# Proteus Industries Inc.



Coolant control, leak detection and splash prevention for robotic welding systems

- » Drawback redirects coolant flow during cap change or cap loss helping to keep expensive equipment dry
- » Reduces unsafe coolant dumps by shutting off flow in less than 1 second after cap loss
- » Ensures adequate electrode cooling by continuously monitoring and communicating coolant flow and temperature conditions
- » Proprietary leak-detection algorithm is independent of flow calibration, sending alarm to weld controller in less than 0.4 seconds
- » Continuous indication of actual coolant flow rate and temperature on browser-based user interface
- » User-selectable operating parameters and alarm settings
- » Remote control of valve and system states to support gun changers and weld-cap changers
- » Output display is compatible with robotic teach pendants through network connection
- » EtherNet/IP™ and PROFINET® control interface options
- » Flow ranges from 6–50 LPM / 1.5–13 GPM
- » Liquid temperatures from 4.0–110 °C / 39–230 °F



The Proteus WeldSaver<sup>™</sup>6+Drawback is the leading water-safety device for flow control, leak detection, and spillage prevention in robotic welding applications. Whether monitoring coolant flow to weld guns or to the entire cooling circuit for a weld cell, the WeldSaver<sup>™</sup>6+Drawback rapidly and reliably detects changes in flow continuity created by slow leak and cap loss, hose burst, or other catastrophic event and significantly reduces or prevents coolant dumps on expensive equipment and weld cell floors.



The WeldSaver<sup>™</sup> graphical user interface provides information on device status in real time, with clear visual indicators and descriptions. The interface can be accessed over a network using most JavaScript<sup>™</sup>-enabled web browsers by entering the working IP address of the device.

## **Coolant Drawback**

In the event of a weld-cap loss or weld-cap change, WeldSaver™6+Drawback will reduce or prevent coolant dumps from the weld cells.

# **Intelligent Leak Detection**

The WeldSaver™6's proprietary detection algorithm rapidly identifies subtle flow velocity changes that distinguish true leaks from pressure-, temperature-, and motion-induced effects, positively identifying a leak condition in less than 0.3 seconds. In the event of a cap loss or other leak, the WeldSaver™6 signals a state change to immediately stop the weld process, and simultaneously closes an attached shutoff valve.

#### Product Line WeldSaver™6 EtherNet/IP<sup>™</sup> • PROFINET<sup>®</sup> **Control Interface Options** User Interface Browser-based UI Flow Range 6.0 - 50 LPM / 1.5 - 13 GPM **Temperature Range** 4.0 - 110 °C / 39 - 230 °F **Connection Options** G 3/4" (BSPP) • 3/4" NPT **Coolant Supply Pressure** 83 - 620 kPa / 12 - 90 psig **Coolant Return Pressure** 70 - 350 kPa / 10 - 50 psig **Differential Pressure** 138 - 414 kPa / 20 - 60 psig Compressed Air Pressure 300 - 800 kPa / 43.5-116 psig **Drawback Response** < sec. Low Flow Response < 0.2 sec. Reset / Override Response < 1.0 sec. Leak Detection Response 0.3 – 1.0 sec. depending on response time selection and back pressure Leak Sensitivity Able to detect a loss of flow continuity from 1–20 balanced parallel flow paths Accuracy ± 3% of full scale Repeatability ± 1% of full scale from 0.1 to 1.0 × full scale **Operating Environment** Indoor use only 4.0 - 50 °C / 39 - 122 °F **Ambient Temperature** Max. Relative Humidity 80% **Enclosure Protection** IP66 / NEMA 4X WeldSaver<sup>™</sup> body only: 8.5 x 6.9 x 4.5 (W x L x H) inches 216 x174 x 115 (W x L x H) mm Nominal Dimensions With the Drawback valve integrated: 13.5 x 11.2 x 4.5 (W x L x H) inches 343 x 284.5 x 115 (W x L x H) mm T W

## **Performance Characteristics**

Contact WeldSaver<sup>™</sup> Applications Support at weldsaver@proteusind.com or (650) 964-4163 and let our experts create a product configured to your exact requirements!

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