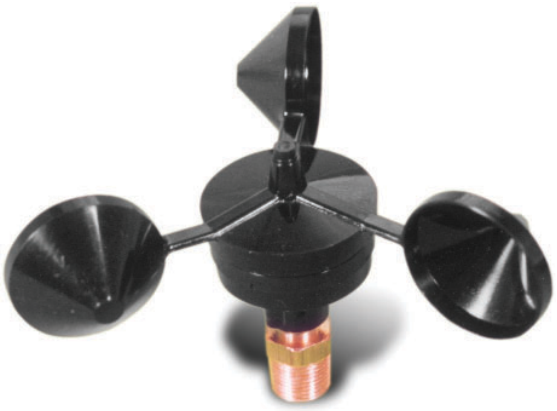
H.B. Abrams Company

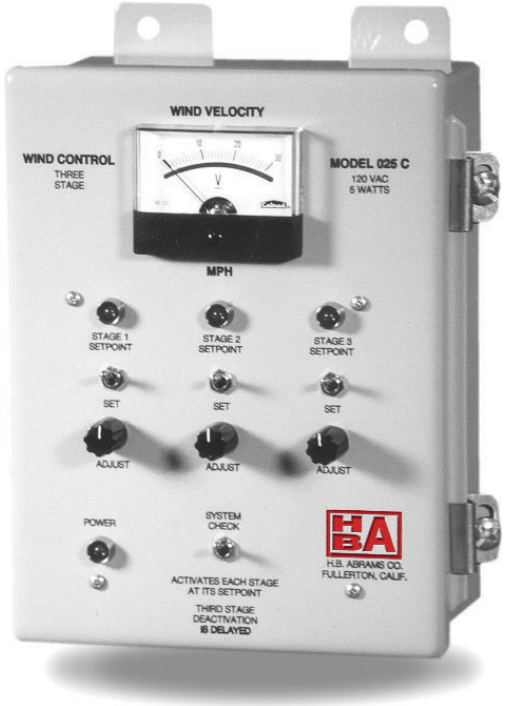
Wind controller models

Description

The H.B. Abrams wind velocity activated control system is suitable for switching or controlling various devices such as fountains, irrigation systems, crane wind alarms, etc... It is an electronic device that allows for monitoring of wind speed and to activate relay outputs depending on preset wind conditions.



For simple fountains, floating fountains, waterfalls, irrigation systems, and crane applications, a single output stage controller is all that's required. For more complex applications or fountains capable of variable display heights, H.B. Abrams Company offers multi-stage controllers as well as analog outputs, delayed trip, and custom configurations.



All models are standard with analog wind speed indication meter, calibrated for 0 to 30 mph display, 120vac single phase power input, and 5 amp relay output. Other ranges, input power, and output configurations are available on request. All wind controllers include one cup anemometer sensor, but can accept input from two. The final trip stage on all models features an off delay of 60 seconds to prevent excessive starting of the display pump.

Wind controller models

025A, Single Stage.

Provides one adjustable setpoint and one spdt output relay that trips instantly on setpoint. The relay output resets 60 seconds after the wind speed remains continuously below the setpoint.

This model can control the display pump circuit on simple fountains, prevent irrigation systems from operating in high wind conditions, and activate the high wind alarm in crane applications.

025B, Dual Stage.

Provides two adjustable set points and two spdt output relays that trip instantly on setpoint. Stage one relay resets instantly when the wind speed decreases below setpoint, while the stage two relay output resets 60 seconds after the wind speed remains continuously below the setpoint.

This model can control pressure reducing valves or VFDs in fountain applications, or activate warning and alarm systems in crane applications.

025C, Three Stage.

Provides three adjustable set points and three spdt output relays that trip instantly on setpoint. Stages one and two relays reset instantly when the wind speed decreases below setpoint, while the stage three relay output resets 60 seconds after the wind speed remains continuously below the setpoint.

This model can control pressure reducing valves or VFDs in fountain applications.

025P, Analog output.

Provides two adjustable setpoints, one 0-10vdc analog signal, one 4-20ma analog signal, and one spdt output relay. One setpoint controls the analog outputs, while the other setpoint controls the relay. The analog outputs provide full output (10vdc or 20ma) at no wind speed, and decrease linearly to minimum output (0vdc or 4ma) when the wind speed matches set point. The spdt output relay trips instantly on setpoint. The relay output resets 60 seconds after the wind speed remains continuously below the setpoint.

Designed specifically for fountain applications, the analog outputs can be connected to either VFDs (Variable Frequency Drives) or proportioning control valves to continously vary the fountain display height in relationship to the wind speed. An additional setpoint and output relay is provided to shut down the display entirely, as most display pumping systems will not provide adequate flow for the fountain at below 25% speed.

025WP, Three stage, one setpoint.

A simplified version of the 025C, it provides one setpoint and three spdt output relays that trip instantly on setpoint. Stages one and two relays reset instantly when the wind speed decreases below setpoint, while the stage three relay output resets 60 seconds after the wind speed remains continuously below the setpoint. Setpoint control sets stage three only, while stage one is 1/3 of setpoint and stage two is 2/3 of setpoint.

025T, Single stage with fixed trip delay.

Similar to the model 025A, this model requires that the wind speed be sustained above the setpoint for a preset time before tripping. The trip delay time is adjustable to 2, 4, 8, 16, 32 seconds by means of an internal jumper (factory set).

This model is useful for gusty areas where it is not desired to shut down the equipment until sustained wind speeds are attained. An example of this is decorative fire displays.

025AT, Single stage with adjustable trip delay.

Similar to the model 025T, with a front panel adjustable trip delay switch.

041, Cup anemometer sensor.

An additional anemometer sensor for installations that require it.

For proper monitoring and control, the anemometer should be mounted upwind from the device being controlled to allow the sensor time to respond to approaching wind gusts before it reaches the device (fountain, irrigation system, crane, etc…).

In most areas, the wind will come from one of two directions depending on the time of day, and these two directions tend to be 180° from each other. Because of this, it's sometimes required to be able to sense the approaching wind from both directions. All wind controller models include one anemometer, but have inputs for two.

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