



KX1000

Efficient
Compact
Tight



1000 BAR



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Production and
development in
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coax®

solutions for the hydrogen industry

The energy revolution is well underway and the demand for renewable energies, particularly hydrogen, is skyrocketing. Green hydrogen plays a key role in the decarbonization of industry, energy and mobility. As a leading valve manufacturer, we are offering tailor-made solutions that will get you over the finish line efficiently.

Our coax® valves for hydrogen applications are specifically designed to meet these challenges. They stand out by a compact design, high flow rate, bi-directional operation and tightness at a pressure range of up to 1000 bar. You can count on our reliable products to meet your requirements and future challenges.

KX1000

coax® KX1000 high pressure valve for hydrogen applications up to 1000 bar



EFFICIENT

Large nominal diameter ensures very fast filling and emptying times:

The large nominal width of the KX1000 will shorten refuelling times, particularly given that significantly larger refuelling volumes are expected in the future, especially at H2 filling stations. This results in a much improved utilization level and increases efficiency.

Two-way flowability:

Thanks to the unique pressure-balanced design, the KX1000 valve can be flushed from both sides and is tightly sealed at the valve seat. The externally controlled valve requires only a fraction of the control air per stroke and functions reliably from a control air pressure of just 6 bar.

COMPACT

Extremely compact design and suitability for hydrogen applications:

The valve features a pressure-balanced design for maximum flow while ensuring the smallest possible dimensions. This makes it particularly suitable for use in narrow spaces, such as in enclosures.

TIGHT

Tightness: The valve is sealed bubble-free up to 1,000 bar at the valve seat.

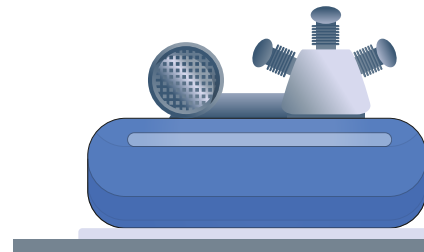
System durability and reliability: The valve has adjustable flow restrictors to open or close more gradually. Two inductive limit switches also enable reliable monitoring of the switching position, which further improves operational safety.

The KX1000 valve is suitable for use in potentially explosive ATEX areas.

YOUR ADVANTAGES:

- Compact design
- Large nominal diameter ensures very fast filling and emptying times
- Bi-directional operation
- Durable and reliable
- Safety
- Tight
- Low control air consumption

Compressor



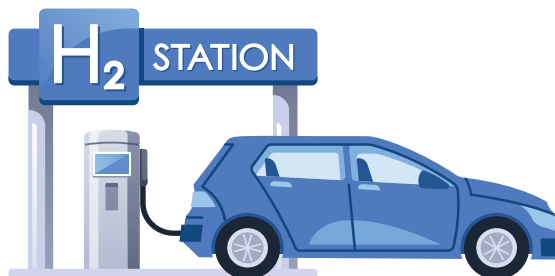
TECHNICAL FEATURES:

- Operational pressure: 0–1000 bar
- 100% pressure balanced design
- Control air pressure: 6–10 bar
- Air requirement per switching operation: 120 cm³
- Kv value: 1.9 m³/h with a nominal diameter of 8 mm
- Weight: only 11.8 kg
- Extremely compact design: diameter 114 mm and 205 mm long
- Bi-directional operation up to 1000 bar
- Available either in CLOSED or OPEN default position
- Optionally with attached 5/2 pilot valve and adjustable pneumatic exhaust throttle slow opening and closing

Hydrogen transport



Hydrogen filling stations



- Temperature in Ex zone 2 with attached pilot valve: -10 °C to +60 °C
- Temperature in Ex zone 2 without attached pilot valve: -40 °C to +85 °C
- Leakage rate to DIN 12666 and ISO 19880-3
- Optionally with helium leak rate up to 1.0×10^{-4} mbar*L/s
- Optionally with 1 or 2 inductive limit switches
- Including mounting bracket
- Port connection: Standard with high pressure thread type 13/16"-16 UNF (9M)
- Burst pressure with housing material 1.4404: > 4000 bar
- ATEX Zone 2 in preparation



SYNERGISTIC FLOW: SALES AND SERVICE

Our team of experts analyzes each application scenario very precisely and produces the most economically efficient valve solution for you. We will take care of every detail, so that you can focus on the big picture. If you need support or have any questions, please get in touch with your contact person.

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