

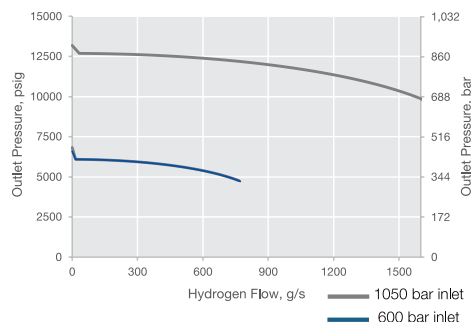
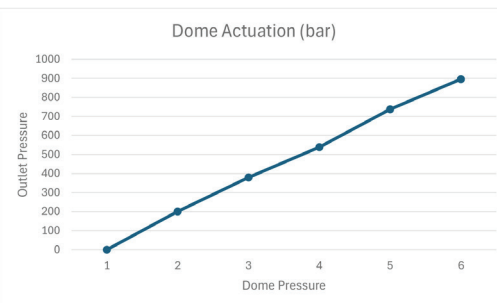
Ramp Regulator for Hydrogen Applications



The Swagelok® ramp regulator is intended for use in hydrogen refueling station applications in accordance with SAE JS2601. It provides controlled pressure during hydrogen vehicle refueling and is designed to communicate with the dispenser unit to reach the required pressure control profile. **Note: Not for use as a shut-off valve.**

Regulator Features

- Maximum allowable working pressure (MAWP) to 1050 bar (15 229 psig) inlet and 875 bar (12 690 psig) outlet ASME B31.3 (2022) Chapter IX
- Temperature range -40° to 85°C (-40° to 185°F)
- Designed for high flow $\text{Cv} = 1.95$ capable of 300g/s flow*
- Body material construction 316SS >12% Ni
- 9/16 in. cone and thread; 1/2 in. FK end connections
- Patented removable cartridge design allows servicing without removing the product from the dispenser system
- Optional PID control unit communicates with dispenser
- HAZLOC certification pending
- Actuation driven by 6 bar compressed air supply

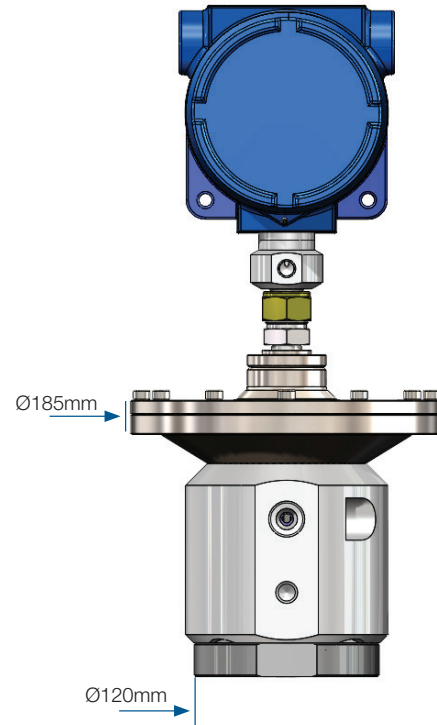
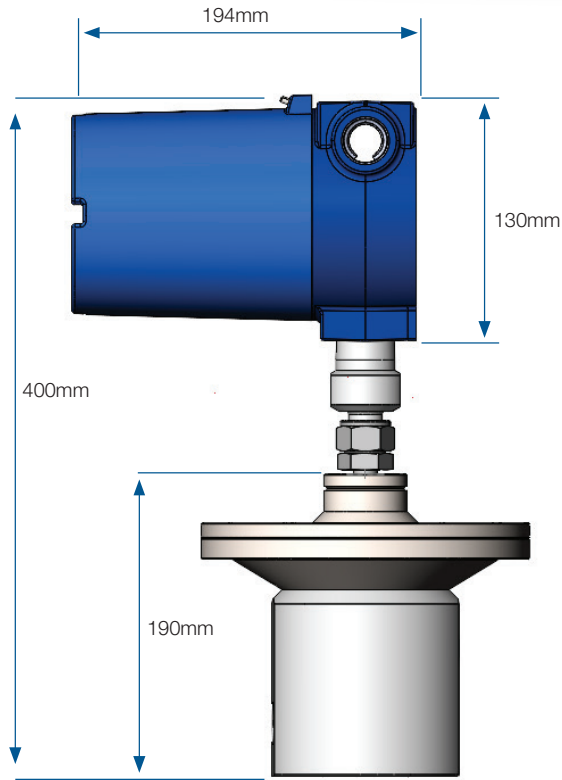


Optional PID Controller Features

- Input 4-20mA control signal
- 24 VDC & 7-30 bar air supply
- Direct or flexible hose connection

* System design dependent





Materials of Construction

Component	Material/ASTM Specification
Body & internal wetted parts	316 SS/A276 or A479
Poppet	316 SS/A276 or A479
O-Ring	Low Temp EPDM
Poppet spring	316 SS/A313
Wetted lubricant	Fluorinated PTFE-based

Shell Leak Testing

- Body Seal: 1.25 x pressure rating (<10 cm³/hr., H₂ equivalent)

Performance Testing

- Hydrostatic strength test: 3x pressure rating
- 122 000 cycle testing* (nitrogen, 1050 bar inlet/875 bar outlet)

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

WARNING

Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.

⚠ Do not use the regulator as a shutoff device.

* Cycle testing not a life time claim.