

# WeldSaver™ III



## *A third generation of excellence in coolant control for robotic welding systems*

- ★ Sends alarm to weld controller in < 0.4 sec
- ★ Shuts off water in < 1 second after cap loss, hose burst or other catastrophic failure
- ★ Patented cap-loss algorithm is independent of flow calibration
- ★ View coolant flow directly in LPM or GPM
- ★ Keypad selection of Low Flow alarm levels
- ★ Simplified operation and parameter selection
- ★ Remote control of valve state
- ★ DeviceNet®, EtherNet/IP and Relay interfaces
- ★ Metric and NPT versions available

### **Monitor coolant flow to weld caps or the whole weld cell!**

Whether monitoring coolant flow to weld guns or the whole coolant circuit for a weld cell, the Proteus WeldSaver™ III quickly and reliably detects the losses of flow continuity created by cap loss, hose burst and other catastrophic events.

The WeldSaver's patented detection algorithm rapidly identifies subtle flow velocity changes that distinguish true leaks from pressure, temperature and motion-induced changes in flow rate.

### **Don't try to weld without caps!**

Save on shanks, reduced rejects and rework! Should a weld cap be lost, the WeldSaver signals your controller to stop the weld cycle in less than 0.3 seconds AND shuts down all coolant flow in less than 1 second!

### **Avoid bad welds**

The WeldSaver's continuous display of actual flow rate provides instant confirmation that proper coolant flow is present. Normal and Low Flow limit flow rates are directly selected in LPM or GPM.

### **Reduce water hazards**

A reliable pilot-assisted solenoid valve and rugged check valve stop flow in supply and return lines at the same instant that the loss of a cap or other catastrophic loss of flow continuity is signaled to your weld controller.

The WeldSaver's direct control of the shut-off mechanism significantly reduces reaction time, minimizing water loss and the associated mess and hazard.

### **DeviceNet®, EtherNet/IP and Relay interface capabilities**

The WeldSaver is available with DeviceNet, EtherNet/IP and Relay State interface options for linking with your weld controller.

Each version provides the same ease of operation and reliable communication for the ultimate protection of your system.

### **Flexibility to do it YOUR way!**

Proteus has demonstrated expertise in creating products configured to our customers' specific requirements. Such customized products are delivered with cables, connectors, operating parameters and control logic ready for true "plug and play" integration.

## Specifications

Flow Range	0.5 – 3 GPM	1 – 11 LPM	2 – 8 GPM	7.5 – 30 LPM
Connections (x 4)	¾" FNPT	G ¾ BSSP	¾" FNPT	G ¾ BSSP
Pressure Drop	< 2.0 psig @ 1 GPM	< 15 kPa @ 4 LPM	< 2.0 psig @ 3.6 GPM	< 15 kPa @ 14 LPM
Coolant Supply Pressure	12 ~ 90 psig	85 ~ 580 kPa	12 ~ 90 psig	85 ~ 580 kPa
Coolant Return Pressure	10 ~ 50 psig	70 ~ 350 kPa	10 ~ 50 psig	70 ~ 350 kPa
Differential Pressure	2 ~ 60 psig	14 ~ 415 kPa	2 ~ 60 psig	14 ~ 415 kPa
Coolant Temperature	39 ~ 230°F	4 ~ 110°C	39 ~ 230°F	4 ~ 110°C
Operating Environment	39 ~ 122°F / 4 ~ 50°C			
Supply Voltage	24 VDC	★ DeviceNet and EtherNet/IP versions require an auxiliary 24 VDC source		
Power Consumption	< 16 VA at normal flow		< 8 VA with solenoid valve closed	
Leak Response Time	~ 300 msec at most sensitive condition		~ 1 sec at Sensitivity setting 4	
Low Flow Response	< 0.2 sec			
Reset / Override Response	< 1.0 sec			
Leak Detection	0.3 ~ 1.0 sec depending on response time setting			
Leak Sensitivity	Able to detect a loss of flow continuity from 1 of 20 balanced parallel flow paths			

### DeviceNet® State Indication

DeviceNet WeldSavers operate as slaves on the DeviceNet network. The units support Explicit Messages, Polled I/O Messages, Change of State Messages and Cyclic Messages of the predefined master/slave connection set.

### EtherNet/IP Industrial Application Layer Protocol

EtherNet/IP WeldSavers provide the operational functionality of DeviceNet versions configured for communication over industrial Ethernet networks.

### Discrete / Relay Interface


This interface provides a Remote Reset control input and optional control of valve or bypass status from the weld controller. Relay outputs signal Flow OK or Low Flow status to the weld controller.

+24 VDC or isolated 0 VDC contact logic options can be selected by wire contacts during installation.

For more information, visit [www.proteusind.com/weldsaver/](http://www.proteusind.com/weldsaver/).



Do you need a customized solution? Contact Technical Support at (650) 964-4163 or [weldsaver@proteusind.com](mailto:weldsaver@proteusind.com) and let our experts create a product to match your exact requirements!

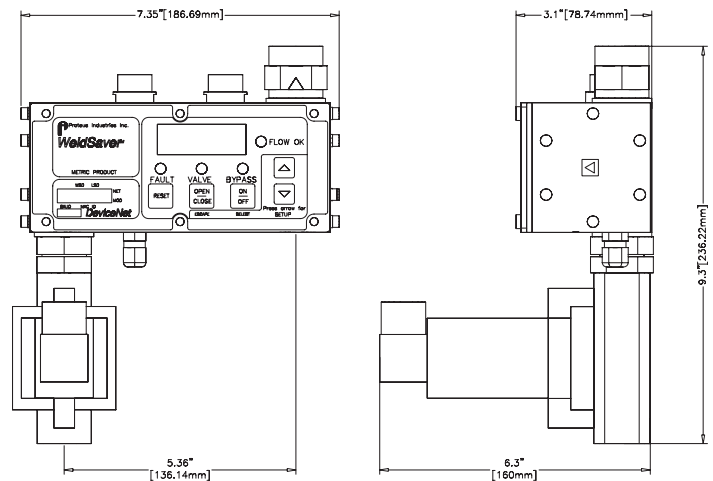
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### Certifications

The WeldSaver is CE-marked and complies with the requirements of EN 61010-1 "Safety of Electrical Equipment for Measurement, Control and Laboratory Use" and 89/336/EEC "EMC Directive". The WeldSaver complies with the requirements for moisture protection of NEMA 4/IP65 and is fully RoHS-compliant.

### Warranty

The WeldSaver's performance, ruggedness and simple installation have been proven in real-world environments. WeldSaver units are warranted to be free from defects in materials and workmanship for 2 years from the date of shipment. Full details of this limited warranty are available on the Proteus Industries website at [www.proteusind.com/warranty/](http://www.proteusind.com/warranty/).



WeldSaver Dimensions (Metric Connections)

Information in this document was correct at the time of printing; however, specifications are subject to change as Proteus Industries' continuous improvement processes establish new capabilities.