

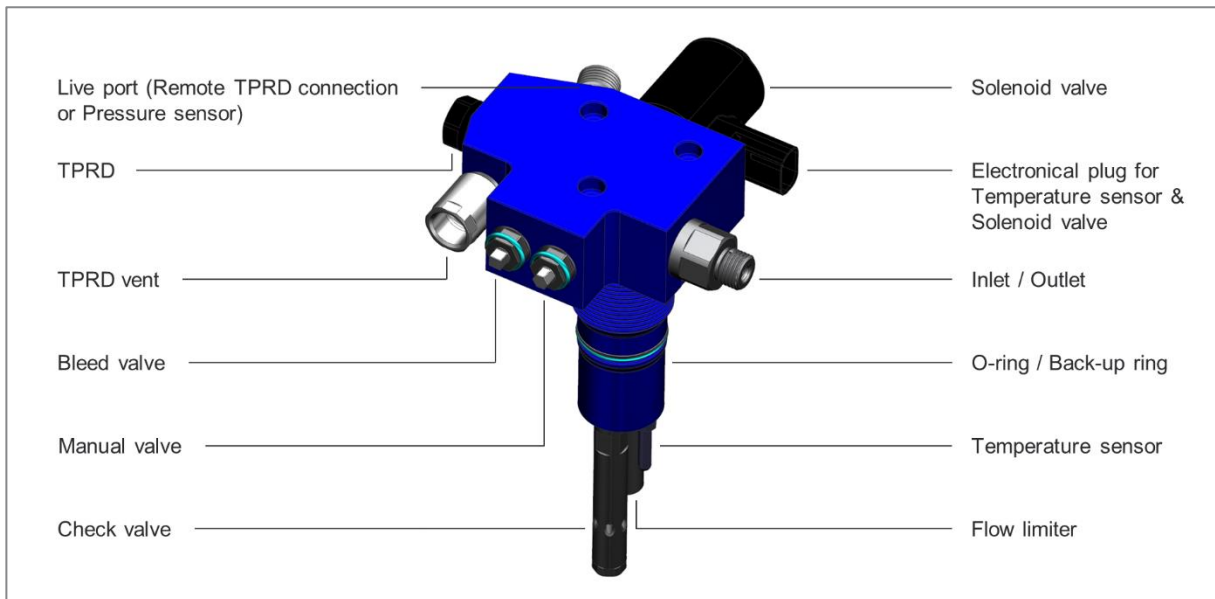
Product data sheet



TOPAQ On Tank Valve (OTV) Assembly 2.0

Item No 024099-A

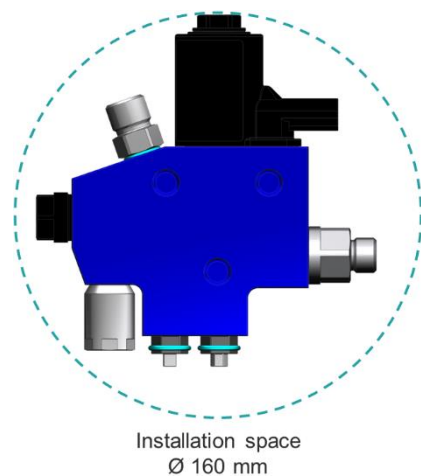
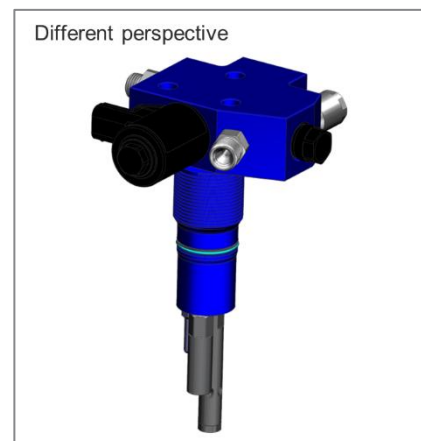
Product specification



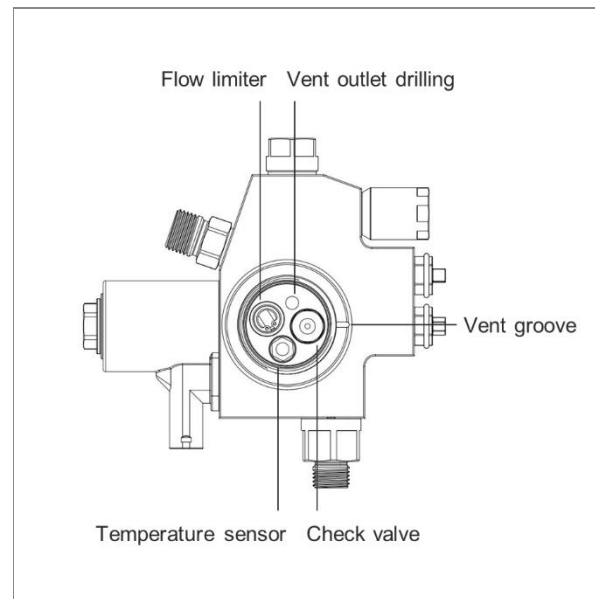
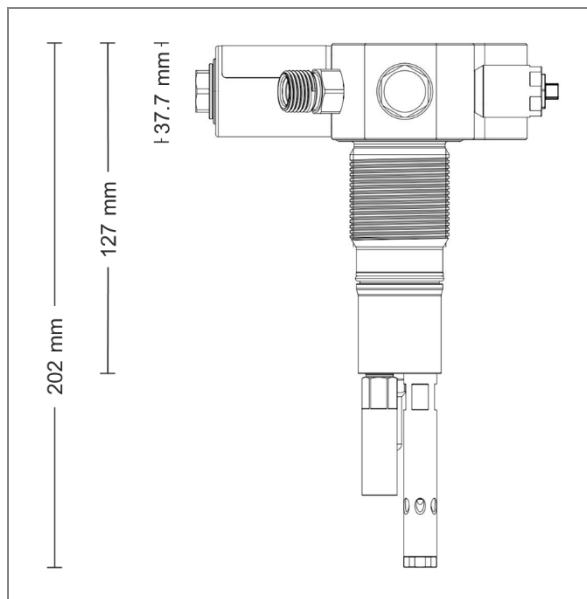
The **On Tank Valve** (OTV) 024099-A is used to ensure safe fueling and defueling processes and the storage of gas in stationary and mobile deployed H₂ tanks.

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, an installation space of 160 mm is required.



Technical features



OTV

Technical data | Operating conditions

Installation space	Ø 160 mm
Height OTV (screwed in)	37.7 mm
Height OTV	202 mm
Height OTV Body	127 mm
Weight OTV	approx. 1400 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 value (Refueling Defueling) ¹⁾	0.18 0.10
Medium	Hydrogen (CGH2)
Leak rate (acc. UN/ECE R134)	< 10 Ncm ³ /h

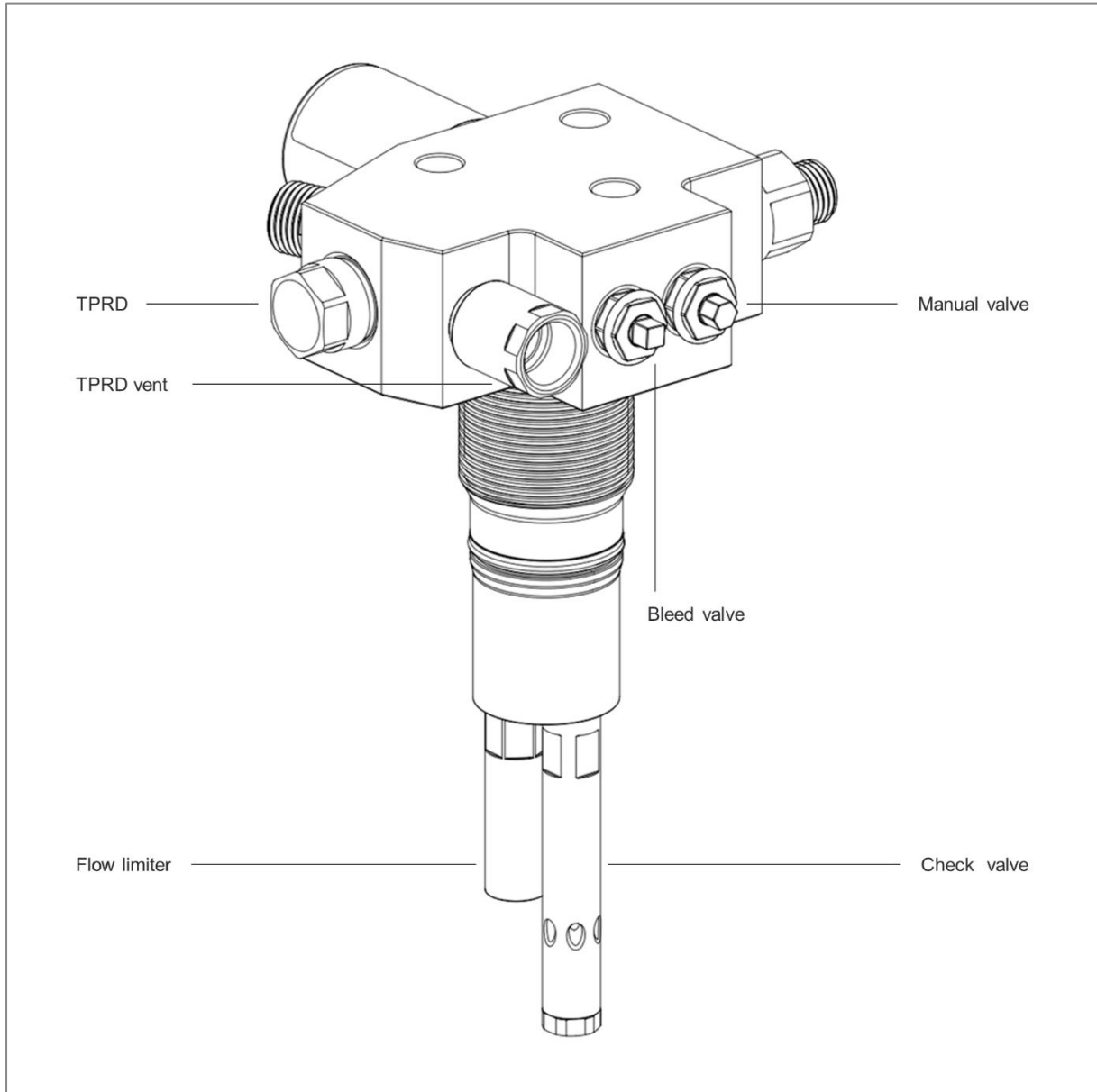
1) For flow-optimized refueling and defueling, the manual valve must be completely open.

Attachment parts

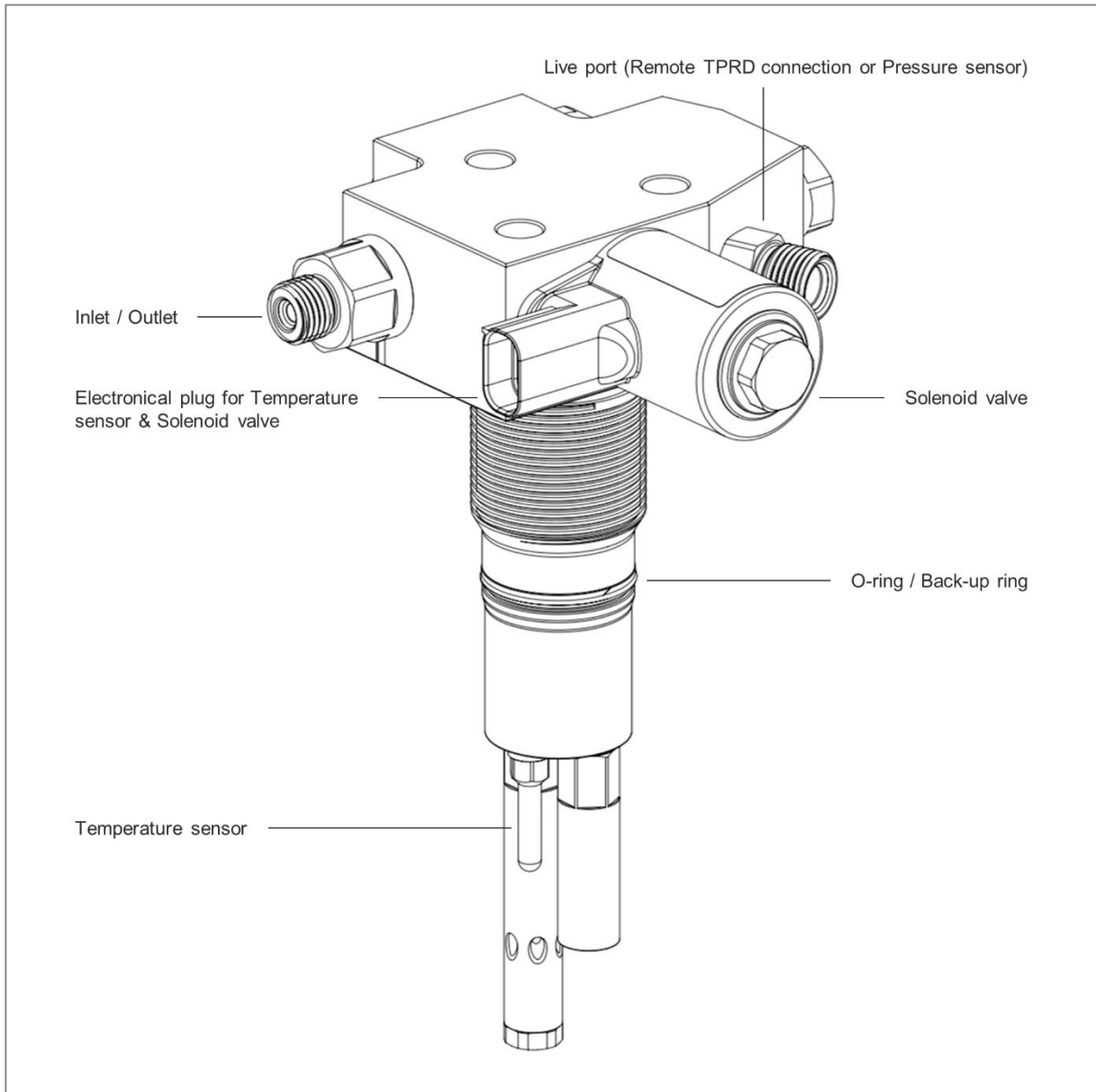
Technical data | Operating conditions

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
Flow limiter	
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	
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

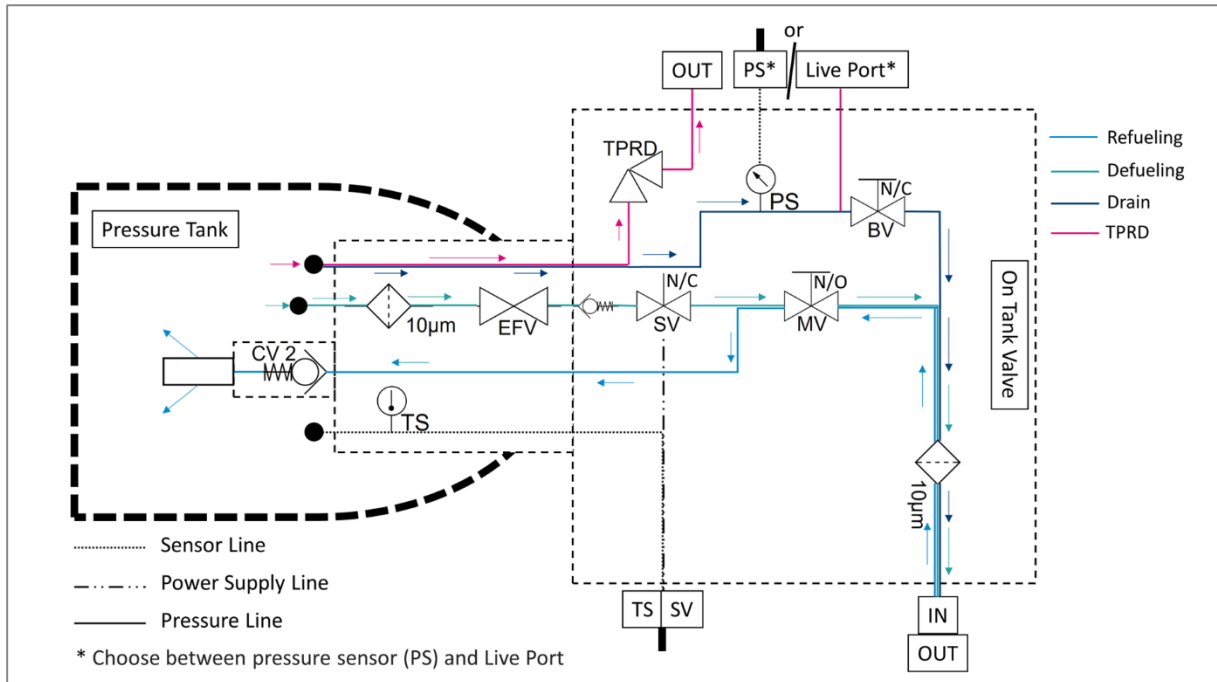
Technical features



Technical features



Circuit diagram



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 35544-2017 Certification pending

North America (USA, Canada)

HGV 3.1-2022 Certification pending

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