

# C.A 1821 / C.A 1822 / C.A 1823

## Logger contact thermometers



### ***Versatility and high performance for temperature measurements***

- J, K, T, N, E, R and S thermocouples (C.A 1821 & C.A 1822)
- Pt100 and Pt1000 resistance probes (C.A 1823)
- Compact and magnetized for fixed or portable use
- Recording of up to 1 million points
- Alarms and recording triggered on alarms
- Battery life of up to 3 years



*Measure up*



# Logger contact thermometers

Ingress protection: IP54 casing

Wide backlit display

Very simple portable use  
1 key = 1 function!

USB and Bluetooth communication  
for data transfers and configuration of recording



**ALARM:** alarm thresholds can be set using the software  
Visual alert on the product in the event of overruns  
Recording can be triggered on alarm thresholds



Standard "compensated miniature female" connectors (C.A 1821 and C.A 1822)

Multifix-compatible magnetized product



Shockproof sheath available as an accessory



Long battery life:  
up to 1,000 hrs (portable mode)  
3 years for recording (15-minute measurement interval)

C.A 1821



C.A 1822



C.A 1823



Thermocouple thermometer

J, K, T, N, E, R, S  
1 channel

Thermocouple thermometer

J, K, T, N, E, R, S  
2 channels

Resistance thermometer

Pt100, Pt1000  
1 channel

	Thermocouple thermometer	Thermocouple thermometer	Resistance thermometer
Measurement range	J - 210 to + 1,200 °C -346 to + 2,192 °F K - 200 to + 1,372 °C -328 to + 2,501 °F T - 250 to + 400 °C -418 to + 752 °F N - 200 to + 1,300 °C -328 to + 2,372 °F E - 150 to + 950 °C -238 to + 1,742 °F R 0 to + 1,767 °C 32 to + 3,212 °F S 0 to + 1,767 °C 32 to + 3,212 °F	J - 210 to + 1,200 °C -346 to + 2,192 °F K - 200 to + 1,372 °C -328 to + 2,501 °F T - 250 to + 400 °C -418 to + 752 °F N - 200 to + 1,300 °C -328 to + 2,372 °F E - 150 to + 950 °C -238 to + 1,742 °F R 0 to + 1,767 °C 32 to + 3,212 °F S 0 to + 1,767 °C 32 to + 3,212 °F	- 100 to + 400°C -148 to + 752°F
Resolution	Display in °C: $\sigma < 1,000$ °C : 0.1 °C and $\sigma \geq 1,000$ °C : 1 °C Display in °F: $\sigma < 1,000$ °F : 0.1 °F and $\sigma \geq 1,000$ °F : 1 °F	Display in °C: $\sigma < 1,000$ °C : 0.1 °C and $\sigma \geq 1,000$ °C : 1 °C Display in °F: $\sigma < 1,000$ °F : 0.1 °F and $\sigma \geq 1,000$ °F : 1 °F	Display in °C : 0.1°C Display in °F : 0.1°F
Intrinsic uncertainty in °C	(J, K, T, N, E) $\sigma \leq - 100$ °C $\pm (0.2\% \text{ Reading} + 0.6^\circ\text{C})$ $- 100^\circ\text{C} < \sigma \leq + 100^\circ\text{C} \pm (0.15\% \text{ R} + 0.6^\circ\text{C})$ $+ 100^\circ\text{C} < \sigma \pm (0.1\% \text{ R} + 0.6^\circ\text{C})$ (R, S) $\sigma \leq + 100^\circ\text{C} \pm (0.15\% \text{ R} + 1.0^\circ\text{C})$ $+ 100^\circ\text{C} < \sigma \pm (0.1\% \text{ R} + 1.0^\circ\text{C})$	(J, K, T, N, E) $\sigma \leq - 100$ °C $\pm (0.2\% \text{ Reading} + 0.6^\circ\text{C})$ $- 100^\circ\text{C} < \sigma \leq + 100^\circ\text{C} \pm (0.15\% \text{ R} + 0.6^\circ\text{C})$ $+ 100^\circ\text{C} < \sigma \pm (0.1\% \text{ R} + 0.6^\circ\text{C})$ (R, S) $\sigma \leq + 100^\circ\text{C} \pm (0.15\% \text{ R} + 1.0^\circ\text{C})$ $+ 100^\circ\text{C} < \sigma \pm (0.1\% \text{ R} + 1.0^\circ\text{C})$	$\pm (0.4\% \text{ R} + 0.3^\circ\text{C})$

## FUNCTIONS

Recording	<b>Manual start/stop on the product</b> Short press on MEM: spot recording / Long press on REC: recording at the rate of the current mode <b>Programmed recording</b> Start date, recording rate (interval from 1 minute to 2 hours) and end date can be customized with the PC software
Alarms	Alarm thresholds set using the software. Visual alert on the product in the event of an overrun Recording can be triggered on alarm thresholds
Data storage	More than 1 million points
Min-Max-Hold	Yes
Differential measurement	C.A 1822 only
Units	°C or °F
Backlighting	Yes
Automatic power off	Yes (configurable)

## POWER SUPPLY

Type	3 x 1.5V AA / LR6 alkaline batteries Mains connection possible with the mains / micro USB adapter proposed as an accessory
Battery life	C.A 1821 & C.A 1822: 1,000 hrs (portable mode) C.A 1823 : 800 hrs (portable mode) 3 years for recording (15-minute measurement interval)

## PHYSICAL SPECIFICATIONS

Interfaces	2 possible communication modes: Bluetooth and USB
Fixations	Casing equipped with a magnet, a wall-mount system and a slot for suspension of the product. Compatible with the Multifix accessory. Sheath available as an accessory
Connections	C.A 1821 and 1822: compensated miniature female connectors C.A 1823: 3-point flat connector
Dimensions / weight	150 x 72 x 32 mm / 260 g with batteries
Ingress protection	IP54 casing
Product operating range	Temperature from -10 to +60 °C / Humidity from 10 to 90 %RH
Standards	IEC61010-1 / IEC 61326-1

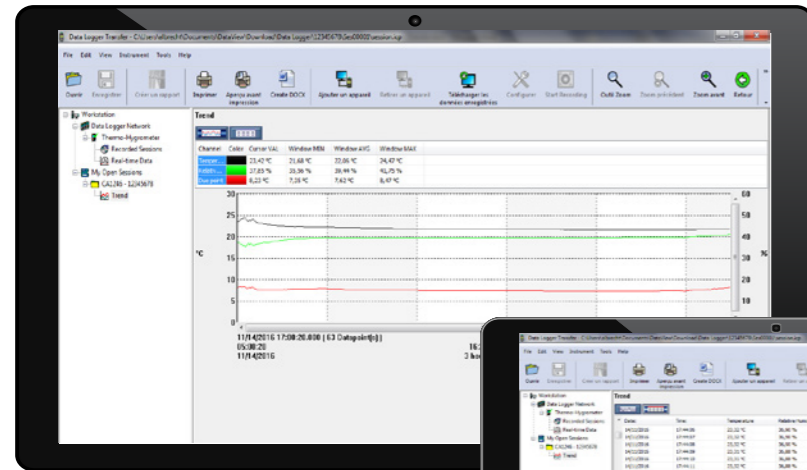
## GENERAL SPECIFICATIONS

Windows Data Logger Transfer software functions	Real-time mode Automatic report generation in Word format Data format compatible with the Dataview software Graph or value-table presentation Data export in graph or Excel table format
Warranty	2 years

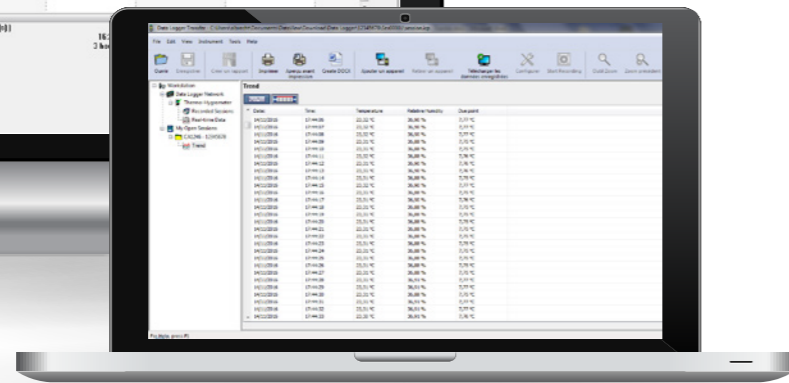


# Data processing software

## Data Logger Transfer, the software for analysing your data



Download and display of the data stored in memory  
Display in table or graph form



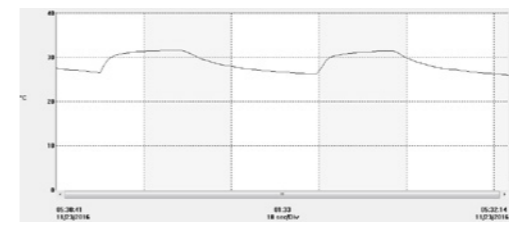
Automatic report generation



Session: Loc  
Par  
Location: C.A  
Inst. Model: C.A  
Inst Serial: A0  
Inst Name: Ch

Instrument : CA 1821      Nom : CA 1821\_A0629      N° de série : A0629  
Emplacement : Local 1  
Début : 23/11/2016 09:30:00      Fin : 23/11/2016 09:56:00      Nombre enregistrements : 15

Statistiques	Date	Heure	V1 [°C]	V2 [ ]	V3 [ ]
Moyenne	09/09/2014	09:30:00	36		
Min	09/09/2014	09:30:00	30		
Max	09/09/2014	09:40:00	50		
<b>Données</b>					
01	09/09/2014	09:30:00	30		
02	09/09/2014	09:31:00	32		
03	09/09/2014	09:32:00	35		
04	09/09/2014	09:33:00	36		
05	09/09/2014	09:35:00	40		
06	09/09/2014	09:36:00	40		
07	09/09/2014	09:37:00	42		
08	09/09/2014	09:40:00	50		
09	09/09/2014	09:41:00	45		
10	09/09/2014	09:43:00	44		
11	09/09/2014	09:42:00	31		
12	09/09/2014	09:42:30	31		
13	09/09/2014	09:42:50	32		
14	09/09/2014	09:44:00	33		
15	09/09/2014	09:45:00	32		
16	09/09/2014	09:46:00	45		
17	09/09/2014	09:47:00	41		
18	09/09/2014	09:48:00	31		
19	09/09/2014	09:49:00	31		
20	09/09/2014	09:50:00	32		
21	09/09/2014	09:51:00	33		
22	09/09/2014	09:52:00	32		
23	09/09/2014	09:53:00	33		
24	09/09/2014	09:54:00	32		
25	09/09/2014	09:55:00	33		
26	09/09/2014	09:56:00	32		



Exportable in Word format

This simplifies printing and archiving



Configuration of the instruments connected  
Programming of recordings and alarms  
Data capture and display in real time



### ADDITIONAL INFORMATION

Export into an Excel spreadsheet or a jpeg file  
Export of measurement data into DataView (\*.dvb files)  
Multilingual software

### Minimum configuration:

- Windows 7 (32/64 bits)
- 2 GB RAM
- 200 MB disk space
















Windows® is a registered trademark of Microsoft®.



To obtain this application software  
Visit our website at  
[www.chauvin-arnoux.com](http://www.chauvin-arnoux.com)

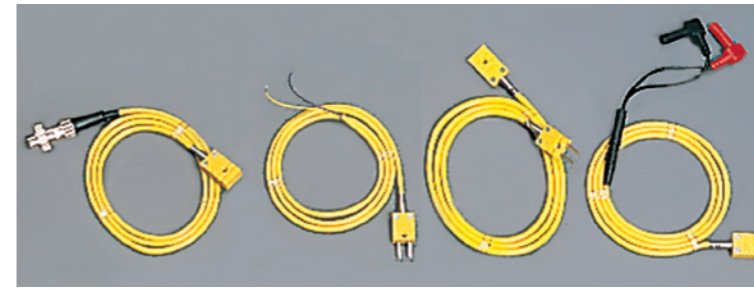
# Sensors

## K THERMOCOUPLE

Models	Description	Measurement range	Tolerance class	63% response time	Plunger diameter	Plunger length
 SK 20 / P01655010	Flexible general-purpose sensor made of inconel 600	-50°C to 450°C	Class 1	1 second	1.5 mm	1 m
 SK13 / P03652918	General-purpose sensor with stainless-steel sheath	-50°C to 1100°C	Class 2	12 seconds	3 mm	30 cm
 SK3 / P03652903	Semi-rigid general-purpose sensor with stainless-steel sheath	-50°C to 1000°C	Class 2	6 seconds	4 mm	50 cm
 SK2 / P03652902	Bendable general-purpose sensor with stainless-steel sheath	-50°C to 1000°C	Class 2	2 seconds	2 mm	1 m
 SK6 / P03652906	Flexible sensor not suitable for liquids	-50°C to 285°C	Class 2	1 second with contact 3 s ambient	1 mm	1 m
 SK7 / P03652907	Air sensor for ambient measurements	-50°C to 250°C	Class 2	5 seconds	5 mm	15 cm
 SK17 / P03652921	Air sensor for ambient measurements with handle and spiral cable	-50°C to 600°C	Class 2	5 seconds	6 mm	13 cm
 SK1 / P03652901	Needle sensor for penetration with stainless-steel sheath	-50°C to 800°C	Class 2	1 second	3 mm	15 cm
 SK11 / P03652917	Needle sensor for penetration with handle and stainless-steel sheath	50°C to 600°C	Class 2	12 seconds	3 mm	13 cm
 SK4 / P03652904	Sheathed surface sensor with stainless-steel sensing element and Teflon base	0°C to 250°C	Class 2	1 second	5 mm	15 cm
 SK14 / P03652919	Elbowed surface sensor	-50°C to 450°C	Class 2	8 seconds	6 mm	13 cm
 SK5 / P03652905	Surface sensor with spring	-50°C to 500°C	Class 2	1 second	5 mm, diameter in contact 8.5 mm	15 cm
 SK15 / P03652920	Surface sensor with spring and handle	-50°C to 900°C	Class 2	2 seconds	8 mm	13 cm
 SK8 / P03652908	Pipe sensor	-50°C to 140°C	Class 2	10 s on stainless-steel pipe Ø 12mm	90 mm	32 cm
 SK19 / P03652922	Magnetic sensor with magnet for flat metal surfaces.	-50°C to 200°C	Class 2	7 seconds	4 mm	1 m

Class 1: -40 °C... +375 °C: ± 1.5°C / +375 °C...+1,000°C : ± 0.004 x t°C · Class 2 : -40 °C... +333 °C : ± 2.5°C / +333 °C...+1,200°C : ± 0.0075 x t°C  
Standard compensated miniature male 2-pole connector / Spiral cable: 45 cm to 1 m

## EXTENSIONS FOR THERMOCOUPLES





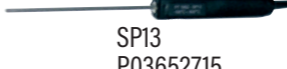


Models	Description	Ø	Length
CK1	Terminated by male plug / female plug	4 mm	1 m
CK2	Terminated by male plug / 2 bare wires	4 mm	1 m
CK3	Terminated by 5-pin DIN plug / female socket	4 mm	1 m
CK4	Terminated by 2 banana plugs / female socket	4 mm	1 m

Temperature withstand of extensions: -40 °C to +100 °C



## PT100 Ω TEMPERATURE SENSORS

Models	Description	Measurement range	Tolerance class	63% response time	Plunger diameter	Plunger length
 SP14 P01655020	General-purpose sensor with stainless-steel sheath	-40 to 450°C	Class A	7 seconds	3 mm	20 cm
 SP10 P03652712	Surface sensor with spring	-50°C to 200°C	Class B	6 seconds	5 mm	13 cm
 SP11 P03652713	Stainless-steel needle sensor for penetration	-100°C to 600°C	Class B	7 seconds	3 mm	13 cm
 SP12 P03652714	Air sensor	-100°C to 600°C	Class B	5 seconds	5 mm	13 cm
 SP13 P03652715	Stainless-steel sensor for immersion	-100°C to 600°C	Class B	7 seconds	3 mm	13 cm

Class A: 0.15°C + 0.002 x [t]°C  
Class B: 0.3°C + 0.005 x [t]°C Miniature flat-pin connector, 3 poles · Spiral cable: 45 cm to 1 m





**Standard state at delivery:**



**Bag, 3 x 1.5 V AA alkaline batteries, USB cable, test report and quick start-up guide** (Complete user manual and Data Logger Transfer software available from the Chauvin Arnoux website)

**TO ORDER**

- C.A 1821 Single-channel thermocouple thermometer** ..... P01654821
- C.A 1822 Two-channel thermocouple thermometer** ..... P01654822
- C.A 1823 Single-channel resistance thermometer** ..... P01654823

**Accessories / Replacement parts**

**K THERMOCOUPLE SENSORS**

SK 1 ..... P03652901	SK 6 ..... P03652906	SK 14 ..... P03652919
SK 2 ..... P03652902	SK 7 ..... P03652907	SK 15 ..... P03652920
SK 3 ..... P03652903	SK 8 ..... P03652908	SK 17 ..... P03652921
SK 4 ..... P03652904	SK 11 ..... P03652917	SK 19 ..... P03652922
SK 5 ..... P03652905	SK 13 ..... P03652918	SK 20 ..... P01655010

**EXTENSIONS FOR THERMOCOUPLES**

CK 1 ..... P03652909	CK 3 ..... P03652913
CK 2 ..... P03652910	CK 4 ..... P03652914

**PT100 Ω TEMPERATURE SENSORS**

SP 10 ..... P03652712	SP 12 ..... P03652714
SP 11 ..... P03652713	SP 13 ..... P03652715
	SP 14 ..... P01655020

- |  |  |
|--|--|
| Handle for K TC extension ..... P03652912    | Bag ..... P01298075                                      |
| Connector for K thermocouple ..... P03652925 | Metal case ..... P01298071                               |
| Shockproof sheath + Multifix ..... P01654252 | Dataview software ..... P01102095                        |
| Multifix ..... P01102100Z                    | Bluetooth BLE / USB modem for PC ..... P01654253         |
| Mains adapter ..... P01651023                | 4 x AA/LR6 NiMH Batteries + Battery charger ..... HX0053 |

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