

3/2 Way Pneumatic Piston Operated Mixing or Diverting Valves

With Cylinder Actuator, For On-Off Application
(Rust Free Design)

DATA SHEET
6616E-NORMALLY 'A'
PORT CLOSED
6619E-NORMALLY 'B'
PORT CLOSED

SPECIFICATIONS

Sizes : 15 mm (1/2") to 50 mm (2")

CONSTRUCTION

Body and Bonnet : Investment casted ASTM-A, 351CF8 (St.St. 304) CF8M St.St. 316).

Pressure Temperature : As per ANSI class 300.

Rating

End Connections : Standard BSP(F)/ NPT(F).

Seating : Soft seated Teflon backed by EPDM. Optional-VITON /EPDM, Buna Nitrile.

Leakage : As per ANSI B16.104 - 1976 Teflon seating class IV. For other soft seating class VI Drop Tight/ Bubble Tight.

Trim : S.S. AISI 304/316.

Stem Packing : Self adjusting, Spring loaded Teflon packing.

Characteristics : On-Off, normally closed/normally open.

Working Fluid Pressure : Refer to table below.

Working Temperature : On steam-continuous 155°C Intermittent 180°C with Teflon seating, Buna Nitrile 80°C, EPDM 135°C, VITON 180°C.

ACTUATOR

Spring return type, Pneumatic Cylinder.

Cylinder Cover : S.S. AISI 304 (deep drawn).

Cylinder Flange : Pressure die casted, Aluminium silicon alloy, solution treated and hard anodised.

Piston : Steel (deep drawn).

Piston Packing : Buna Nitrile.

Actuator Spring : IS 4454 Grade III, duly painted.

Actuator Working : 3.5 to 6 bar, (refer to graph).

Signal Pressure

Operating Cycles per hour : 15mm, 20mm, 25mm upto 600 cy/hr. 35mm and 50mm upto300 cy/hr. (tested on air, on other fluids, this figure may vary).

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Life Expectancy : Over one million cycles (lab tested in ideal condition).

Air Quality : Lubricated /Non-lubricated.

Maximum Operating : Refer to graph.

Pressure Differential : Position indicating limit switch box, solenoid valve, filter regulator gauge. Other accessories available on application.

Accessory : For control of air, water, oil, gas, steam in textile, power generation, paper & pulp, chemical, Petro chemical industries, PSA nitrogen system, air dryer, gas generator and in process plants.

Application : Refer to table below or 2.5 bar.

Back Pressure : Refer to IM 6616E/6619E.

Instruction Manual

SPECIFICATION TABLE

Catalogue Number	Size BSP (F)		orifice Size	flow Factor Kv	Maximum* Working Pressure	Safe Working Pressure	Actuator Type	Air Consumption
	Inch	mm	mm	m ³ /hr	bar	bar	Cy	litres/cy
6616E 15 6619E 15	1/2	15	15	3.3	10	16	70	0.150
6616E 20 6619E 20	3/4	20	18	4.7	10	16	70	0.150
6616E 25 6619E 25	1	25	23	8.5	10	16	70	0.160
6616E 35 6619E 35	1½	35	36	22.5	10	16	100	0.310
6616E 50 6619E 50	2	50	45	35.0	7	16	100	0.326

* Inlet Pressure at 'A' port or 'B' port.

OPERATION :

Valve Type 6616E - In normal condition, 'A' port is closed and 'AB' port is connected to 'B' or 'B' port is connected to 'AB' port. On receiving pilot pressure, 'A' port is connected to 'AB' or 'AB' port is connected to 'A' closing port B.

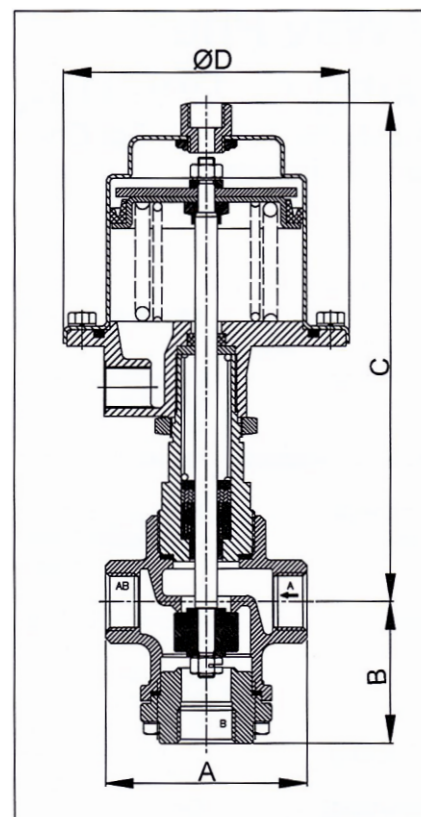
Valve Type 6619E - Normally 'B' port is closed and 'A' port is connected to 'AB' or 'AB' port is connected to 'A'. On receiving signal 'A' port is closed and 'B' port is connected to 'AB' or 'AB' port connected to 'B'.

Mixing :

Valves can be used for introducing two different fluids (mixing) through two different ports to common port 'AB'.

Diverting :

One fluid coming through port 'AB' can be diverted to 'A' port or 'B' port.

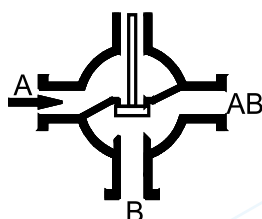
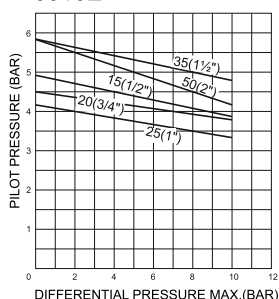


DIMENSIONS (IN MM)

CATALOGUE NUMBER	SIZE		A	B	C	D	WEIGHT (Kgs)
	Inch	mm					
6616 E 15	1/2	15	73	51.5	190	90	2.275
6619 E 15							
6616 E 20	3/4	20	83	54	207	90	3.000
6619 E 20							
6616 E 25	1	25	90	58	205	90	3.500
6619 E 25							
6616 E 35	1½	35	138	88	280	132	8.750
6619 E 35							
6616 E 50	2	50	150	102	290	132	12.750
6619 E 50							

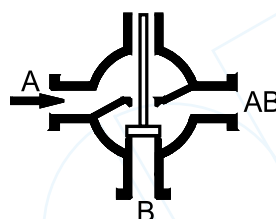
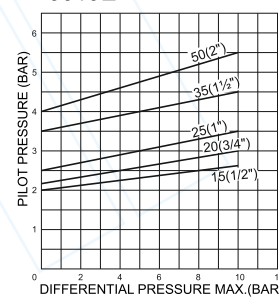
• OPEN TOLERANCE ± 3 mm ALL OVER

6616E



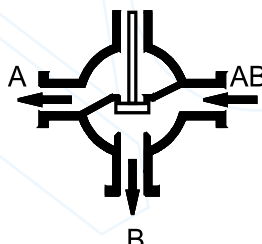
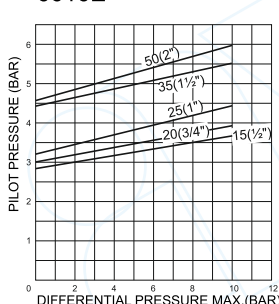
6616 - Pressure at Port 'A', AB connected to 'B' 'A' is Close.

6619E



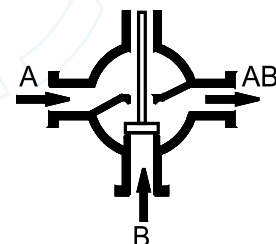
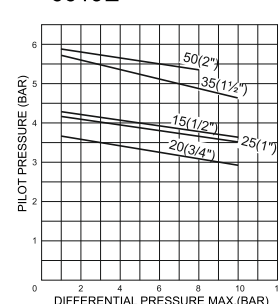
6619 - Pressure at port 'A', connected to 'AB' 'B' is close.

6616E



Diverting 6616-Pressure at 'AB' connected to 'B' 'A' port is close.

6619E



Mixing 6619-Pressure at port 'A' connected to 'AB', pressure port 'B' is close.

Note:

Technical specifications, details & dimensions are subject to change without prior notice. Dimensions in the table are approximate subject to final confirmation by AVCON.

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