

Pneumatic Valve Positioner For FloWing Valves

Model VPR02/03

OVERVIEW

Model VPR pneumatic valve positioner has been designed specifically for FloWing valves (Eccentric Rotary Control Valves). It enhances the response and other performance characteristics of the valves and minimizes the effect of fluid pressure variation.

FEATURES

- 1) The VPR is compact and can be readily installed.
- 2) All of the major components are housed in the casing and purged with bleeding air, there by preventing corrosion caused by adverse atmosphere.
- 3) The VPR has an air booster mechanism. Although compact, the VPR provides a rapid response speed which is comparable with that of a large positioner.
- 4) The VPR can be effectively used when the controller signal span and the actuator spring span do not mutually conform, so that the valve position can be controlled in direct conformity with the controller signal.

SPECIFICATIONS

Model

VPR02 : Supply air pressure 220 kPa {2.2 kgf/cm ² }	(1)
VPR03 : Supply air pressure 340 to 490 kPa {3.5 to 5.0 kgf/cm ² }	

		Code
(1) Input signal	Full range 20 to 100 kPa (Standard)	1
	Half range 20 to 60 kPa (Low range)	2
	Half range 60 to 100 kPa (High range)	3

Supply air pressure:

220 to 490 kPa {2.2 to 5.0 kgf/cm²}

Air consumption:

12 NI/min. (normal state, supply air pressure 490 kPa {5.0 kgf/cm²})

Maximum capacity of air flow:

40 NI/min. (supply air pressure 490 kPa {5.0 kgf/cm²})

Rotating angle:

60 °C (fixed span)

Type of operation:

Direct action

Bypass mechanism:

Air-supply pressure introduction system
(for pneumatic manual operation)

Air connection:

Rc 1/4

Ambient temperature:

-20 to +70 °C



Ambient humidity:

10 to 90% PH

Performance:

Accuracy ; $\pm 2\%$ F.S.

Dead band ; 0.1% F.S.

Operating speed (maximum):

8 sec. (with RSA2 actuator)

12 sec. (with VR3 actuator)

(Typical values, when no-load)

Additional specifications (by special order):

Corrosion-resistant and silver finish (Semi-standard specification Y138):

- Corrosion-resistant (Acryl baking) finish (Y138A) ;
Resistance for corrosive gases.
- Corrosion-proof (Epoxy baking) finish (Y138B) ;
Resistance for corrosive liquids.
- Silver-normal (Acryl baking) finish (Y138C) ;
Protection for temperature rise of device caused by direct sun light, radiation heat, etc.
- Silver-corrosion-resistant (Acryl baking) finish (Y138D) ;
Protection for above-mentioned temperature rise and resistance for corrosive gases.

Note) Silver finish is not applicable for alkaline gases.

Weight:

1.3 kg

Housing material:

Body : Aluminum alloy

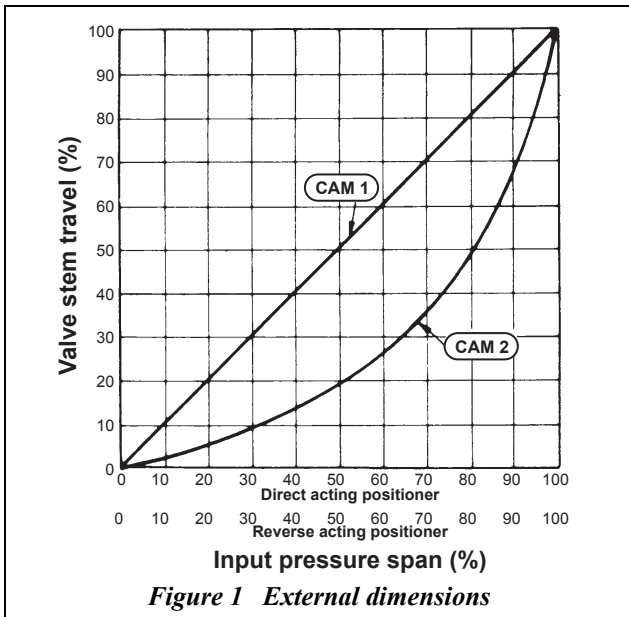
Cover : Polyester resin

Finish:

Acryl baking finish

Color of finish:

Dark beige (Munsell 10YR 4.7/0.5)

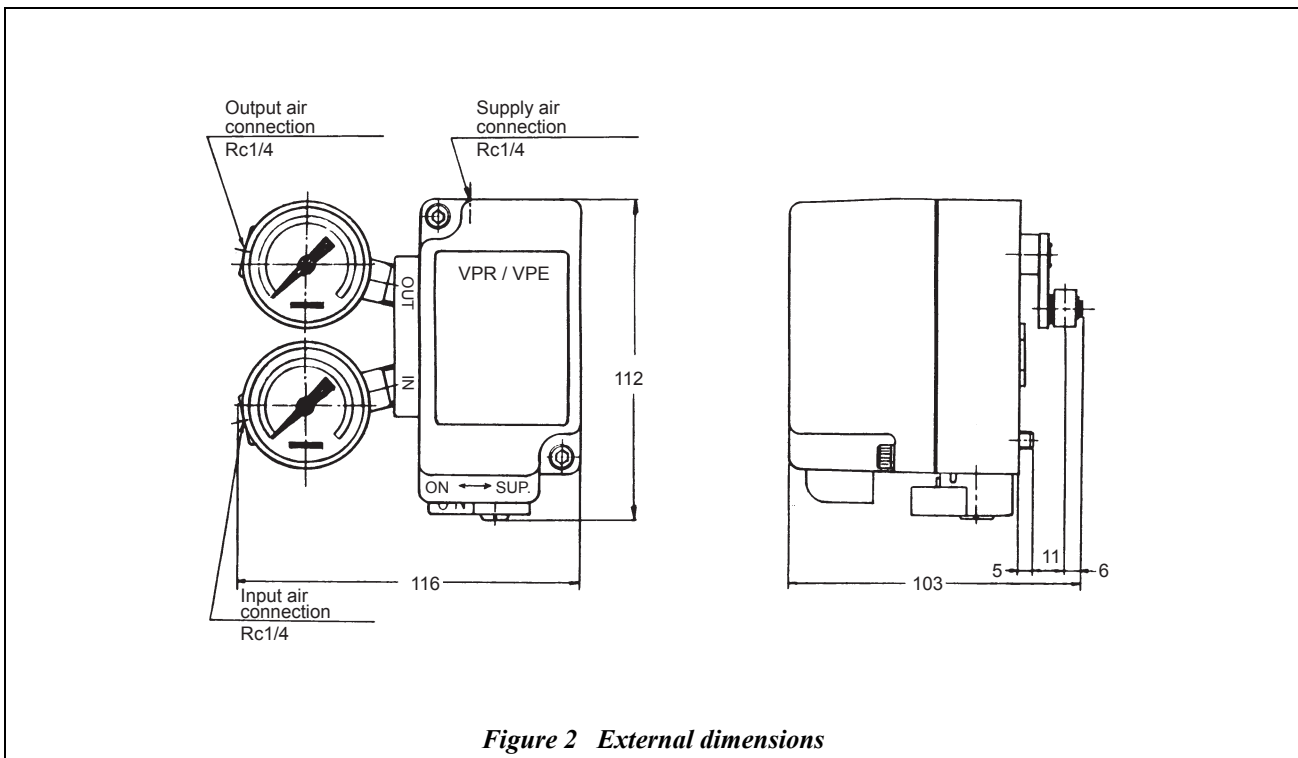


Cam characteristics:

By selecting the other linear cam (cam 1), valve characteristics can be approximated as follows:

Cam 2

Linear characteristic valve plug
 --> Quick opening characteristic



Ordering information

When ordering, please specify;

- | | |
|------------------------|--------------------------|
| 1) Model number | 4) Actuator model No. |
| 2) Input range | 5) Output characteristic |
| 3) Supply air pressure | 6) Option |

Specifications are subject to change without notice.



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