

3/2-Way Pneumatic Piston Operated Valve for Mixing or Diverting Application with Linear Pneumatic Piston Actuator

For On-Off Application (Rust Free Design)

DATA SHEET
6816M-Normally 'A'
Port Closed.
6819M-Normally 'B'
Port Closed.

SPECIFICATIONS

Sizes	: 15mm (½") to 25mm (1").
CONSTRUCTION	
Body and Bonnet	: Investment casted ASTM A351 CF8(St.St.304)CF8M(St.St.316)
Pressure Temp. Rating	: As per ANSI class 300.
End Connections	: Standard BSP(F). Optional-NPT(F).
Seating	: Soft seated Teflon backed by EPDM. Optional-VITON/EPDM, Buna Nitrile.
Leakage Class	: As per ANSI FCI 70-2, Teflon seating class IV. For other soft seating class VI Drop Tight/Bubble Tight.
Trim	: SS AISI 304/316
Stem Packing	: Self adjusting, Spring loaded PTFE packing.
Characteristics	: On-Off, normally close / normally open
Working Fluid Pressure	: Refer to table below.
Working Temperature	: On steam- continuous :155°C, Intermittent 180°C with PTFE seating, Buna Nitrile 80°C, EPDM 135°C, VITON 180°C.

ACTUATOR

Spring Return type Engineering Plastic / S.S. investment casted Pneumatic Actuator.	
Cylinder cover, Body & Piston	: Glass filled polyamide / S.S. piston investment casted.
Piston Packing	: Buna Nitrile.
Actuator Spring	: IS 4454 Grade III, duly painted.
Actuator Working Signal Pressure	: 3.5 to 6 bar (refer to graph).
Operating cycles Per hour	: 15mm, 20mm, 25mm upto 600 cy/hr.,(tested on air, on other fluids this figure may vary).

Now available with CE/PED



Life expectancy	: Over one million cycles (lab tested in ideal condition).
Air Quality	: Lubricated/Non-lubricated.
Max. Operating Pressure differential	: Refer to graph.
Accessories	: Air lock, position indicating limit switch box, solenoid valve, filter regulator gauge. Other accessories available on application.
Application	: For control of air, water, oil, gas, steam in textile, power generation, paper & pulp, chemical, petrochemical industries, PSA nitrogen system, air dryer, gas generator and in process plants.
Back Pressure	: Generally all models are for back pressure upto 2.5 bar. However for specific application where higher back pressure is expected, refer to 'AVCON'.

SPECIFICATION TABLE FOR TYPE 6816M & 6819M

Catalogue Number	Size		Orifice Size	Flow Factor Kv	Maximum Working Pressure		Actuator Model	Air Consumption	Weight
	Inch	mm	mm	M³/hr.	Water Bar	Steam Bar	No.	Litres/cys.	Kgs.
6816M15 x K51 6819M15 x K51	1/2	15	15	3.3	16 16	12 12	K-51	0.25	1.30
6816M20 x K61 6819M20 x K61	3/4	20	18	4.7	7 16	7 16	K-61	0.25	1.60
6816M25 x K81 6819M25 x K81	1	25	23	8.5	7 16	6 16	K-81	0.28	2.5

Note: 6816MXX is Mixing Valve with 'A' Port Close, Flow 'B' to 'AB' and 6819MXX is Diverting Valve with 'B' Port Close, Flow 'AB' to 'A'.
6816MXX & 6819MXX cannot be interchange and to be ordered out separately.

OPERATION

Valve Type 6816M- 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'.

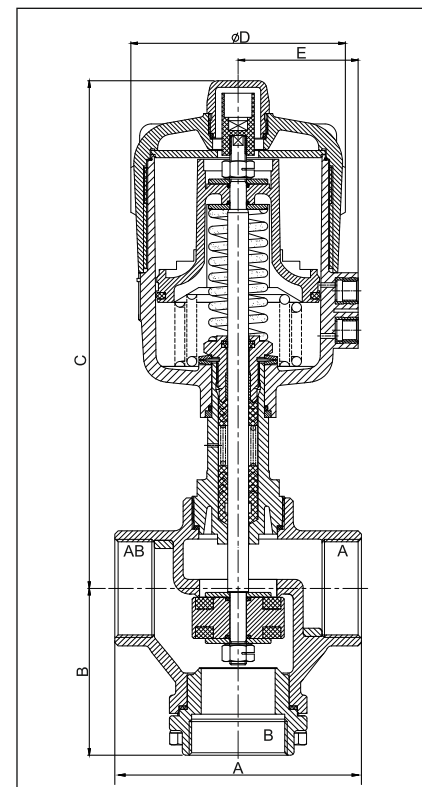
Valve Type 6819M - Normally 'B' port is closed and 'A' port is connected to 'AB' or 'AB' port is connected to 'A'. On receiving signal 'A' port is closed and 'B' port is connected to 'AB' or 'AB' port connected to 'B'.

Mixing

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

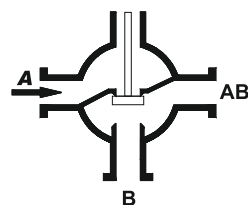
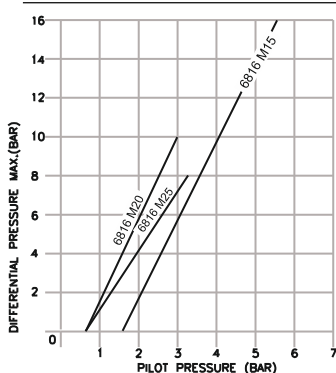
Diverting

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

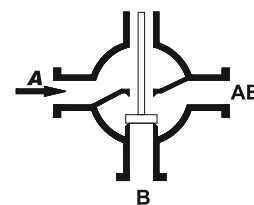


DIMENSIONS (IN MM)

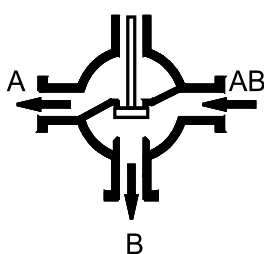
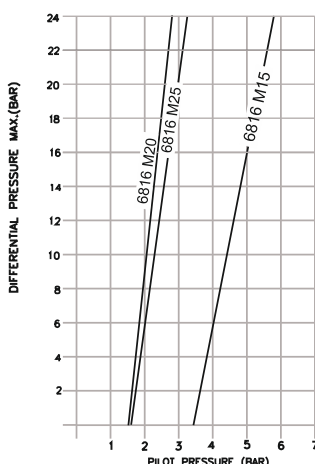
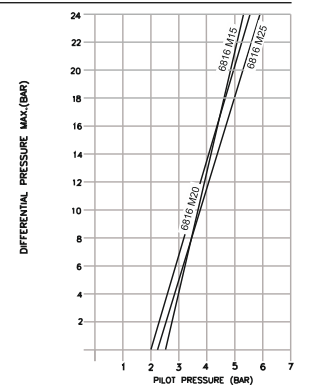
Catalogue Number	Size		Actuator	A	B	C	D	E
	Inch	mm						
6816M151 x K51 6819M151 x K51	½	15	K-51	73	52	188	64	44
6816M201 x K61 6819M201 x K61	¾	20	K-61	83	54	207	80	52
6816M251 x K61 6819M251 x K61	1	25	K-61	90	58	205	80	52



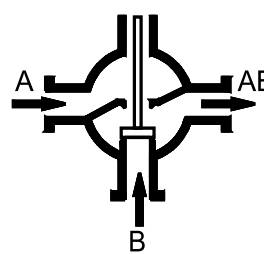
6816 - Pressure at Port 'A', AB connected to 'B' 'A' is Closed.



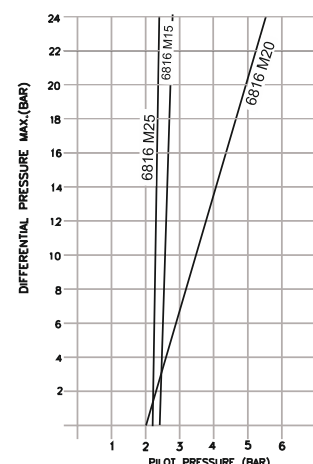
6819 - Pressure at port 'A', connected to 'AB' 'B' is closed.



Diverting 6816 - pressure at 'AB' Connected to 'B' 'A' port is closed.



Mixing 6819 - pressure at port 'AB' Connected to 'A' pressure port 'B' closed.



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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