

AQUASWITCH™

FULLY AUTOMATIC DI BANK SYSTEM



FEATURES:

- Push-button override for immediate bank change-over
- Adjustable purge timer for "failsafe" operation
- LEDs continually give status on both DI/RO banks
- Alarm output activated as each bank is depleted
- IP64/NEMA 3 splash & corrosion proof enclosure
- Options include (ASII) - Second Alarm/control Module
4-20 mA Isolated Output
3 1/2 Digit Backlit Display
Piezo Electric Alarm
Temperature Module
24 VAC Isolated Power

WHAT IT DOES:

The AQUASWITCH™ is a special purpose dedicated computer which automatically "changes out" an exhausted DI or RO bank for a fresh stand-by bank. LEDs continually give the condition of both banks. An alarm output is activated as each bank is depleted.

HOW IT WORKS:

When the controller senses poor quality water merely because the DI system has been shut down temporarily, the AQUASWITCH™ purges the "on-stream" bank until water quality recovers. If the DI bed or RO bank is exhausted, however, water quality will not improve sufficiently after purging. The AQUASWITCH™ will then automatically take the exhausted bed or tank out of service and switch over to

the stand-by bank. The fresh bank is purged until the desired quality level is reached: it then goes into service.

The purge cycle is controlled by a timer which is easily adjustable for periods from 1-10 minutes. This feature allows the system to be tailored to the requirements of each application, and ensures banks are not switched or shut down prematurely. A "manual change over" button can be depressed to switch bank at any time.

The AQUASWITCH™ features advanced CMOS circuitry, including three solid state (not mechanical) relays to reliably operate the solenoid valves. Three or four solenoid valves suitable for ultrapure water (not supplied) are needed to make a complete AQUASWITCH™ system.

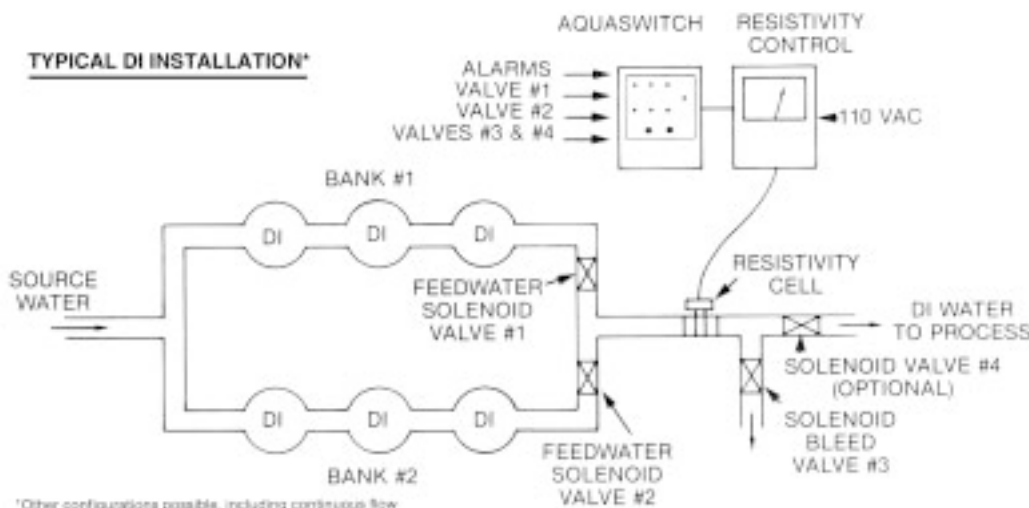
TWO MODELS TO CHOOSE FROM:

The AQUASWITCH I™ does not monitor water quality itself, but may be used with any reliable Resistivity or Conductivity Monitor/controller such as the Myron L 750 Series II.

The AQUASWITCH II™ is an integrated unit with a built-in 750 Series II Resistivity or Conductivity Monitor/controller.

You can rely on Myron L to provide accurate, reliable, & simple to use instrumentation.

**Reliable
Field
Proven
Designs**



**MYRON L
COMPANY**
pH/Conductivity Instrumentation
Accuracy • Reliability • Simplicity

SPECIFICATIONS

AQUASWITCH I™

Output Power to Valves—User determined
Maximum load per valve output—200 milliamps
(5 watts for a 24 V valve)
(25 watts for a 115 V valve)
(50 watts for a 230 V valve)

Alarm contact—SPDT 10 amp @ 250 VAC, 30 VDC

Power—115/230 VAC, 50/60 Hz, ±15% (user selectable)

Maximum Power Consumption—@ 115 V: 100 milliamps

Ambient Temperature Range—32°F - 140°F (60°C)

Dimensions—6" (152 mm) H x 4.8" (122 mm) W x 3.8" (96 mm) D

Construction—Fully gasketed heavy-duty ABS for splash & corrosion proof.
Rated IP64/NEMA 3

Shipping Weight—3 lbs. (1.4 kg.)

AQUASWITCH II™

All specifications same as AQUASWITCH I except:

Monitor/controller—

Range—Resistivity: 3 ranges; 0-200 KΩ, 0-2 MΩ, and 0-20 MΩ

Conductivity/TDS: 14 ranges from 0-1 μS/ppm to 100 μS/ppm

See AQUASWITCH II Range Selection Guide for further details.

Readout—3 1/2 digit LCD standard; opt. 3 1/2 Digit Backlit

Accuracy—±2% of full scale

Sensitivity—0-05% of full scale

Repeatability—0.1% of full scale

Calibration Check—Built-in

Voltage Output—0-10 VDC @ 5 mA max. (linear); standard all models

Control Function—Single Alarm/Controller Fully Adjustable 0-100% of full scale

Hysteresis: Adjustable from 0.3-3% of full scale

Indicators: Above (green) and below (red) setpoint LEDs (reversible)

Contact Rating: SPDT 10 amp @ 250 VAC, 30 VDC. Relay operates decreasing or increasing reading (selectable)

Second Alarm/Controller, with above specifications, as option.

Solid State Output—Powered; 24 VDC Unregulated 30 mA max.

Power—115/230 VAC, 50/60 Hz, ±15% (user selectable)

Maximum Power Consumption—@ 115 V: 250 milliamps

Sensor—One required, either CS10- Resistivity or CS51- Conductivity

Dimensions—6" (152 mm) H x 10.8" (275 mm) W x 3.8" (96 mm) D

Shipping Weight—5 lbs. (2.3 kg.)

OPTIONS

-SC Second Control Module
-4A 4-20 mA Module
-PA Built-in 70db Piezo Electric Alarm
-35BL 3 1/2 Digit Backlit LCD
-TP Temperature Module
-TH Temperature Control Harness
-PC Powercord, 8 Ft. 115 VAC
See Price List for complete selection.

ACCESSORIES

Model	Description
PAO	70db Piezo Electric Alarm
RA	Remote Alarm - RA™
RAW200	Wire (200 ft./60 meter) for Remote Alarm
CS-11	20 Megohm Calibration Module-NIST
CS-14	2 Megohm Calibration Module-NIST
CS-17	200 Kilohm Calibration Module-NIST

Custom & OEM monitors/controllers available.
Price and delivery upon request.

TO ORDER AQUASWITCH

1. Choose either AQUASWITCH I or AQUASWITCH II.
2. If AQUASWITCH II, select Model:
Resistivity - ASIIR or Conductivity - ASIIC
3. If AQUASWITCH II, select Range: See
AQUASWITCH II Range Selection Guide.
4. If AQUASWITCH II, select sensor: See
AQUASWITCH II Sensor Price List
5. Options: i.e. special PVDF or 316 stainless steel fitting
is required. See Price List.

Order Example: ASIIR-11-4A-TP

Resistivity AQUASWITCH II with 0-20 Megohm range,
plus 4-20 mA output Module and Temperature Module*.
* Requires Special Order, -TP sensor.

NOTE: Valves are NOT supplied; the AQUASWITCH™
series is compatible with quality solenoid valves of any
voltage. Valves #1, 2, and 3 on diagram should be
Normally Closed. Valve #4 (to process) should be
Normally Open.

SENSORS

AQUASWITCH II models require a CS series sensor. These reliable sensors feature integral temperature sensors to ensure accurate and rapid automatic temperature compensation. The sturdy polypropylene standard bushing is modular for easy, inexpensive replacement. A PVDF or 316 stainless steel bushing may also be ordered. The metal portion is available in either 316 stainless steel (standard) or titanium. High Temperature/High Pressure (250 PSIG @ 205°C) sensors, Models CS40 & CS41, available on special order.

SPECIFICATIONS:

Constant—Resistivity -CS10 (0.05); Conductivity - CS51LC (0.1) or CS51 (1.0) depending on range.

Temperature Compensation—Automatic TC to 25°C between 32-212°F (0-100°C)

Pressure/Temperature Limits—100 psi (690 kPa) @ 212°F (100°C)

Bushing—Module polypropylene threaded 3/4" NPT. 1/2" PVDF or 316 SS fittings available as options.

Wetted Materials—Electrodes: 316 Stainless Steel (standard) or titanium

Cable—Shielded 10' (3 meter) standard; 25' & 100' (8 and 30 meter) lengths available.

Dimensions—Metal portion 1.2" (30 mm) long; 0.5" (13 mm) diameter; Overall length: 3.6" (91 mm)

WARRANTY

All Myron L AQUASWITCH I & II controllers and sensors have a TWO-year warranty. If any AQUASWITCH/controller or sensor fails to function normally, return unit to the factory prepaid. If, in the opinion of the factory, failure was due to materials or workmanship, repair or replacement will be made without charge.

A reasonable service charge will be made for diagnosis or repairs due to normal wear, abuse or tampering. Warranty is limited to the repair or replacement of AQUASWITCH/controller or sensor only. The Myron L Company assumes no other responsibility or liability.

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Built On Trust. Founded in 1957, the Myron L Company is one of the world's leading manufacturers of water quality instruments. Because of our commitment to product improvement, changes in design and specifications are possible. You have our assurance any changes will be guided by our product philosophy: accuracy, reliability, and simplicity.

pH/Conductivity Instrumentation
Accuracy • Reliability • Simplicity

