



# HP

Pneumatic 1/4 Turn Actuator Single Acting (Spring Return) 1.5Nm - 1878Nm Double Acting 3.8Nm - 1525Nm



The HP range of rack and pinion pneumatic actuators are designed for quarter turn applications on ball, butterfly, plug valves and dampers. They can be supplied single (spring return) or double acting with a wide range of output torques offering a complete valve automation solution.

All actuators have travel stops for both the open and close positions. All components are of a high quality materials, precision engineered and lubricated to ensure long service life of 1,000,000 operations.

The bodies are manufactured from extruded aluminium alloy and are hard anodized to protect against internal and external corrosion.

#### Approvals, Features & Benefits

- ATEX & PED certified, SIL2 rated
- Base to ISO 5211 & DIN 3337 standards
- Air connections to Namur VDI/VDE 3845
- Lightweight aluminium alloy housing
- Wide range of torques & options to meet the demands of any site specification
- All springs are preloaded, to ensure safety when removing end covers
- Machined shaft and pistons
- Shaft has an anti blowout ring

#### **Pressure & Temperature**

Air pressure range:-

Single Acting: 2.5 to 8 bar Double Acting: 2.5 to 8 bar

Air temperature range:-

Standard : -20 to 80°C Low Option : -35 to 80°C High Option : -20 to 150°C

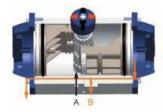
#### Single Acting (Spring Return) Operation



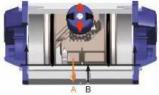
Counter Clockwise Air input A Air output B

Clockwise Air input B Air output A

## **Double Acting Operation**



Counter Clockwise Air input A Air output B



Clockwise Air input B Air output A

STANDARD SPECIFICATIONS									
Movement	Standard adjustable 90° ± 5%	Springs	High tensile spring sets of alloy steel						
Lubrication	All moving parts are lubricated for life-long cycle	Piston Shaft	Nickel plated alloy steel to reduce friction						
Cycle Life	1,000,000 Operations	Piston Guides	Self lubricating (Polypropylene +GF)						
Body	Hard anodized extruded Aluminium alloy	Piston Seals	NBR (Viton options for low & high temp duty)						
Indicator	Open / Close Disc	Piston	Die casted aluminium dual piston						
Travel Stops	External adjustable ± 5% in both open & closed position	End Caps	Polyester coated die cast aluminium						

#### **OPTIONAL ANCILLARY PRODUCTS**



#### Valve Position Monitor - APL Limit Switchboxes

The APL switchboxes are reliable, solidly built and of a compact design. As standard they are IP67 weatherproof, IP68 is available on request.



## Solenoid Spool Valve

These valves have 1/4" threaded ports connections and NUMAR interfaces. They can be adapted for 3/2 NC or 5/2 functions for controlling double and single acting actuators.



#### Brackets

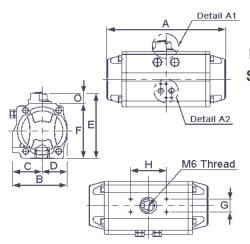
For mounting valves to actuators. Also to prevent heat transfer from valve media.



## Pinion Shaft Star Adapters

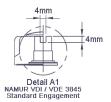
Available from 9mm to 46mm square.

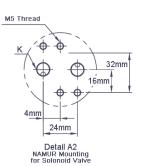




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	Α	В	С	D	Е	F	G	Н	0	K	Sh	aft		ISO	5211	Moun	iting		Weig	ht Kg
										BSP	Square	Depth	F03	F05	F07	F10	F12	F14	Single	Double
HP-50	144	72	42	30	93	73	30	80	20	1/8	11	14	✓	✓	×	×	×	×	1.4	1.1
HP-63	163	85	47	38	107	87	30	80	20	1/8	14	18	×	✓	✓	×	×	×	2	1.8
HP-66	202	85	47	38	107	87	30	80	20	1/8	14	18	×	✓	✓	×	×	×	2.6	2.3
HP-75	210	96	53.5	42.5	124	104	30	80	20	1/8	17	22	×	✓	✓	×	×	×	3.5	3
HP-88	247	108	58.5	49.5	136	116	30	80	20	1/8	17	22	×	✓	✓	✓	×	×	5.3	4.6
HP-100	268	123	67	56	148	128	30	80	20	1/4	17	22	×	✓	✓	✓	×	×	6.8	5.8
HP-115	316	141	77	64	166	146	30	80	20	1/4	22	32	×	×	✓	✓	×	×	10.3	8.9
HP-125	347	151	82	69	179	159	30	80	20	1/4	22	32	×	×	✓	✓	$\checkmark$	×	13.2	11.3
HP-145	414	172	92	80	209	179	30	80/130	30	1/4	27	36	×	×	×	✓	✓	×	20	16.7
HP-160	467	190	101	89	226	196	30	80/130	30	1/4	27	36	×	×	×	✓	$\checkmark$	×	26.5	22
HP-180	497	206	107	99	251	221	30	130	30	1/4	36	39	×	×	×	✓	✓	×	35	28
HP-200	555	227	116	111	277	247	30	80/130	30	1/4	36	39	×	×	×	×	×	✓	48	39
HP-210	628	236	120	116	286	256	30	130	30	1/4	36	43	×	×	×	×	×	✓	57	46

Maximum torques based on 5.5 bar supply pressure*	HP-50	HP-63	HP-66	HP-75	HP-88	HP-100	HP-115
Single Acting - Air (Nm)	10.2	19.6	27.9	36.7	57.4	89.3	138.1
Single Acting - Spring (Nm)	11.7	20.2	28.8	41.5	69.3	94.5	157
Double Acting (Nm)	18.3	32.9	46.1	63.2	101.4	150.1	236.5

Maximum torques based on 5.5 bar supply pressure*	HP-125	HP-145	HP-160	HP-180	HP-200	HP-210
Single Acting - Air (Nm)	178.8	280.5	355.2	463.2	659.8	820.5
Single Acting - Spring (Nm)	198	309	399	568	756	822.8
Double Acting (Nm)	304.8	478.5	624.2	842.2	1169.8	1291.2

<sup>\*</sup>Contact sales for other torque values when supply pressure differs.