Five performance classes – two sizes

The modular design of the pneumatic motors enables space – saving dimensions:

We can supply two sizes with only a different diameter but a different torque. The smaller pneumatic motors have a rated load torque of 450 Ncm or 900 Ncm. The diameter of the housing is 99 mm.

They are 60 mm smaller in diameter than the more powerful motors with a rated load torque of 1800 Ncm, 3600 Ncm and 7200 Ncm and an outside diameter of 159 mm. Within their performance class, their size difference is only 60 mm in the diameter and in the length.

Even if gearbox modules are added on to improve performance, the unit's length increases only by a few centimetres.

With the different options among other things also there are versions available as hollow shaft (external) and Va (1.4571) stainless.

Gearbox options

Our range of planetary drives can provide additional torque, speed and air consumption to suit your application.

Standard gearboxes:

– Gear with reduction 3:1 or 9:1

– Gear with ratio 1:2

Special gearboxes on request.

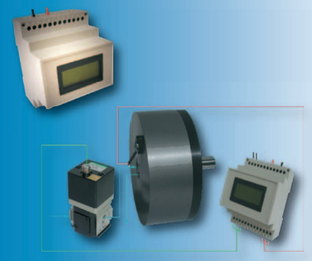
Dimensions for the gearbox are shown in the table on the opposite side.

For all pneumatic motors are standard shafts available and if requested stronger shafts too (see dimensions d2, L4, L5, L6, L7 in the table)

Installation options

Mounting holes on the standard flange, as well as an optional mounting profile, or alternatively a mounting flange offer possibilities of options for mounting the pneumatic motors in a minimum of space.

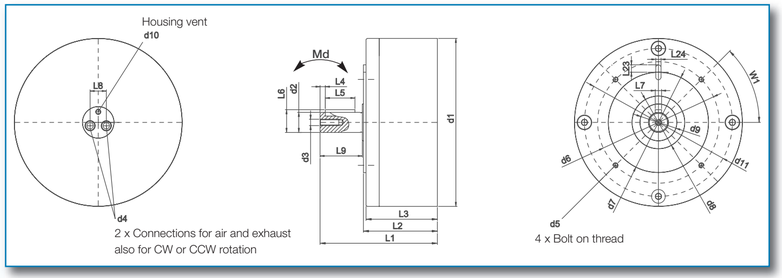
In addition different adapter variants are available for the optimal air connection.



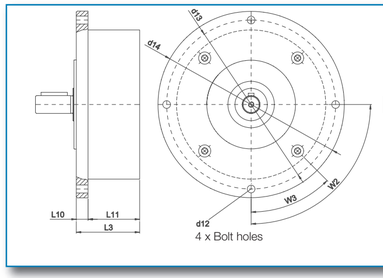
Control technology

The control technology includes all the electronic control devices (excluding valve) required to ensure speed regulation and/or speed monitoring of the pneumatic motors. The signals received from the Hall sensors, the frequency of which is monitored by the control electronics, regulate the selected motor speed, keeping it within the defined tolerance range on fluctuations of the load or compressed air. A modern switching concept and the use of highly-integrated components ensure that the PMO-DRZ 030300 speed controller is set apart by extreme safety, high ability, low construction volume and an affordable price.

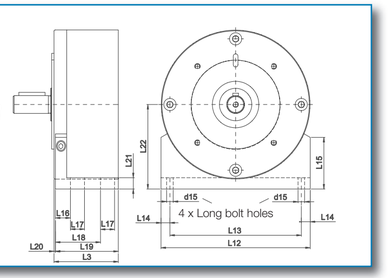
Dimensions



Version with flange



Version with installation bracket



	d 1	d 1 Va	d 2	d 3	d 4	d 5	d 6	d 7	d 8	d 9	d 10	d 11	d 12	d 13	d 13 Va	d 14	d 14 Va	d 15	L 1	L 1 Va	L 2	L 2 Va	L 3	L 3 Va	L 4	L 5	L 6	L 7	L 8	L 9	L 10	L 11	L 11 Va	L 12	L 13	L 14	L 15	L 16	L 17	L 18	L 19	L 20	L 21	L 22	L 23	L 24	W 1	W 2	W 3
PMO 0450	99	104	14 h6	M 4x12	M 6x0,75x8	M 4x9	67	55 h6	40	28	M 5x5	87	5,4	110	115	120	124	5	78	81	52	55	50,5	53,5	3	18	16	5 N9	10,6	25	11,5	39	42	99	89	5	40	14,5	10	36,5	50	0,5	10	58	6	4 N9	45°	90°	45°
PMO 0900	99	104	14 h6	M 4x12	M 6x0,75x8	M 4x9	67	55 h6	40	28	M 5x5	87	5,4	110	115	120	124	5	92,5	95,5	66,5	69,5	65	68	3	18	16	5 N9	10,6	25	11,5	53,5	56,5	99	89	5	40	14,5	10	36,5	50	0,5	10	58	6	4 N9	45°	90°	45°
PMO 1800	159	164	19 h6	M 6x18	R1/8x9	M 6x10	115	95 h6	50	35	M 5x5	140	8,5	180	180	199	199	7	111	115	70	74	67,5	71,5	5	28	21,5	6 N9	15,3	40	12,5	55	59	159	140	9,5	55	16	15	48	67	0,5	12	90	7	5 N9	45°	90°	45°
PMO 3600	159	164	19 h6	M 6x18	R1/8x9	M 6x10	115	95 h6	50	35	M 5x5	140	8,5	180	180	199	199	7	133	137	92	96	89,5	93,5	5	28	21,5	6 N9	15,3	40	12,5	77	81	159	140	9,5	55	16	15	48	67	0,5	12	90	7	5 N9	45°	90°	45°
PMO 7200	159	164	19 h6	M 6x18	R1/8x9	M 6x10	115	95 h6	50	35	M 5x5	140	8,5	180	180	199	199	7	194	198	153	157	150,5	154,5	5	28	21,5	6 N9	15,3	40	12,5	138	142	159	140	9,5	55	16	15	48	67	0,5	12	90	7	5 N9	45°	90°	45°

Dimensions with gear

	Standard								with jacket Va rust-proof >1.4571<								for special-shaftdiameter and drive key								
Gear	3:1				9:1				3:1				9:1				other special-shafts on demand								
Length	L 1	L 2	L 3	L 11	L 1	L 2	L 3	L 11	L1 Va	L2 Va	L3 Va	L11 Va	L1 Va	L2 Va	L3 Va	L11 Va	d 2	L 4	L 5	L 6	L 7	d 2	L 4	L 5	L 6	L 7
PMO 0450	120	94	92,5	81	146	120	118,5	107	123	97	95,5	84	149	123	121,5	110	Ø19h6	2	22	21,5	6N9	Ø24h6	2	22	27	8N9
PMO 0900	134,5	108,5	107	95,5	160,5	134,5	133	121,5	137,5	111,5	110	98,5	163,5	137,5	136	124,5	Ø19h6	2	22	21,5	6N9	Ø24h6	2	22	27	8N9
PMO 1800	161	120	117,5	105	192,5	151,5	149	136,5	165	124	121,5	109	196,5	155,5	153	139,5	Ø24h6	2	38	27	8N9	Ø32h6	2	38	35	8N9
PMO 3600	183	142	139,5	127	214,5	173,5	171	158,5	187	146	143,5	131	218,5	177,5	175	162,5	Ø24h6	2	38	27	8N9	Ø32h6	2	38	35	8N9
PMO 7200	244	203	200,5	188	275,5	234,5	232	219,5	248	207	204,5	192	279,5	238,5	236	223,5	Ø24h6	2	38	27	8N9	Ø32h6	2	38	35	8N9

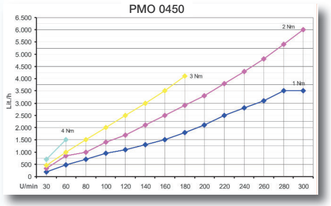
Nominal rating

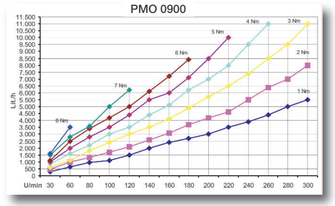
without gear rpm (U/min) min 30	max 300	Reduction 3:1 rpm (U/min) min 10	max 100	Reduction 9:1 rpm (U/min) min 3,3	max 33	Ratio 1:2 rpm (U/min) min 60	max 600
4 Nm	2 Nm	12 Nm	6 Nm	36 Nm	18 Nm	2 Nm	1 Nm
8 Nm	3 Nm	24 Nm	9 Nm	72 Nm	27 Nm	4 Nm	1,5 Nm
16 Nm	2 Nm	48 Nm	6 Nm	144 Nm	18 Nm	8 Nm	1 Nm
32 Nm	3 Nm	96 Nm	9 Nm	288 Nm	27 Nm	16 Nm	1,5 Nm
65 Nm	4 Nm*	180 Nm	12 Nm*1	–	–	–	–

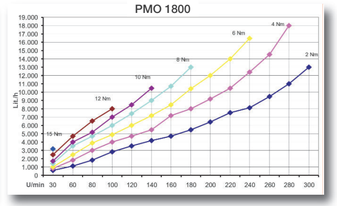
Load and Weight

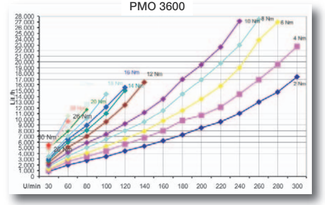
Max Load Axial	Radial dyn. C	Radial stat. Co	Max allow. Load Md	Weights without Gear	with 3:1 Gear	with 9:1 Gear	with 1:2 Gear
100 N	750 N	400 N	5 Nm	1,10 Kg	2,00 Kg	2,80 Kg	2,10 Kg
100 N	750 N	400 N	5 Nm	1,30 Kg	2,20 Kg	3,00 Kg	2,30 Kg
200 N	1500 N	800 N	10 Nm	3,40 Kg	6,10 Kg	7,90 Kg	5,90 Kg
200 N	1500 N	800 N	10 Nm	4,00 Kg	6,70 Kg	8,50 Kg	6,50 Kg
200 N	1500 N	800 N	10 Nm	6,40 Kg	9,10 Kg	10,90 Kg	8,90 Kg

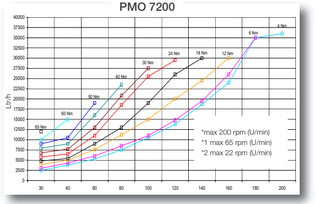
Air Consumption – Rotational Speed – Performance



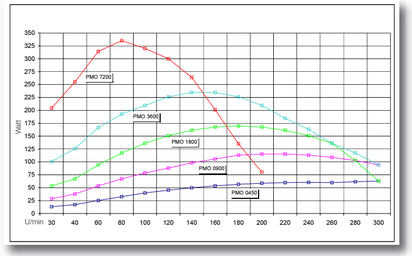




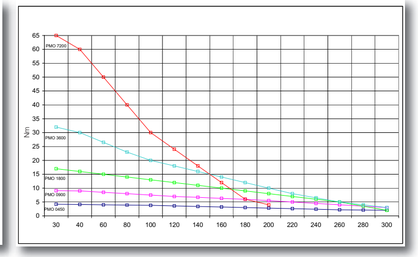




Performance in Watt



Performance in Nm



Ordering number

Ordering number

Shaft straight = 0
Shaft with drive key = 1
Flange, shaft straight = 2
Flange, shaft with drive key = 3
Installation bracket, shaft straight = 4
Installation bracket, shaft with drive key = 5
Hollow shaft (external) = 6
Hollow shaft (external) with installation bracket = 7

0 = Version IP67 -Standard
1 = Version IP68 -Water resistant
2 = IP68 -Sea water-proof to 40m submerged depth
3 = IP68 -casing Va rustproof >1.4571<
4 = IP68 -FDA-conform >1.4404< (on demand)

0 = Standard
1 = EX-Certificate RL94/9/EG >II 2 G/D c T5 100°C<
2 = Speed control

0 = Standard
1 = Shaft-ø 19 mm, only at PMO 0450 - 0900
2 = Shaft-ø 24 mm, only at PMO 0450 - 7200
3 = Shaft-ø 32 mm, only at PMO 1800 - 7200

PMO 0 4 5 0 - X - X - X X X - X
PMO 0 9 0 0 - X - X - X X X - X
PMO 1 8 0 0 - X - X - X X X - X
PMO 3 6 0 0 - X - X - X X X - X
PMO 7 2 0 0 - X - X - X X X - X

Rated load torque at 6 bar in Ncm

Standard = 0
Gear with reduction 3:1 = 1
*Gear with ratio 1:2 = 2
*Gear with reduction 9:1 = 3
*not at PMO7200

0 = Standard
1 = Silicone free
2 = Outside sealing >FPM - FKM< (Viton)
3 = with 1 and 2
4 = Outside sealing >EPDM - PTFE< (Aceton resistant)
5 = with 1 and 4

Ordering example: You order: PMO 3600 - 3 - 0 - 0 1 2 - 2 (for further details see >www.ptmgmbh.com<)

We deliver: Pneumatic motor Type PMO 3600, installation flange, shaft with drive key, IP67 - Standard, EX-Certifikate, Viton seal outside, shaft-ø 24 mm