

# PEM Q 119

## DUAL STAGE WIND CONTROL

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# PEM Q119

#477-0351

## SINGLE or DUAL STAGE WIND CONTROL



### Q119-2 # 477-0352, 5 VDC EXTRA ANEMOMETER

**PEM Q119 WIND CONTROL** is an electronic device to monitor wind velocities.

At 2 selected wind velocities the control can be set independently to activate separate control circuits on rise of wind velocity above the set point and automatically de-activate upon lowering of the wind velocity to below the set point. The control can use up to 3 anemometers to provide multiple zone sensing and increased reliability. The highest wind speed detected from up to three anemometers is displayed in a digital LED display and used for control purposes.

Built in adjustable time delay function prevents the fast cycling of controlled circuits due to gusty winds. The basic wind control consists of 2 parts: Control panel and Anemometer(s) interconnect with low voltage, shielded 3 conductor cable. The anemometer(s) normally installed up wind from the object to be protected in relationship to same and beyond the reach of vandals. The anemometer(s) is/are of the optical interruptor type, with a 3 cup impeller spinning on ball bearings. The anemometer and cups are made of aluminum.

The anemometer is mounted offset on an aluminum junction box with 3/4" conduit connection (NPT/BSP). The mounting configuration permits the installation of the anemometer close to solid objects. The control panel is enclosed in a NEMA/CEMA type 12 (4), moisture and dust proof polycarbonate enclosure with clear cover.

Wiring between anemometer and control panel to be with 3 shielded conductors for each anemometer.

Recommended wire sizes: Up to 150m,500 feet = # 18 AWG,1.6mm<sup>2</sup> shielded (1.5mm<sup>3</sup>)



### Q119-1 # 477-0351, CONTROL PANEL 120/240VAC , 50/60 Hz. , 1 A.

U.L. Listed  
c.U.L. Listed

#### FUNCTIONS:

- Individual stage set points
- Auto - Off - Manual Switches
- Indicator lights for activated stage(s)
- Swing out cover to access terminals
- Adjustable Time delay for each stage
- LED read outs of actual wind velocities

#### TERMINALS:

- (+) Power Supply, 120V/240Vac-50/60Hz
- (-) Power Supply, 120V/240Vac-50/60Hz
- Earth / Ground
1. Stage Normally Closed Contact, **OUT**
1. Stage Common,Max.240V.,10 Amp., **IN**
1. Stage Normally Open Contact, **OUT**
2. Stage Normally Closed Contact, **OUT**
2. Stage Common,Max.240V.,10 Amp., **IN**
2. Stage Normally Open Contact, **OUT**
- Anemometer Power, 5 VDC (-) (OUT)
- Anemometer Power, 5 VDC (+) (OUT)
- Anemometer # 1 Signal (IN)
- Anemometer # 2 Signal (IN)
- Anemometer # 3 Signal (IN)

\* The shield of the sensor cable must be grounded at control panel only, insulated at anemometer.

#### Basic Control

##### Assembly

##### PEM Q 119

##### #477-0350

consists of:

1 x Q119-1

1 x Q119-2

30m/100' cable

Additional

Anemometers

Q119-2 & cable

extra & additional

### MONITORED WIND VELOCITY RANGE FOR BOTH STAGES: 2.0 - 62 mp/h - 3.2 to 100 km/h - 1.7 to 54 Nautical mp/h

#### DIMENSIONS:

##### Control Panel Enclosure,

185mm / 7.280" - Width, 175mm / 6.89"- Height, 100mm / 3.930"- Depth. (Conduit openings to suit by installer.)

##### Sensor:

220mm / 8.660"-Height, 150mm / 5.900" - Width, 170mm / 6.690" - Depth

##### Cable supplied with control :

30m / 100 feet of 18/3 AWG, 1.6mm<sup>2</sup>, shielded 3 wire cable

#### APPLICATIONS:

Normal application of PEM Q119 Wind Control for fountains is in the control of spray effects, that the same will not be carried out of the fountain pool by winds causing distress and hazards to passers-by.

##### Used as a 1 Stage Control

Normally used to shut off the fountain pump(s).

##### Used as 2 Stage Control

Stage 1 of the wind control is used to lower the spray effects to suitable heights during periods of light winds by means of electrical controlled by-pass valves or shutting off parts of a multiple pumping system. Stage 2 of the wind control is used to shut off the spray effects completely during periods of high winds.

Once the winds subside, the wind control automatically returns the spray effects to normal operation.

This system shall not be used in fountains where people might walk across covered (dry surface) fountains during periods of high winds when the control shuts down the sprays.

Other applications are to monitor the wind velocities and engage alarms or other protective devices at 2 separate, adjustable, wind velocities. Other applications can be found at marinas, high bridges, greenhouses and inflatable covers over pools and tennis courts among many.

#### TERMINALS :

- o —
- o —
- o —
- o —
- o —
- o —
- o —
- o —
- o —
- o — (-)DC
- o — (+)DC
- o — DC
- o — DC
- o — DC

#### ELECTRICAL RATINGS:

Q119-1 # 477-0351 = 120/240VAC , 50/60 Hz. , 1.0Amp.

Q119-2, # 477-0352 = 5 VDC

Switch Ratings = Max. 240V, 10 A. - 120V, 10A. Non Inductive (Dry switch circuits , common(s) must be supplied)

# PARTS FOR PEM Q 119

## WIND CONTROL

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#	PEM	DESCRIPTION
403-0100	Q117 Panel	Replace with new Q119 panel & sensor
403-0510	Q118 Panel	Replace with new Q119 panel & sensor
403-0610	Q118/-07	Anemometer Assembly with brass base, less junction box
403-0620	Q118/07A	Anemometer Assembly without brass base (broken off Cup(s) )
403-0710	Q119/07	Anemometer Assembly with brass base, less junction box
477-0352	Q119-2	Anemometer Assembly with brass base & with junction box
477-0381	Q119-02	Clear Plastic Cover of Control Panel
477-0396	Q119-2	Sensor Junction Box Cover with Bolts(4)