

Product overview

The pneumatic eccentric semi-ball valve belongs to the angular stroke pneumatic eccentric regulating valve, which is composed of a high-precision piston pneumatic actuator and an eccentric semi-ball valve. The pneumatic eccentric ball valve can be equipped with a valve positioner to input a control signal (4-20mA DC or 1-5VDC) and the air source can control the operation. Equipped with travel limit switch, solenoid valve, pressure reducing valve and 0.4-0.7MPa air source to realize switch operation and send out two pairs of passive contact signals to indicate the switch of the valve.

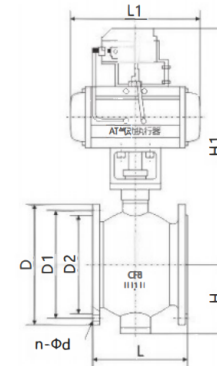


Main parts materials

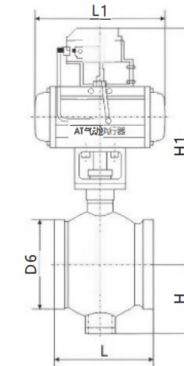
Part name	Material name			
Valve body, valve cover	WCB	304(CF8)	316(CF8M)	316L(CF3M)
Sphere	2Cr13+Nitriding treatment	304	316	316L
Valvestem	2Cr13	304	316	316L
Valve seat seal	PTFE, carbon fiber + PTFE, para-polystyrene			
Filler	V-type PTFE, flexible graphite			

Main technical parameters and performance

Nominal diameter (mm)	25	32	40	50	65	80	100	125	150	200	250	300
Rated flow coefficient KV	Full cavity type	14	25	30	55	100	135	230	320	500	850	1300
	60% cavity	-	-	-	-	-	-	-	-	300	510	780
	40% cavity	6	10	12	20	40	54	92	128	200	340	520
Allowable pressure difference (MPa)	≤ Nominal pressure											
Valve body type	Integral casting spherical body											
Valve core type	Eccentric rotating valve core (with guide wing)											
Flow characteristics	Approximately equal percentage											
Range of motion	Fully open 60°											
Leakage Q	Soft seal level VI, hard seal level IV, in accordance with ANSI B16.104 standard											
Basic error	±1%											
Return difference	±1%											
Dead zone	≤1%											
Adjustable range	Full cavity type (100:1), 60% cavity type (60:1), 40% cavity type (40:1)											
Configuring the actuator	AT series single and double acting pneumatic actuator											
Control method	Switch two-position control, 4-20mA analog signal control											



PQ647 pneumatic eccentric regulating valve (flange type)



PQ677 pneumatic eccentric regulating valve (wafer type)

Main connection dimensions

Unit:mm

Nominal diameter(mm)	25	32	40	50	65	80	100	125	150	200	250	300
L	Flange											
L1	Wafer Type											
H	60	60	65	95	105	120	140	155	165	205	240	270
H1	298	312	317	360	398	423	482	568	610	755	/	/
A	140	164	164	190	210	247	276	348	378	524	/	/
PN1.6MPa Flange connection size												
D	115	140	150	165	185	200	220	250	285	340	405	460
D1	85	100	110	125	145	160	180	210	240	295	355	410
D2	65	76	84	99	118	132	156	184	211	266	319	370
n-f d	4-14	4-18	4-18	4-18	4-18	8-18	8-18	8-18	8-22	12-22	12-26	12-26

Actuator technical parameters

Actuator model	AT Series single and double acting pneumatic actuators
Gas supply pressure	0.4-0.7MPa
Air source interface	G1/4";G1/8";G3/8";G1/2"
Ambient temperature	-30-70°C
Action form	Single-acting actuator: air-to-dose (B) - valve position open when air is lost (FO); air-to-open (K) - valve position closed when air is lost (FC) Double-acting actuator: air-to-dose (B) - valve position is maintained when air is lost (FL); air-to-open (K) - valve position is maintained when air is lost (FL)
Available accessories	Positioner, solenoid valve, air filter pressure reducer, position-holding valve, travel switch, valve position transmitter, hand wheel mechanism, etc.