

Pneumatic cylinder

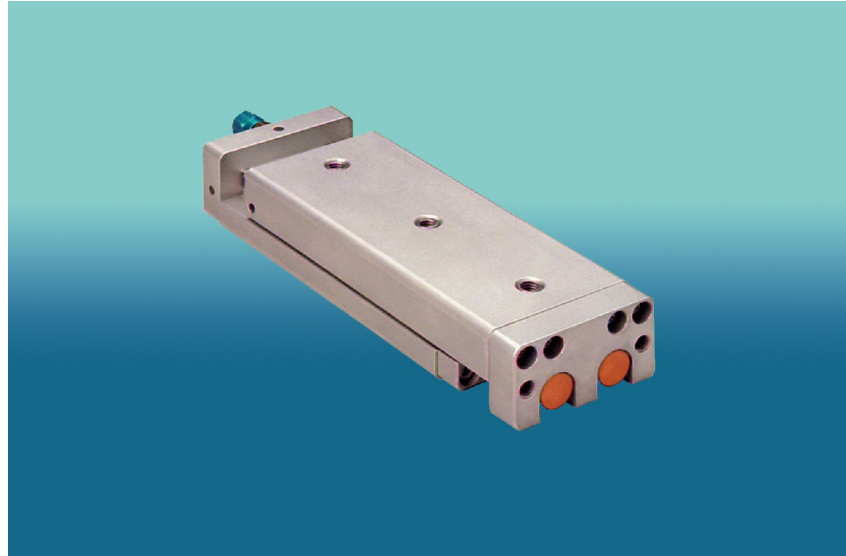
Type B, Twin

double-acting

Linear Ball Slide

Ø 8

(twin piston)



The advantage of this pneumatic cylinder is its small design height and its powerful double piston drive.

Technical data:

Type	8 - B, Twin
Design type	Pneumatic cylinder with linear ball guide
Stroke length [mm]	10, 25, 50, 80, 100
Fitting position	any (provided that extended position can always be attained)
Adm. temperature range [°C]	-10 to +70
Medium	Filtered, oiled or non-oiled compressed-air (min. fineness 40 µm)
Compressed-air supply	Front
Compressed-air [bar]	min. 2 ... max. 6
Materials	Base body, upper part, mounting plate, cover, piston plate: Al Guides: 100 Cr 6, piston rod: Ck 45 SL f7 Piston: Ms 58 Seals: NBR, cylinder barrel: Ms 63

Weights: (gramme)

Piston - Ø [mm]	Piston stroke [mm]				
	10	25	50	80	100
2 x 8	225	270	395	450	550

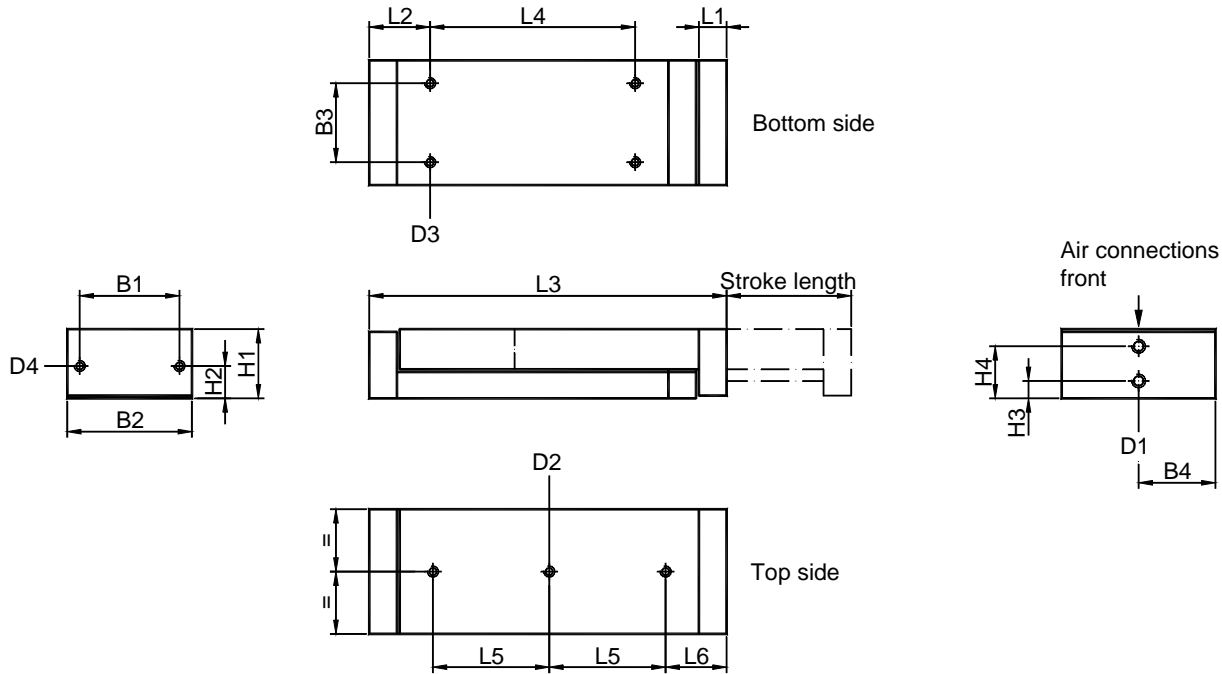
equivalent piston: Ø 12

Delivery time on request

Pneumatic cylinder



Type B, Twin



Dimensions

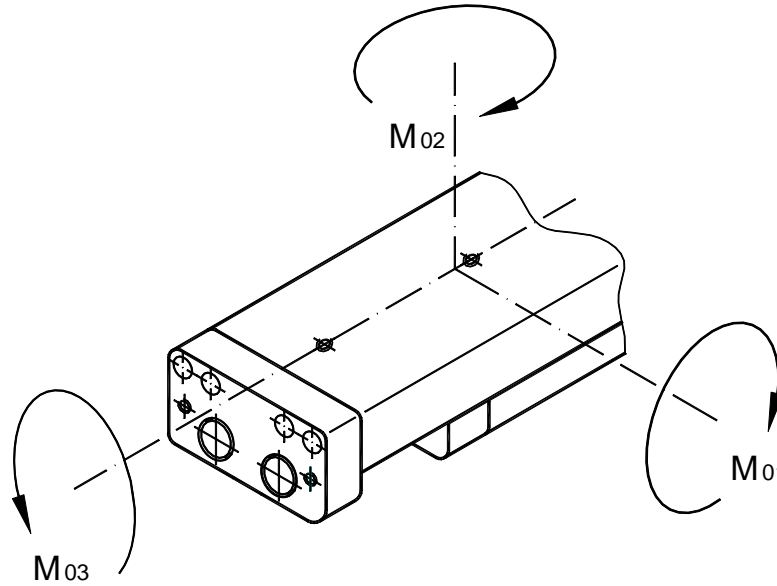
Piston \varnothing [mm]	Piston rod \varnothing [mm]	B1 [mm]	B2 [mm]	B3 [mm]	B4 [mm]	D1	D2/depth [mm]	D3/depth [mm]	D4/depth [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
8 (2x)	4 (2x)	36	45	37	22,5	M5	M4/6,0	M4/8,0	M4/9,5	25	11,7	6,3	16,8

Piston - \varnothing [mm]		Stroke length [mm]				
		10	25	50	80	100
8	L1	10	10	10	10	10
	L2	22	22	22	22	22
	L3	74	89	129	169	192
	L4	21	36	76	116	2 x 69,5
	L5	29	44	2 x 42	2 x 62	3 x 49
	L6	22	22	22	22	22

Pneumatic cylinder

Admissible stress

Type B, Twin



Longitudinal torque	Lateral torque	Transverse torque
$F_{01} \leq \frac{M_{01} \text{ zul.}}{L_1 + A}$	$F_{02} \leq \frac{M_{02} \text{ zul.}}{L_2 + A}$	$F_{03} \leq \frac{M_{03} \text{ zul.}}{L_3 + B}$
$F_{01} \leq \frac{M_{01} \text{ zul.}}{L_1 + C}$	$F_{02} \leq \frac{M_{02} \text{ zul.}}{L_2 + B}$	$F_{03} \leq \frac{M_{03} \text{ zul.}}{L_3 + C}$

Pneumatic cylinder

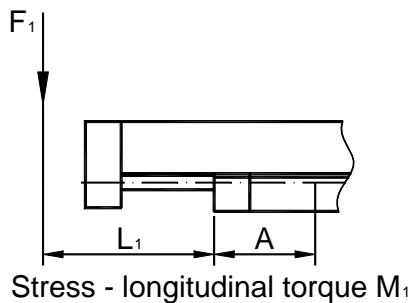
Admissible stress

Stroke length [mm]	10		25		50		80		100	
∅ / Type	M1/M2 Nm	M3 Nm	M1/M2 Nm	M3 Nm	M1/M2 Nm	M3 Nm	M1/M2 Nm	M3 Nm	M1/M2 Nm	M3 Nm
8 - B, Twin	1,28	1,42	1,55	1,42	2,08	2,13	2,63	2,55	3,37	3,26

Correction factors:

∅ / Type	Stroke length	A	B	C
	[mm]	[mm]	[mm]	[mm]
8 - B, Twin	10	34,5	22,25	11,4
	25	42,0		
	50	60,8		
	80	80,0		
	100	96,3		

Example of calculation:



Given qty: 8 - B, Twin with a stroke length of 80 mm
 Lever arm $L_1 = 50 \text{ mm} = 0,05 \text{ m}$
 Longitudinal torque $M_1 = 2,63 \text{ Nm}$
 Correction factor $A = 80 \text{ mm} = 0,08 \text{ m}$

$$\text{Required qty: } F_1 \leq \frac{M_1}{L_1 + A} = \frac{2,63 \text{ Nm}}{0,05 \text{ m} + 0,08 \text{ m}} = 20,2 \text{ N}$$