

ME24_08 – Safety Barriers for Hydrogen Applications in Process Industries

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Abstract - Hydrogen plays an important role in the energy transition. A key to safe handling of the flammable gas is to apply best practice to ensure protection against multiple hazards and to mitigate risk related to fire and potentially explosive atmospheres. It is important to design safety barriers against the risk of explosion, and to make sure that all cable and pipe penetrations are securely sealed. By selecting tested and approved cable and pipe penetration sealing solutions, the design and engineering teams can reduce risk. For the fast-evolving green hydrogen sector, it is a significant challenge to identify penetration sealing solutions that ensure safety while mitigating plant, fabrication, and setup expenses. By adopting established technologies for hydrogen-based applications, companies can reduce risk and save project cost. Ensuring scalability and speed is also of importance in the green hydrogen sector, where technological advancements can impact the pace of industry growth.