

## Graphical Data Recorders

**PYRO***tracer*

C.A 6500



**Keep an eye on your  
process at all times!**

- 3 to 144 recording channels
- 100 ms acquisition interval per channel
- Secure data
- Open and communicating

*Measure up*



# CA PYROCONTROLE, a CHAUVIN ARNOUX GROUP company

Founded in Pars, France, in 1893, **Chauvin Arnoux** has succeeded over the centuries in developing its expertise in the design, manufacture and commercialization of measuring instruments for professionals.

From portable instrumentation to fixed electrical equipment and energy performance solutions, and from mastery of the whole thermal process chain to industrial metrology, the **Chauvin Arnoux** Group's offering covers every customer requirement, whatever the sector involved (electrical contractors, industry, government authorities, etc.).

## A few figures

- 10 subsidiaries spread across the world
- 1,000 staff
- 8 production sites
- 6 R&D departments worldwide
- 11% of revenues invested in R&D

## CA PYROCONTROLE

For all thermal process industries, **CA PYROCONTROLE** designs **high-accuracy sensors** for severe environments and solutions adapted to meet their temperature measurement and control requirements.

A **wide range of sensors** and industrial process expertise built up over many years make **CA PYROCONTROLE** the ideal partner for the industries such as the nuclear sector, petrochemicals, glass-making, metallurgy, etc.



## Thermal equipment offering

### Sensors

- Tailored temperature sensors for process industries from  $-268^{\circ}\text{C}$  to  $+1,800^{\circ}\text{C}$
- 1,500 standard sensor references

### Instrumentation

- Temperature and power controllers
- Signal processing

### Heating elements

- Standard and tailored

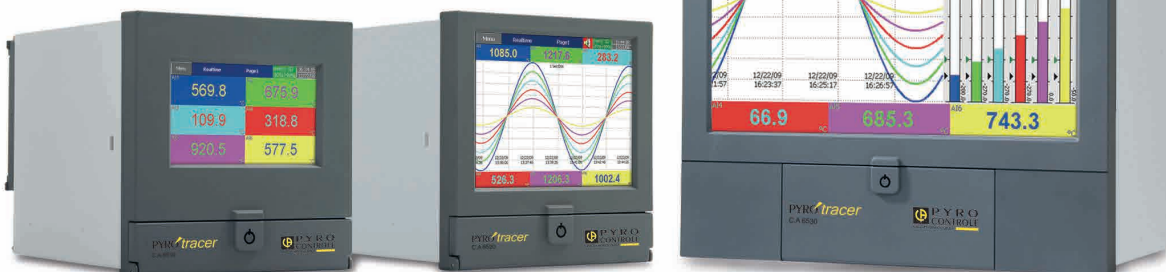
### Supervision

- Human-Machine Interfaces
- Recorders

### Metrology

- COFRAC-accredited calibration laboratory
- Design of reference-standard sensors

**PYROtracer** The C.A 6500 range records, displays and monitors all your data for on-site or remote supervision



▶ A complete, secure range of recorders

The **PYROtracer C.A 6500** range is a range of new-generation paperless data recorders benefiting from the latest technological developments and an extra-rugged design.

Fast sampling, accuracy, data security, simple configuration, easy data processing and networking capabilities: a set of features which will allow you to make optimum use of your **PYROtracer**.

With its 3 recorders, the **C.A 6500** range meets every requirement. It offers extensive recording capacity on 3 to 144 channels (including 96 external channels) with an acquisition interval of 100 ms per channel for the most demanding applications.

▶ Reduced operating costs

The **C.A 6500** range allows you to choose the recorder which is the best match for your requirements, from the standard model to the most powerful: **C.A 6510**, **C.A 6520**, **C.A 6530**, while staying within your budget. Its reduced depth will help you to make savings during integration.

The large number of channels offered (24 in the 144x144 format and 144 channels in the 288x288 format, including 96 external channels) will reduce the number of recorders needed on your installation.

▶ Easy adaptation to suit your process

With the Panel STUDIO software, users can recreate their process. The customized screens enable you to view all or part of your installation on the screen of your **C.A 6500**.

## Advantages

### EASY-TO-READ, INTUITIVE INTERFACE

- > Customizable LED touch screen for quick commands and easier reading

### MULTIPLE POSSIBILITIES

- > 3 to 144 recording channels, with the possibility of 96 external channels

### SECURE & FAST

- > Secure data
- > 100 ms acquisition interval

### OPEN & COMMUNICATING

- > Ethernet as standard
- > Modbus master, web server

### ADVANCED FUNCTIONS

- > Pulse-counting input
- > Math & Logic
- > Batch management
- > FDA 21 CFR part11
- > Customizable screens
- > Multilingual: 19 languages

### COMPACT, RUGGED DESIGN

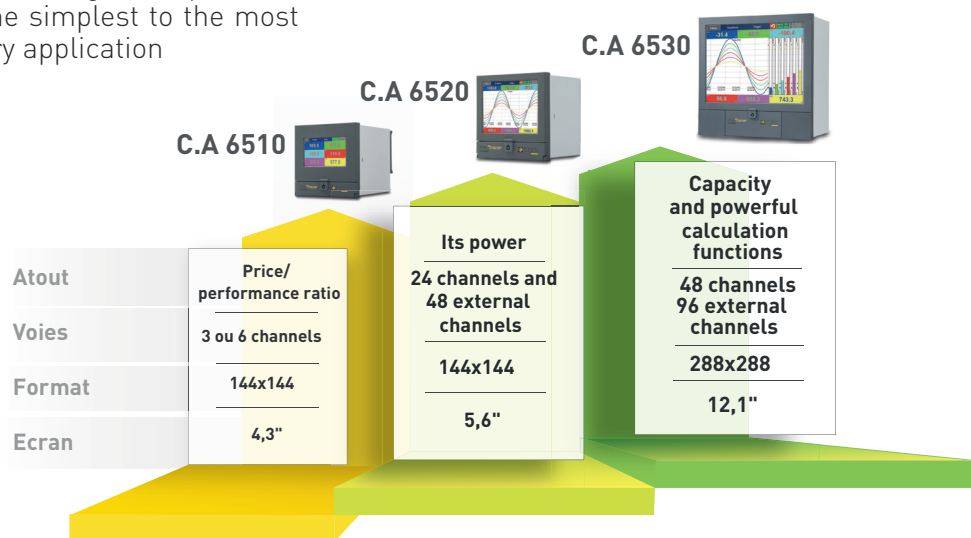
- > IP65
- > Reduced depth of casing

# C.A 6500 range: a solution for each requirement!

The powerful, high-performance C.A 6500 family offers the possibility of comprehensive data acquisition, an exceptional display and high-security data storage.

## The Range

The **PYROtracer C.A 6500** range comprises 3 recorder models, from the simplest to the most sophisticated, to suit every application



### Portable version

A portable version of the **PYROtracer** is also available which is easy to transport in your workshops or on outdoor sites.



## Main application sectors

- ▶ Heat treatment
- ▶ Pharmacy
- ▶ Agri-food
- ▶ Health
- ▶ Laboratory
- ▶ Water treatment
- ▶ Chemicals



## Data management & display

- Configuration and processing of the data history *with OBSERVER*
  - ▶ Offline or online configuration of the **C.A 6500** recorders.
  - ▶ Reading of encrypted data, display and analysis on PC via the recorder using the RJ45 connector or via the Ethernet network.

The data can be exported in CSV format.

- Real-time display and monitoring *with PYRODAQ\**

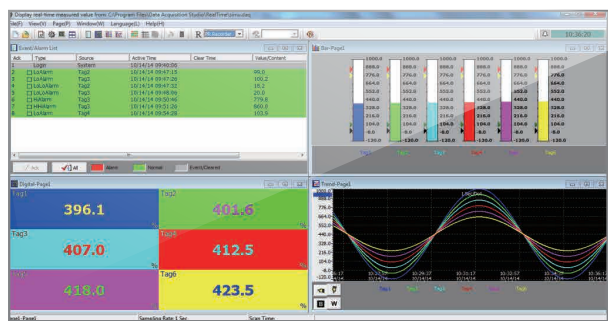
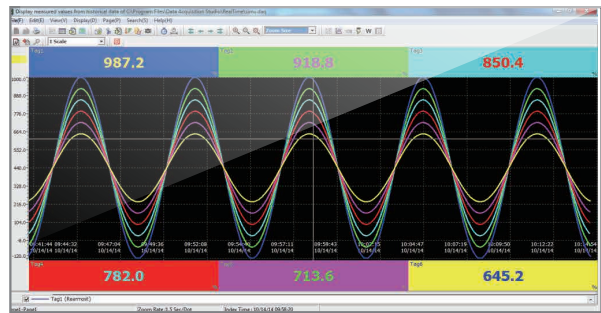
- ▶ Real-time display for clear, precise data analysis.
- ▶ Display in history mode for more detailed study.

Possibility of displaying the data from several recorders on a single PC.

\*available as an option

- Constantly keep an eye on your process *with the Web server*

- ▶ With the built-in web server, it is possible to view the curves and data from the **C.A 6500** recorders from anywhere in the world.



## Data security

- Compliant with 21 CFR Part 11

The **C.A 6500 range** follows the FDA (US Food & Drug Administration) recommendations concerning the 21 CFR Part 11 standard for electronic recording and signatures (FA1 version).

Password expiry is managed by this FA1 version.

- Reliability - Security key

To prevent any unauthorized access to the memory card, the **C.A 6500** models are equipped with a mechanical security key on their front panel.

- Batch management and traceability

The batch management option can be used to record the data from the Batch processes. Each batch number is unique and is completed by 3 free comment fields for the user.

All the information can be entered directly on screen, by means of a keyboard or a barcode reader.



## Practical, intuitive user interface

### ■ Customizable screen

Simplify the "operator" interface!  
The Panel Studio software can be used to represent your production processes on the screens of your recorders. (option)

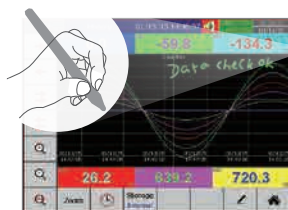
- ▶ Creation of block diagrams of your installations
- ▶ Access to a library of ready-to-use objects and images

### ■ Writing directly on screen

A great way to avoid losing your notes!  
Use a stylus to write directly on the recorder's screen. Your notes will be archived in the internal memory next to the points you wish to highlight.

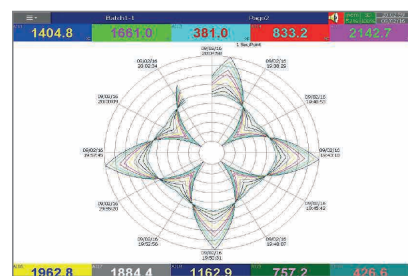
### ■ Touch screen

The **PYROtracer** is equipped with a practical touch screen for quick commands.



### ■ Operator views

In addition to the traditional views, the **C.A 6530** offers the possibility of **circular views**.



The display speed on each page can be configured from 30 minutes to several weeks so that you can clearly see the evolution of your process.

## Communicating recorder

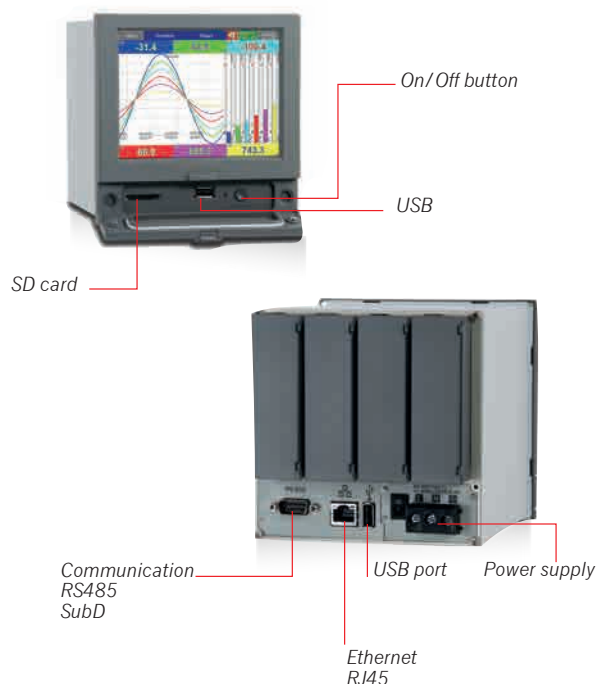
### ■ Multiple external connections

With its USB ports, the **C.A 6500** range has several inputs for connecting peripheral devices.

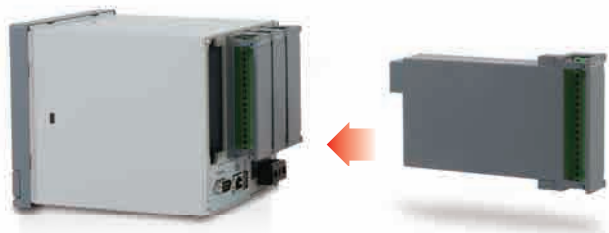
- ▶ keyboard,
- ▶ USB keys
- ▶ mouse
- ▶ barcode reader
- ▶ printer

### ■ Ethernet communication

The **PYROtracer** offers Ethernet communication as a standard feature. It can handle the FTP, TCP/IP and http protocols, so it is easy to integrate into your local area networks.



## Upgradable recorder



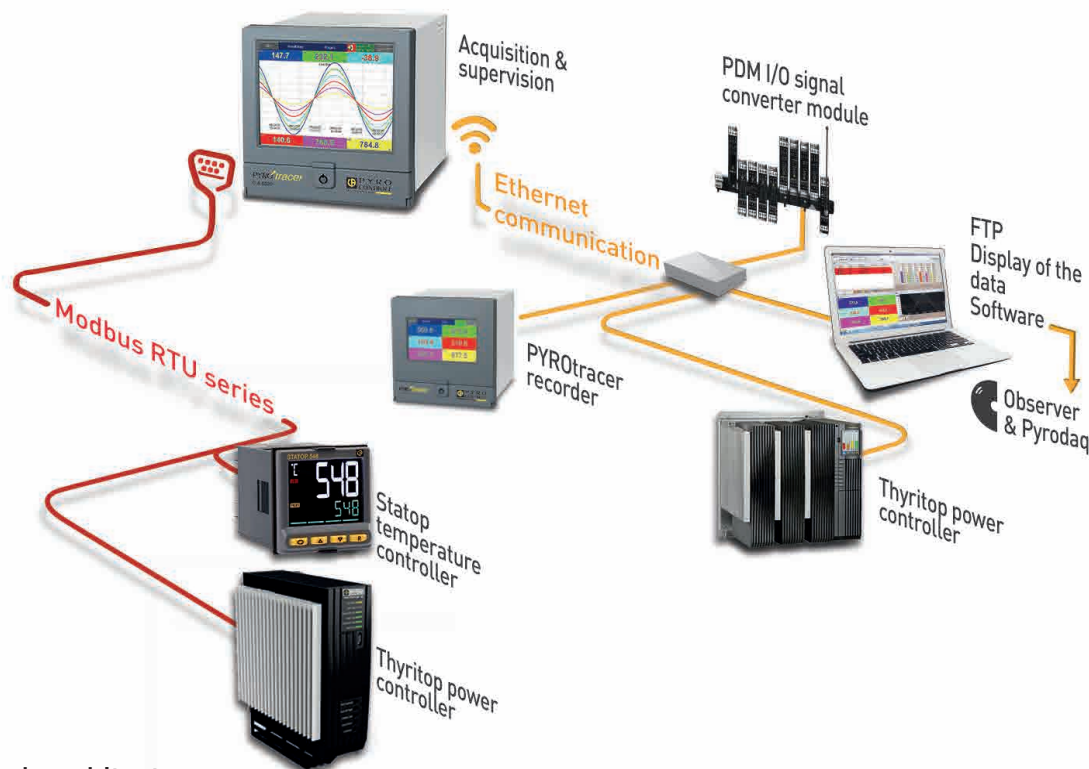
### ■ Extension by "PLUG & PLAY"

Adding inputs/outputs has never been so simple! The input/output modules are "Plug and Play" add-ons recognized automatically by the recorder.

The content of the slots can be viewed directly on the set-up screen.

## Application: global supervision of an installation

### PYROtracer Modbus RTU series



### ■ Network architecture

With the Modbus master option **the C.A 6500 range** is open to the outside world. Slave peripheral devices can be connected and their data can be recorded on the C.A 6500, thus taking advantage of the recorder's features (secure data storage, remote viewing, etc.) These peripherals behave like external inputs. Up to 96 external inputs can be managed, depending on the recorder used.

It is also possible to control these peripherals via the touch screens of your C.A 6500 recorders.

**Examples of use:** *changing the setpoint of a controller, acknowledging alarms remotely. On the ETHERNET network and with a serial link, the C.A 6500 range can act as master or slave according to your requirements.*

In this example: the C.A 6500 is the MODBUS RTU link master and the ETHERNET network master.

## C.A 6500 Range



## C.A 6510

### Inputs/Outputs

Number of universal inputs

Number of external inputs

Types of inputs

Digital inputs

Pulse inputs

Relay outputs

Acquisition interval

### Advanced functions

Math channels

Customizable screens + Panel Studio software

Batch management

FDA 21CFR Part11

### Display

Number of traces per page

Number of pages

### Screen

Screen (extra-bright)

Resolution

Backlighting MTBF at 25°C (Max. brightness)

Backlighting

Screen saver

### Memory

Processor

Internal Flash memory

RAM

SD Card slot

USB connectors

### Communication interfaces

Sending of email

Ethernet

RS232 and RS422/485

Master communication

WEB server

### Software: configuration & display

OBSERVER PC Historical Viewer + Configuration

PYRODAQ real-time display

### Mechanical specifications

Dimensions (LxHxD)

Mounting depth

Panel cutout (LxH)

Portable version

### Power supply & environment

Power supply

Ingress protection

Operating temperature

Storage temperature

Certifications

### Other parameters

Operating system

Languages

On/Off button

Calibration

3-6

24

> Thermocouples: J, K, T, E, B, R, S, N, L, U, P, W5, W3, LR, A1, A2, A3, M  
> RTDs: Pt50, Pt100, Pt200, Pt500, JPt50, JPt100, JPt200, JPt500, Pt1000 (α=0.00385), Pt50, Pt100(α=0.00391)  
> Cu10 (α=0.00427), Cu50, Cu100 (α=0.00427, α=0.00428), Ni100, Ni200, Ni500, Ni1000 (α=0.00428)  
> Universal: mA, V, mV

Up to 6

Up to 6

Up to 6

Down to 100 ms per channel

15

option

option

option

6

8

4.3" colour TFT touch screen

480x272

30,000 hours

LEDs with adjustable brightness

1 to 60 minutes

ARM Cortex-A8, 1 GHz

256 MB

256 MB

yes

x2, one on front panel, one on rear panel

yes

Modbus TCP/IP

option

option

yes

yes

option

144x144x189 mm

171 mm

137x137 mm

option

11-36 VDC or 90-250 VAC

IP65 front panel, IP20 rear panel

0°C to 50°C

-30°C to 70°C

CE, cULus, RoHS

Windows CE version WINCE 6.0

19 integrated languages

yes

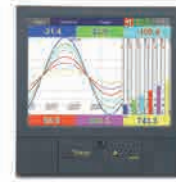
On-site calibration possible



# C.A 6500 | TECHNICAL SPECIFICATIONS



**C.A 6520**



**C.A 6530**

3-6-12-18-24

48

6-16-18-24-30-36-42-48

96

- > Thermocouples: J, K, T, E, B, R, S, N, L, U, P, W5, W3, LR, A1, A2, A3, M
- > RTDs: Pt50, Pt100, Pt200, Pt500, JPt50, JPt100, JPt200, JPt500, Pt1000 ( $\alpha=0,00385$ ), Pt50, Pt100( $\alpha=0,00391$ )
- > Cu10 ( $\alpha=0,00427$ ), Cu50, Cu100 ( $\alpha=0,00427$ ,  $\alpha=0,00428$ ), Ni100, Ni200, Ni500, Ni1000 ( $\alpha=0,00428$ )
- > Universal: mA, V, mV

Up to 12

Up to 12

Up to 12

Down to 100 ms per channel

40

option

option

option

6

20

Up to 18

Up to 18

Up to 24

Down to 100 ms per channel

60

option

option

option

10

21

5.6" colour TFT touch screen

640x480

30,000 hours

LEDs with adjustable brightness

1 to 60 minutes

12.1" colour TFT touch screen

1024x768

60,000 hours

LEDs with adjustable brightness

1 to 60 minutes

ARM Cortex-A8, 1 GHz

256 MB

256 MB

yes

x2, one on front panel, one on rear panel

ARM Cortex-A8, 1 GHz

256 MB

256 MB

yes

x2, one on front panel, one on rear panel

yes

Modbus TCP/IP

option

option

yes

yes

Modbus TCP/IP

option

option

yes

yes

option

yes

option

144x144x189 mm

171 mm

137x137 mm

option

288x288x189 mm

171 mm

281x281 mm

option

11-36 VDC or 90-250 VAC

IP65 front panel, IP20 rear panel

0°C to 50°C

-30°C to 70°C

CE, cULus, RoHS

11-36 VDC or 90-250 VAC

IP65 front panel, IP20 rear panel

0°C to 50°C

-30°C to 70°C

CE, cULus, RoHS

Windows CE version WINCE 6.0

19 integrated languages

yes

On-site calibration possible

Windows CE version WINCE 6.0

19 integrated languages

yes

On-site calibration possible

## To order

Products  No. of channels  Inputs / Outputs

Products	No. of channels	Inputs / Outputs
C.A 6510	3	0   Not supplied
		6   3 relays + 3 DI
	6	0   Not supplied
		1   6 relays
		3   6 DI
		6   3 relays + 3 DI
7   6 relays + 6 DI		

C.A 6520	3	0   Not supplied
		6   3 relays + 3 DI
		C   3 relays + 3 DI + 6 AO
	6	0   Not supplied
		1   6 relays
		3   6 DI
		5   6 AO
		6   3 relays + 3 DI
		7   6 relays + 6 DI
		A   6 relays + 6 AO
		B   6 DI + 6 AO
	C   3 relays + 3 DI + 6 AO	
	12	0   Not supplied
		1   6 relays
		2   12 Relays
		3   6 DI
		4   12 DI
		5   6 AO
		6   3 relays + 3 DI
		7   6 relays + 6 DI
		8   9 Relays + 3 DI
		9   3 Relays + 9 DI
	A   6 Relays + 6 AO	
	B   6 DI + 6 AO	
C   3 relays + 3 DI + 6 AO		
18	0   Not supplied	
	1   6 relays	
	3   6 DI	
	6   3 relays + 3 DI	
24	0   Not supplied	



### Power supply

- A 90-250V 50/60Hz
- B 11-36 Vdc

### Communication

- 0 Standard Ethernet
- 1 Ethernet + RS232
- 2 Ethernet + RS422/485

### Advanced functions

- 0 Standard
- 1 FA1 Math functions - Modbus Master - Batch - 21 CFR Part 11
- 2 FA2 Customized screen - Panel Studio software
- 3 FAI3 = FA1 + FA2

### Display software

- 0 Historical Viewer & Configuration software - Observer
- 1 Data Acquisition Studio software (Real time Viewer-Pyrodaq)

### Mounting

- 0 Flush-mounted without On/Off switch
- 1 Flush-mounted with On/Off switch
- 2 Portable + UL & CSA cable
- 3 Portable + VDE cable

### Archiving

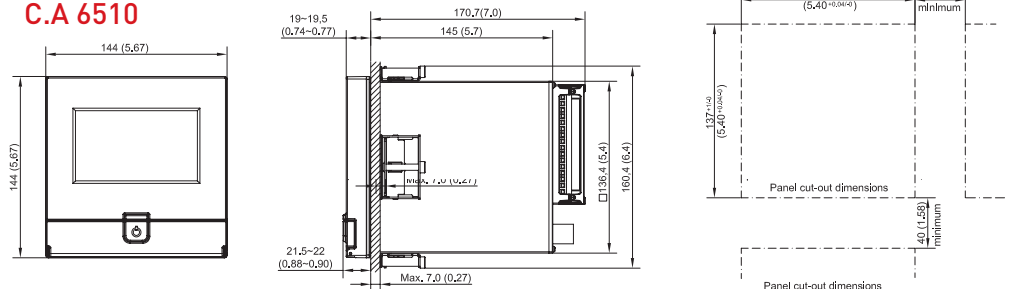
- 0 None
- 1 16 GB SD Card
- 2 32 GB SD Card
- 3 16 GB USB key
- 4 32 GB USB key

### Calibration certificate

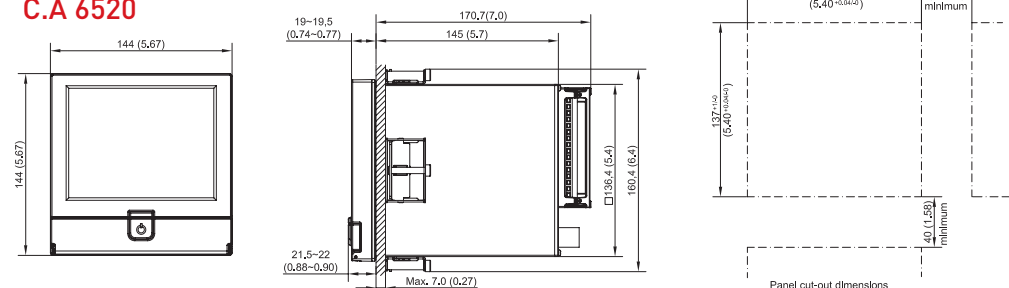
- 0 None
- 1 Calibration certificate

## Dimensions

### C.A 6510



### C.A 6520



### Example of order:

C.A 6520, 12 channels, 12 relays, 11 to 36 VDC power supply, communication: Ethernet+RS422/485, advanced functions 1, Pyrodaq software, mounting: flush-mounted with switch, 32 GB USB key, with a calibration certificate.

► order:

C.A 6520 -12-2-B-2-1-1-1-4-1



## ■ To order

### Number of channels

6 | 12 | 18 | 24 | 30 | 36 | 42 | 48

### Relay outputs

- 0 Not supplied
- 1 6 Relays
- 2 12 Relays
- 3 18 Relays
- 4 24 Relays

### Logic inputs

- 0 Not supplied
- 1 6 DI
- 2 12 DI
- 3 18 DI

### Analogue outputs

- 0 Not supplied
- 1 6 AO
- 2 12 AO

### Power supply

- A 90-250 V 50/60 Hz
- B 11-36 Vdc

### Communication

- 0 Standard Ethernet
- 1 Ethernet + RS232
- 2 Ethernet + RS422/485

### Advanced functions

- 0 Standard
- 1 FA1 Math functions - Modbus Master - Batch - 21 CFR Part 11
- 2 FA2 Customized screen - Panel Studio software
- 3 FAI3 = FA1 + FA2

### Display software

- 0 Historical Viewer & Configuration software - Observer
- 1 Data Acquisition Studio software (Real time Viewer) Pyrodaq

### Mounting

- 0 Flush-mounted without On/Off switch
- 1 Flush-mounted with On/Off switch
- 2 Portable + UL & CSA cable
- 3 Portable + VDE cable

### Archiving

- 0 None
- 1 16 GB SD Card
- 2 32 GB SD Card
- 3 16 GB USB key
- 4 32 GB USB key

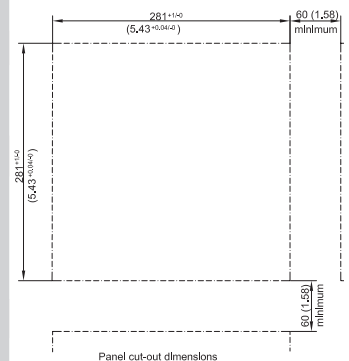
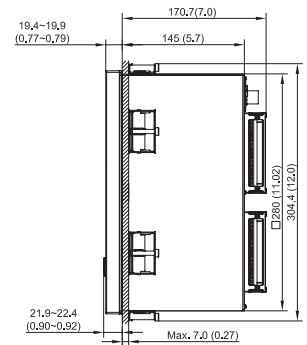
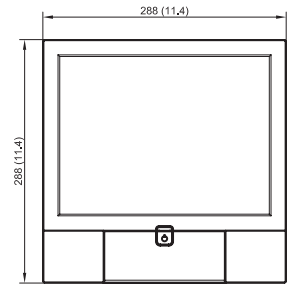
### Calibration certificate

- 0 None
- 1 Calibration certificate

## Example of order:

C.A 6530, 48 channel, 24 relay outputs, 18 DI logic inputs, 12 analogue outputs, Power supply 90 to 250 V, communication: Ethernet+RS232, standard advanced functions, Pyrodaq software, portable mounting + VDE cable, with 16 GB SD Card, with calibration certificate ► order: C.A 6530-48-4-3-2-A-1-0-1-3-1-1

## ■ Dimensions



# 10 subsidiaries worldwide

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