

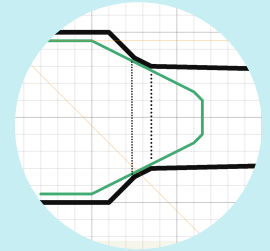
4-point-safety-valve.com

Optimized valve assembly for glass apparatus construction



The 4-point safety valve offers safety in handling, tightness, interchangeability and application labeling.

Multiple protective functions for glass housing and valve plunger thanks to damping elements. Highly vacuum-resistant design thanks to defined, high-precision valve seat from 45° to 60° in the glass housing and matching valve stem tip of 60° as well as multiple redundant valve stem seals to the glass housing. One valve plunger covers all available flow sizes 4, 6 and 8 mm. Optional color coding according to flow groups.



4 building blocks for more safety

elastomer bearings and pressure relief springs to protect the components during operation

Vacuum tightness due to multiple redundant seals against the glass housing

Replaceable valve spindle

Material group diagram based on DIN 2403



1

Handling

Multiple end position damping



2

Tightness

Multiple redundant seals



3

Interchangeable

One valve spindle for all sizes 4, 6 and 8 mm



4

Kennzeichnung

Through color coding

Disassembly and assembly of the 4-point safety valve

Dismantling: (First relieve the pressure spring !!!)

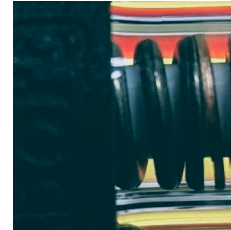
!!! With the valve closed, loosen the screw in the valve cap using a Phillips screwdriver size “PH1” or similar until the lens head protrudes from the cap or the pressure spring around the valve spindle is relieved.



Valve closed



Lens head protruding



Pressure spring relieved

Unscrew the unscrewing lock from the screw cap in the “Up >” direction, then unscrew the valve spindle.

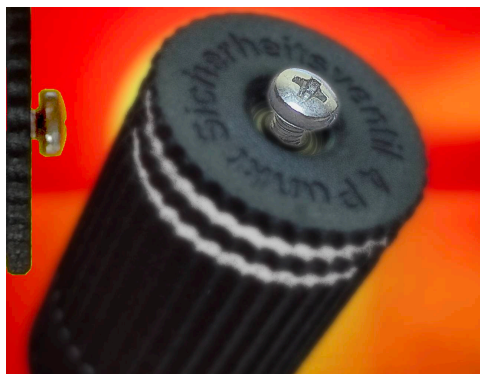


Assembly:

Screw the valve pin into GL18 until the screw cap is at the stop. Now screw in the protruding lens head until the valve seat opens slightly.



Screw cap on stop, valve closed



Screw in the protruding lens head until the valve opens

Finally, slowly unscrew the lens head until the valve seat is closed. Your valve is now set for high tightness and a long service life.

Final setting

Technical data 4-point safety valve

Description

| | |
|------------------------|--|
| Glass | DURAN®, Borosilicate glass 3.3 |
| Medium contact surface | PTFE<—>Glass |
| Valve handle | Polyamide |
| Field of application | Vacuum, gas, liquid |
| Temperature range | from -20 to +200 °C, high chemical resistance |
| Valve spindle | Interchangeable across all sizes 4, 6, 8 mm |
| Special design | for high vacuum resistance and increased glass stability |
| Further information | Ideal for precise dosing, the spindle adjusts automatically, available as a shut-off and globe valve, the valve plunger is also optionally available with an O-ring seal against the valve seat. |

COLOR CODING OF THE FLOW RATE GROUPS ACCORDING TO INTENDED USE USING RING MARKINGS ON THE VALVE HANDLE IN

Extended by : Group 0 - Vacuum-proof / Vacuum application = White, White

| Substance group | Flow-through substance examples | Color ring labeling |
|---|-------------------------------------|--|
| Group 0 - Vacuum-proof (Standard labeling) | Underpressure application | White , White |
| Group 1 - Water | Drinking water, hot water... | Green , Green |
| Group 2 - Water vapor | Exhaust vapor; superheated steam... | Red, Red |
| Group 3 - Air | Ventilation, exhaust air... | Gray, Gray |
| Group 4 - Flammable gases | Natural gas, flue gas... | Yellow, Additional color: Red |
| Group 5 - Non-flammable gases | CO2, carbon dioxide, nitrogen... | Yellow, Additional color: Black |
| Group 6 - Acid | Electrolyte, acetic acid... | Orange, Orange |
| Group 7 - Lye | Alkaline waste water, ammonia... | Violet , Violet |
| Group 8 -Flammable liquids | Alcohol, oils... | Brown, Additional color: Red |
| Group 9 - Non-flammable liquids | Emulsion, Glysantin... | Brown, Additional color: Black |
| Group 10 - Oxygen | Ozone | Blue , Blue |
| Group 11 - Inert gases | Argon, helium... | Green, Additional color: Brown |

 **Made in Germany**

By

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Online publications:

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| German  | https://4-punkt-sicherheitsventil.de |
| English   | https://4-point-safety-valve.com |

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