

**TECHNICAL DATA SHEET FOR
PRODUCT NO. 510012
REGULATOR 510 CO2 FLOW CGA320**



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| 1. Description | : Single stage Shielding Gas Regulators used for Carbon Dioxide (CO ₂) gas, i.e. UNITOR C-9 and C-27 cylinders. |
| 2. Type of gas | : Carbon Dioxide. |
| 3. Standard | : ISO EN 2503 |

Technical Specifications

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| 4.1 Maximum inlet pressure | : 200 bar |
| 4.2 Output pressure | : 0-10 bar adjustable |
| 4.3 Flow Q max | : 50 m ³ / h |
| 4.4 Inlet thread | : CGA 320 |
| 4.5 Outlet thread | : G 1/4" |
| 4.6 Weight | : 1.5 kg |
| 5. Pressure gauge according to DIN EN 562, Ø 63 mm, category 2.5 | |
| 5.1 Input pressure gauge | : 0 – 200/315 bar |
| 5.2 Output pressure gauge | : 0 – 10/16 bar |

Maintenance Instruction – pressure regulator Kayser / Hercules

For pressure regulators according ISO 2503 for the connection to gas cylinders, used in welding, cutting and allied processes. Connections according to DIN 477 (200 bars) bzw. Hevos (300 bar).

Purpose of use:

Usage at gas cylinders for compressed gases and dissolved gases, as well as for liquid gases in accordance with DIN 53476 for regulating a generally variable inlet pressure to an outlet pressure as constant as possible.

Safety precautions

- ! Pressure regulators are only to be used for that type of gas for which the pressure regulator is marked.
- Pressure regulators are to be used according to the type of gas for pressure gas cylinders with max. 200/300 bars, in accordance with the marking.
- The national safety rules have to be followed.
- Adapters are not allowed to be used between cylinder valve and pressure regulator. Connections in accordance DIN 477.
- ! Do not use pressure regulators for gases in liquid phase.
- ! Do not use pressure regulators in a atmospherical temperature beyond -30 ° C and over +60 ° C.
- Without the approval of the manufacturer no changings or modifications at the pressure regulator are allowed.
- If not used properly and not used in accordance with the regulations dangers for the user and other persons as well as a damage of the equipment can occur.

Marks and classes of equipment

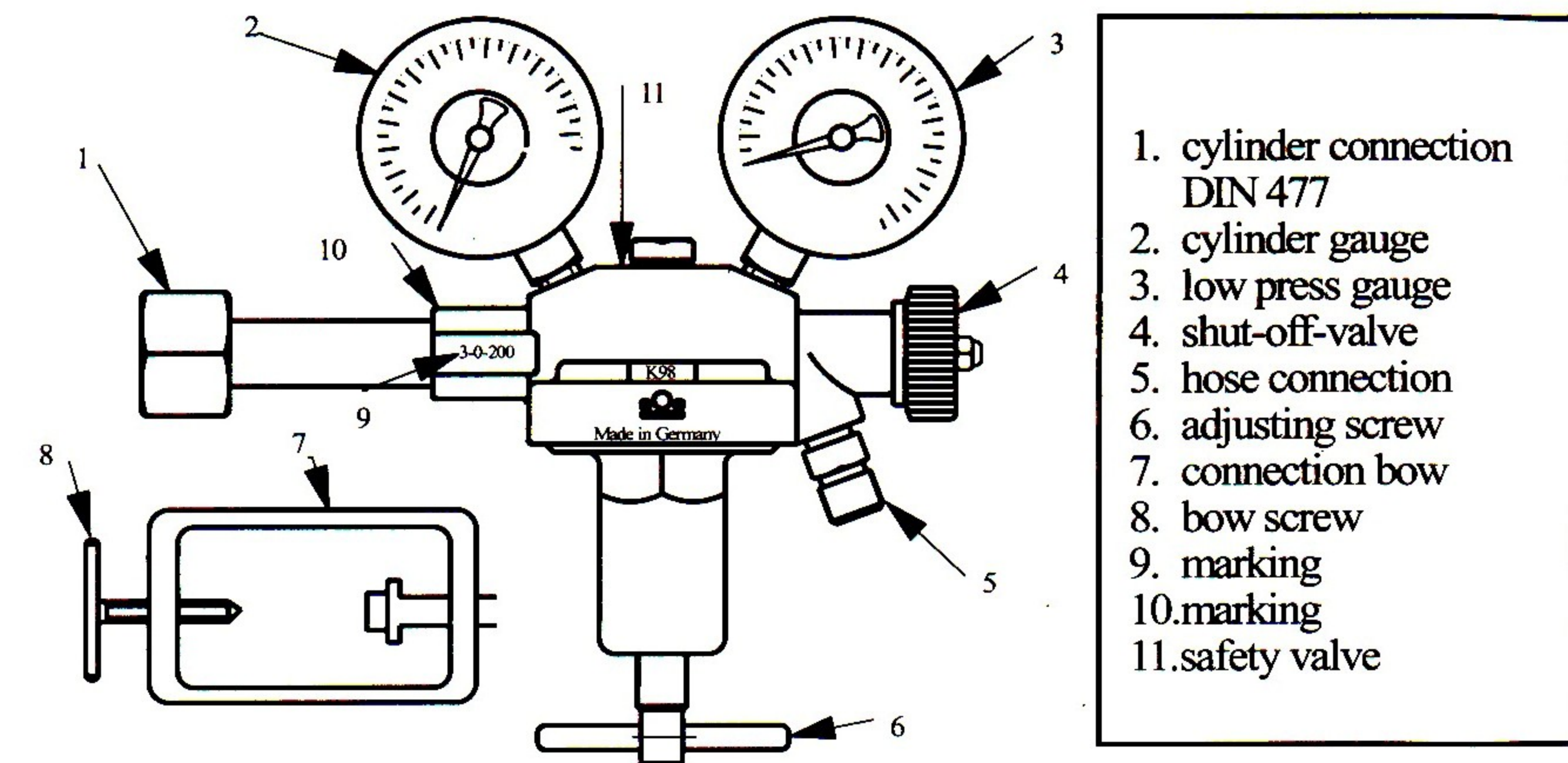
kind of gas	letter of identification	gas	class	highest inlet pressure P 1 bar (10 ⁻¹ Mpa)	highest outlet pressure P2 bar (10 ⁻¹ Mpa)	rated flow gas Q1 m ³ /h
acetylene	A	oxygen and	0		2	1,5
oxygen	O	other	1		4	5
hydrogen	H	compressed	2		6	15
compressed air	D	gases for 200	3	200/300	10	30
LPG	P	bar (20 Mpa)	4		12,5	40
MPS	Y	and 300 bar	5		20	50
Natural gas	M	(30 Mpa)				
CO ₂ ,	N	dissolved	1	25	0,8	1
nitrogen,		acetylene	2		< 1,5	5
inert gas						
		MPS	0	25	1,5	1
			1		4	5
		LPG	0	25	1,5	1
			1		4	5
		CO ₂	0	200	2	2
			1		4	2

Example: pressure regulator for oxygen inlet pressure 200 bar, back pressure 10 bar

3 - O - 200

3 = class, O = kind of gas, 200 = inlet pressure

KAYSER
Schweißgeräte und Propanarmaturen



Keep always:

- ! keep every part that is in connection with oxygen oil- and grease free.
Explosion hazard!
- ! Check if the cylinder valve connection is clean and without any damage (possibly blowout shortly! Do not direct the delivery end towards persons). Make sure the connection sealing is faultless, possibly exchange it. In case of damage, the pressure regulator is not allowed to be connected.
- Connection of the pressure regulator to the closed cylinder valve. Connect the inlet stem and nut with a wrench. The pressure regulator cover must shown downwards.
- Connect the safety components and the hoses to the outlet connection of the pressure regulator as instructed. Secure non-covered hoses with hose clamps.
- Release the adjusting spring with the adjusting screw – Close the shut-off valve at the pressure regulator and at the consumption equipment – open the cylinder valve **slowly** (hight pressure gauge shows the cylinder pressure) – adjust the desired outlet pressure at the adjusting screw – open the shut-off valve at the pressure regulator and at the consumption equipment a little bit – correct the pressure setting in case of a pressure decrease.

End of operation:

Close the cylinder valve – safely draw off the remaining gas – release the adjusting screw. Close the shut-off valves at pressure regulator and at the consumption equipment.

Precautions for operation and servicing:

- Pressure regulators are always to be protected from damages (visual control in regular intervals)!
- ! The adjustment on the relief valve is not allowed to be changed!
- Make sure that the connection sealings, the sealing surface and the gauge are in a faultless condition.
- ! In case of any fault, e.g. increasing outlet pressure during extraction = 0, leakiness against atmosphere, defective gauge or acting of relief valve, take the pressure regulator out of operation, close the cylinder valve immediately.

Repair:

- Repairs are only to be carried out by well-informed persons in authorised repair shops.
- A faultless functioning and safety are only ensured when original spare parts are used.
- The liability for consequences following repairs or changings taken on one's own authority by the user or third persons without permission of the producer is revoked.
- After repair the pressure regulator has to be completely checked. For type-permitted pressure regulators (oxygen and acetylene), the conditions of the type permission or the type-recognition has to be complied with.