



CANgas, the "smaller" alternative

As a leading gas manufacturer, Messer has a large number of high-purity gases and gas mixtures in its conventional cylinder gas program, generally in 10 or 50 liter cylinders. For many tests or measurements, however, gases are only required in minute quantities. The gas left in the cylinders remains unused.

Do you need just a small quantity of one specific gas, or of various high-purity gases or gas mixes, for special applications? Do you work only occasionally with gases, or would you like to experiment with different gases? For you, Messer has developed an easy, uncomplicated system - **CANgas!**

CANgas stands for our pressure can program – the right solution for you

- Pressure cans are small, light and handy
- Pressure cans can be stored almost anywhere
- Pressure cans are no problem to transport
- Handling pressure cans could not be simpler
- You have only the quantity you really need on site



	Pressure can 1 liter	Pressure can 0.5 liter
Geometric volume	1.0 liter	0.56 liter
Empty weight	approx. 113 g	approx. 80 g
Height	260 mm	190 mm
Diameter	75 mm	65 mm
Max. filling pressure	12 bar	12 bar
Gas content	12 liter*	6.7 liter*

* in the case of gases liquefied under pressure, higher content is possible



Filling plant

**Small, light and flexible:
The withdrawal system for pressure cans**

Thanks to a minimum of component parts, you can achieve maximum flexibility of application. The valves have been specially developed for the pressure can program. With their aluminum bodies, they are light yet strong.

Pressure cans are made of aluminum. The top valve is closed against atmospheric pressure by means of a spring. The tested pressure is 18 bar, so a maximum filling pressure of 12 bar is permitted. As a disposable container, the pressure can is suitable for aluminum recycling after use.

Filling is a precision work

Pressure cans are filled in a fully automatic filling plant. Gas mixtures, for example, are composed and homogenized in advance in the plant's large pressurized gas container. We execute purity analyses in each storage container from which the gas for pressure cans is taken, and randomly sample the filled batches, all to ensure that you receive gas of perfect quality in every pressure can.

Our system

The basic elements of the system are the valves, which can be screwed directly on to the pressure can. These are calculated for a primary pressure of 12 bar. The NPT 1/8" female thread on the output side permits a wide variety of connections for gas transfer.

It's your choice: Dosing with or without pressure reduction? Primary pressure indication? Constant withdrawal? With our system, you can assemble your own individual discharge valve.

If you cannot find the right combination for your requirements, we can most certainly do something to help. Just talk to us!



1. The dosing valve is used if:

- Pressure reduction is not necessary.
- Dosing only takes place for a short time. (Because of the falling primary pressure, constant discharge over a prolonged period is only possible with readjustment.)
- The connected system can withstand a pressure of 12 bar, or is open to the atmosphere.



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2. Due to its special construction the TOP-valve provides additional possibilities:

- Evacuation up to the closed top valve of the pressure can
- Low-contamination withdrawal



Article number:
1004526

3. The pressure regulator reduces the output pressure

to 0.6 bar (fixed factory set). The flow rate can be adjusted with the integrated dosing valve. The pressure in the can is visible at all times on the primary pressure manometer.

This valve offers you:

- Exact dosing at reduced working pressure
- Virtually constant discharge pressure with falling primary pressure
- Limitation of the pressurization in the connected system (e.g. glass apparatus or measuring instrument)



Article number:
1004519

4. The connecting technology always provides the matching output connections for your individual application:

- Plastic hose spout, NPT 1/8" male
- Adapter 1/8" NPT male for the combination of different equipment
- Clamping ring connection, stainless steel, 3 mm, NPT 1/8" male



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Article number:
1004523

5. Even more convenience if required - the accessories round off the system:

- The manometer for primary pressure indication
- The floating body flow meter for indication of the withdrawal flow (marks at 10, 20 und 40 l/h)
- The septum for the withdrawal of minute quantities for the calibration of gas chromatographs
- The wall mounting for the safe storage of pressure cans



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Article number:
1004522

Article number:
1007319

Some examples for combination possibilities:

Dosing at reduced working pressure



CANgas -
Combination 1
1004519

TOP-valve with pressure regulator



CANgas -
Combination 2
1004521

Dosing valve and pressure gauge



CANgas -
Combination 3
71708594

Dosing valve with pressure and flow gauge



CANgas -
Combination 4
71708741

TOP-valve and pressure gauge



CANgas -
Combination 5
1004527

Supply program

High purity gases and gas mixtures in pressure cans:

The following pure gases and gas mixtures in our standard program are available in 1l pressure cans:

Pure Gases		
Order No.	Product name	Content
101040011	Argon 5.0	12 l
106910011	Deuterium 2.7	12 l
107010011	Nitrous oxide 2.0	21 g
106640011	Ethane 3.5	12 l
106670011	Ethylene 3.5	12 l
102530011	Helium 5.0	12 l
103040011	Carbon dioxide 4.5	12 l
108110011	Krypton 4.0	12 l
108330011	Methane 4.5	12 l
108210011	Neon 4.0	12 l
104730011	Propane 3.5	7 l
104750011	Propylene 2.5	8 l
100070011	Oxygen 5.0	12 l
100540011	Nitrogen 5.0	12 l
100410011	Synth. air 5.0	12 l
104030011	Hydrogen 5.0	12 l
108010011	Xenon 4.0	12 l

Gas Mixtures - carrying gas Nitrogen		
Order No.	Component	Concentr.
110020011	CH ₄	1000 ppm
109310011	O ₂	1,0 %
109360011	O ₂	18,0 %
110080011	CO	220 ppm
110110011	CO ₂	5,0 %
110140011	CO ₂	50,0 %

Gas Mixtures - carrying gas Synth. Air		
Order No.	Component	Concentr.
109560011	CH ₄	1000 ppm
109590011	CH ₄	2000 ppm
109550011	CH ₄	0,88 %
109600011	CH ₄	1,76 %
109580011	CH ₄	2,0 %
109570011	CH ₄	2,5 %
109510011	C ₃ H ₈	1000 ppm
109490011	C ₃ H ₈	2400 ppm
109530011	C ₃ H ₈	6800 ppm
109540011	C ₃ H ₈	1,0 %
109800011	n-Butane	2800 ppm
109810011	n-Butane	5600 ppm
109790011	n-Butane	0,3 %
109780011	n-Butane	0,6 %
109410011	H ₂	100 ppm
109730011	H ₂	0,80 %
109720011	H ₂	1,00 %
109750011	H ₂	1,60 %
109670011	CO	150 ppm
109680011	CO	300 ppm
109690011	CO ₂	5000 ppm
109710011	CO ₂	3,0 %
109700011	CO ₂	5,0 %

Gas Mixtures - other carrying gases	
Order No.	
109030011	25,0 % Neon in Argon
109380011	25,0 % Argon in Neon
109060011	20,0 % CO ₂ in Helium

How fast may we deliver?

The high purity gases and mixtures you need (see table) are available for immediate delivery from stock. If you do not find the desired gas or gas mixture in our standard program, please contact us. We shall be glad to look at possibilities for production.

Small, practical and mobile: Whether in the laboratory or on the road, the handy pressure can will not let you down!



Messer Group GmbH
Gahlingspfad 31
47803 Krefeld
Tel. +49 2151 7811-0
Fax +49 2151 7811-501
info@messergroup.com
www.messergroup.com