

The Badger Model 330 is a compact, programmable relay control capable of converting the signal from a Badger Meter flow sensor into a flow switch.

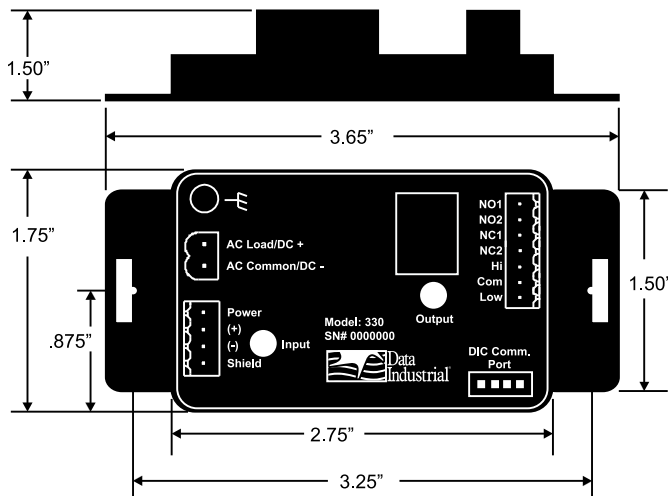
With an onboard microcontroller and digital circuitry, the Model 330 is programmed from a Windows® based computer program. This eliminates the need to set dip switches or potentiometers and produces precise, accurate and drift free control of the relay outputs. In addition to accepting the Badger Meter square wave signal, the Model 330 can accept other pulse and sine wave inputs.

The compact cast epoxy body measures 1.75" (44mm) x 2.75" (70mm) x 1.5" (38mm) and can easily be mounted to panels, DIN rails or enclosures. With multiple inputs, ease of use and a variety of enclosures, the Model 330 is a powerful, competitively priced relay control device.

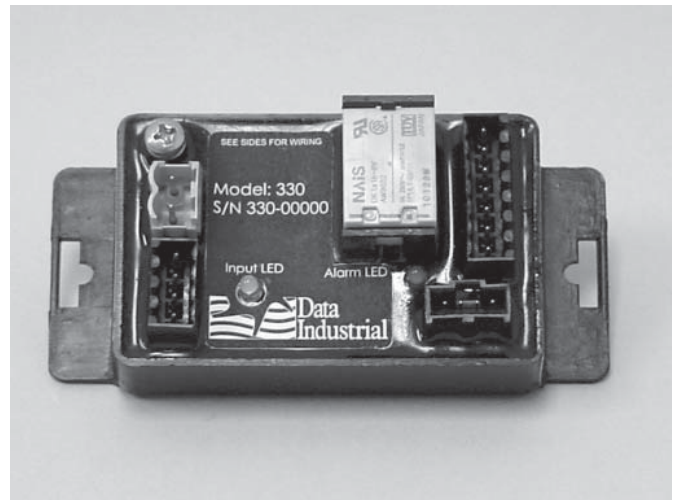
APPLICATIONS

Combined with a flow sensor the Model 330 may be used in a variety of "Flow Switch" applications.

- Flow / no flow indicator
- High flow / low flow alarm monitor
- Booster pump control
- Multiple pump staging
- Leak control



Model 330 Dimensions



FEATURES

1. **Relay Output** - The Model 330 output is a pair of single pole relays, one normally open and one normally closed. Both relays act in unison to the programmed parameters.
2. **Selectable Alarm Type** - The Model 330 may be programmed as a high flow alarm where the relays are energized when the flow rate exceeds the set point, and/or as a low flow alarm where the reverse is true and the relays energize when the flow rate falls below the set point.
3. **Programmable Set & Release Points** - The set point, the flow rate where the relays are energized, is programmed independently from the release point, the flow rate where they are de-energized. This adjustable deadband prevents relay chatter and control cycling.
4. **Programmable Time Delays** - This feature provides a time delay between crossing the set or release point and energizing or de-energizing the relay. This feature allows surges in the flow to dampen out before the control circuit reacts.
5. **Latch Feature** - The latch maintains the relays in the energized state even when the alarm condition has been satisfied, until manually reset.
6. **Remote Reset** - This allows all the control parameters of the Model 330 to be reset by an external signal.
7. **Alarm Status** - Using the Windows® software, the actual flow rate status of relays and time delay counters can be observed, providing great diagnostic tools.



SPECIFICATIONS

Power

Power supply options:

- 12-24 VDC
- 12-24 VAC

Current Draw:

60 mA @ 12 VDC

Flow Sensor Input

All sensors:

Excitation voltage 3 wire sensors:
9.1 VDC 500Ω source impedance

Pulse type sensors

Signal amplitude:

2.5 VDC threshold

Signal limits:

Vin < 35V (DC or AC peak)

Frequency:

0-10kHz

Pull-up:

2 kΩ

Sine wave sensors

Signal amplitude:

10 mV p-p threshold

Signal limits:

Vin < 35V (DC or AC peak)

Frequency:

0-10kHz

Relay:

1 Form A 1 Form B

Contact Ratings:

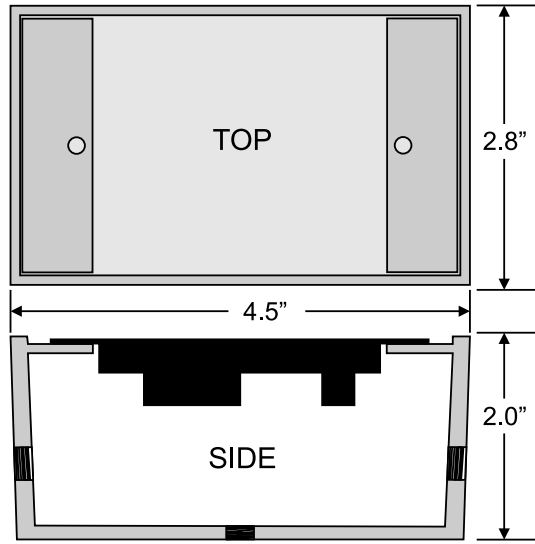
- 5A@30VDC
- 5A@125VAC
- 5A@250VAC

Time Delay:

1-9999 second delay between flow point and relay actuation

Transient Suppression:

Designed to withstand a 5000 volt, 1/2 microsecond, 100KHz ring wave



Optional Enclosure (330-02 and 330-03)

SENSOR CALIBRATION

Badger Meter:

Use K and Offset provided in sensor owner's manual

Other Sensors:

Check with factory

UNITS OF MEASURE

Flow measurement

Rate:

gpm, gph, l/sec, l/min, l/hr, ft3/sec, ft3/min, ft3/hr, m3/sec, m3/min, m3/hr

PROGRAMMING

Requires PC or laptop running Windows® 9x, ME, NT, 2000, XP

Operating Temperature:

-25° C to +70° C
-20° F to +158° F

Storage Temperature:

-40° C to +85° C
-40° F to +185° F

Weight:

4.8 oz. with headers installed

Accessories:

Model A301 programming kit with cable and software.

	EXAMPLE:	330	-	xx
Series		330		
Programmable Local Relay Control		330		
Options				
Transmitter Only				00
W / NEMA 4X Enclosure				01
W / Metal Enclosure				02
W / Plastic Enclosure				03
W / DIN rail Mounting Clips				04

Model 330 Ordering Matrix

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