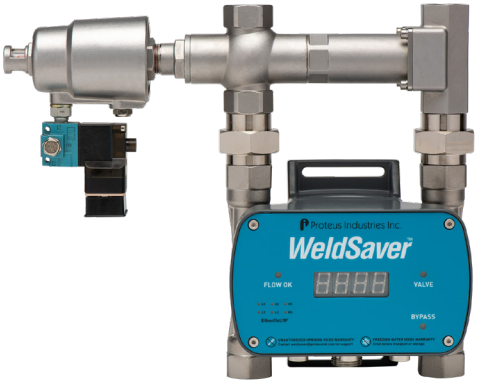
Proteus Industries Inc.

WeldSaver™ 5

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

STANDARD PNEUMATIC OR ELECTRIC SHUTOFF VALVE



The WeldSaver 5 Passport™ is the leading flow control device for leak detection and coolant-expulsion prevention in robotic welding applications. Whether monitoring coolant flow to weld guns or to the entire cooling circuit for a weld cell, the WeldSaver rapidly and reliably detects changes in flow continuity created by slow leak, cap loss, hose burst, or other catastrophic event and significantly reduces or prevents the expulsion of coolant on expensive equipment and weld cell floors.

- Ensures adequate electrode cooling by continuously monitoring and communicating coolant flow and temperature conditions based on user-selectable operating parameters and alarm settings.
- Real-time indication of measured flow rate and temperature on browser-based user interface and local display.
- Enables fast weld cycles by sending alarm to weld controller in less than 0.4 seconds using proprietary leak-detection algorithm.
- Reduces unsafe coolant expulsion by shutting off flow in less than 1 second after cap loss.
- Network integration your PLC, robot, and weld controller using industry-standard EtherNet/IP™ and PROFINET® control interface options.

eVac™ COOLANT RETRACTION MODULE

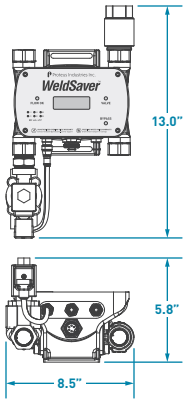
- Single assembly with built-in 3-way pneumatic valve and check valve is fully integrated into the WeldSaver system and firmware—not a bolt-on.
- Keeps expensive equipment dry by redirecting coolant flow during cap change or cap loss.
- Remote control of valve and system states to support gun changers and weld-cap changers.

The WeldSaver 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™-enabled web browsers by entering the working IP address of the device.

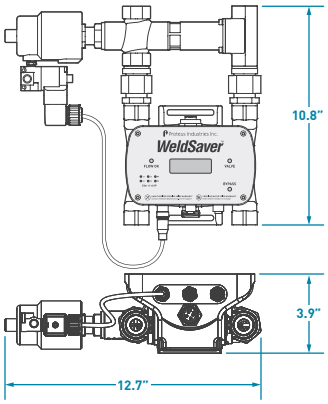
Performance Characteristics

Product Line	WeldSaver 5 Passport with Standard Shutoff Valve 	WeldSaver 5 Passport with eVac™ Coolant Retraction Module 
Control Interface Options	EtherNet/IP™ • PROFINET®	
User Interface	Browser-based user interface • Local display with keypad	
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	G 3/4" (BSPP) standard • 3/4" NPT with adapters
Shutoff Valve Options	Electric Solenoid • Pneumatic	Integrated 3-Way Pneumatic
Check Valve	Poppet-Style Standard	Integrated Swing Gate
Coolant Supply Pressure	83 – 689 kPa / 12 – 100 psig	
Coolant Return Pressure	52 – 689 kPa / 7.5 – 100 psig	
Differential Pressure	14 – 620 kPa / 2.0 – 90 psig	138 – 414 kPa / 20 – 60 psig
Compressed Air Pressure	300 – 800 kPa / 43.5-116 psig	
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	
Ambient Temperature	4.0 – 50 °C / 39 – 122 °F (DO NOT FREEZE)	
Max. Relative Humidity	80%	
Enclosure Protection	IP66 / NEMA 4X	

Nominal Dimensions

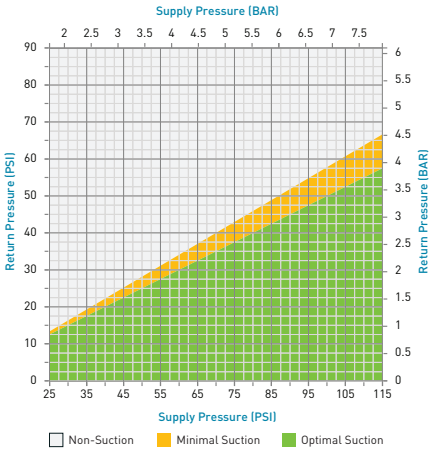


With Shutoff Valve



With eVac Module

eVac Module Operating Pressures



Contact WeldSaver 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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