



## **PGD PGF пневмопривод**



### **Construction**

Double piston actuator in short-compact housing

### **Movement transformation**

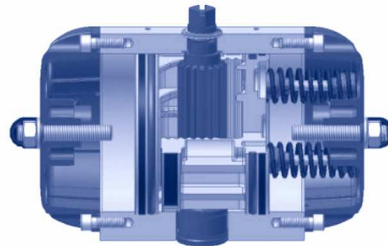
Rack-and-pinion system  
(homogeneous torque process)

### **Function**

Type PGD – double-acting  
Type PGF – single acting with spring return

### **Piston guide**

Wear resistant PTFE sliding band with graphite portions  
for slip-stick-free run and good emergency running properties



### **Spring system**

Bound, non-ferrous metal-free spring rods  
simple and safe design concept (0,5 bar per spring)

### **Angle of rotation**

Preset on 90°, adjustable end position -10°+3°

### **Quality**

All-side machined operational surface guarantees longevity, calm  
and wear resistant run as well as a precise internal end position

### **Applied standards**

VDI/VDE 3845

Interfaces for positioning elements and actuators accessories  
DIN 3337

Quarter turn actuator connection for valves  
acc. to DIN 3337 and to ISO 5211;

inside octagon according to DIN 79 ever 2 flange pictures  
for variable connection suitable for direct assembling on fittings

### **Technical data**

NOMINAL ANGLE OF 90°, adjustable

TRAVERSE: end position

PERMISSIBLE

PRESSURE RANGE: max. 10 bar

OPERATING MEDIUM: air or any non-aggressive  
gaseous medium



APPLICATION	-20°C up to +80°C
TEMPERATURE RANGE:	other temperatures on request
LUBRICATION:	permanent lubrication
LUBRICATION GREASE:	Lithium saponified multi-purpose grease
COATING: Housing:	ELOXAL
Caps:	KTL
MAINTENANCE/ INSPECTION:	PG actuators are maintenance-free

Provided that:

- the actuator is properly mounted
- the operating medium used is clean and non-aggressive
- the actuator is operated under normal ambient conditions

### Materials

HOUSING:	Aluminium alloy
CAP:	Aluminium alloy
PISTON:	Aluminium alloy
PISTON GUIDE:	PTFE + graphite
PINION SHAFT:	Steel, corrosion resistant
BEARINGS:	PTFE + graphite
SEALINGS:	PERBUNAN-o-rings
SPRINGS:	Steel, corrosion resistant
CYLINDRICAL SCREWS:	Steel, galvanized

### TORQUES TYPE PGD (DOUBLE-ACTING)

Type PGD	Torque $M_e$ at operating pressure p.												
	2 bar	2,5 bar	3 bar	3,5 bar	4 bar	4,5 bar	5 bar	5,5 bar	6 bar	6,5 bar	7 bar	7,5 bar	8 bar
07	7,3	9,3	11,3	13,4	15,4	17,4	19,5	21,5	23,5	25,6	27,6	29,6	31,7
10	10	13	16	19	21	24	27	30	33	36	39	42	45
15	23	29	35	42	48	55	61	68	75	81,5	88	94,5	101
20	31	41	51	60	70	79	89	98	107	117	126	136	145
25	61	79	97	115	133	150	168	186	204	222	240	258	276
30	89	116	143	169	196	222	249	276	302	328	354	381	407
33	165	214	263	312	360	409	458	507	555	604	652	701	750
35	220	284	348	413	477	542	606	671	735	800	864	929	993

$M_e$  = effective torque in Nm

### TORQUE CHARACTERISTICS

The indicated torques  $M_e$  are constant over the total rotary motion.

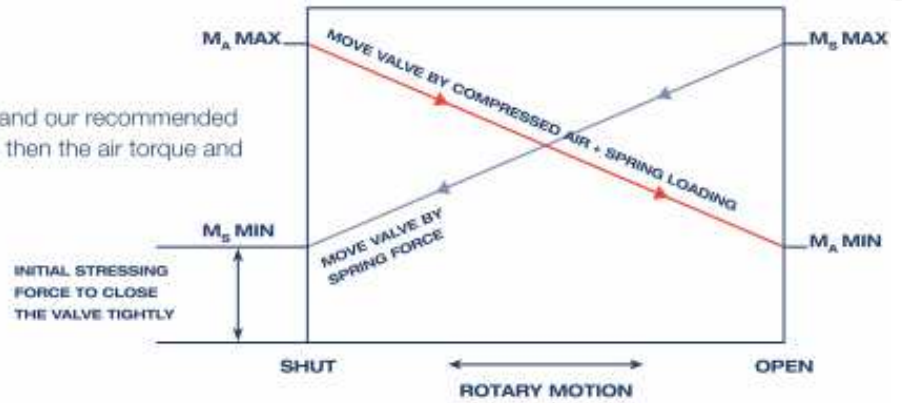


### TORQUES TYPE PGF (SINGLE-ACTING)

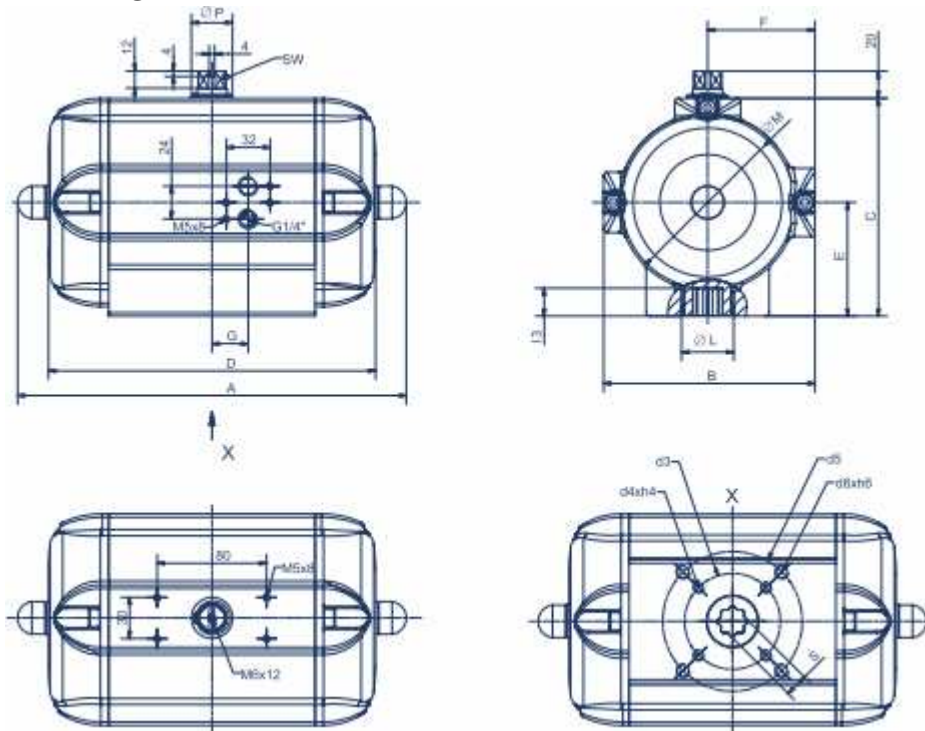


Operating pressure p.	2 bar	2,5 bar	3 bar	3,5 bar	4 bar	4,5 bar	5 bar	5,5 bar	6 bar									
Number of Springs n	4	5	6	7	8	9	10	11	12									
Spring torque $M_s$ = air torque $M_a$ [Nm]																		
TYPE PGF	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
07									5,2	9,5			6,4	12,0			7,8	14,5
10	3,9	6,5	4,9	8,2	5,9	9,8	6,9	11,4	7,8	13,0	8,8	14,7	9,8	16,3	10,8	17,9	11,8	19,6
15	8,8	14,7	11,1	18,4	13,3	22,1	15,5	25,8	17,7	29,4	19,9	33,1	22,1	36,8	24,3	40,5	26,5	44,2
20	12,7	21,2	15,9	26,5	19,1	31,7	22,3	37,0	25,4	42,3	28,6	47,8	31,8	52,9	35,0	58,2	38,2	63,5
25	24,2	40,3	30,2	50,4	36,2	60,5	42,3	70,6	48,3	80,6	54,4	90,7	60,4	100,8	66,4	110,9	72,5	121,0
30	36	60	45	74	54	89	63	104	71	119	80	134	89	149	98	164	107	179
33	66	109	82	137	98	164	115	191	131	219	148	246	164	273	180	301	197	328
35	87	145	109	181	131	218	152	254	174	290	196	326	218	363	239	399	261	435

At the required operating pressure "p." and our recommended number of springs "n" for this pressure, then the air torque and spring torques are identical.



### DIMENSIONAL DRAWING





Size	7	10	15	20	25	30	33	35
A	152*/208	185	248	253	284	401	432	450
B	68	98	116	134	154,5	174	204	218
C	67	94,5	111	132,5	159	174	202	217
D	118*/175	143	204	211	239	358	377	395
E	35,5	49,5	56	68,5	83	89	103	112
F	36,5	51	61	70	78,5	87	102	109
G	0	0	16,5	20	26,5	36	42	45
øL	28	26	28	35	38	47	56	62
øM	62	74	93	111	130	145	175	192
øP	22	20	22	25	30	36	45	50
SW (external square)	12	12	12	14	17	17	22	30
Connection DIN 3337	F03/05	F05/F07	F05/F07	F05/F07	F07/F10	F07/F10	F10/F12	F10/F12
s (acc. to DIN 79)	14	14	14	17	17	22	27	27
d <sub>1</sub>	36	50	50	50	70	70	102	102
d <sub>1xh<sub>1</sub></sub>	M5x8	M6x10	M6x10	M6x10	M8x13	M8x13	M10x16	M10x16
d <sub>5</sub>	50	70	70	70	102	102	125	125
d <sub>1xh<sub>5</sub></sub>	M6x10	M8x13	M8x13	M8x13	M10x16	M10x16	M12x20	M12x20
l <sub>1</sub>	16	16	16	20	20	25	30	30

\*Type PGD 07