

### **OUALITY · PROTECTION · SAFETY**



# KITO® - Explosion protection and pressure holding concepts for transportable containers

#### General information

Transportable containers within the meaning of German standard TRGS 510 include tank containers (road semi-trailers) or rail tank cars.

When storing explosive mixtures, protective measures must be taken on the vessels in accordance with the German industrial safety regulation (BetrSichV). Further safety measures such as maintaining pressure may also be required during emptying, filling, cleaning, maintenance and repair.

Under the brand name KITO®, safety concepts for explosion protection and pressure holding for stationary and mobile plant components have been developed and corresponding valves produced in Braunschweig for over 90 years.

Special areas of application for KITO® valves are the protection of rail tank cars or tank vehicles.



## KITO® Protection of RTCs

These KITO® valves were developed for pressure and/or vacuum relief with a particularly low overall height.

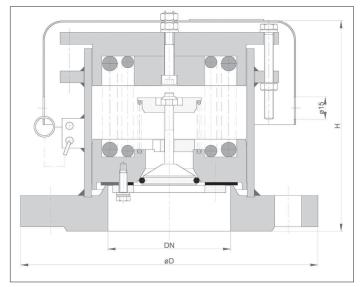




Image1: KITO® K/CVO-80

Combined overpressure and vacuum quick release valve with low overall height.

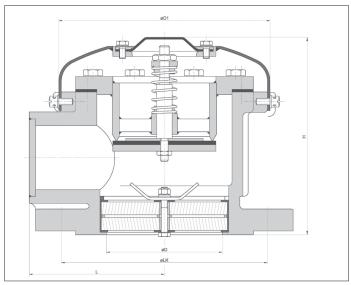


Image 2: KITO® KV/G

**Deflagration-proof vacuum valve** with low overall height for flammable liquids and gases up to explosion group IIA and a function control device for the valve head.

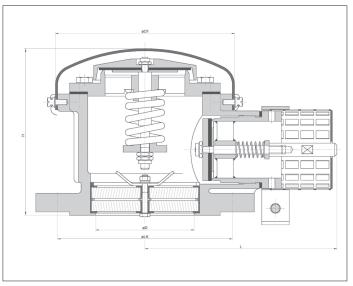


Image 3: KITO® K/DVE-IIB3-80

**Deflagration-proof overpressure and underpressure quick equalization valve** with low overall height for flammable liquids and gases up to explosion group IIB3.

## KITO® Protection of tank cars



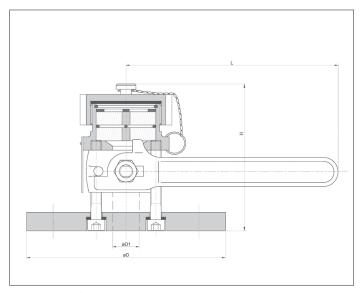


Image 4: KITO® DE/cont. 20

**Deflagration and endurance burning proof pressure relief device** for the transport of flammable liquids and gases up to explosion group IIB3 regulation on the transportation of dangerous goods (GGVSE/ADR, GGVSE/RID). Designed for safe pressure equalization with the atmosphere before opening tank caps or pipe connections.

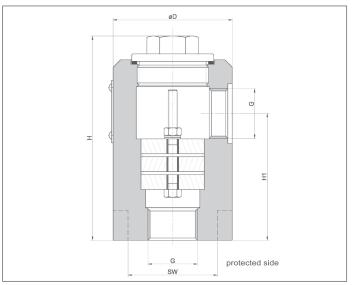


Image 5: KITO® Rd/C-Det4-IIA-1,2

**Uni-directional detonation flame arrester** for installation in pipelines to protect vessels and plant components. Suitable for all substances in explosion groups IIA1 to IIA.

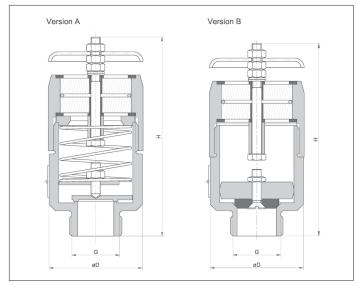


Image 6: KITO® DS/cont.25

**Deflagration and endurance burning proof pressure relief valve** for portable tanks (GGVSE/ADR, GGVSE/RID) for the transport of flammable liquids and gases up to explosion group IIB3 to prevent unacceptable tank overpressures due to heating and filling.

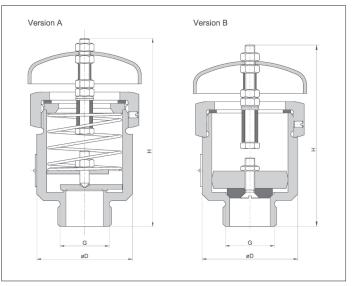
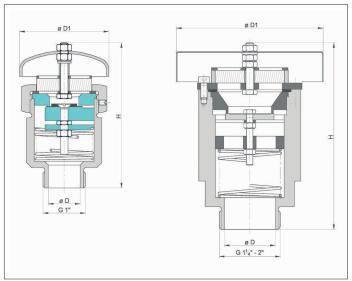


Image 7: KITO® DS/o cont.25

**Pressure relief valve** for portable tanks for transporting nonflammable liquids. To prevent inadmissible tank overpressures due to heating and filling.







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Image 8: KITO® VS/cont

**Deflagration-proof vacuum valve** for breathing openings in tanks, vessels and pipelines to prevent inadmissible vacuum. Suitable for all flammable liquids and gases up to explosion group IIB3.

Image 9: KITO® VS/o cont.

Vacuum valve for breathing openings in tank systems for ventilation and prevention of impermissible vacuum. Not applicable for storage of flammable liquids.





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