Minute as well)
Print Minute	0	59	min	30	if Report Setup = Daily, printing time (minutes) by using the printing mode Daily Report (look at Print Hour as well); if Report Setup = Periodic, time (minutes) the device begins counting the print interval (that is parameter Print Period) by using the printing mode Periodic Report (look at Print Hour as well)
Print Period	1	250	h	24	print interval by using the printing mode Periodic Report (time between the time you have set with parameters Print Hour and Print Minute and the first print of the data the device has stored, it is important if Report Setup = Periodic; it sets the time between two prints in succession of the data the device has stored as well)
Remote Print	Yes	No	---	No	enabling the input for remote print (it is important if Report Setup = OffLine)

LABEL	MIN.	MAX.	U.M.	DEF.	GENERIC SETTINGS
Acq. Time	1	360	min	15	acquisition interval (time between two acquisitions in succession of the values the main probes are reading)
PF Alarm	0	60	min	1	lack of power supply alarm exclusion time [1]

7.2 Parameters belonging to level "Installer" (password -19)

LABEL	MIN.	MAX.	U.M.	DEF.	PASSWORD
Password	-99	99	---	0	password

LABEL	MIN.	MAX.	U.M.	DEF.	PRINTING MODE
Report Setup	---	---	---	OffLine	printing mode OffLine = Off Line report Daily = Daily Report Periodic = Periodic Report OnLine = On Line report

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Report Type	---	---	---	All	data to print by using the printing modes Off Line Report, Daily Report and Periodic Report (it is important if Report Setup ≠ OnLine) All = historical of temperatures and historical of alarms Historic = historical of temperatures Alarm = historical of alarms
Print Hour	0	23	h	8	if Report Setup = Daily, printing time (hours) by using the printing mode Daily Report (look at Print Minute as well); if Report Setup = Periodic, time (hours) the device begins counting the print interval (that is parameter Print Period) by using the printing mode Periodic Report (look at Print Minute as well)
Print Minute	0	59	min	30	if Report Setup = Daily, printing time (minutes) by using the printing mode Daily Report (look at Print Hour as well); if Report Setup = Periodic, time (minutes) the device begins counting the print interval (that is parameter Print Period) by using the printing mode Periodic Report (look at Print Hour as well)
Print Period	1	250	h	24	print interval by using the printing mode Periodic Report (time between the time you have set with parameters Print Hour and Print Minute and the first print of the data the device has stored, it is important if Report Setup = Periodic; it sets the time between two prints in succession of the data the device has stored as well)
Remote Print	Yes	No	---	No	enabling the input for remote print (it is important if Report Setup = OffLine)

LABEL	MIN.	MAX.	U.M.	DEF.	GENERIC SETTINGS
Acq. Time	1	360	min	15	acquisition interval (time between two acquisitions in succession of the values the main probes are reading)
PF Alarm	0	60	min	1	lack of power supply alarm exclusion time [1]

LABEL	MIN.	MAX.	U.M.	DEF.	ERASING THE DATA THE DEVICE HAS STORED
Memory Type	0	1	---	0	controlling the data when the device is running out of memory [2] 0 = the device will not print and store any data 1 = the device will erase the oldest data in order to store the newest
Delete Memory?	Yes	No	---	No [3]	erasing the data the device has stored
Reset Alarm?	Yes	No	---	No [3]	erasing the historical of alarms

LABEL	MIN.	MAX.	U.M.	DEF.	PRINTING THE DEVICE SET UP
Print Setup?	Yes	No	---	No	printing the device set up [4]
Timeout Setup	5	100	s	10	time without operating with the buttons in order that the device can quit the configuration parameters setting procedure

LABEL	MIN.	MAX.	U.M.	DEF.	CLOCK
Min Setup	0	59	min	0	real minute
Hour Setup	0	23	h	0	real hour
Day Setup	1	31	day	1	real day (of the month)
Month Setup	1	12	month	1	real month
Year Setup	1990	2050	year	2001	real year

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LABEL	MIN.	MAX.	U.M.	DEF.	NETWORK OF INSTRUMENTS
N. Channel	1	8	---	1	number of instruments in the network
Baud rate	2400	19200	baud	9600	baud rate (data rate in the network) [5] 2400 = 2.400 baud 4800 = 4.800 baud 9600 = 9.600 baud 19200 = 19.200 baud
N. Com Err	1	10	---	5	number of attempts to communicate with an instrument before activating the alarm communication device-instrument
Family Type	---	---	---	---	reserved

[1] as soon as the power supply recovers the device stores the values the main probes are reading immediately

[2] if you modify the value of the parameter, this will erase the data the device has stored

[3] as soon as you will quit the configuration parameters setting procedure, the parameter will automatically get value No

[4] if the parameter has value Yes, the device will print the set up as soon as you will quit the configuration parameters setting procedure

[5] assign every instrument in the network the same baud rate (it is usually parameter L4).

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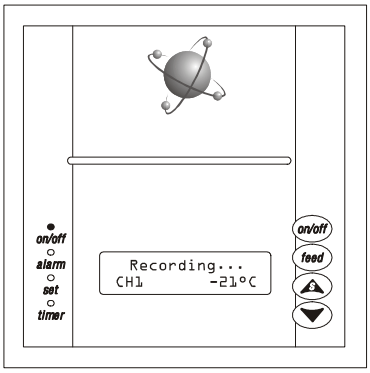
8 SIGNALS

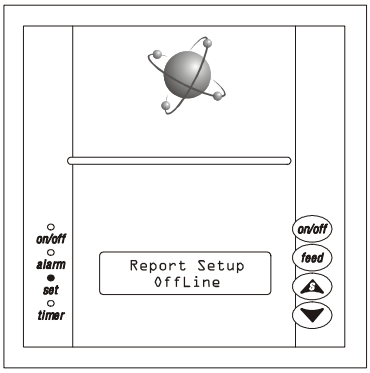
8.1 Signals



The LED ON/OFF is lit.

Meaning

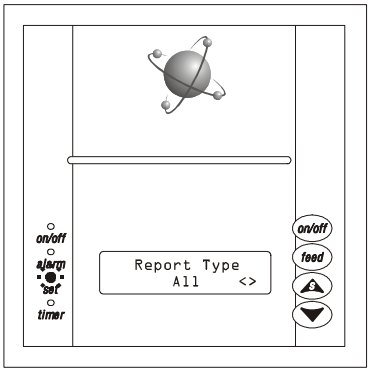
- the device is in the ON mode.



The LED set is lit.

Meaning

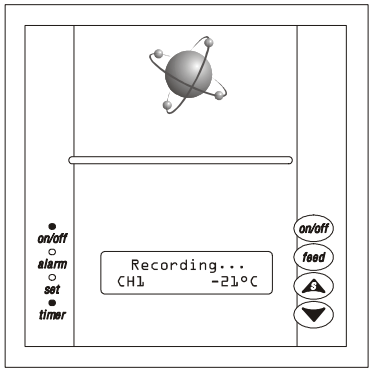
- a configuration parameters setting procedure is running.



The LED set flashes.

Meaning

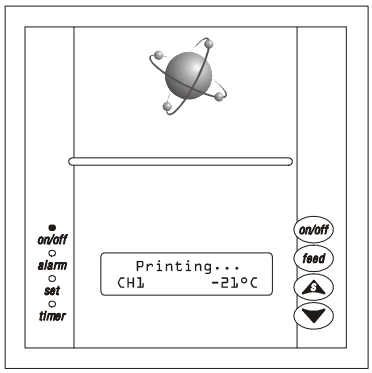
- a configuration parameter modification is running.



The LED timer is lit.

Meaning

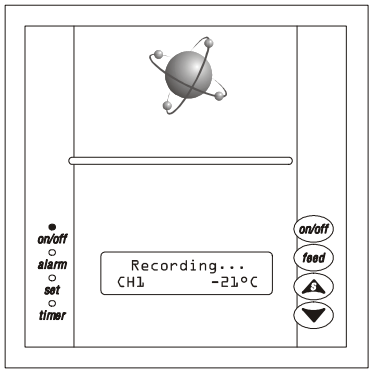
- the printing mode Daily Report is running.



The device shows the indication "`Printing...`".

Meaning

- the printing mode On Line Report is running.



The device shows the indication "`Recording...`".

Meaning

- the printing mode Off Line Report or Periodic Report is running.

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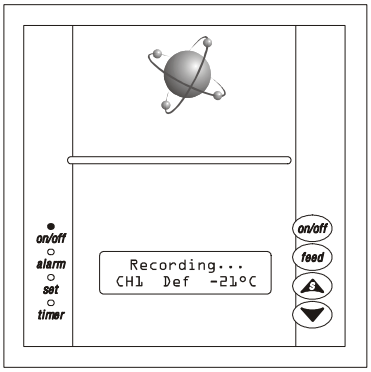
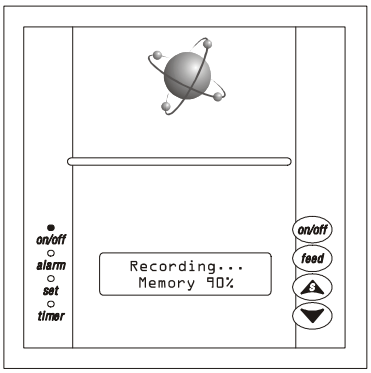


The device shows the indication " `CH1...8 Def` ".

Meaning

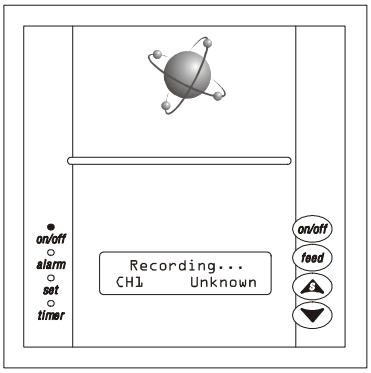
- *a defrost is running on instrument 1...8.*



The device shows the indication " `Memory 90% ... 99%` ".

Meaning

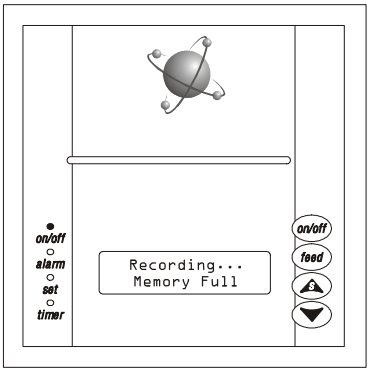
- *the device is running out of memory.*



The device shows the indication " `CH1...8 Unknown` ".

Meaning

- *instrument 1... 8 does not belong to the list of instruments that can be connected with the network (those are: FK 202A, FK 202T, FK 203A and FK 203T).*



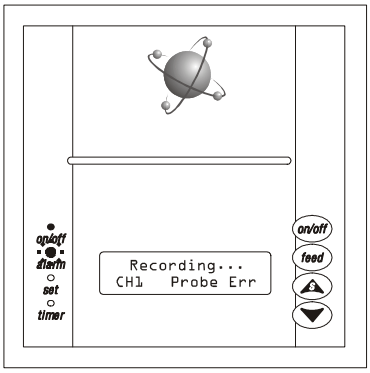
The device shows the indication " `Memory Full` ".

Meaning

- *the device has run out of memory; look at parameters* `Delete Memory?` *and* `Memory Type` *(the device will not print and store any data).*

9 ALARMS

9.1 Alarms



9.1.1 Main probe alarm on instrument 1...8

The device shows the indication " CH1...8 Probe Err " and LED alarm flashes.

Reasons

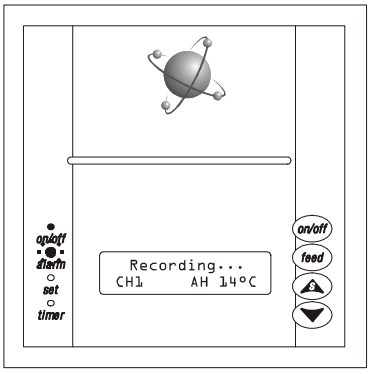
- a main probe alarm on instrument 1...8 is running; look at the data sheet of instrument 1...8.

Remedies

- look at the data sheet of instrument 1...8.

Effects

- if the printing mode Off Line Report, Daily Report or Periodic Report is running, the device will store the event; if the printing mode On Line Report is running, the device will print and store the event
- the alarm output will be activated.



9.1.2 Upper alarm on instrument 1...8

The device shows the indication " CH1...8 AH " and LED alarm flashes.

Reasons

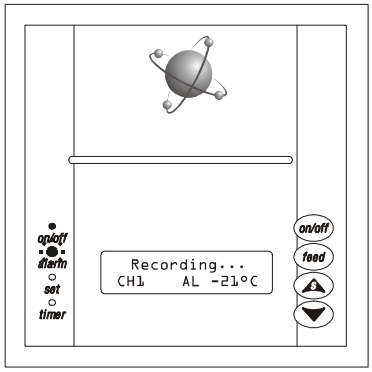
- an upper alarm on instrument 1...8 is running; look at the data sheet of instrument 1...8.

Remedies

- look at the data sheet of instrument 1...8.

Effects

- if the printing mode Off Line Report, Daily Report or Periodic Report is running, the device will store the event; if the printing mode On Line Report is running, the device will print and store the event
- the alarm output will be activated.



9.1.3 Lower alarm on instrument 1...8

The device shows the indication " CH1...8 AL " and LED alarm flashes.

Reasons

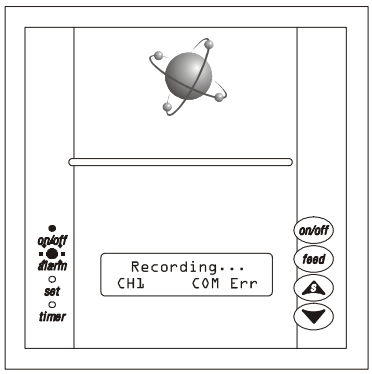
- a lower alarm on instrument 1...8 is running; look at the data sheet of instrument 1...8.

Remedies

- look at the data sheet of instrument 1...8.

Effects

- if the printing mode Off Line Report, Daily Report or Periodic Report is running, the device will store the event; if the printing mode On Line Report is running, the device will print and store the event
- the alarm output will be activated.



9.1.4 Alarm communication device-instrument

The device shows the indication " CH1...8 COM Err " and LED alarm flashes.

Reasons

- the connection device-instrument 1...8 is wrong
- the connection instrument 1...8-power supply is wrong.

Remedies

- test the connection device-instrument 1...8
- test the connection instrument 1...8-power supply.

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Effects

- if the printing mode Off Line Report, Daily Report or Periodic Report is running, the device will store the event; if the printing mode On Line Report is running, the device will print and store the event
- the alarm output will be activated.

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10 TECHNICAL DATA

10.1 Technical data

Box

Self-extinguishing grey.

Size

96 x 96 x 90 mm (3.77 x 3.77 x 3.54 in).

Installation

Panel mounting, panel cut out 92 x 92 mm (3.62 x 3.62 in), with screw brackets (they are supplied by the builder).

Frontal protection

IP 30.

Connections

Extractable terminal blocks with pitch 5 mm (0.19 in) for cables up to 2.5 mm² (0.38 sq in, input and RS 485 connection) and with pitch 7.5 mm (0.29 in) for cables up to 2.5 mm² (0.38 sq in, power supply).

Ambient temperature

From 0 to 55 °C (32 to 131 °F, 10 ... 90% of relative humidity without condensate).

Power supply

- 110-240 Vac, 50/60 Hz (standard model)
- 12-36 Vac/dc, 50/60 Hz (by request).

The maximum power consumption is 12 W.

Clock data maintenance without power supply

Typically more than 3 years.

Capacity of memory

If you connect 8 instruments with the network, the acquisition interval is 15 min, without alarms, the capacity of the memory will be 60 days.

Instruments that can be connected with the network

- FK 202A
- FK 202T
- FK 203A
- FK 203T.

You can connect up to 8 instruments (the maximum distance between instruments is 100 m, 328 ft).

Digital inputs

1 for remote print (NO contact) without voltage (it works with 5 mA).

Display

- one green LCD (2 lines per 16 characters) 11.5 mm (0.45 in) high
- device mode indicators.

Maximum size of the roll of paper

58 x Ø 30 mm (2.28 x Ø 1.18 in).

Print width

48 mm (1.88 in).

Dot number (for every line)

384.

Print density

8 dot per mm.

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11 HOW TO ORDER

11.1 How to order

Device	PD 100A
Measure inputs	X (no input)
Power supply	9 (110-240 Vac)
	8 (12-36 Vac/dc)
Connections	S (extractable terminal blocks)
Customer-driven HW/SW	001 (standard model).

Example:

Device	PD 100A
Measure inputs	no input
Power supply	110-240 Vac
Connections	extractable terminal blocks
Customer-driven HW/SW	standard model
Order code	PD100AX9S001.

12 BUILDER DATA

12.1 Builder data

Every Control S.r.l.
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Pay attention


PD
100