

Product data sheet

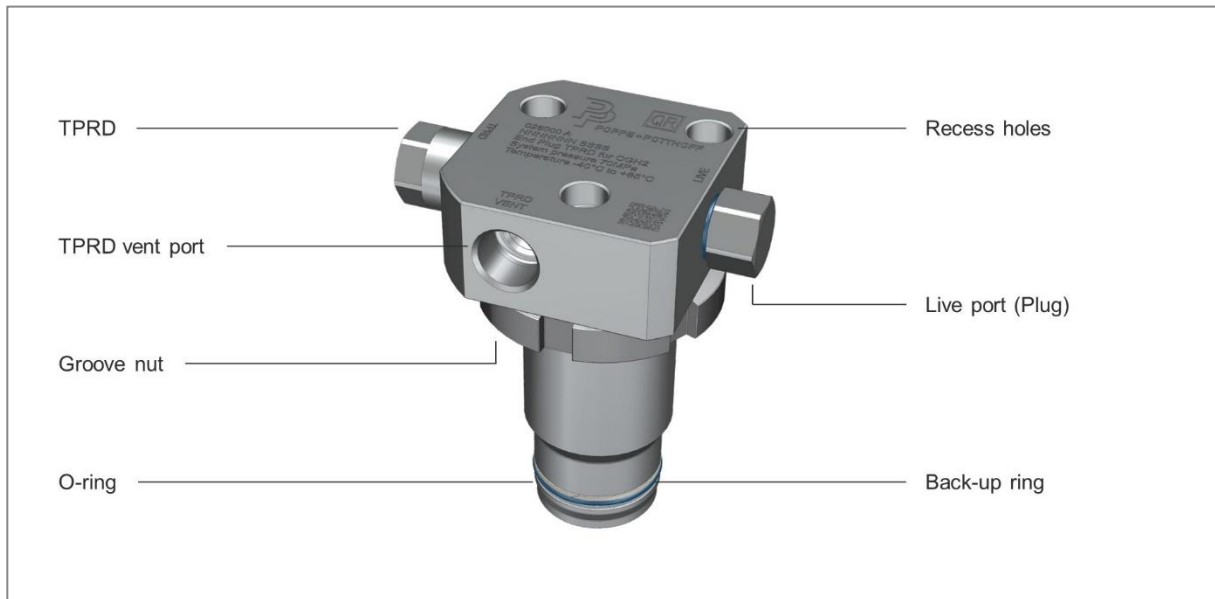


TOPAQ End Plug TPRD 2.0

Item No

025000-A
031324-A

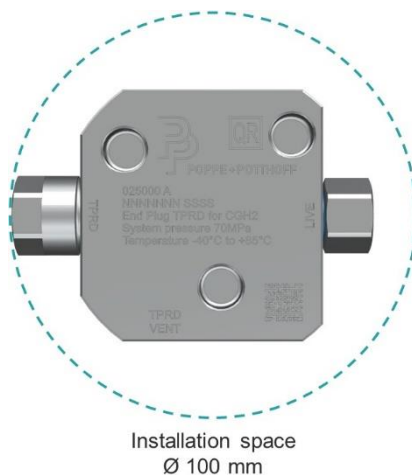
Product specification



The End Plug TPRD (Thermal Pressure Relief Device) is used to secure hydrogen gas storage tanks in the event of a fire by ensuring rapid and spatially targeted degassing at elevated temperatures whilst preventing the tanks from bursting.

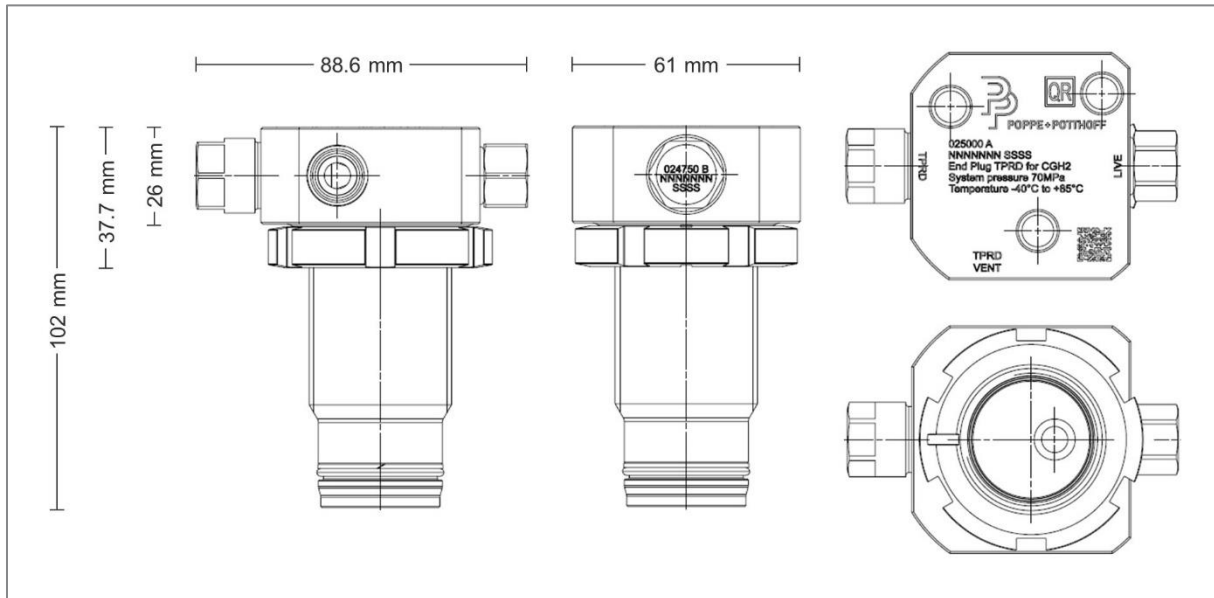
With its optimized design, it enables the compliance of individual customer requirements while simultaneously addressing relevant legal standards (UN/ECE R134, CSA/ANSI HPRD 1:21).

For installing the End Plug TPRD, an installation space of 100 mm is required.



Installation space
Ø 100 mm

Technical features



End Plug TPRD (Thermal Pressure Relief Device)	
Technical data	
Installation space	Ø 100 mm
Height (screwed in)	37.7 – 39.9 mm
Height	102 mm
Weight	approx. 600 g
Weight (Body)	approx. 414 g
Material	Aluminum, Stainless steel, Glass
Sealing type	O-ring, Metal-to-metal
Interfaces Thread definitions Ports	
Tank interface	1½"-12 UNF
TPRD	M20x1.5
Pipe connection (TPRD vent)	M16x1.5
Live port (Plug)	M14x1

End Plug TPRD (Thermal Pressure Relief Device)	
Operating conditions	
Operating temperature	-40 to +85 °C
Nominal working pressure	700 bar
Maximum allowed working pressure	875 bar
Proof pressure	1050 bar
Medium	Hydrogen (CGH2)
Leak rate (acc. UN/ECE R134)	< 10 Ncm ³ /h
Trigger conditions	
Trigger temperature	110±5 °C
Trigger time @ 450 °C (validation pending)	
Trigger time @ 600 °C (validation pending)	
Cv (p ₁ = 700 bar, p ₂ = 1 bar)	0.80
Min. Flow diameter (TPRD vent in End Plug)	4.4 mm

Certification & safety information

The product may only be used after installation by qualified personnel according to the corresponding installation guide. Usage for production of commercial goods is only permitted in certified countries. Otherwise, the product may only be used for testing purposes.

Certificates

Europe

UN/ECE R134 Certification pending

Greater China (China, Taiwan, Hong Kong, Macau)

GB/T 42536-2023 Certification pending

North America (USA, Canada)

CSA/ANSI HPRD 1:21 Certification pending

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