

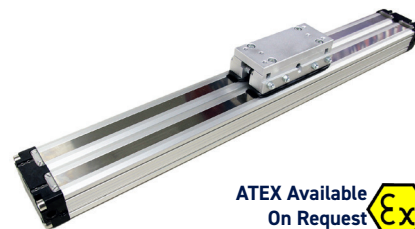
PL-DUO SERIES

DUPLEX RODLESS PNEUMATIC CYLINDER

Similar to Origa P220-21



SAMEDAY BUILD
PREMIUM AVAILABLE



ATEX Available
On Request 

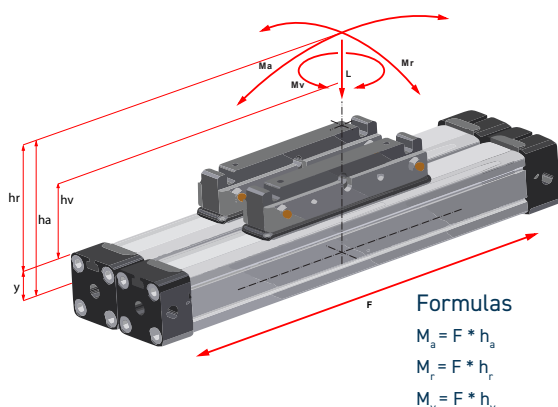
Design	Rodless cylinder, double acting, direct force transmission
Strokes	
ø 25-32 mm	100-5700mm, in increments of 1mm (longer strokes on request)
ø 16 mm	100-3300mm, in increments of 1mm
Air connection	(M5, G 1/8", G 1/4", G 3/8")
Mounting	free
Forces + moments	see Forces and moments
Support Forces	see Deflection Diagram
Temperatures	(-10°C to +80°C) other temperatures on request
Materials	
Barrel	High-strength anodized aluminum
End caps	High-strength anodized aluminum
Piston axle	High-strength anodized aluminum
Seals	Oilproof synthetic material (V < 1m/s (NBR)(V >= 1m/s (VITON)
Sealing bands	Stainless steel
Piston caps	Wear proof synthetic material
Sliding parts	Wear proof synthetic material
Pressure range	0,5-8,0 bar
Medium	compressed air, filtered max. 50µm

- Superior guiding capacity
- Stronger forces
- Higher loads
- Equal forces on both ends of the piston
- Force connection direct, torque safe
- Piston with or without magnets
- 50% space-savings
- Long strokes up to 5700mm
- End caps with 3 air connections and adjustable cushioning
- Fast acceleration and high piston velocity
- Very flexible in the user's design
- Non lubricated or lubricated air supply**)
- 3 stage cushioning characteristics for protection of the cushioning and load system *)
- Use in EX area possible - ATEX

*) Special Version On request

**) Attention: Before changing operation from lubricated to nonlubricated air the cylinder has to be disassembled, cleaned, newly greased and reassembled

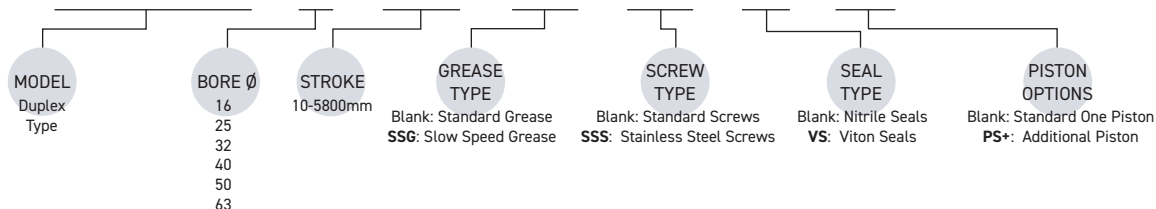
Forces and Moments



Cylinder	Effect Force (N)	Cushioning	Max. allowed load (N)	Max. allowed bending moments (Nm)		Max. allowed torque (Nm)
	at 6 Bar	(mm)	DUO	DUO		DUO
Ø	F	S	L	Ma axial	Mr radial	Mv central
2x16	200	15	240	8.0	2.4	1.0
2x25	480	21	600	30.0	8.0	6.0
2x32	820	26	900	60.0	16.5	10.0
2x40	1200	32	1500	120	12	16.0
2x50	1900	32	2400	230	20	30.0
2x63	3 3000	40	3300	400	24	48.0

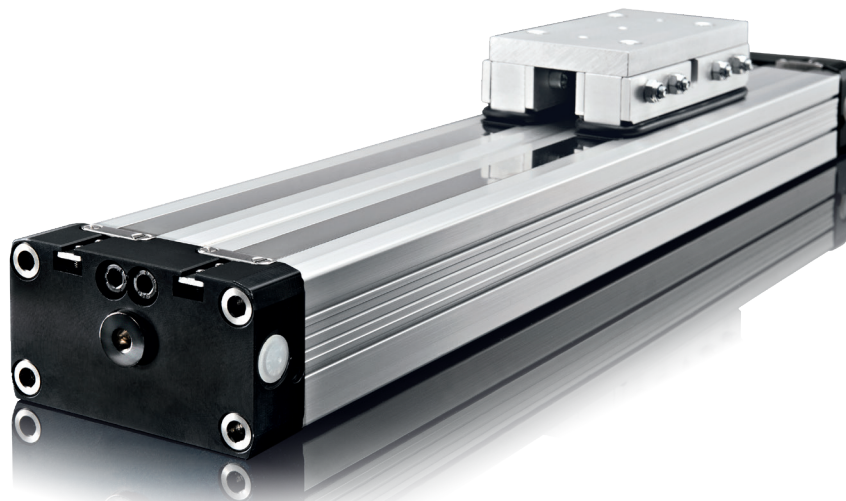
Order example

PL – DUO – 25 – 0100 – SSG – SSS – VS – PS+

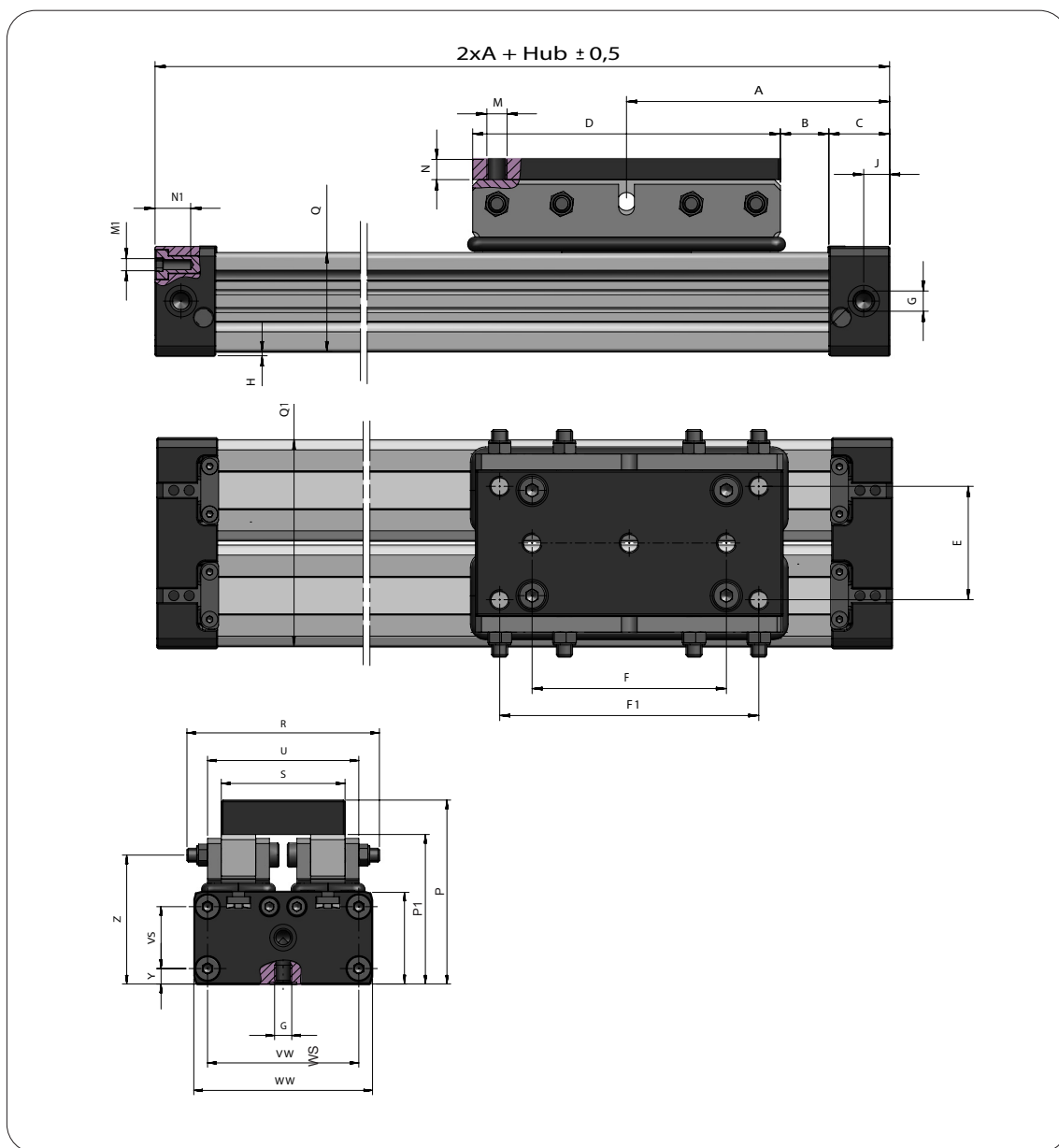


PL-DUO Price List

Bore Ø / Stroke	Ø16	Ø25	Ø32	Ø40	Ø50	Ø63
100 mm	£380.31	£458.12	£623.05	£1,012.68	£1,796.31	£2,289.29
200 mm	£413.79	£499.19	£674.72	£1,078.43	£1,878.09	£2,399.57
300 mm	£447.27	£540.26	£726.39	£1,144.17	£1,959.87	£2,509.85
400 mm	£480.75	£581.32	£778.06	£1,209.91	£2,041.65	£2,620.13
500 mm	£514.24	£622.39	£829.74	£1,275.66	£2,123.43	£2,730.41
600 mm	£547.72	£663.46	£881.41	£1,341.40	£2,205.20	£2,840.69
700 mm	£581.20	£704.53	£933.08	£1,407.14	£2,286.98	£2,950.97
800 mm	£614.68	£745.59	£984.76	£1,472.88	£2,368.76	£3,061.24
900 mm	£648.17	£786.66	£1,036.43	£1,538.63	£2,450.54	£3,171.52
1000 mm	£681.65	£827.73	£1,088.10	£1,604.37	£2,532.31	£3,281.80
1100 mm	£715.13	£868.80	£1,139.78	£1,670.11	£2,614.09	£3,392.08
1200 mm	£748.61	£909.86	£1,191.45	£1,735.86	£2,695.87	£3,502.36
1300 mm	£782.10	£950.93	£1,243.12	£1,801.60	£2,777.65	£3,612.64
1400 mm	£815.58	£992.00	£1,294.80	£1,867.34	£2,859.43	£3,722.92
1500 mm	£849.06	£1,033.07	£1,346.47	£1,933.08	£2,941.20	£3,833.20
1600 mm	£882.54	£1,074.13	£1,398.14	£1,998.83	£3,022.98	£3,943.48
1700 mm	£916.03	£1,115.20	£1,449.82	£2,064.57	£3,104.76	£4,053.76
1800 mm	£949.51	£1,156.27	£1,501.49	£2,130.31	£3,186.54	£4,164.04
1900 mm	£982.99	£1,197.34	£1,553.16	£2,196.06	£3,268.31	£4,274.32
2000 mm	£1,016.47	£1,238.40	£1,604.84	£2,261.80	£3,350.09	£4,384.60
Additional 100mm	£31.99	£31.99	£35.71	£65.74	£77.07	£104.48
Passive Brake Unit (Air Off = Brake On)	Enquire with Matarauk - Available On 25ø - 63ø					
Additional Pair Of Pistons	£218.03	£240.28	£284.77	£329.27	£396.01	£462.76
End Supports (Pair)	26-1	26-2	26-3	26-4	26-5	26-6
	£56.29	£61.98	£69.25	£107.68	£144.39	£190.89
Mid Section Support	262-1	262-2	262-3	262-4	262-5	262-6
	£47.67	£67.08	£76.81	£84.87	£89.33	£105.23
Adjustable Clamp Support (Preferred Stock)	25-1-1	25-2-1	25-3-1			
	£58.61	£68.97	£73.57			
	£14.59	£17.66	£20.16	£22.94	£24.92	£28.19
Stainless Screws (SS)	£18.00	£25.36	£27.59	£29.81	£32.04	£33.15
Viton Seals (VS)	£69.99	£101.65	£109.53	£151.29	£197.96	£229.15
Reed Switches	RCAL-3M (EQD)		RCI-3M (EQD)			
	£16.93		£16.93			
Inductive Switches (PNP or NPN)	RNA/RPA (EQD)		RNI/RPI-3M (EQD)			
	£26.10		£26.64			
M83RPVC-5M (QR Lead)	£17.63					
Switch Clamp (Use With RCAL / NA / PA)	HPL	HPL				
	£4.22	£4.22				
Switch Clamp (Use With RCI / RNI / RPI) 25ø Only		DC1				
		£4.31				



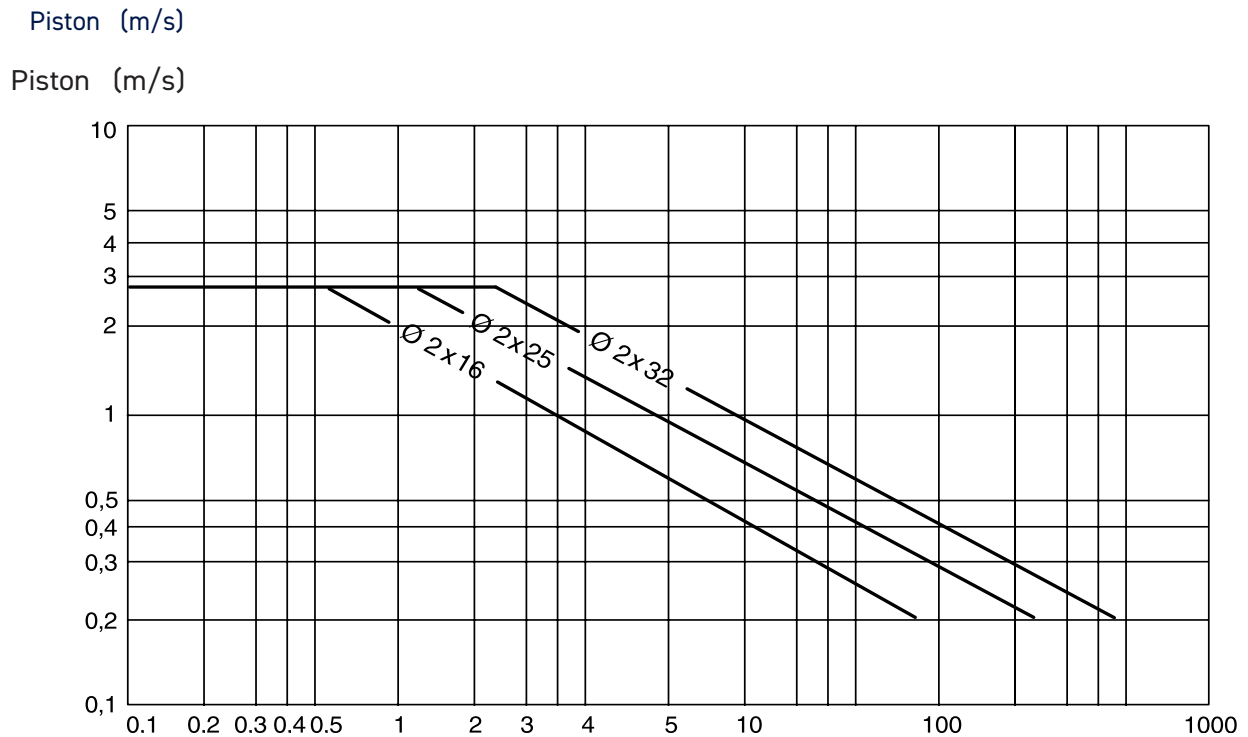
PL-DUO Dimensions



ø	A	B	C	D	E	F	F1	G	H	J	M	N	M1	N1
2x16	65	12	15	76	—	—	48	M5	1.5	5.5	M5	10.0	M3	7
2x25	100	17	23	120	32.4	80	100	1/8	2	8.5	M6	15.0	M5	10
2x32	125	23	27	150	40.4	90	120	1/4	2	10.5	M8	12.0	M6	14
2x40	162.5	44	42.5	152	72	70	110	1/4	7	27.5	M5	12.5	M5	12.5
2x50	187.5	42	45.5	200	80	76	156	1/4	0.5	24.2	M8	12.5	M8	12.5
2x63	228	47	62.7	233	155	155	205	3/8	1.5	37.5	M8	12.5	M8	12.5

ø	P	P1	Q x Q1	R	S	U	VW	VS	WW	WS	Y	Z
2x16	53.5	42.3	24x48	56	34	42	42	18	51	27	4.5	37.5
2x25	74.0	58.5	36x72	74	50	59	63	27	72	41	7.0	53.5
2x32	94.0	82	52x96	90	70	75	84	40	98	56	8.0	74.0
2x40	92.5	80	58x58	-	108.4	-	126	54	144	69	9	-
2x50	102	89	77x78	-	136	-	128	70	160	80	15.6	-
2x63	136	89	102x102	-	160	-	155	78	212	106	14	-

PL-DUO Cushioning Diagram



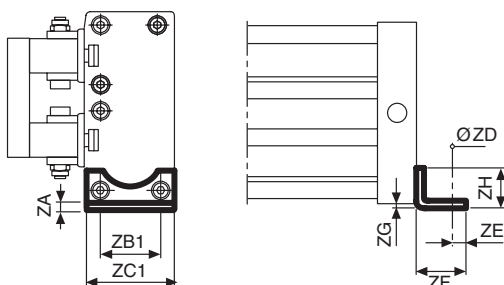
Pay attention to the following points:

- If the limits above are exceeded additional shock absorbers are necessary.
- For piston speeds of more than ≥ 1 m/s viton seals are recommended.
- For piston speeds $\leq 0,1$ m/s (NBR), $\leq 0,2$ m/s (VITON) slow speed lubrication is necessary see at sperpart kids
- Maximum duration life will be achieved when piston speeds do not exceed 1m/s.

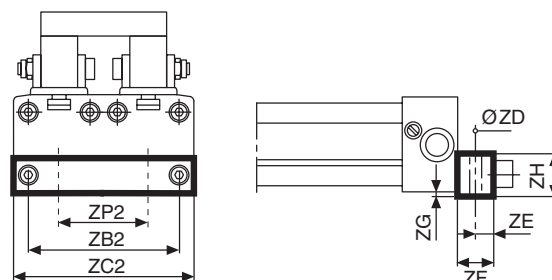
PL-DUO Mountings

End cover bracket (foot)

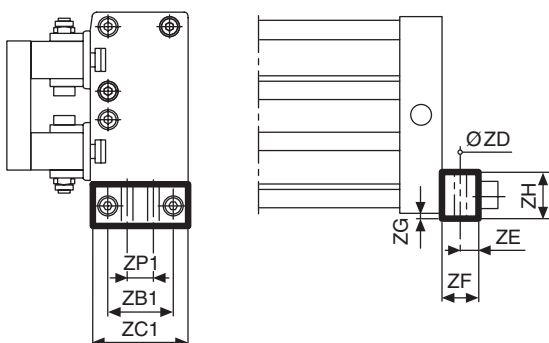
24/1.0 - 2.0



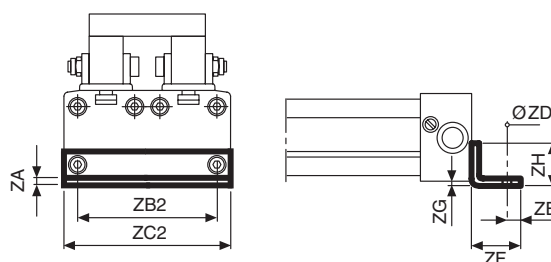
24/1.2 - 2.2



24/3.1

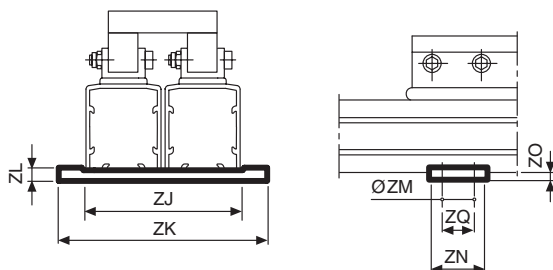


24/3.2



Mid section support

25/1.2 - 3.2



ø	ZA	ZB1	ZB2	ZC1	ZC2	ZD	ZE	ZF	ZG	ZH	ZJ	ZK	ZL	ZM	ZN	ZO	ZP1	ZP2	ZQ
2x16	1.6	18	42	26	51	3.6	4.0	14	1.5	12.5	56	64	6	Ø3.5	12	4	-	-	6.0
2x25	2.5	27	63	40	72	5.6	6.0	22	2.0	18.0	84.5	96	6	Ø5.5	20	4	-	-	10.5
2x32	-	40	84	56	97	6.6	8.0	26	4.0	20.0	109.0	121	10	Ø6.5	55	6	20	62.4	40