AUTOMATIC ELECTROLYSIS PRESSURE REGULATOR

Intuitive, automatic regulation for precise, consistent control, no manual operations

Empowering differential pressure experiments up to 30 bar



FEATURES

HIGH PRESSURE ELECTROLYSIS

Automatic Differential Pressure Control Up To 30 Bar PEM Electrolysis

Smooth Handling Of Two-Phase Flow For Stable Pressure Control

Gas / Liquid Separation With Automatic Drain

Designed In Partnership With NREL⁽¹⁾ & CE Certified

UNIVERSAL IMPLEMENTATION

Standalone Product For Use With Scribner or Other Electrolysis

Systems

Dedicated Software For Control And Data Logging

Additional Logic Control For User Expandability

UNATTENDED OPERATION

Fully Automatic Control For Long-Term Testing

Failsafe & Purge Upon Alarm With Automatic Safety Monitoring



SPECIFICATIONS

OVERVIEW

Operation Single Channel with Gas/Liquid Separation

Range 0-30 bar (0-3000 kPa)

Setpoint Accuracy $\pm 1.5\%$ F.S. Readback Accuracy $\pm 1.5\%$ F.S.

Gas Flow Rate Validated up to 5 SLPM

Liquid Drain Automatic

Inlet Gas Dew Point Up to 90° C

Fluid Temp Up to 90° C

Pilot Gas Supply Clean N2, 31-38 bar (3100-3800 kPa), consumption up to 0.055 SL/bar

Condensate Collection Tank: Safety

All stainless steel, auto-draining; ~0.6L

Automatic purge on alarm condition

USER CONTROLS AND CONNECTIONS

Front Drain rate control knob

Top Serial interface, event port, and E-stop button

Rear AC power in and power switch

PHYSICAL AND ENVIRONMENT

Operating Temperature 5-35° C

Power Source 100-120 VAC, 50/60 Hz, 0.5 A minimum

220-240 VAC, 50/60 Hz, 0.25 A minimum

Size (excluding tubing connections) 33 cm \times 33 cm \times 64 cm (13 in. \times 13 in. \times 25 in.)

Weight (estimated) 17 kg (38 lb.)

Altitude Up to 2,000 m

Relative Humidity Below 80%

Pollution Degree 2 – Equipment is intended for environments with no conductive pollution

(expect for occasional condensation)

Note: All pressures in gauge unless otherwise noted.

⁽¹⁾ The National Renewable Energy Laboratory, 15013 Denver West Parkway, Golden, CO 80401, is a national laboratory of the U.S. Department of Energy managed by the Alliance for Sustainable Energy, LLC for the U.S. Department of Energy under Contract Number DE-AC36-08GO28308.



ABOUT US

We're the power behind the pioneers—advancing electrochemical research with precision instruments, deep expertise, and unwavering support.

More than a supplier, we're a trusted partner in innovation, removing technical barriers so scientists can focus on breakthroughs that shape the future.

From lab bench to global impact, Scribner makes complex research possible, precise, and scalable.

OUR EXPERTISE

Electrochemistry isn't just what we do—it's who we are. With decades of experience and industry-defining innovation, we deliver cutting-edge electrochemical instrumentation and expert insight that empower scientists to push boundaries.

Whether you're optimizing performance at the molecular level or scaling up for global impact, we provide the precision tools and partnership to turn possibility into progress.

Our product catalog includes:

- -Fuel Cell Test Systems
- -Electrolyzer Test Systems
- -Membrane Conductivity Test Systems
- -Redox Flow Cell Test Systems
- -Battery Test Systems

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www.scribner.com p: 910-695-8884 e: info@scribner.com 1930 N. Poplar Street Suite 23 Southern Pines, NC, 28387 United States of America