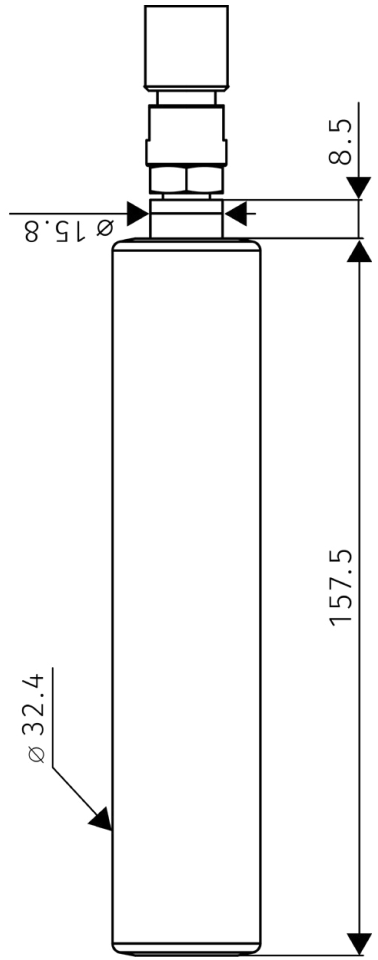
Metal Hydride Canister - GSH50C

Nominal Hydrogen Storage Capacity	50 Normal liters
Charging Pressure	10 barg
Charging Temperature	≤ 20 °C
Charging Rate*	0,8 L/min H2
Hydrogen Purity at Tank Inlet	≥ 99.999 %vol
Oxygen Content in Hydrogen at Tank Inlet	< 5 ppm
Nominal Discharging Rate*	0,8 L/min
Delivery Pressure	From 10 to 2 bar at 25°C
Cycling Capability (complete charge/discharge)	>1000 cycles
Body Material	EN 1.4301 (AISI 304)
Filter (built in the canister)	Swagelok 2 µm
Hydrogen Connection	Swagelok Stainless Steel Instrumentation Quick Connect Body (QC4 Series)
Hydride Material	AB5-type metal hydride, LaNi5 based
Weight	680g

**Charging and discharging rates are defined under water bath conditions.*



Integration

The GSH50C does not include an integrated heat exchanger. In standard laboratory applications, thermal management occurs through natural convection or external temperature control via the canister walls. Hydrogen release depends on thermal conditions.

Higher flow can be achieved with controlled heating when required.

Thermal conditions and hydrogen release

Hydrogen desorption is an endothermic process, so the delivery rate is influenced by thermal conditions. Ambient heat can contribute to hydrogen release, while external heating can be used to increase the desorption rate when higher flow is required.