

Cartridges CO² / 93°C

Technical File
T03004C

CARDE930020 to CARDE930165

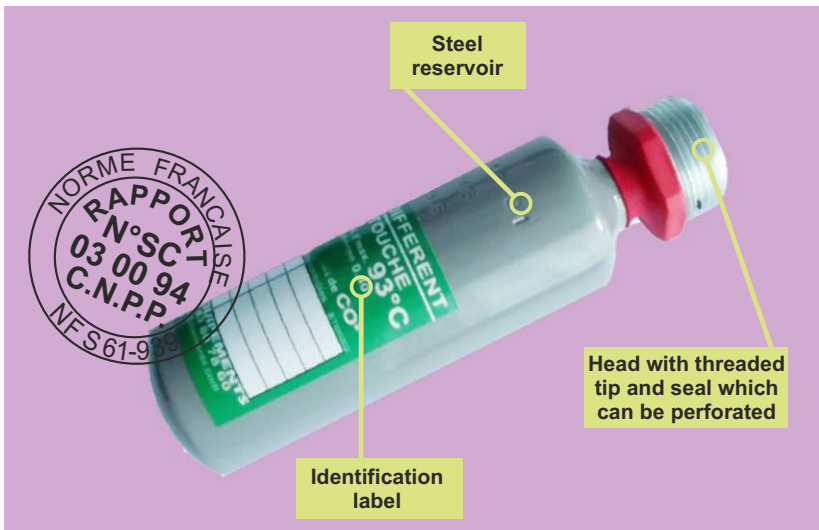
Description - General information

Single use Pneumatic Safety Circuits (PSC).

After percussion, the cartridge releases its entire contents ensuring the activation of one or more Smoke and Heat Exhaust Ventilator (SHEV) systems.

The cartridges of compressed carbon dioxide have been designated as "CO² bottles for single use" in the NF EN 12101-10 norm. They meet norm NF S 61-939 and norm NF EN 12205. The carbon dioxide is compressed at 60 bar, at about 20°C, equilibrated between liquid phase and gas phase.

They are used primarily in automatic control devices which need an intrinsic energy, for example : Thermofuses.



Two types of cartridge

- **WITHOUT** plunger tube
up to 100 g.
Mounted head upwards or head downwards.
- **WITH** plunger tube
over 100g
Mounted head upwards only

Reference	Mass CO ₂	Length L + or - 5 mm	Ø
CARDE930020	20 g	158	30
CARDE930040	40 g	170	30
CARDE930080	80 g	183	51
CARDE930165	165 g	260	60

Technical Characteristics

- Material : Steel resistant at 528 bar.
- Protection : Paint: RAL7037.
- Seal : Breaking under a pressure of between 350 and 450 bar.
- Threading : 21.7 x 1.814.
- Content : Co².
- Temperature during use : +93°C maximum
- Identification : Engraving and labelling.
- Charge rate : 0.40
- Grammage : 20, 80, 165 g.
- Precautions : Stock and install away from bad weather conditions.



Example of marking

VOLUMES RELEASED BY THE CO² CARTRIDGES in litres

PRESSURE in bar	WITHOUT PLUNGER TUBE			WITH PLUNGER TUBE
	20 g	40 g	80 g	165 g
25	0.23	0.46	0.93	2.73
22	0.28	0.55	1.11	3.26
20	0.32	0.63	1.27	3.74
18	0.37	0.73	1.46	4.31
15	0.46	0.89	1.78	5.25
12	0.57	1.14	2.27	6.67
10	0.69	1.38	2.75	8.10
8	0.87	1.74	3.47	10.2

All the values on the table above are approximate values :

The results, based on Van der Walls equation, are obtained from our spreadsheet certified by APRAGAZ and crosschecked by many internal measures. The values on the table above are for a room temperature of 20°C.



When they are mounted on the thermofuses, cartridges must be screwed in place manually.

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