



**H.B. Abrams Company**  
218 No. Woods Ave, Fullerton, Calif., 92832  
Tel: (714) 526-6696, Fax: (714) 526-6616  
www.hbabrams.com

## 025B DUAL STAGE WIND CONTROLLER

### Description

Provides two adjustable setpoints and two spdt output relays that trip instantly on setpoint. The second stage relay output resets 60 seconds after the wind speed remains continuously below the setpoint.

This model is intended to control pressure reducing valves or VFDs in fountain applications.

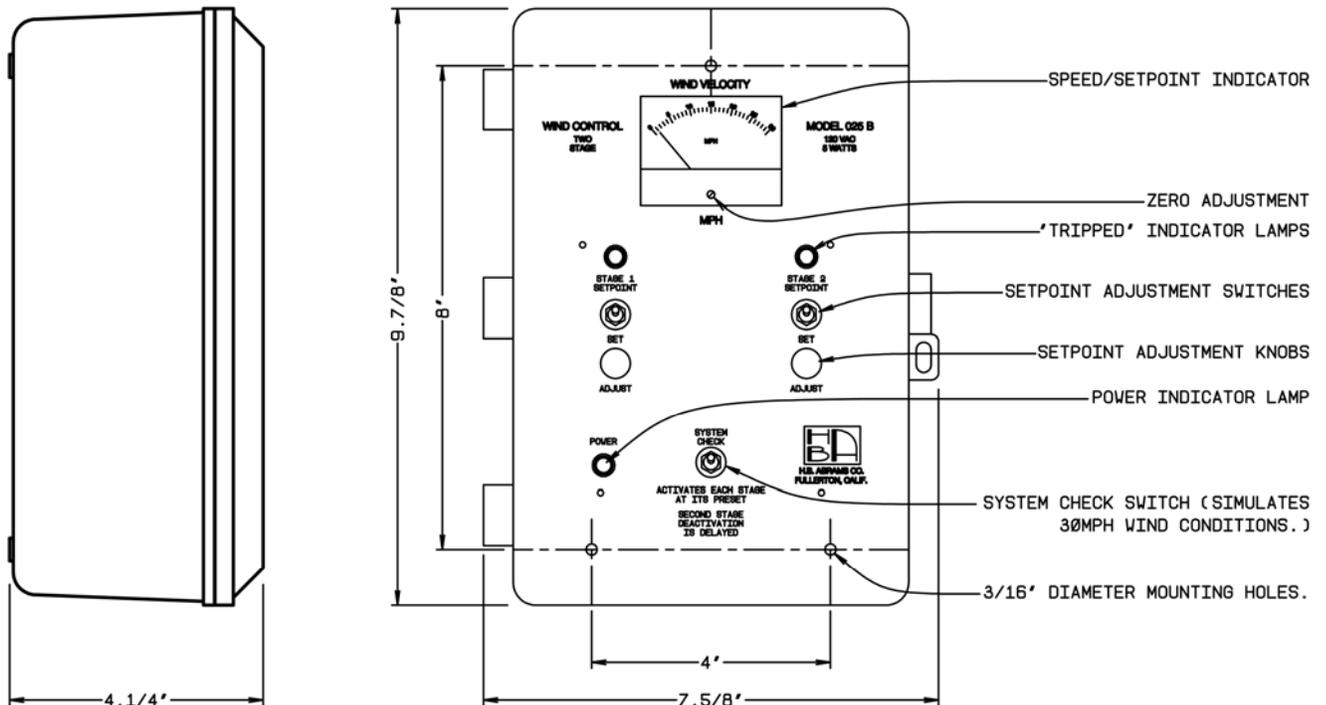
The wind speed is measured by means of an H.B. Abrams Company model 041 cup anemometer. The anemometer is constructed with lightweight, UV resistant plastic. The anemometer mount is a ½" male npt brass conduit connection. Refer to the model 041 datasheet for more detail.

The model 025B is standard with analog wind speed indication meter, calibrated for 0 to 30 mph display, 120vac single phase power input, and 5 amp relay outputs. Included is one cup anemometer sensor, but can accept input from two. The second stage features an off delay of 60 seconds to prevent excessive starting of the display pump.

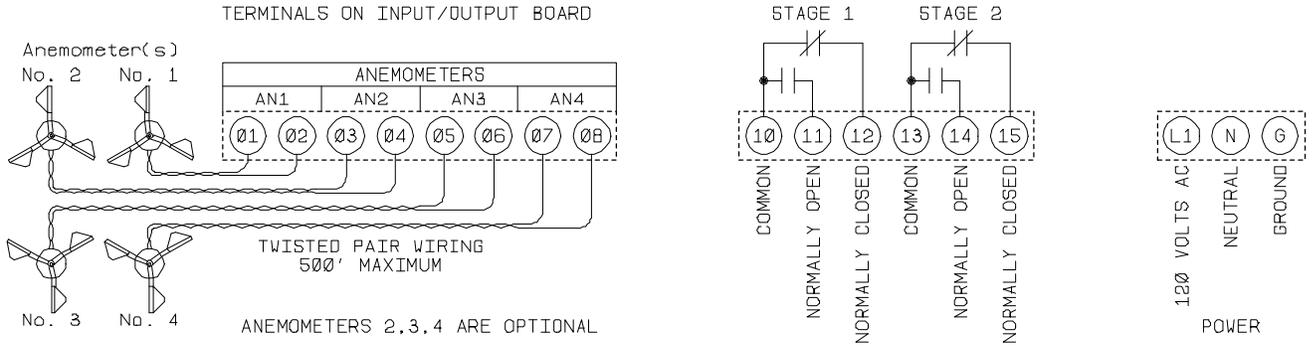
### Installation

The controller enclosure is moisture proof but intended to be mounted indoors or under a cover to protect it from direct rain and sunlight. The anemometer (sensing head) can be mounted up to 500' away, with its own conduit and suitable cable (twisted pair, CAT 5 ethernet or similar). The anemometer should be mounted upwind of the fountain by at least 50'. This allows the controller to adjust or shut down the display before the wind gust gets to the fountain.

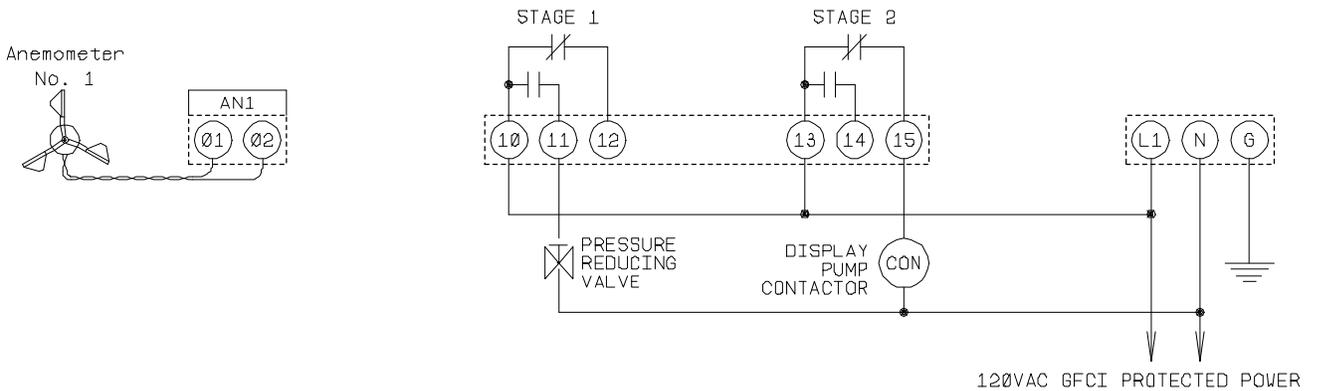
### Dimensional Drawing



## Connection Diagram



## Suggested Electrical Connection



## Specifications

Operational range.....0-30 mph  
 Accuracy.....5% of full scale  
 Set point adjustable range.....0 mph to 30 mph  
 Stage 3 off delay.....60 seconds  
 Enclosure type.....NEMA 4 painted steel  
 Enclosure dimensions.....8¾" x 7" x 4½"  
 Input voltage.....120 vac nominal  
 Input frequency.....50/60 Hz  
 Power consumption.....5 watts  
 Shipping weight.....9 lbs  
 Temperature range.....32°F to 140°F  
 Anemometer cable.....22ga twisted pair or better (cat5 ok)

### Operator controls:

Stage 1 setpoint set switch  
 Stage 1 setpoint knob  
 Stage 2 setpoint set switch  
 Stage 2 setpoint knob  
 System test switch

### Operator indicators:

Power  
 Wind speed / setpoint adjust meter  
 Stage 1 setpoint "tripped"  
 Stage 2 setpoint "tripped"

Relay outputs.....5 amp SPDP relay contacts

Warranty.....One year



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## 041 CUP TYPE ANEMOMETER

### Description

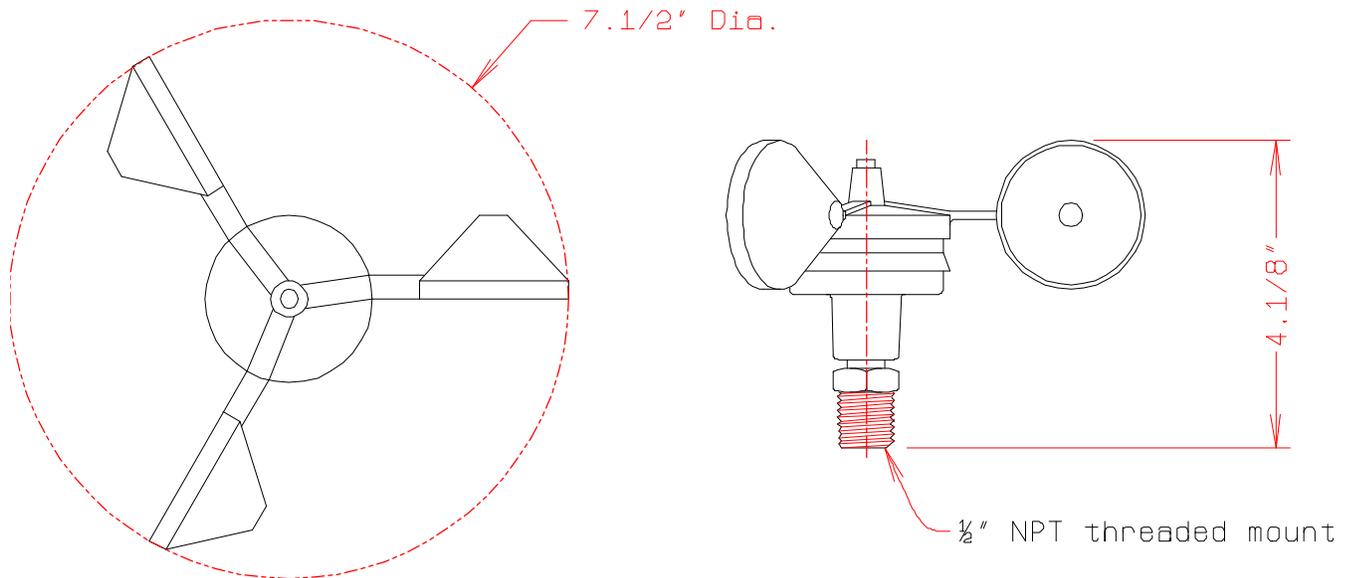
The anemometer is constructed with lightweight, UV resistant plastic. This allows for a low moment of inertia and unique bearings permit very rapid response to gusts and lulls. The black Lexan cups (virtually shatter-proof) have thermal properties which let it resist and shed icing far more effectively than metal assemblies. Because of their output linearity these sensors are ideal for use with various data retrieval systems. The model 041 sensor is factory calibrated. The anemometer mount is a 1/2" npt brass conduit connection. Connection is by two 1/8" brass posts with nuts. The center of the mount is hollow to route wiring through.

### Installation

For proper monitoring and control, the anemometer should be mounted upwind from the device being controlled to allow the controlling device 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.

### Dimensional Drawing



### Specifications

Anemometer type.....	Rotary cup	Output.....	3 volts @ 102 mph, 300microamps
Cup type.....	Conical	Humidity range.....	10% to 100% RH
Cup size.....	2" Diameter	Mount.....	1/2" male NPT
Cup material.....	Black Lexan	Mount material.....	Brass
Swept area.....	7 1/2" Diameter	Body material.....	Black ABS
Rotor moment of inertia.....	.68 x 10 x S-ft <sup>2</sup>	Warranty.....	One year
Starting threshold.....	<= 4mph		
Distance constant.....	.10 feet		
Operational range.....	0-100 mph		
Temperature range.....	-67° to + 130° f		



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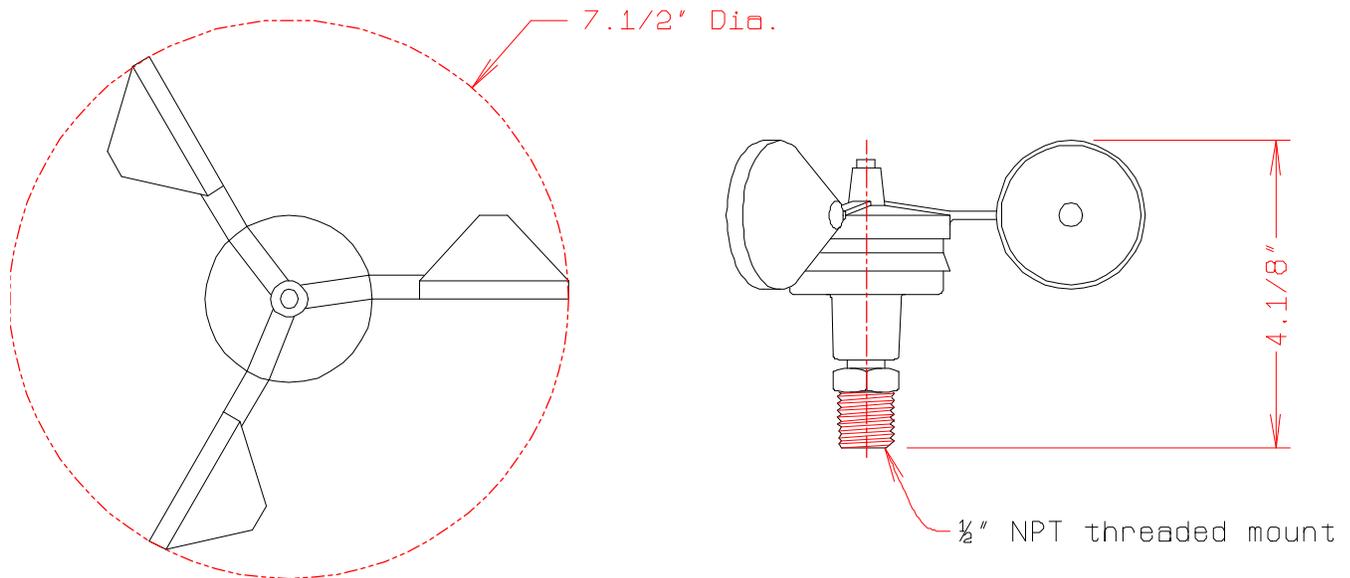
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