

SUMPAK CONTROLS Series 4200



GENERAL DESCRIPTION

Series 4200 duplex controllers feature individual pump breakers, definite purpose contactors, and automatic alternator for two, single phase pumps. A list of standard options is also available and includes elapsed time meters for each pump and a choice of alarms. The two basic panel model numbers are determined by the pump motor voltages: Model 4201 is for 115V motors; Model 4202 is for 230V motors. In each case 115V must be supplied to the control circuit.

Series 4200 Sumpak panels are used in two pump, sump applications. The advantages of this system are well known and include equalized wear on each of the pumps, standby protection if one pump fails, and added pumping capability for peak inflow conditions. For pump out applications, three mercury or diaphragm switches are wired to the terminal strip mounted on the alternator circuit board. One switch is a "lead float" switch, another is a "lag float" switch. The switches control two pilot duty relays through a holding circuit arrangement, which eliminates the

Problems associated with short cycling and alternator "chatter" due to contact bounce. When the alarm option is added, (Options C, D, or F), the "lag float" also becomes the alarm contact. The alarm is held in until the pumping cycle is complete and the liquid level reaches the "stop float". At this point the alarm will reset, automatically. It is also possible to use a fourth switch for the alarm. This float can be set at a higher or lower level than the "lag float". A higher setting may serve to eliminate some of the nuisance alarms caused by peak flow conditions. A disadvantage of the particular option, (E), is that a failure of one pump can go unnoticed for quite some time, the result being that the second pump can be overworked and fail as well. Servicing and preventative maintenance can be done at regular intervals, when elapsed time meters are included in the panel, (G).

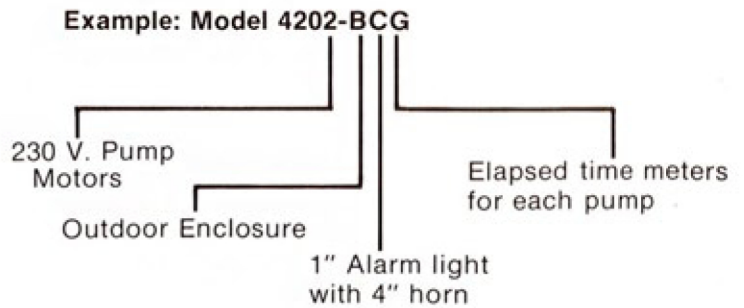
Either Roto-floats, Mini-floats, Solo-floats, or diaphragm switches are compatible with Sumpak panels. They can be ordered separately in either a Type P or Type S mounting style.

SUMPAK Series 4200 Features:

- Components are mounted in a baked enamel, gasketed, NEMA 12 enclosure with mounting ears, (Option A). Dim.: 14 x 12 x 6.
- Components are mounted in a fiberglass, gasketed, NEMA IV enclosure with mounting ears. (Option B). Dim.: 14 x 12 x 6 3/8.
- Individual pump circuit breakers supplied for each pump: single pole 115V motors, (Model 4201), double pole for 230V motors, (Model 4202). Breakers are isolated for greater systems reliability.
- Individual, double pole, definite purpose contactors, rated at 1 horsepower, 115V., 2 horsepower, 230V.
- Terminals for sensors, pumps, and incoming power. Grounding lug also provided.
- Individual, manual-off-automatic selector switches.
- Lead pump indicating LEDs, (red).
- An alternating relay that automatically switches the "lead" pump to the "lag pump" after each pumping cycle.
- Plug-in alternating relay and holding circuit relays are used to easy field replacement

ORDERING INFORMATION:

Ordering Sumpak Series 4200 controls is very simple. First, find the voltage of the pumps. If the voltage is 115V, the model needed is a Model 4201; if the pump voltage is 230V, a Model 4202 is required. Next, determine whether the panel will be mounted indoors, (-A) or outdoors, (-B). Add these option letters as a suffix to the basic panel number. Go through the rest of the option letters and select those which will be needed and add them to the Sumpak model number as a suffix.



OPTIONS:

- Indoor. NEMA 12 enclosure with gray, baked enamel paint, gasketed, with mounting ears. Dimensions: 14 x 12 x 6.
- Outdoor. NEMA IV, gray, fiberglass enclosure, with gasket and mounting ears. Dimensions: 14 x 12 x 6 3/8.
- Alarm. Furnished with a 1", red indicating light, 4" horn, and silencing push-button. These components are mounted on the panel door.
- Alarm. A large, 100 watt, vaportight, red light assembly with thermal flasher is mounted on the top of the panel. The option includes a die cast aluminum housing and guard.
- Separate alarm switch terminals are provided when the "lag float" is not also used as the "alarm float".
- Alarm. A 1", red light, buzzer, and silencing push button are furnished. For indoor use, (Use with Option A, only).
- Elapsed time meters. Individual meters are non-resettable and record the run time for each pump motor out to 99,999.9 hours. Bracket mounted.

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