ELAFLEX H2+ ERV AND HOSES

The plus for industrial low pressure H2 applications

ELAFLEX

H2 AND H2 MIXTURES – LOW PRESSURE APPLICATIONS FOR INDUSTRIAL PROCESSES

Hydrogen (H2), whether in mixtures (e.g. with methane) or in concentrations up to 100%, plays an increasingly important role in low-pressure industrial applications and processes. In fluid systems as well as in the chemical and steel industries, the transfer of these gaseous media demands maximum safety, high reliability, and very low permeation throughout the entire supply chain. For these highly demanding applications, ELAFLEX has developed the H2+ product range, consisting of ERV H2+ rubber expansion joints and H2+ hydrogen hose assemblies available in various sizes.

ERV-H2+ RUBBER EXPANSION JOINTS

The newly developed ERV-H2+ rubber expansion joints are suitable for transferring pure hydrogen or hydrogen/methane mixtures at any concentration. Due to their very low permeation, they can be used for any kind of piping systems in the industrial sector and for ships.

- **Maximum operating pressure: 20 bar (2.0 MPa)**
- **Temperature range: -40 °C to +65 °C**
- **Electrical properties: Electrically conductive material**
- **Liner: Special seamless compound**
- **Reinforcement: PA textile cord**
- **Cover: Chloroprene (CR)**
- **Marking: ERV-H2+, DN…, PN 20, production date on grey band**
- **Flanges: Swivelling stainless steel, e.g. hole pattern to EN 1092-1, PN 25**

Online configurator:
ervconfigurator.elaflex.de

H2+ HYDROGEN HOSE ASSEMBLIES

The H2+ hose is typically used as a connection hose (Ω/T) and meets equipment category I ATEX 2014/34/EU requirements. Its smooth, seamless inner lining makes it suitable for hydrogen, natural gas (e.g. methane), and all concentrations of their mixtures.

- **Maximum operating pressure: 60 bar (6.0 MPa) for hose sizes up to DN 38 (1 ½") and 40 bar (4.0 MPa) for hose size DN 50 (2")**
- **Temperature range: -40 °C to +65 °C**
- **With safety crimping ferrules to exceed burst pressure requirements of BP > 4 x WP and ensuring very low permeation**
- **Lining: Special black seamless rubber, electrically conductive, low permeation**
- **Reinforcements: Textile braids (SD type additionally with stainless steel helix)**
- **Cover: Special electrically conductive rubber, resistant to ozone, UV and ageing**
- **Fittings: Stainless steels, with EPDM seals**
- **Connections: Threaded connections and fixed or swiveling flange connections**

Technical Information:
ELAFLEX Information 4.22

Form **D**
without helix

Form **SD**
with stainless steel helix

THE ELAFLEX GROUP

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