ATTUATORI PNEUMATICI IN ALLUMINIO

PNEUMATIC ACTUATOR ALUMINIUM

DESCRIZIONE

Attuatore pneumatico rotativo per l´azionamento automatico di valvole con una rotazione di 90°.
Corpo in alluminio anodizzato.
Dotato di giunto a stella e foratura iso 5211. Alimentato con aria compressa da 4 a 8 bar.
Angolo di apertura: 90° (+5°)
Temperatura di utilizzo: -32C° +100°C
Funzionamento
Doppio effetto: la pressione dell´aria introdotta tramite il canale A (posizione 1) allarga due pistoni fino alla fine del cilindro, trasmettendo all´albero una rotazione di 90°. Cio´ causa l´apertura della valvola.
Semplice effetto: questo motore e´ fornito di due gruppi di molle disposte alle estremita´ dei pistoni. L´introduzione di aria nel canale A causa l´apertura, la mancata introduzione di aria causa la chiusura.

Pressione d´esercizio
- Pressione max: 10 bar
- Doppio effetto: 2,5 bar - 8 bar
- Azione singola: 2,5 - 8 bar

Range di temperatura:
- Standard: -20 ° C / +80 ° C
- Opzione: -35 ° C / +80 ° C
  -20 ° C / +80 ° C

Movimento
- Standard di 90 gradi.

Lubrificazione
- Tutte le parti in movimento sono lubrificati a vita - lungo ciclo della fabbrica dell'attuatore

DESCRIPTION

Rotative pneumatic actuator for the automatic operation of kind of valves vith a turn of 90°.
Rilsanised body. Epoxy protected external cups. The suitable coupling pieces are produced to assemble our devices to a wide range of brands any models of valves. Fending with air or any other non aggressive fluids, up to a pressure of 8 bar.
They wiyhstand temperatures beetween -32°C and 90°C.

Pressure range
- Max working pressure: 10bar
- Double acting: 2,5 bar – 8 bar
- Single Acting: 2,5 – 8 bar

Temperature range:
- Standard: -20 C° / +80°C
- Option : -35 C° / +80°C
-20 C° / +80°C
Movement
- 90 Degree standard.

Lubrification
- All moving parts are lubrificated for life – long cycle of the actuator factory

Corpo
Corpo in lega di alluminio anodizzato duro per proteggere dalla corrosione interna ed esterna, l'attrito del pistone ridotto assicura un lungo ciclo di vita.

Indicatore
Un indicatore di apertura / chiusura di serie su tutti i modelli

Finecorsa
Finecorsa esterni regolare -5° / +5°sia in posizione di in apertura sia in chiusura

Tappi testate
Testate in alluminio pressofuso con rivestimento in poliestere per garantire la massima resistenza agli elementi potenzialmente cossosive.

Molle
Molla ad alta resistenza nichelate per elettrolisi, al fine di ridurre l'attrito, garantire la resistenza all'usura e massimizzare la protezione contro la corrosione in gravi condizioni.

Guida pistone
L´Autolubrificazione (plipropilene + GF) dei pistoni conferisce alta affidabilita

Guarnizioni pistone
Guarnizioni in gomma NBR pignone troublr Fornire funzionamento in range di temperatura standard, sono disponibili tenute in Viton per i maggiori o minori estremi di temperatura

Pistone
In alluminio pressofusione di a doppio pistone sono dotati di guarnizioni di alta qualità e guide, fornendo elevato rapporto coppia di uscita, la pressione dell'aria in ingresso. Doppia rak e pignone e scotch progettazione giogo di coppia costante su tutti i modelli.

Body
Extruded aluminium alloy body is hard anodized to protect internal and external corrosion, also reduce piston friction for a long cycle life.

Indicator
A disc open/close indicatori s standard on all models

Travel stops
External travel stops adjust -5/+5 degree in both open and close position easly

End Caps
Die cast aluminium end caps is coated with polyester to provide maximum resistance against potentially cossosive elements.

Spring
High tensile spring is electroless nickel plated in order to reduce friction, provide maximun wear resistance and protect against corrosion under severe conditions.

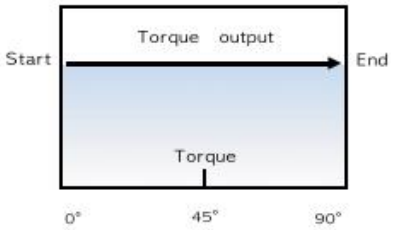
Piston Guides
Self lubrificating (polypropylene + GF) piston guides provide hight trust, stability

Piston Seals
NBR rubber pinion seals provide troublr free operation at standard temperature ranges, viton seals are available for higher or lower temperature extremes

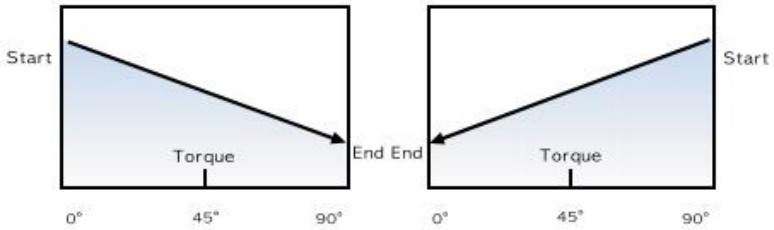
Piston
Diecasted aluminium dual piston are fitted with high quality seals and guides, providing high ratio output torques, input air pressure. Twin rak and pinion & scotch yoke design a costant torque on all models.

Torque Diagram (HP35~HP210)

Double acting actuators

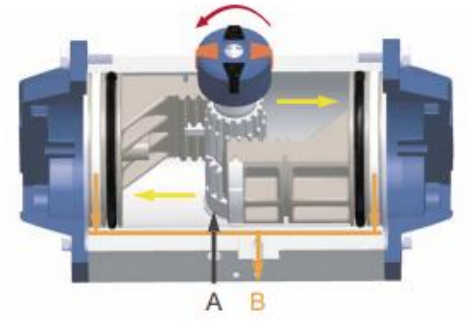


Single acting actuators



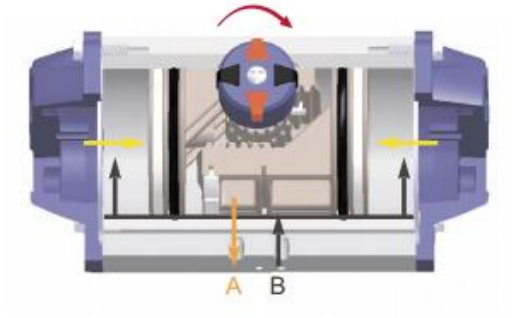
Double Acting Operation

1. Apply an air pressure to Port A and then the piston(s) are apart.
2. Turn the drive shaft counterclockwise.
3. Air volume exhausts through Port B



Counterclockwise

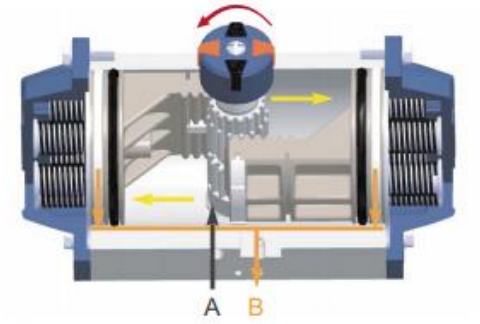
1. Apply an air pressure to Port B and then the piston(s) are together.
2. Turn the drive shaft clockwise as the air.



Clockwise

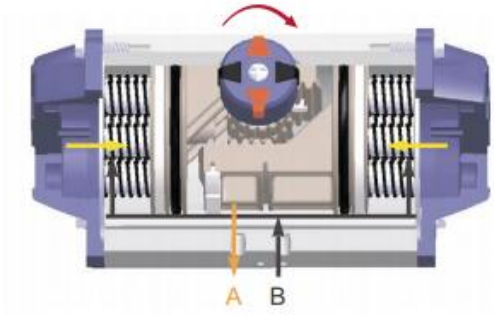
Single Acting Operation

1. Apply an air pressure to Port A and then the piston(s) are apart.
2. The springs are compressed after that the drive shaft counterclockwise.
3. Air volume exhausts through Port B.



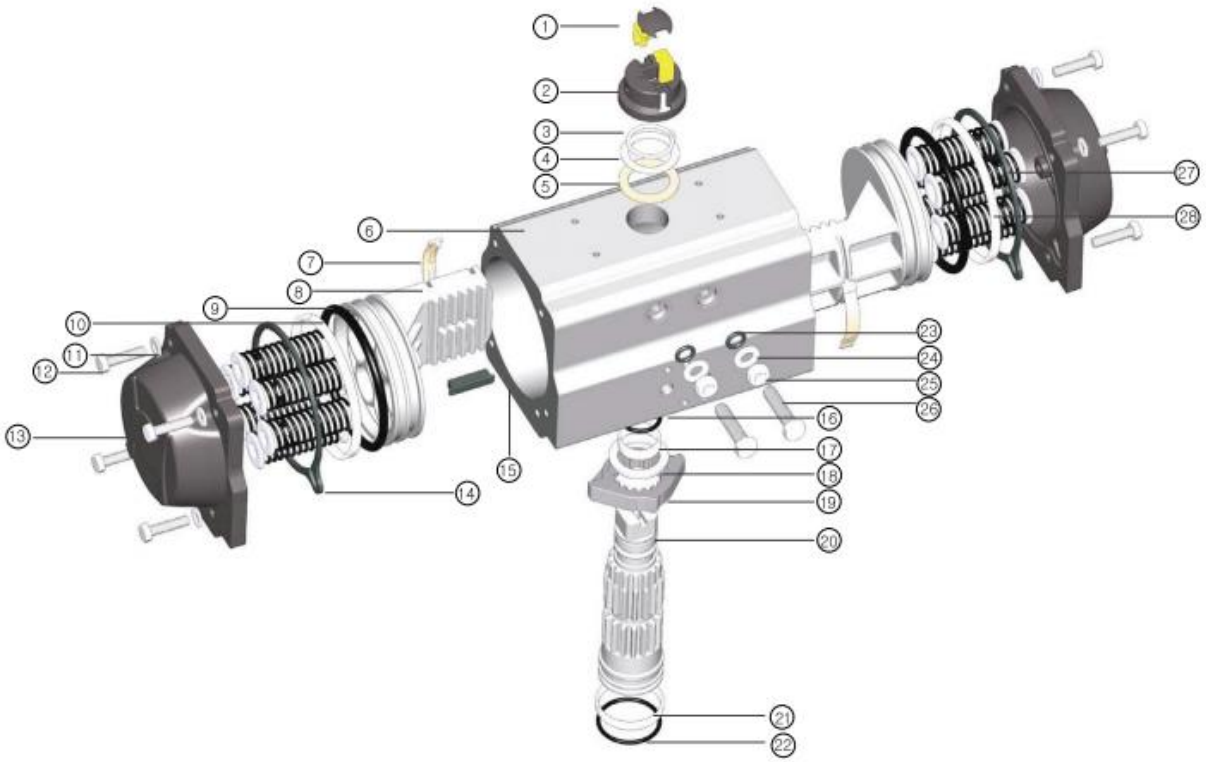
Counterclockwise

1. Exhaust the air pressure from Port A.
2. Allows stored power of the springs to piston(s) inward.
3. Turn the shaft clockwise.
4. Air volume get through Port B.



Clockwise

※ **When air fail to counterclockwise is required , the pistons must be inverted.**



Part And Materials

PART NO	UNIT Q'TY	PART DESCRIPTION	STANDARD MATERIAL	CORROSION PROTECTION	OPTIONAL MATERIAL
1	4	Position indicator	Polypropylene +GF	-------	-------
2	1	Position indicator holder	Polypropylene +GF	-------	-------
3	1	Spring clip(pinion)	Stainless Steel	HP160,200 Nickel plated	-------
4	1	Thrust washer(pinion)	Stainless Steel	-------	-------
5	1	Thrust bearing(pinion)	Polyphthalamide	-------	-------
6	1	Body	Extruded Aluminium alloy	Hard anodized	-------
7	2	Bearing(piston back)	Polyphthalamide	-------	-------
8	2	Piston	Die Cast Aluminium	Hard anodized	-------
9	2	"O" Ring(piston)	Nitrile (NBR70)	-------	Viton SiliconViton
10	2	Bearing(piston head)	Polyphthalamide	-------	-------
11	8	Cap bolt washer	Stainless Steel	-------	-------
12	2	Cap bolt(end cap)	Stainless Steel	-------	-------
13	2	Right and left end cap	Die Cast Aluminium	Chromate + Polyester coated	-------
14	2	"O" Ring(end cap)	Nitrile (NBR70)	-------	Viton SiliconViton
15	2	Piston guide	Polypropylene +GF	-------	-------
16	1	"O" Ring(pinion top)	Nitrile (NBR70)	-------	Viton SiliconViton
17	1	Bearing(piston top)	Nylon 46	-------	-------
18	1	Thrust bearing(pinion)	Polyphthalamide	-------	-------
19	1	Open.Close cam(stop arrangement)	Stainless Steel	-------	-------
20	1	Drive shaft	Steel alloy	Nickel planted	-------
21	1	Bearing(piston bottom)	Nylon 46	-------	
22	1	"O" Ring(pinion bottom)	Nitrile (NBR70)	-------	Viton SiliconViton
23	1	"O" Ring(stop screw)	Nitrile (NBR70)	-------	Viton SiliconViton
24	2	Stop bolt washer	Stainless Steel	-------	-------
25	2	Stop nut	Stainless Steel	-------	-------
26	2	Stop bolt	Stainless Steel	-------	-------
27	min.5/max.12	Spring(catridge)	High alloy Spring Steel	Epoxy coated	-------
28	1	Spring holder	Polypropylene +GF	-------	-------

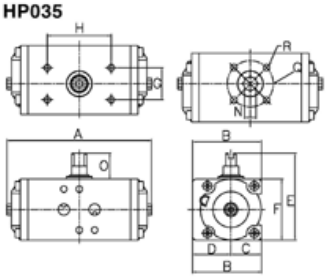
□ Dimension

unit (mm)

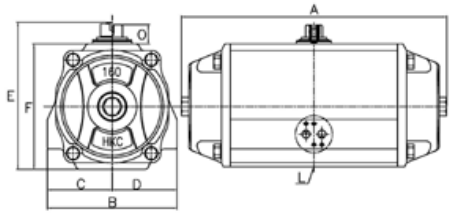
Model	Flange L(ISO 5211)	R	A	B	C	D	E	F	G	H	I	J	K	O	P	S	T	U	V	W	X
	Q	M/N (min)																			
HP35	F03/F05	M5/M6	108	54	24	30	73	48	25	50	PF	M6	1/8"	20	41.5	4	4	12	24	16	32
	φ36	10/9																			
HP50	F03/F05	M5/M6	144	72	30	42	97	72	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32
	φ36/φ50	12/11																			
HP63	F05	M6	164	84	37	47	110	85	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32
	φ50	16/14																			
HP75	F05/F07	M6/M8	208	96	42.5	53.5	128	103	30	80	PF	M6	1/8"	20	41.5	4	4	12	24	16	32
	φ50/φ70	19/17																			
HP88	F05/F07	M6/M8	247	108	49.5	58.5	142	116	30	80	PF	M6	1/4"	20	41.5	4	4	12	24	16	32
	φ50/φ70	19/17																			
HP100	F07/F10	M8/M10	268	123	56	67	154	128	30	80	PF	M6	1/4"	20	41.5	4	4	12	24	16	32
	φ70/φ102	22/17																			
HP125	F7/F10	M8/M10	345	151	69	82	195	159	30	80	PF	M6	1/4"	30	41.5	4	4	12	24	16	32
	φ70/ φ102	24/22																			
HP160	F10/F12	M12/M16	450	202	101	101	231	197	30	80	PF	M6	1/4"	30	41.5	4	4	12	24	16	32
	φ102/ φ125	29/27																			
HP200	F12	M12	545	224	112	112	303	245	30	130	PF	M6	1/4"	50	41.5	4	4	12	24	16	32
	φ125	38/36																			

DIMENSIONS

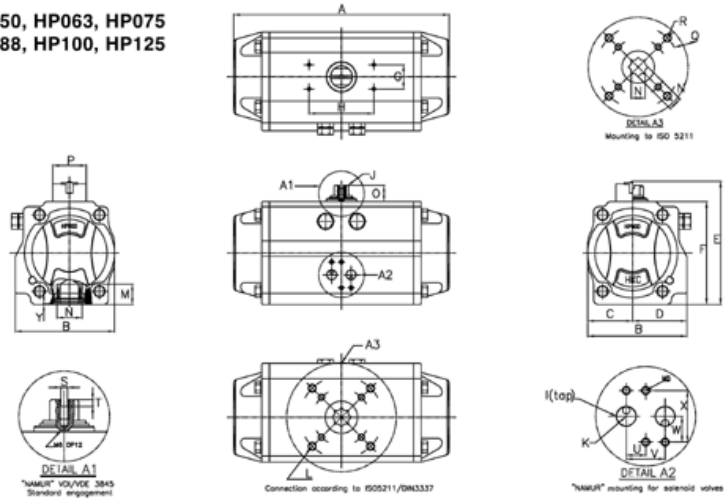
HP035



HP160, HP200



HP050, HP063, HP075
HP088, HP100, HP125



unit(mm)

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