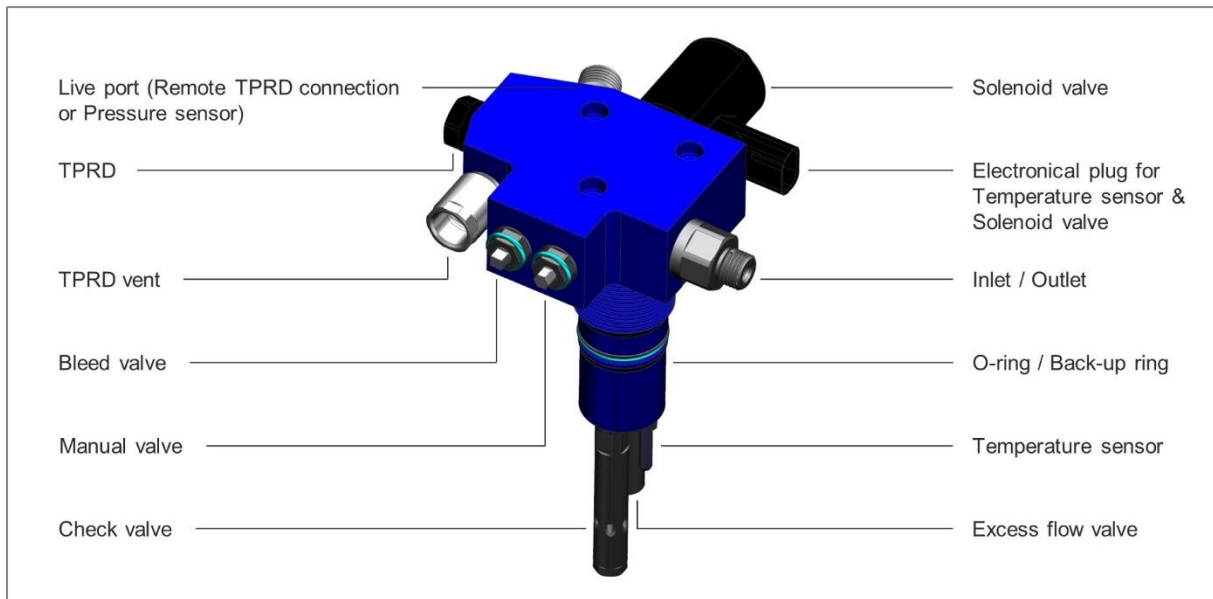




TOPAQ On Tank Valve (OTV) Assembly 2.0

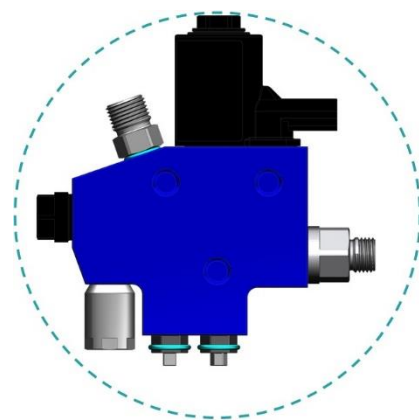
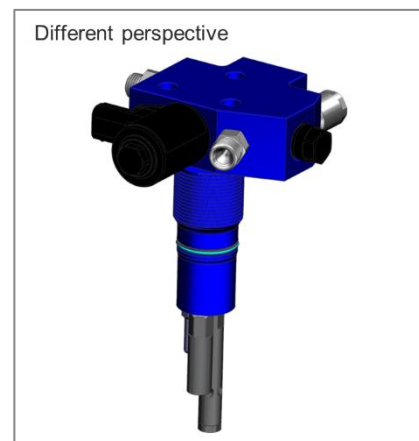
Product specification



The **On Tank Valve (OTV)** is used to ensure safe fueling and defueling processes and the storage of gas in stationary and mobile deployed H₂ tanks.

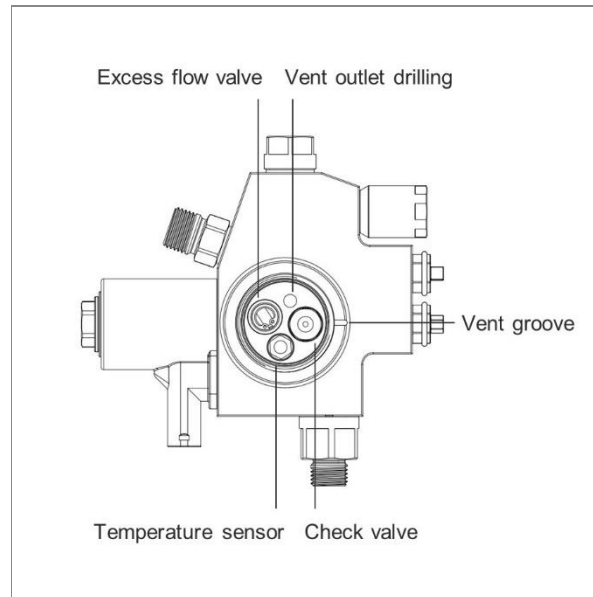
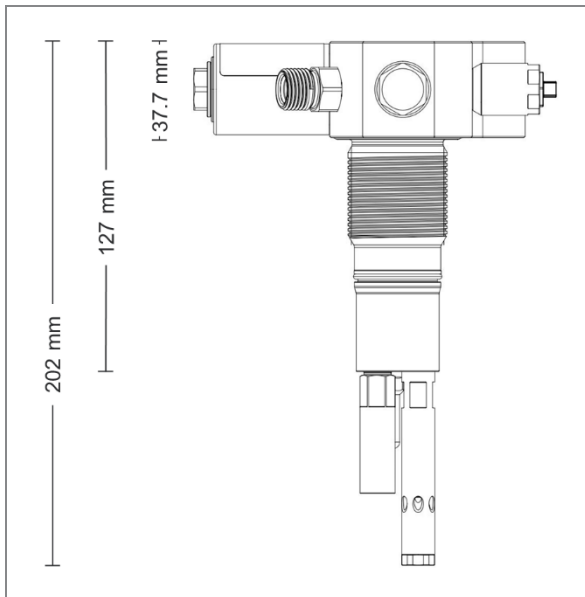
With its optimized modular design, it enables the compliance of individual customer requirements while simultaneously addressing relevant legal standards (UN/ECE R134, HGV 3.1).

For installing the OTV, depending on its configuration an installation space of 160 – 190 mm is required.



Installation space
Ø 160 – 190 mm

Technical features



OTV

Technical data | Operating conditions

Installation space (depends on config.)	Ø 160 – 190 mm
Height OTV (screwed in)	37.7 mm
Height OTV	202 mm
Height OTV Body	127 mm
Weight OTV (depends on config.)	approx. 1400 – 1450 g
Weight OTV Body	approx. 685 g
Tank interface	1½"-12 UNF
Material OTV Body	Aluminum, anodized
Sealing types	Metal-to-metal, O-Ring, PEEK
Operating temperature	-40 to +85 °C
Nominal working pressure	700 bar
Maximum allowed working pressure	875 bar
Proof pressure	1050 bar
Kv (Refueling Defueling TPRD Vent) ¹⁾	0.28 0.15 0.45
Cv (Refueling Defueling TPRD Vent) ¹⁾	0.32 0.18 0.52
Medium	Hydrogen (CGH2)
Leak rate (acc. UN/ECE R134)	< 10 Ncm ³ /h
Lifetime (acc. UN/ECE R134)	15 years

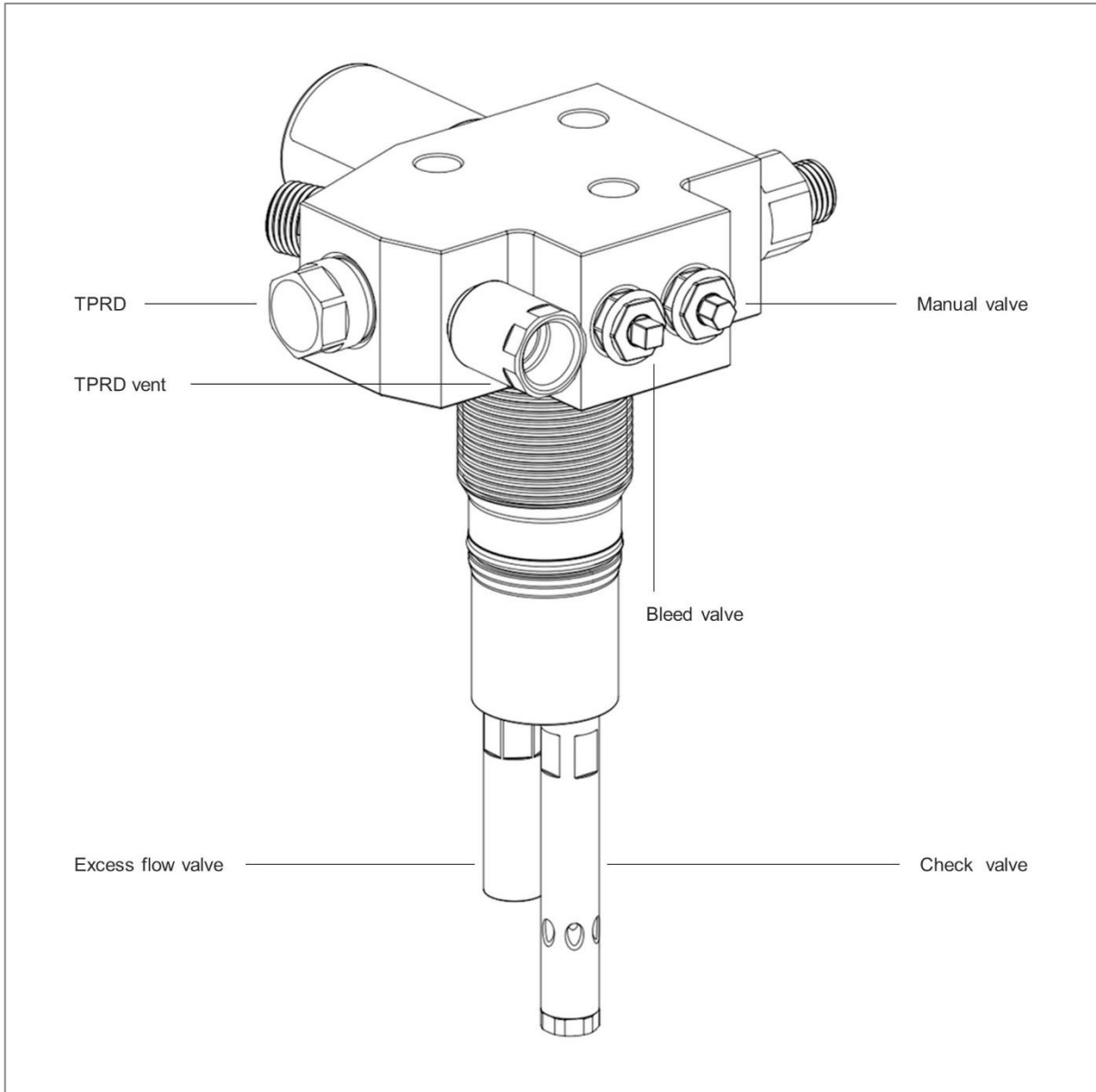
1) For flow-optimized refueling and defueling, the manual valve must be completely open.

Attachment parts

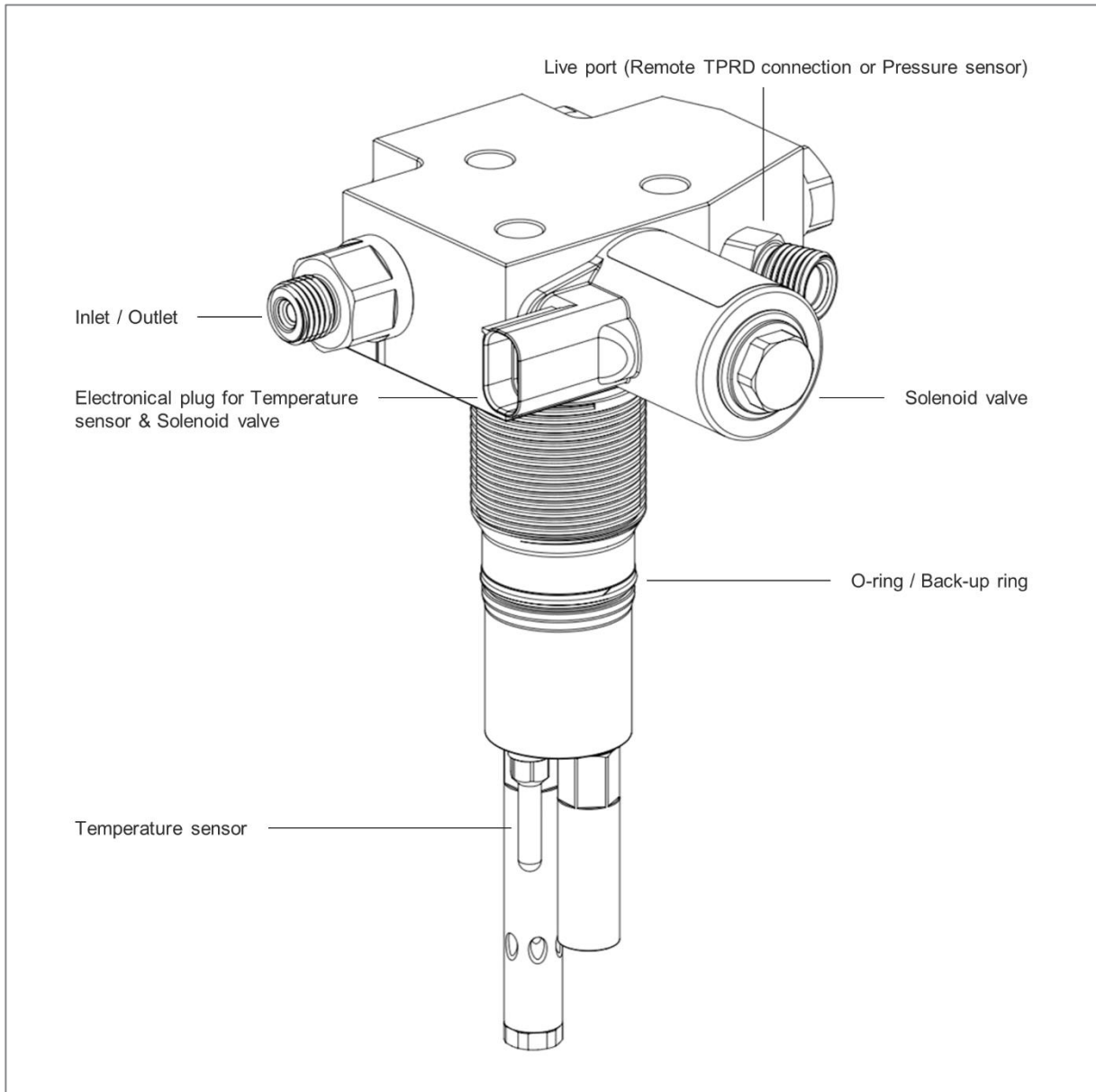
Technical data | Operating conditions

Solenoid valve	
Operating voltage	12 V or 24 V DC (PWM Signal)
Temperature sensor	
Temperature element	Discrete NTC Thermistor
Operating temperature	-60 to +150 °C
Thermal Pressure Relief Device (TPRD)	
Trigger temperature	110±5 °C
Min. Flow diameter	4.4 mm
Excess Flow Valve (EFV)	
Activation flow rate (@ 20 bar / RT)	2.1 – 3.4 g/s
Filter pore size (Inlet Outlet)	10 µm
Check valve	
Cracking pressure	< 3 bar
Sealing pressure	≥ 2 bar
Manual valve Bleed valve	activated by hexagon square
Interfaces Thread definitions Ports (all capped)	
Live port: Remote TPRD connection (optional Pressure sensor)	M16×1.5
Pipe connection (Inlet Outlet)	M14×1.5
Pipe connection (TPRD vent)	M16×1.5

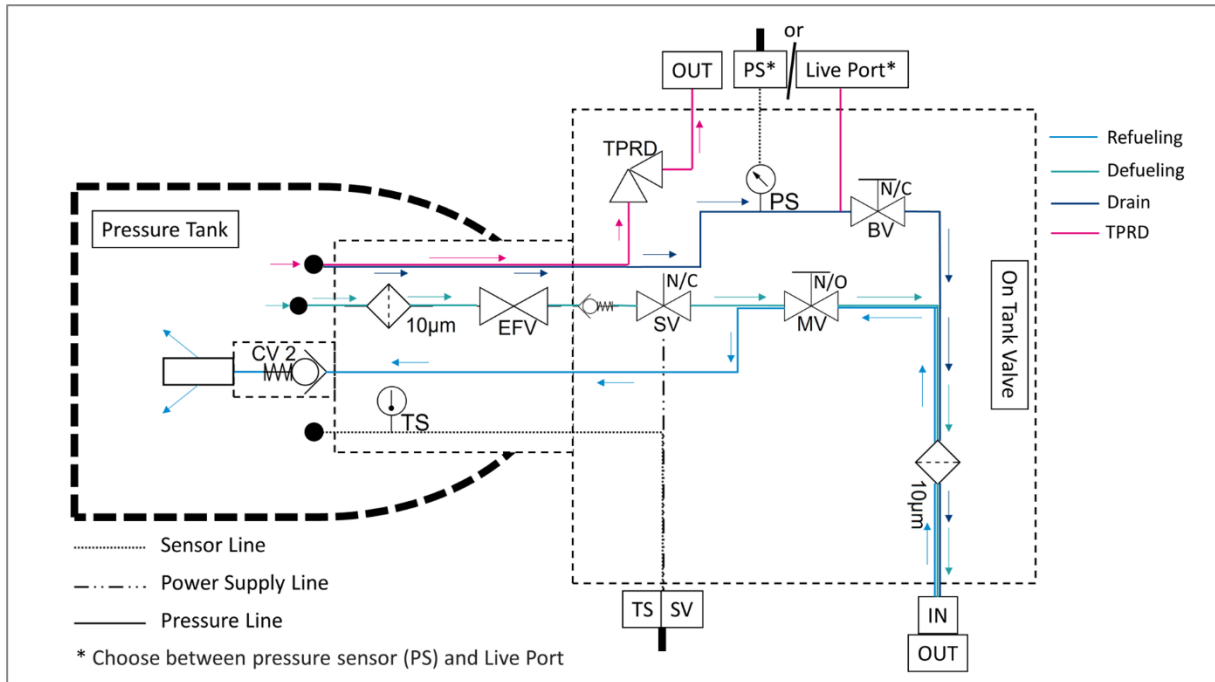
Technical features



Technical features



Circuit diagram



Available configurations

Item No	Solenoid Valve	Inlet / Outlet		TPRD Vent port		Live port		
		Pipe adapter material	Pipe OD ²⁾ [mm]	Pipe adapter material	Pipe OD [mm]	Variant	Pipe adapter material	Pipe OD [mm]
035336-A	12 V	PPH2 ³⁾	6.35 (1/4")	PPH2	10	Remote TPRD connector	PPH2	10
035328-A	24 V	PPH2	6.35 (1/4")	PPH2	10	Remote TPRD connector	PPH2	10
035339-A	12 V	PPH2	10	PPH2	10	Remote TPRD connector	PPH2	10
031758-B	24 V	PPH2	10	PPH2	10	Remote TPRD connector	PPH2	10
035350-A	12 V	1.4435 ⁴⁾	6.35 (1/4")	1.4435	10	Remote TPRD connector	1.4435	10
035315-A	24 V	1.4435	6.35 (1/4")	1.4435	10	Remote TPRD connector	1.4435	10
031467-B	12 V	1.4435	6.35 (1/4")	1.4435	10	Plug	1.4435	-
035340-A	12 V	PPH2	6.35 (1/4")	PPH2	10	Plug	1.4435	-
035341-A	12 V	PPH2	10	PPH2	10	Plug	1.4435	-
035284-A	24 V	1.4435	6.35 (1/4")	1.4435	10	Plug	1.4435	-
035320-A	24 V	PPH2	6.35 (1/4")	PPH2	10	Plug	1.4435	-
035317-A	24 V	PPH2	10	PPH2	10	Plug	1.4435	-
035330-A	12 V	1.4435	6.35 (1/4")	1.4435	10	Pressure sensor	-	-
035343-A	12 V	PPH2	6.35 (1/4")	PPH2	10	Pressure sensor	-	-
035345-A	12 V	PPH2	10	PPH2	10	Pressure sensor	-	-
035311-A	24 V	1.4435	6.35 (1/4")	1.4435	10	Pressure sensor	-	-
035329-A	24 V	PPH2	6.35 (1/4")	PPH2	10	Pressure sensor	-	-
031765-B	24 V	PPH2	10	PPH2	10	Pressure sensor	-	-

2) OD = Outer diameter.

3) PPH2 is a protected designation of the Poppe + Potthoff Präzisionsstahlrohre GmbH.

4) A stainless steel compliant with common standards such as DIN EN ISO 11114-1, ANSI/CSA CHMC 1, EU 2021/535, CSA/ANSI HGV 3.1, SAE J2579 and EN 10027.

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.

Standards | Certificates

Europe

UN/ECE R134.01	Certified
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UN/ECE R134.02	Certification on request
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EU 2021/535	Certified
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Greater China (China, Taiwan, Hong Kong, Macau)

GB/T 42536-2023	Certification on request
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North America (USA, Canada)

HGV 3.1-2022	Certification on request
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Global

ISO 19887:2024	Certification on request
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Poppe + Potthoff GmbH

Dammstraße 17

32824 Werther

Germany

Phone: +49 (0) 5203 91 66 0

Fax: +49 (0) 5203 91 66 100

info@poppe-potthoff.com

www.poppe-potthoff.com

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