

Signal and Alarm Panels



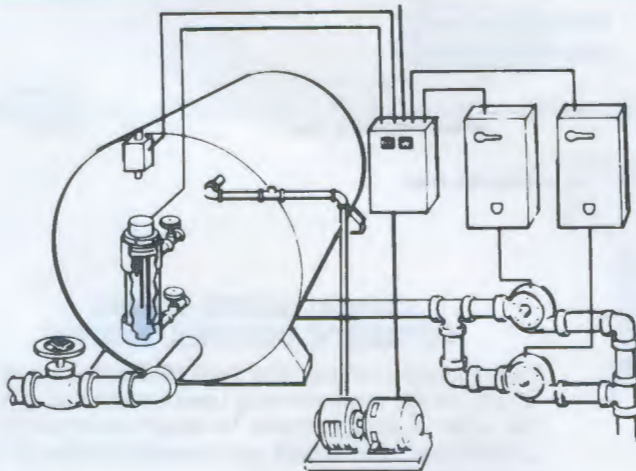
Fixed Sequence Panels



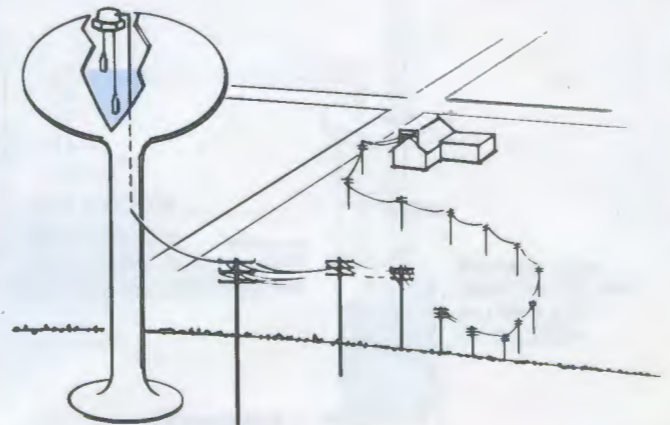
Automatic Alternators



Alternators with Combination Starters



Hydropneumatic Tank Control Systems



Long Distance Control Systems

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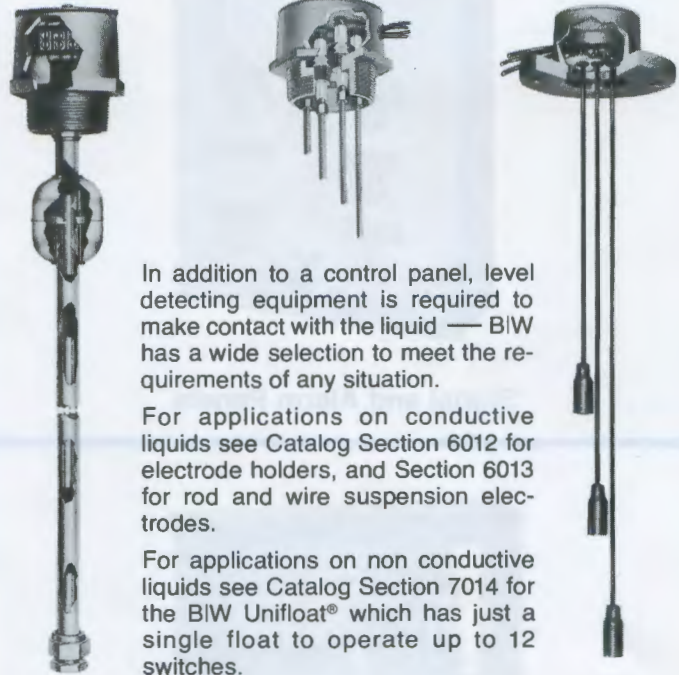
Since its introduction in 1933, the original BIW concept of utilizing the electrical conductivity of most liquids as a means of achieving liquid level control has won wide-spread acceptance as the most versatile and reliable system of its kind. In addition to the basic relays and level sensing components, BIW also produces packaged control systems to meet the requirements of a wide range of applications for control of pumps and valves, or sounding alarms on off normal conditions.

Many standard control panels are shown in this catalog and they are just typical of hundreds of others that we can quickly provide. Our 50 years of experience providing systems for all sorts of applications means that what might be special for someone else is standard for BIW.

A BIW packaged system saves your design time and minimizes your installation costs. Illustrated below is a control system that requires 4 BIW control relays. We can quickly supply a control panel with the 4 relays and including all necessary interwiring to a terminal block ready for just the external connections. Or, we could also include combination motor starters for a complete package.

An important plus factor is the BIW system wiring diagram which assures quick and easy installation and the confidence that the system will work right the first time.

BIW LIQUID LEVEL SENSING ASSEMBLIES

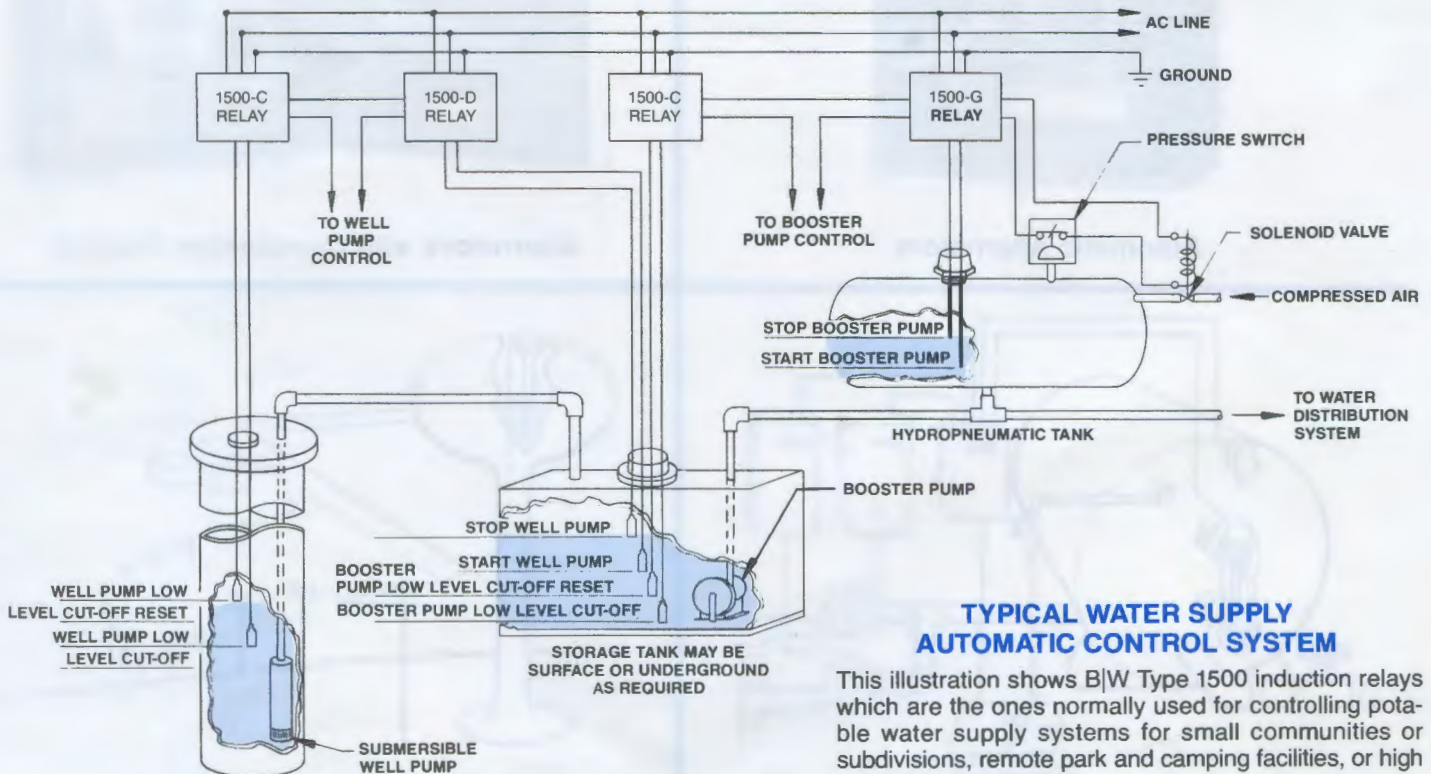


In addition to a control panel, level detecting equipment is required to make contact with the liquid — BIW has a wide selection to meet the requirements of any situation.

For applications on conductive liquids see Catalog Section 6012 for electrode holders, and Section 6013 for rod and wire suspension electrodes.

For applications on non conductive liquids see Catalog Section 7014 for the BIW Unifloat® which has just a single float to operate up to 12 switches.

PANELS



**TYPICAL WATER SUPPLY
AUTOMATIC CONTROL SYSTEM**

This illustration shows BIW Type 1500 induction relays which are the ones normally used for controlling potable water supply systems for small communities or subdivisions, remote park and camping facilities, or high rise buildings.

CATALOG NUMBERING SYSTEM

BIW offers a large selection of control panels and our product identification system allows a specific panel to be clearly specified for ordering purposes. The system is described below and examples are given on the pages describing the particular type of panel desired.

The first group of numbers is always 8040 to indicate a STANDARD PANEL.

There are four basic panel categories. Each of the categories has several standard models which are described on the pages indicated. A CONTROL DESCRIPTION number is listed for each model. Also there are usually extra features available and either the features symbol or an X must be shown in the space for OPTIONAL FEATURES.

Then there are spaces for LINE VOLTAGE and ENCLOSURE and the symbols for these are listed on the product pages.

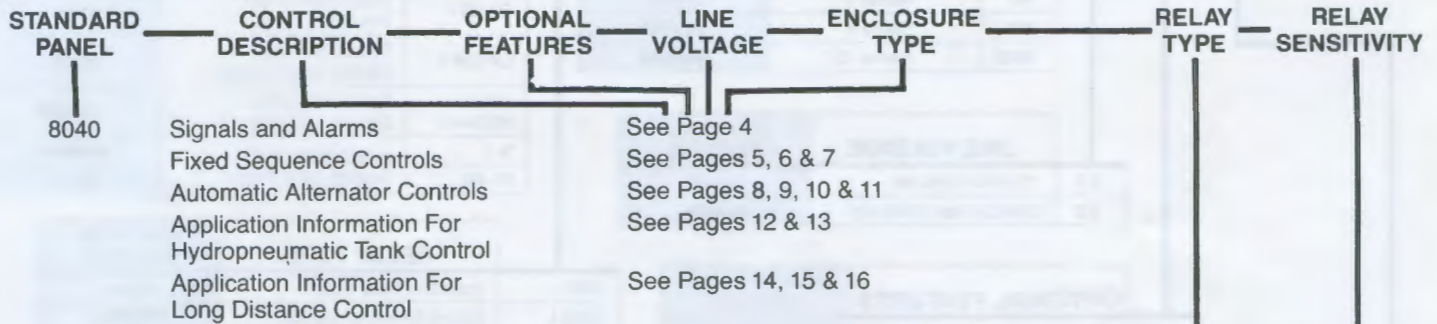
Brief information for selecting the BIW RELAY TYPE and RELAY SENSITIVITY is given below. For complete information refer to the catalog sections covering the various BIW relays.

ORDERING INFORMATION

In addition to the complete catalog number for the control panel selected from this catalog, electrode holders and electrodes must be ordered as separate items as indicated on page 2.

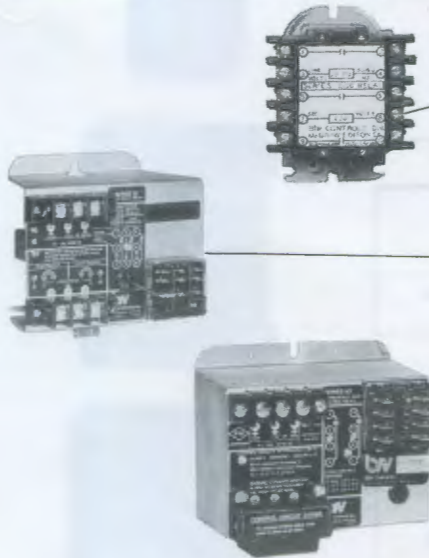
Also, if you wish BIW to verify that you have made the most suitable selection of items, furnish us details on the desired control functions, and the nature, temperature and pressure of the liquid.

If you need help — phone us for assistance.



BIW RELAY SELECTION

The basic components of all standard control panels are BIW's unique control relays. Several types are available to meet the requirements of a broad range of applications. All are designed on the conductivity principle to provide level control operation from electrodes located in the liquid. They all feature a low energy sensing circuit that will also operate from the contacts of process control devices such as float, pressure, flow and temperature switches. Selection depends on the application requirements.



Type 1500 Induction Relay

See Catalog Section 1500

New enclosed field convertible contacts

Sensing circuit voltage: From 12 to 800 VAC

Contact rating: 1 HP @ 120 or 240 V single phase
: 25 Amp resistive

Series 52 Solid State Relay

See Catalog Section 5200

Low voltage field changeable sensing circuit

Two models	5200-L	5200-H
Sensing circuit voltage:	8 V.A.C.	9.6 V.D.C.
Contact rating:	10 Amp	10 Amp
	@ 120 or 240 V.A.C.	

Series 53 Control Relay

See Catalog Section 5300

Intrinsically Safe Sensing Circuit

Approved for all explosive hazardous locations

Two models	5300-S	5300-P
Sensing circuit voltage:	9.6 V.D.C.	9.6 V.D.C.
Contact rating:	10 Amp	25 Amp
	@ 120 or 240 V.A.C.	

TYPE NUMBER	SENSITIVITY SYMBOL
1500	SI-S11
Sensitivity determined by secondary coil voltage. Select from chart on Page 9 Section 1500	
5200-L 5200-H	LF1, LV1, 2 HF1, HV3, 4, 5
Sensitivity determined by value of R1 resistor. Select from chart on Pages 4 & 5 Section 5200	
5300-S 5300-P	V, F1-F8
Sensitivity determined by internal resistance. Select from chart on Page 5 Section 5300	

PANELS