CHAUVIN® ARNOUX

CHAUVIN ARNOUX GROUP

PHYSICS *line*

C.A 861

K-type
Thermocouple
Thermometer

Contact Thermometry

Its easy to test temperature up to 1350°C

A wide range of sensors available

- 1 K-type thermocouple input
- Robust: protective shock-proof sheath

Measurement range	-40 °C to +1350 °C
Resolution	a choice of 0.1° or 1°
Accuracy	± (0.1 % of the reading + 1 °C)

✓ Choice of measurement unit: °C / °F

✓ Hold and Maximum functions

✓ Backlit 2000-ct display

Operating conditions:
- Temperature: 0 to 50 °C
- Humidity: < 80 % RH

Storing conditions:
- Temperature: -20 °C to +60 °C
- Humidity: < 80 % RH

Power supply: 1 x 9 V battery

Dimensions: 173 x 60.5 x 38 mm

Mass: 185 g

Supplied with 1 flexible K-type thermocouple sensor (-40 °C to +200 °C)

Food Service Industry

HVAC systems

Production

Industrial Refrigeration

Electrical, Mechanical Maintenance

Storage

Logistics

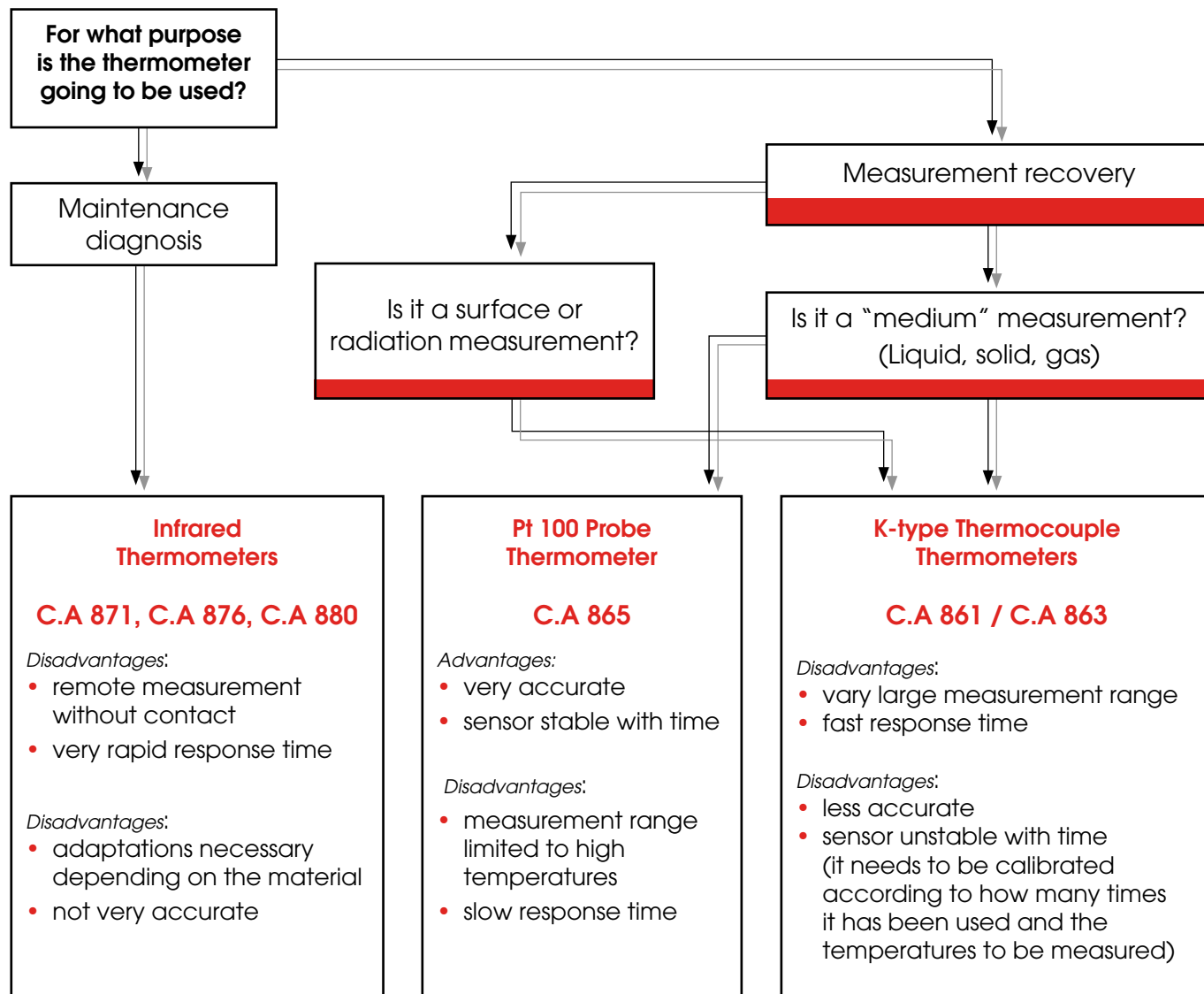Museums, Libraries, Archives

Distribution

To order

C.A 861 K-type Thermocouple Thermometer	P01.6501.01Z

How to choose a thermometer?

In order to determine which measurement instruments are best adapted to your needs, ask yourself the following questions:

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For what purpose
is the thermometer
going to be used?
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Maintenance diagnosis

Measurement recovery

Is it a surface or radiation measurement?

Is it a "medium" measurement? (Liquid, solid, gas)

Infrared Thermometers

C.A 871, C.A 876, C.A 880

Disadvantages:
- remote measurement without contact
- very rapid response time

Disadvantages:
- adaptations necessary depending on the material
- not very accurate

Pt 100 Probe Thermometer

C.A 865

Advantages:
- very accurate
- sensor stable with time

Disadvantages:
- measurement range limited to high temperatures
- slow response time

K-type Thermocouple Thermometers

C.A 861 / C.A 863

Disadvantages:
- vary large measurement range
- fast response time

Disadvantages:
- less accurate
- sensor unstable with time (it needs to be calibrated according to how many times it has been used and the temperatures to be measured)

Some advice for making good measurements:

➥ **Measurements with a penetrating sensor:** the end of the sensor needs to penetrate into a medium that is at least 10 times its diameter.

➥ **Air temperature measurements:** do not place hand on the active part of the sensor to avoid heating or cooling it. It is not a problem if the air or gas is in movement. However, if the air is, as we say, "immobile" (ex: ambient temperature) shake the sensor for 10 to 20 seconds before making the measurement.

➥ **Surface temperature measurements:** it is preferable to use infrared technology thermometers for making measurements on insulating material surfaces (low thermal conductivity) such as plastic, wood, ceramic, cement, paper, etc. The surface of the material should be in good condition.

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