

Brief Introduction

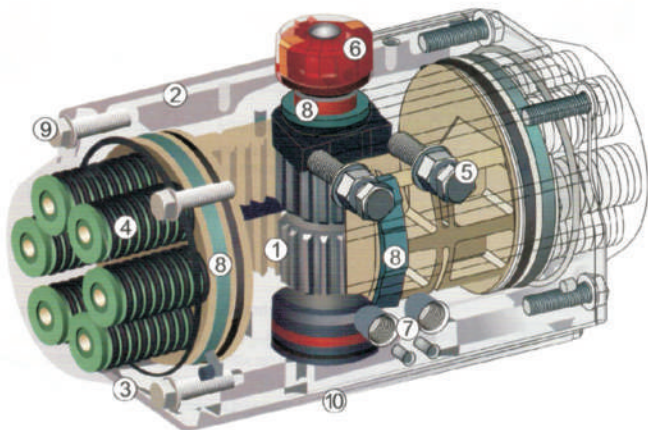
DAVS GEMINI is a high-tech company which professionally Design. Develops and produces ranges of automatic control valves and pneumatic actuators. For years, GEMINI has instituted to manage the quality control system to meet the requirements of ISO 9001:2008, which assure all our products and services provided will meet. At DAVS GEMINI, we believe in youthful power and creativity to establish our reliable quality and service. Recently Your products are widely applied in various industrial fields, like paper making, chemicals, environmental production, light industry, pharmacy and building automation

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DAVS GEMINI RANGE OF Pneumatic Actuator

The new AT pneumatic rack and pinion actuators have been innovated and optimally designed through CAD. Cinema, Mastercam three-dimensional model , incorporating the latest technology at home and abroad. The shape is beautiful and compact , and the style is modern We adopt new practical materials , new processes to make the quality and the performance of the products more reliable : multi-standard selection is more affordable : the products fully meet latest international standard technical specifications and the current and future needs.



1. Dual piston rack and pinion design of symmetric Structure for fast and smooth action, high precision and high output power. Reverse rotation can be accomplished by simply changing the mounting position of the pistons .

2. Extruded high-quality aluminum alloy cylinder Block, precisely processed inner hole and hard Anodized outer surface (anodic oxidation under Special circumstances + Teflon coating) extend thelifecycle and lower frication coefficient.

3. Uniform design utilizes identical cylinder body And end cap for all double acting and single acting actuators. it allows changing acting way easily by adding or removing spring .

4. Modular preloaded safe spring cartridges can Install or remove spring easily and safely no matter In the process of mounting or in the field.

5. The tow independent adjusting screws on the external side can precisely adjust the on/off location of valve, which has been installed with Actuator.if full stroke adjustment is required , Additionally install longer adjusting screws on tow end covers.
6. Multi-positioner and visual indicator comply with standard VID/ VIE 3845 and NAMUR able to install and output all accessories .such as limit switch. Positioner and position sensor

7. Air port complies with NAMUR standard and can be directly mounted NAMUR standard solenoid valve.

8. The compound bearing bush and piston guide right at the Back of gear rack and bearing of outlet shaft prevent metal friction. In addition, the increased lubricants help to reduce function And extend the lifecycle.

9. All fasteners are made of stainless steel materials and long-term Corrosion resistance.

10. Fully conformance to the latest specifications of ISO52211,DN3337 (F03-F25), Namur and make the installation interchangeable and versatile.

Multi-functional NAMUR Interface

Multi-functional indicator in the 4th generation actuator is the standards product, which can be applied to following occasions since it is made of compound materials.



1. Location indication

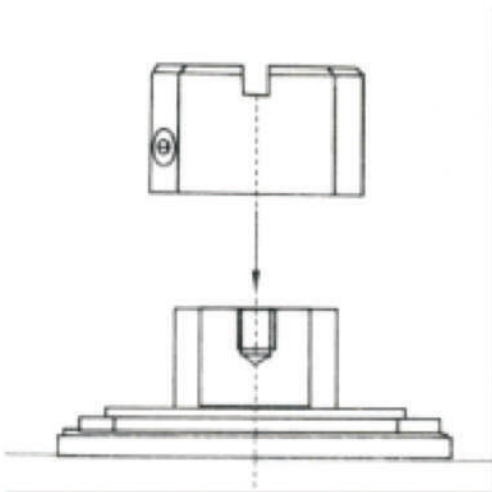
Indicating location of valve And actuator visually by a Color insert and NAMUR Standard trough, the indicator Is suitable for all output shafts and tow rotation directions of Actuator.

2. Output accessories of actuator

NAMUR standard trough of location indicator can directly engaging output limit switch and locator.

3. Install proximity sensors directly

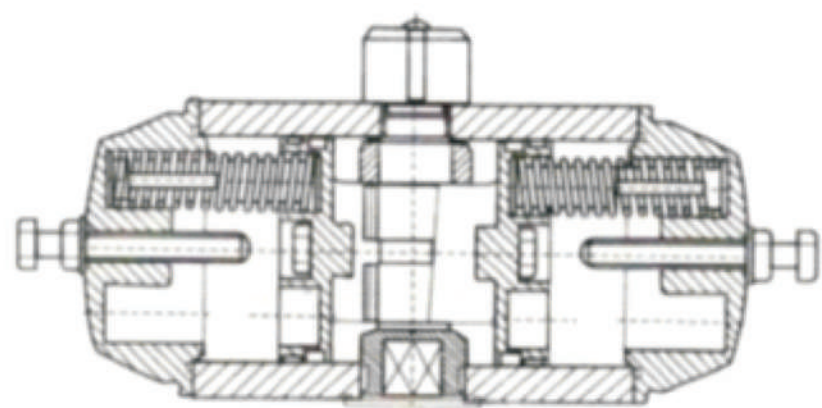
Indicator with metal insert can be mounted with numerous different proximity sensors conveniently and practically.



Attachment installed without multi-functional indicator

According to the requirement, replace standard indicator by Stainless steel cap with NAMUR standard trough 4th generation Actuator to carry out following functions:

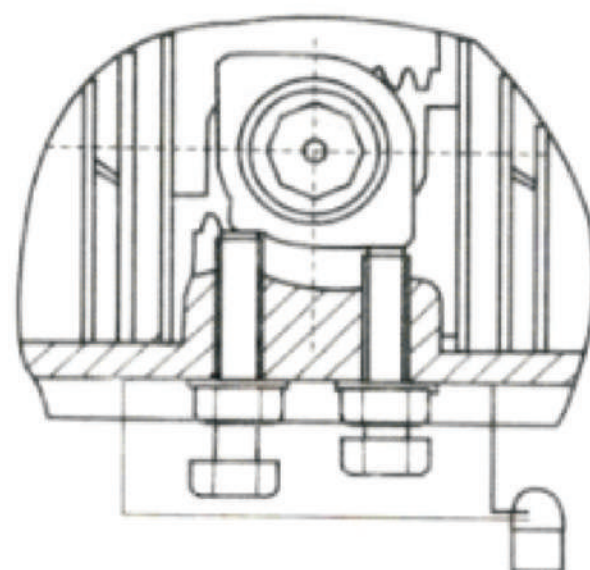
- 1.Attachment installation such as limit switch box and locator.
- 2.Indicating location of actuator by NUMAR standard though.
- 3.Operable under high temperature.
- 4.Operator the actuator manually underemergency.



Required

Full stroke adjustment on 4th generation actuator

The stroke range is 0° to 90° plus or minus 4°. When a stroke less than 90° is required, such as 1°, 5°, 10°, 25°, 50°, or 80°, you can add two special bolts adjustable or limitable at 0° to 90° at the two end covers of the actuator according to the requirement of customer. Full stroke adjustment is available in all 4th generation actuator.



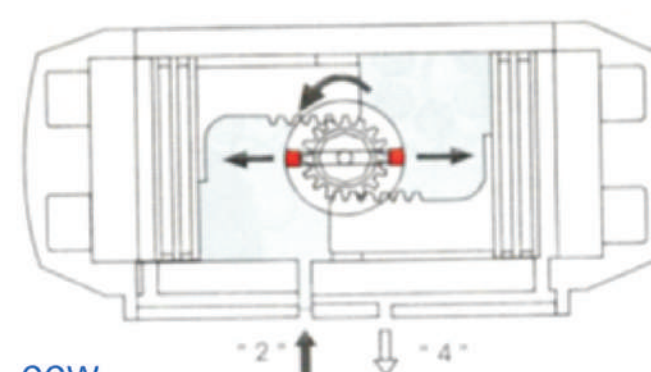
Lock function in complete "on" and "off" location

When it is required to lock at complete on (90°) or complete off (0°), the 4th generation actuator offers a practical and affordable method. A special bolt and locking device in the actuator can lock the actuator at each location forever. Using a padlock to avoid any unnecessary operation.

Operating principle and rotating direction

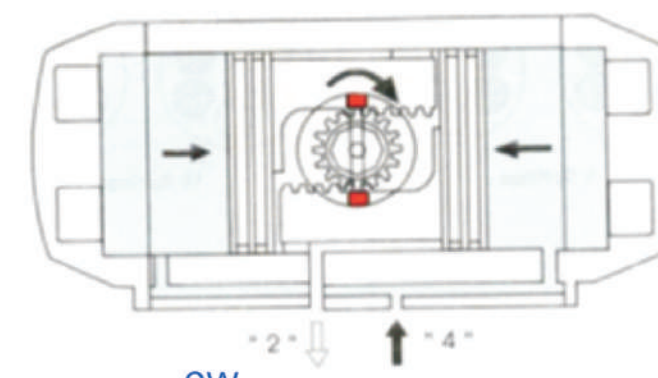
The standard rotating direction is clockwise, and can be anticlockwise when the air arrives at port 2. The rotating direction of the actuators marked LF is anticlockwise, and can be clockwise when the air arrives at port 2.

Operating principle of double acting



CCW

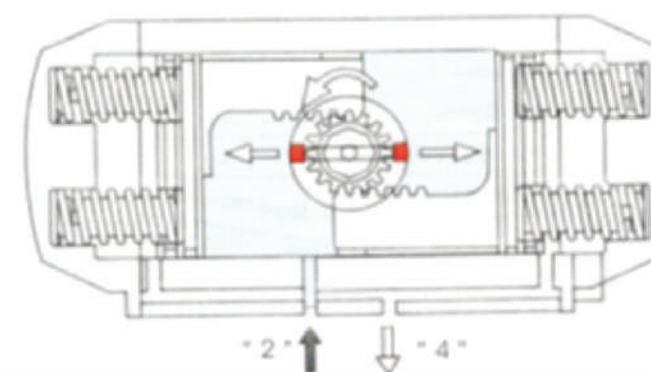
Air to port 2 forces the pistons outwards to the two ends, causing the pinion to turn counter-clockwise. While the air is being exhausted from port 4.



CW

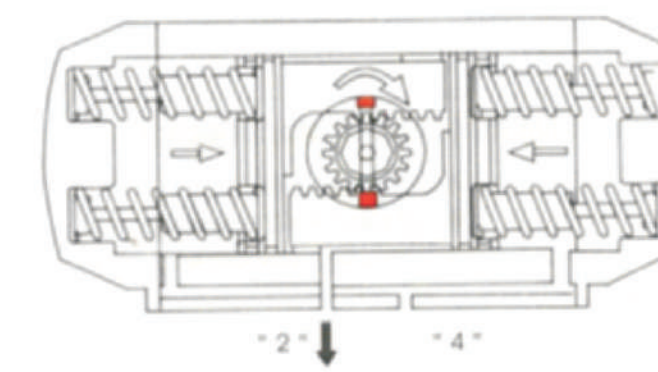
Air to port 4 forces the pistons inwards to the middle, causing the pinion to turn clockwise. While the air is being exhausted from port 2.

Operating principle of single acting



CCW

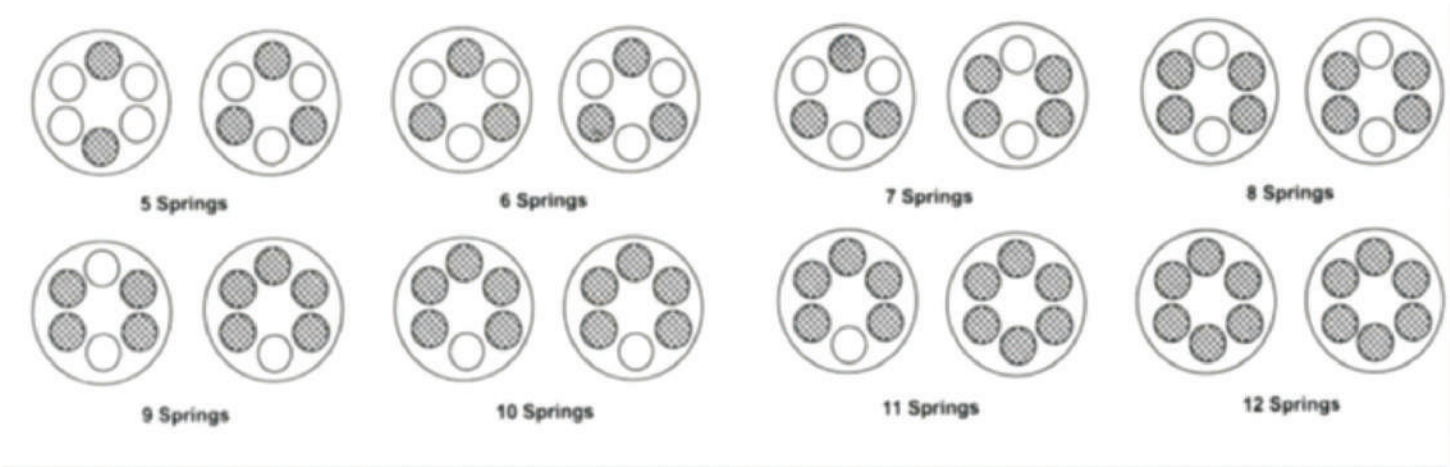
Air to port 2 forces the pistons outwards to the two ends, causing the springs to compress. The pinion turns counter-clockwise while air is being exhausted from port 4. From port 2.



CW

Loss of air pressure to the middle, the stored energy in the springs forces the pistons inwards to the middle. The pinion turns clockwise while air is being exhausted from port 2.

Spring mounting from for spring return actuators



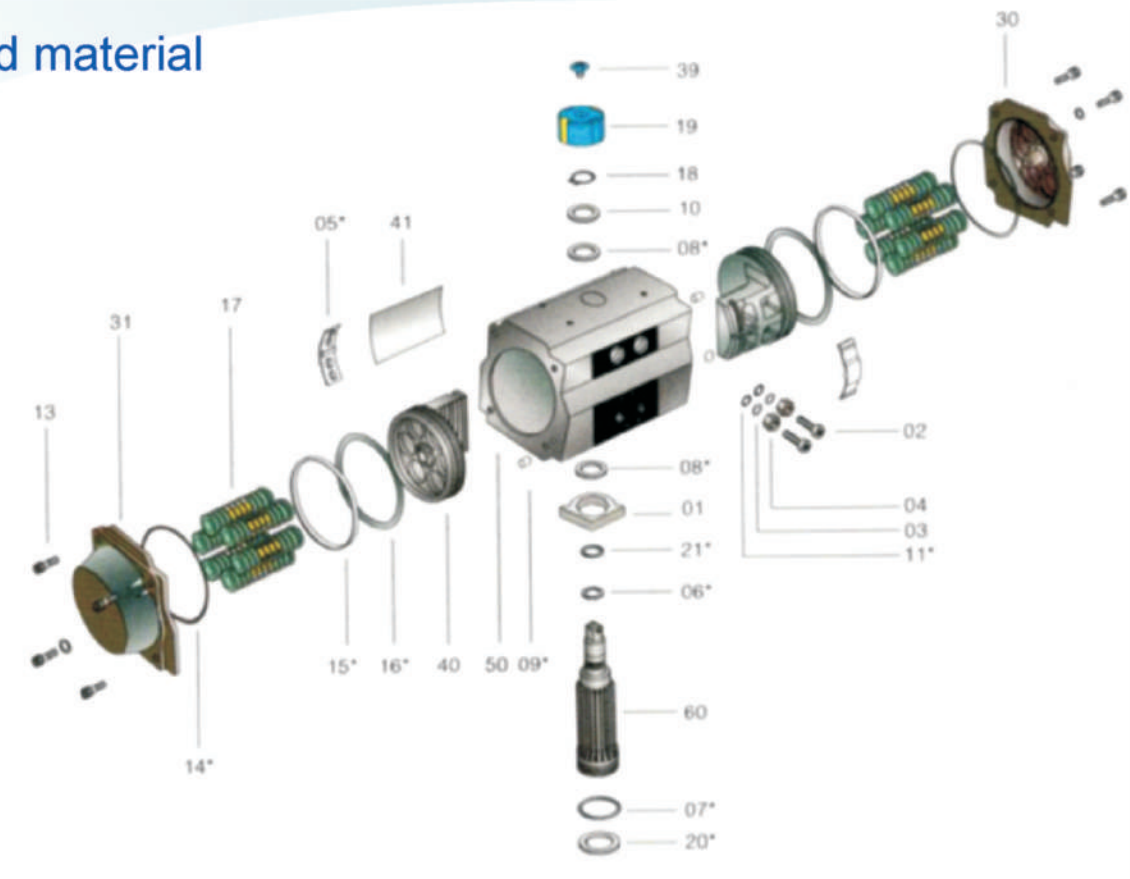
How to select the actuator

- The purpose of this reference data is helping how to select DAVS GEMINI pneumatic actuator rightly. Before install the actuator to valve, the following factors into consideration:
1. Valve'srunning torque plus safety coefficient that recommended by manufacture /under operating condition.
 - 2.Actuator's air pressure
 3. Type of actuator: D (double acting) or S (spring return) and the output torque under certain air pressure
 4. Rotation of actuator and its failure mode (failure on or failure off)

Selection of actuator

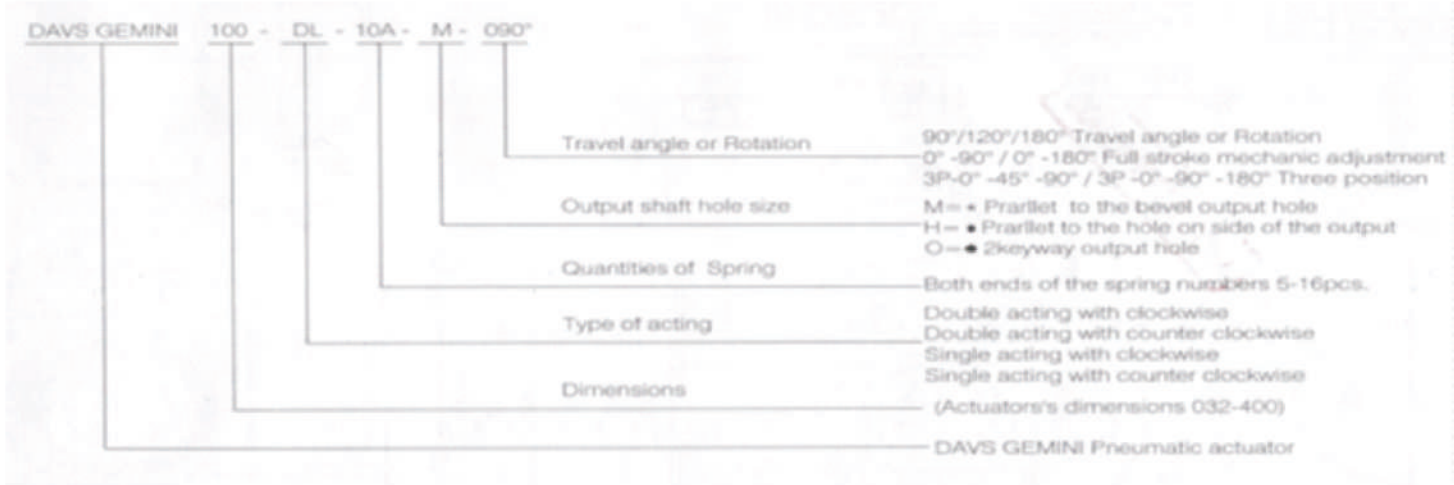
1. Increase safety coefficient to the torque of chosen valve
When selecting pneumatic actuator.
2. Increase 25% safety coefficient to vapor or non-LubricatingLiquids.
3. Increase 25% safety coefficient to non-lubricating Slurry liquids.
4. Increase 40% safety coefficient to non-lubricating Dry gas.
5. Increase 60% safety coefficient to non-lubricating Powdered and particles transported by air
6. Increase 20% safety coefficient to clean and low-friction Lubricant (above recommended theoretically by us for Reference only)

Parts and material



NO	QTY	NAME	STANDARD MATERIAL	CORROSINON PREVENTION GRADE	OPTIONAL MATERIAL
01	1	Octi-cam (Break-gear)	Stainless steel	.....	.....
02	2	Stopper bolt	Stainless steel	.....	.....
03	2	Thrust washer	Stainless steel	.....	.....
04	2	Screw cap	Stainless steel	.....	.....
05*	2	Bering (Piston back)	Composite materials	.....	.....
06*	1	Bearing (Gear's top)	Nylon46	.....	.....
07*	1	Bearing (Gear's toot)	Nylon46	.....	.....
08*	2	Thrust bearing (Gear)	Composite materials	.....	.....
09*	2	Plunger	NBR	.....	Viton/Silicone
10	1	Thrust Washer	Stainless steel	.....	.....
11*	2	O-ring (Stopper bolt)	NBR	.....	Viton/Silicone
13	8(C)	Cap screw	Stainless steel	.....	.....
14*		O-ring (End cap)	NBR	.....	Viton/Silicone
15*	2	Bearing (Piston head)	Composite materials	.....	.....
16*		O-ring (Piston)	NBR	.....	Viton/Silicone
17	5-12	Spring	Alloy spring steel	Epoxy resin coating	.....
18		Circlip (Gear)	Alloy spring steel	Nickel plated	Stainless steel
19	1	Position indicator	Composite materials	.....	.....
20*		O-ring (Gear's foot)	NBR	.....	Viton/Silicone
21*	1	O-ring (Gear's top)	NBR	.....	Viton/Silicone
30(D)		Right end cap	Cast aluminum alloy	Alkyd coating	.....
31(D)	1	Left end cap	Cast aluminum alloy	Alkyd coating	.....
39		Cap screw	Stainless steel	.....	.....
40	2	Piston	Cast aluminum alloy	Anodization	.....
41		Label of the actuator	Polvester aluminum	.....	.....
50	1	Cylinder body	Cast aluminum alloy	Anode hardening	.....
60		Output axis	Alloy steel	Nickel plated	Stainless steel

How the style number made

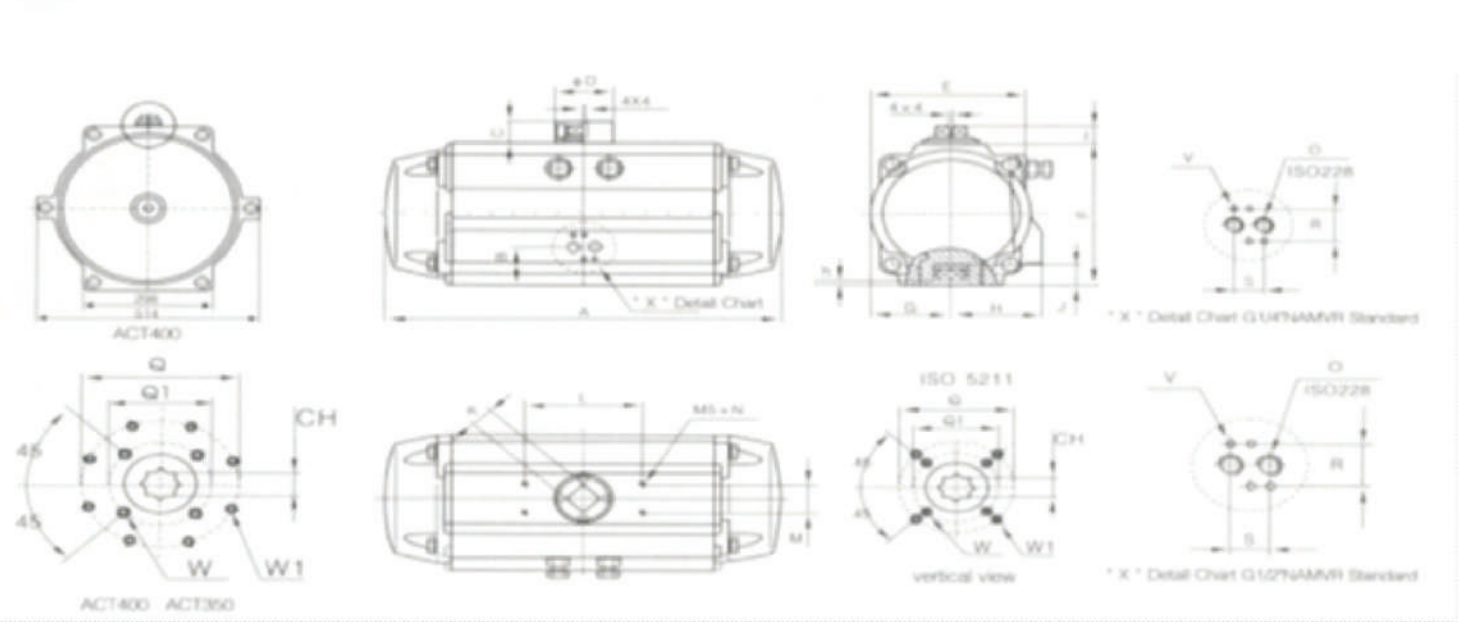


Technic data

Model & type	DAVS GEMINI 050 DS	DAVS GEMINI 063 DS	DAVS GEMINI 075 DS	DAVS GEMINI 090 DS	DAVS GEMINI 100 DS	DAVS GEMINI 115 DS	DAVS GEMINI 125 DS	DAVS GEMINI 145 DS	DAVS GEMINI 160 DS	DAVS GEMINI 190 DS	DAVS GEMINI 210 DS	DAVS GEMINI 240 DS	DAVS GEMINI 270 DS	DAVS GEMINI 300 DS	DAVS GEMINI 350 DS	DAVS GEMINI 400 DS
Diameter	50	63	75	90	100	115	125	145	160	190	210	240	270	300	50	400
Rotation Required For 1 stroke adjustme-nt	1/6	1/6	1/5	1/5	1/5	1/5	1/5	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Opening cylinder Volume (L)	0.1	0.2	0.3	0.5	0.7	1.2	1.5	2.4	3.1	4.3	5.9	10.0	14.5	25.0	35.1	52.6
Closing cylinder volume (L)	0.2	0.3	0.5	0.8	1.1	1.8	2.3	3.8	4.9	6.9	9.5	15.2	21.4	40.0	46.3	66.2
Opening time (S)	0.2	0.3	0.3	0.4	0.5	0.7	0.9	1.2	1.5	2	2.7	3.5	4	6.0	10.1	14.1
Closing time (S)	0.3	0.3	0.4	0.5	0.7	0.9	1.2	1.5	1.8	2.4	3.5	4.1	4.5	7.0	11.5	15.7
Estimated Weight (Kg)	1.1	1.6	2.8	4.0	5.4	8.4	11	15.5	20.2	33	35.5	61.5	86	110	186	289
	1.2	1.8	3.3	4.7	6.5	9.8	13.4	19.1	24.4	39.6	45.1	72.5	104	130	234	360

Power consumption depends on air pressure, which stroke, the volume and frequency of action. Calculation is as follows:
Liter/Minute=cylinder volume (opening volume +closing volume) x {supplied gas pressure (Kpa)*101.3}x times/minute.

Dimensions of the metric system and technical data



Mod el	DAVS GEMINI 050	DAVS GEMINI 063	DAVS GEMINI 075	DAVS GEMINI 090	DAVS GEMINI 100	DAVS GEMINI 115	DAVS GEMINI 125	DAVS GEMINI 145	DAVS GEMINI 160	DAVS GEMINI 190	DAVS GEMINI 210	DAVS GEMINI 240	DAVS GEMINI 270	DAVS GEMINI 300	DAVS GEMINI 350	DAVS GEMINI 400
A	154.5	168	219	249	274	351	354	417	452	539	600	671	723	857	935	1035
B	26.5	30	30.5	32.5	37.5	42.5	45	50	51.5	56	70	70	88	91	99	235
C	20	20	20	20	20	20	30	30	30	30	30	40	40	40	40	40
E	53	66	82	92.5	107	112	130	146.5	159	186	201	231	252.5	290	336	335
F	69	85	102.5	115	127.5	140	156.5	176	196	231	253.5	291	331.5	354	410	466
G	29	36.5	43	49	55.5	61.5	69.5	78.5	88	105	116	130.5	147	162	190	260
H	41	46.5	52.5	56.5	66.5	71	80.5	91	97	110	119.5	130.5	147	173	195	260
I	12	14	18	18	20	20	30	35	35	40	40	45	45	60	60	60
h	0.5	0.5	1	1	1	1	1.5	1.5	1.5	2	2	2	2	2.5	2.5	2.5
R	32	32	32	32	32	32	32	32	32	32	32	45	45	45	45	45
S	24	24	24	24	24	24	24	24	24	24	24	40	40	40	40	40
H	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M5X8	M6X10	M6X10	M6X10
O	ISO 228	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G1/4"	G3/8"	G3/8"	G1/2"	G1/2"	G1/2"
M	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
N	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
L	80	80	80	80	80	130	130	130	130	130	130	130	130	130	130	130
K	11	11	14	14	14	21	21	27	27	27	27	36	36	36	36	36
ISO 251 1	F03/ F05	F03/ F05	F05/ F07	F05/ F07	F07/ F10	F07/ F10	F07/ F10	F10/ F12	F10/ F12	F14	F14	F16	F16	F16	F16/ F25	F16/ F25
CH	11	14	17	17	22	22	27	27	27	336	36	46	46	46	46	46
Q	36	36	50	50	70	70	70	102	102	104	140	165	165	165	165	254
Q1	50	50	70	70	102	102	102	125	125							
W	M5	M5	M6	M6	M8	M8	M8	M10	M10	M16	M16	M20	M20	M20	M20	M20
W1	M6	M6	M8	M8	M10	M10	M10	M12	M12						M16	M16

Output torque of spring return actuators

Output torque of overcomes Spring force																							
Air pressure		2.5Bar		3Bar		3.5Bar		4Bar		4.5Bar		5Bar		5.5Bar		6Bar		7Bar		8Bar			
Model	Spring Qty	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End
DAVS GEMINI	S05	4.9	3.4	6.6	5.1	8.3	6.8	9.9	8.4	11.6	10.1	13.2	11.7								4.9	3.4	
	S06	4.3	2.5	5.9	4.1	7.6	5.8	9.3	7.4	10.9	9.1	12.6	10.8	14.2	12.4						5.8	4	
	S07			5.3	3.1	6.9	4.8	8.6	6.5	10.2	8.1	11.9	9.8	13.6	11.5	15.2	13.1				6.8	4.7	
	S08					6.2	3.8	7.9	5.5	9.6	7.2	11.2	8.8	12.9	10.5	14.6	12.1	17.9	15.5		7.8	5.4	
050S	S09							7.2	4.5	8.9	6.2	10.6	7.8	12.2	9.5	13.9	11.2	17.2	14.5	20.5	17.8	8.8	6.1
	S10									8.2	5.2	9.9	6.9	11.5	8.5	13.2	10.5	16.5	13.5	19.8	16.8	9.7	6.7
	S11											9.2	5.9	10.9	7.6	12.5	9.2	15.9	12.5	19.2	14.9	10.7	7.4
	S12													10.2	6.6	11.9	8.2	15.2	11.6	18.5	11.6	11.7	8.1
DAVS GEMINI	S05	9.1	6.2	12	9.2	15.0	12.1	17.9	15.0	20.8	17.9	23.8	20.9								8.4	5.5	
	S06	8	4.5	10.9	7.5	13.9	10.4	16.8	13.3	19.7	16.3	22.7	19.2	25.6	22.1						10.1	6.7	
	S07			9.8	5.8	12.8	8.7	15.7	11.6	18.6	14.6	21.5	17.5	24.5	20.4	27.4	23.4				11.8	7.8	
	S08					11.6	7	14.6	10	17.5	12.9	20.4	15.8	23.4	18.7	26.3	21.7	32.2	27.5		13.5	8.9	
063S	S09							13.5	8.3	16.4	11.2	19.3	14.1	22.3	17.1	25.2	20	31.3	25.9	36.9	31.7	15.2	10
	S10									15.3	9.5	18.2	12.4	21.1	15.4	24.1	18.3	29.9	24.2	35.8	30	16.9	11.1
	S11											17.1	10.8	20	13.7	23	16.6	28.8	22.5	34.7	28.3	18.6	12.2
	S12													18.9	12	21.9	14.9	27.7	20.8	33.6	26.7	20.2	13.3
DAVS GEMINI	S05	18.0	11.8	23.8	17.6	29.7	23.4	35.5	29.2	41.3	35	47.1	40.9								17.3	11.1	
	S06	15.8	8.3	21.6	14.1	27.5	19.9	33.3	25.8	39.1	31.6	44.9	37.4	50.7	43.2						20.8	13.3	
	S07			19.4	10.7	25.2	16.5	31.1	22.3	36.9	28.1	42.7	33.9	48.5	39.8	54.3	45.6				24.2	15.5	
	S08					23	13	28.8	18.8	34.7	24.7	40.5	30.5	46.3	36.3	52.1	42.1	63.7	53.7		27.7	17.7	
075S	S09							26.6	15.4	32.5	21.2	38.3	27.0	44.1	32.8	49.9	38.6	61.5	50.3	73.2	61.9	31.2	19.9
	S10									30.2	17.7	36.1	23.6	41.9	29.4	47.7	35.2	59.3	46.8	71	58.5	34.6	22.1
	S11											33.8	20.1	39.7	25.9	45.5	31.7	57.1	43.4	68.7	55	38.1	24.3
	S12													37.5	22.4	43.3	28.3	54.9	39.9	66.5	51.5	41.5	26.5
DAVS GEMINI	S05	27.4	16.9	36.6	26	45.7	35.2	54.9	44.3	64	53.5	73.2	62.6								28.9	18.3	
	S06	23.8	11.1	32.9	20.3	42.1	29.4	51.2	38.6	60.4	47.7	69.556	9	78.6	66						34.7	22	
	S07			29.2	14.5	38.4	23.6	47.5	32.8	56.7	41.9	65.8	51.1	75	60.2	84.2	69.4				40.4	25.7	
	S08					34.7	17.9	43.9	27	53	36.2	62.2	45.3	71.3	54.5	80.5	63.6	98.8	81.9		46.2	29.3	
090S	S09							40.2	21.2	49.4	30.4	58.5	39.5	67.7	48.7	76.8	57.8	95.1	76.1	113	94.5	52	33
	S10									45.7	24.6	54.8	33.8	64	42.9	73.1	52.1	91.5	70.4	110	88.7	57.8	36.7
	S11											51.2	28	60.3	37.1	69.5	46.3	87.8	64.6	106	82.9	63.5	40.3
	S12													56.7	31.4	65.8	40.5	84.1	58.8	102	77.1	69.3	44
DAVS GEMINI	S05	41.1	27.1	54.4	40.4	67.7	53.7	81	67	94.3	80.3	108	93.6								39.4	25.3	
	S06	36.1	19.2	49.4	32.5	62.7	45.8	76	59.1	89.3	72.4	103	85.7	116	99						47.3	30.4	
	S07			44.3	24.6	57.6	37.9	70.9	51.2	84.2	64.5	97.5	77.8	111	91.1	124	104				55.1	35.5	
	S08					52.5	30	65.8	43.3	79.1	56.6	92.4	69.9	106	83.2	119	69.5	146	123		63	40.5	
100S	S09							60.8	35.5	74	48.8	87.3	62.1	101	75.3	114	88.6	141	115	167	142	70.9	45.6
	S10									69	40.9	82.3	54.2	95.6	67.5	109	80.8	135	107	162	134	78.8	50.7
	S11											77.2	46.3	90.5	59.6	104	72.9	130	99	157	126	86.7	55.7
	S12													85.4	51.7	98.7	65	125	92	152	118	94.5	60.8
DAVS GEMINI	S05	63.5	41.9	87.9	63.4	109	84.9	131	106	152	128	174	149								65.5	41	
	S06	58.1	28.8	79.7	50.3	101	71.8	123	93.3	144	115	166	136	187	158						78.6	49.2	
	S07			71.5	37.2	93	58.7	115	80.2	136	102	158	123	179	145	200	166				91.7	57.4	
	S08					84.8	45.6	106	67.1	128	88.6	149	110	171	132	192	153	235	196		105	65.6	
115S	S09							98.1	54	120	75.5	141	97	163	118	184	140	227	183	270	226	118	73.8
	S10									111	62.4	133	83.9	154	105	176	127	219	170	262	213	131	82
	S11											125	70.8	146	92.3	168	114	211	157	254	200	144	90.2
	S12													138	79.2	159	101	201	143	245	186	157	98.5

Output torque of spring return actuators

DAVS GEMINI	S05	86 56.1	113.7 83.3	141 111	169 139	197 167	224 195					82 52.5
	S06	75.5 39.6	103.2 67.3	131 95	159 123	186 150	214 178	242 206				99 62.9
	S07		92.7 50.8	120.4 78.5	148 106	176 134	203 162	231 189	259 217			115 73.5
	S08			110 62	137.6 89.7	165 117	193 145	221 173	248 201	304 256		132 84
125S	S09				127 73.3	155 101	182 129	210 156	238 184	293 239	349 295	148 94.5
	S10					144 84.5	172 112	200 140	227 168	283 223	338 278	165 105
	S11						161 95.7	189 123	217 151	273 206	328 262	181 116
	S12							179 107	206 135	262 190	317 245	198 126
DAVS GEMINI	S05	135 88.6	179 132	222 176	265 219	309 262	352 306					129 82
	S06	119 62.8	162 106	206 150	249 193	293 236	336 280	379 324				155 98.7
	S07		146 80.5	189 124	233 167	276 211	320 254	363 298	406 341			180 115
	S08			173 98.2	216 142	260 185	303 229	347 272	390 316	477 403		206 132
145S	S09				200 116	243 159	287 203	330 246	374 290	460 377	547 464	232 148
	S10					227 134	270 177	314 221	357 264	444 351	531 438	258 165
	S11						254 151	297 195	341 238	428 325	515 412	283 181
	S12							281 169	324 213	411 299	498 386	309 198
DAVS GEMINI	S05	171 118	228 174	285 231	342 288	398 344	455 401					166 112
	S06	149 84.3	206 141	262 198	318 255	376 311	433 368	489 425				199 135
	S07		183 108	240 165	297 221	353 278	410 335	467 391	524 448			233 157
	S08			218 131	274 188	331 245	388 302	444 358	501 415	615 528		266 180
160S	S09				252 155	309 212	365 368	422 325	479 382	592 495	706 609	299 202
	S10					286 178	343 235	400 292	456 349	570 462	683 575	332 224
	S11						320 202	377 259	434 315	547 429	661 542	365 247
	S12							355 225	411 282	525 396	638 509	399 269
DAVS GEMINI	S05	327 212										293 190
	S06	285 147	393 255	501 363								352 227
	S07		351 190	459 298	566 405	675 514						410 265
	S08		309 125	417 233	524 340	633 449	740 556	849 665				469 303
190S	S09				482 275	591 384	698 491	807 600	913 706			527 341
	S10				440 210	549 319	656 426	765 535	871 641	1087 857	1302 1072	586 379
	S11						614 361	723 470	829 576	1045 792	1260 1007	645 417
	S12						572 296	681 405	787 511	1003 727	1218 942	703 455
DAVS GEMINI	S05	369 258										360 260
	S06	311 178	442 309	572 446								432 313
	S07	253 99	384 230	514 367	647 493	778 631						503 365
	S08		326 150	456 288	589 413	720 552	853 677	721 815				575 417
210S	S09				531 333	662 473	795 597	663 736	1058 860			647 469
	S10				473 253	604 394	737 517	605 657	1000 780	1263 1043	1526 1306	719 521
	S11						679 437	547 578	942 700	1205 963	1468 1226	791 573
	S12						621 357	489 499	884 620	1147 883	1410 1146	863 625
DAVS GEMINI	S05	533 372	712 551	890 730	1069 908	1248 1087	1426 1266					521 360
	S06	461 268	640 447	818 625	997 804	1176 983	1354 1162	1533 1340				625 433
	S07		568 343	746 521	925 700	1104 879	1282 1057	1461 1236	1640 1415			730 505
	S08			574 417	853 596	1032 774	1210 953	1389 1132	1568 1310	1925 1668		834 577
240S	S09				781 491	959 670	1138 849	1317 1028	1495 1206	1853 1564	2210 1921	938 649
	S10					887 566	1066 745	1245 923	1423 1102	1781 1459	2138 1817	1042 721
	S11						994 640	1173 819	1351 998	1709 1355	2066 1713	1146 793
	S12							1101 715	1279 894	1637 1251	1994 1608	1251 856
DAVS GEMINI	S05	879 640										745 530
	S06	761 475	1054 768	1353 1059								894 636
	S07	644 309	937 602	1236 893	1525 1190	1823 1480						1043 742
	S08		819 437	1119 727	1407 1025	1706 1314	1994 1612	2293 1901				1192 848
270S	S09			1002 561	1289 859	1589 1148	1876 1446	2146 1735	2463 2033			1341 954
	S10				1171 694	1472 982	1758 1281	2059 1569	2345 1868	2932 2455	3519 3042	1490 1060
	S11					1355 816	1640 1115	1942 1403	2227 1702	3814 2289	3401 2876	1639 1166
	S12						1523 950	1825 1237	2110 1537	1697 2124	3884 2711	1788 1272

Output torque of spring return actuators

Output torque (Nm)																							
Air pressure		2.5Bar		3Bar		3.5Bar		4Bar		4.5Bar		5Bar		5.5Bar		6Bar		7Bar		8Bar			
Model	Spring Qty	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End	0° start	90° End
DAVS GEMINI 300S	S05	1097	729																			1061	730
	S06	935	494	1316	875	1697	1274															1273	876
	S07	772	258	1153	639	1535	1038	1916	1402													1485	1022
	S08			991	403	1373	802	1754	1166	2138	1546	2517	1929									1697	1168
	S09							1592	930	1976	1310	2355	1693	3739	2456							1909	1314
	S10							1430	695	1814	1074	2193	1458	2577	1837	2956	2221	3719	2984	4482	3747	2122	1460
	S11									1652	838	2030	1222	2415	1601	2793	1985	3556	2784	4319	3511	2334	1606
	S12											1868	986	2253	1365	2631	1749	3394	2514	4157	3275	2446	1752
DAVS GEMINI 350S	S05	1553	964																			1702	1173
	S06	1292	586	1863	1157	2432	1738															2043	1408
	S07	1031	208	1602	779	2171	1360	2745	1922													2383	1642
	S08			1341	401	1910	980	2484	1544	3053	2117	3626	2686									2724	1877
	S09							2224	1165	2792	1739	3366	2307	3934	2881	4508	3449					3064	2112
	S10							1963	787	2531	1361	3105	1929	3673	2503	4247	3071	5390	4212	6532	5356	3405	2346
	S11									2270	983	2844	1551	3412	2125	3986	2693	5129	3836	6271	4978	3745	2581
	S12											2528	1172	3151	1747	3726	2314	4869	3457	6011	4599	4086	2816
DAVS GEMINI 400S	S07	2028	869																			2880	1837
	S08	1736	411	2550	1125	3369	2841															3292	2100
	S09			2259	768	3078	2484	3887	2396													3703	2362
	S10			1967	311	2787	2127	3595	1939	4415	3755	5223	3567									4115	2624
	S11							3303	1482	4124	3398	4931	3110	5752	5026	6559	4738					4526	2887
	S12							3012	1025	3833	3041	4640	2653	5461	4669	6268	4281	7835	5908	9523	7536	4938	3149
	S13											4348	2195	5170	4312	5976	3823	7603	5450	9231	7078	3549	3412
	S14											4057	1738	4879	3955	5685	3366	7312	4993	8940	6621	5761	3674
	S15										3765	1281	4588	3598	5393	2909	7020	4536	9648	6164	6172	3937	
	S16													4297	3241	5101	2452	6728	4079	8356	5707	6584	4199

Output torque of double acting actuators(Nm)											
Air Pressure		2.5Bar	3Bar	3.5Bar	4Bar	4.5Bar	5Bar	5.5Bar	6Bar	7Bar	8Bar
Model											
DAVS GEMINI 032D		3.8	4.6	5.3	6.1	6.9	7.6	8.4	9.2	10.7	12.2
DAVS GEMINI 050D		8.3	10.0	11.6	13.3	15.0	16.6	18.3	19.9	23.3	26.6
DAVS GEMINI 063D		14.7	17.6	20.5	23.5	26.4	29.3	32.2	35.2	41.0	46.9
DAVS GEMINI 075D		29.1	34.9	40.7	46.5	52.4	58.2	64.0	69.8	81.4	93.1
DAVS GEMINI 090D		45.8	54.9	64.1	73.2	82.4	91.5	101	110	128	146
DAVS GEMINI 100D		66.5	79.8	93.1	106	120	133	146	160	186	213
DAVS GEMINI 115D		107	129	150	172	193	215	236	258	301	344
DAVS GEMINI 125D		138	166	194	222	249	277	305	332	388	443
DAVS GEMINI 145D		217	261	304	348	391	435	478	522	609	696
DAVS GEMINI 160D		284	340	397	454	511	567	624	681	794	908
DAVS GEMINI 190D		538	646	753	861	969	1077	1185	1292	1508	1723
DAVS GEMINI 210D		658	789	920	1052	1184	1316	1447	1579	1842	2105
DAVS GEMINI 240D		966	1160	1352	1546	1740	1933	2126	2320	2706	3093
DAVS GEMINI 270D		1468	1761	2055	2349	2642	2936	3229	3523	4110	4697
DAVS GEMINI 300D		1908	2289	2670	3052	3434	3815	4197	4578	5341	6104
DAVS GEMINI 350D		2856	3427	3998	4570	5141	5712	6283	6854	7997	9139
DAVS GEMINI 400D		4069	4883	5697	6511	7325	8139	8953	9767	11394	13022