

# Lifting units pneumatic

with round guides



**Material:**

Housing high-strength aluminium.  
Stop system steel.

**Version:**

Housing anodised.  
Stop system hardened and black oxidised.

**Sample order:**

nIm 20056-9050

**Note:**

Robust maintenance-free pneumatic lifting units with sealed ball guide. Control by 4/2 or 5/2 directional valve. Pneumatic drive, 4-8 bar, constant, filtered (10 µm), dried, oiled or unoled. Compressed air connection R1/8. Modules of the same size can be combined with one another without adapter plates via the precise centring system by means of centring rings 20240.

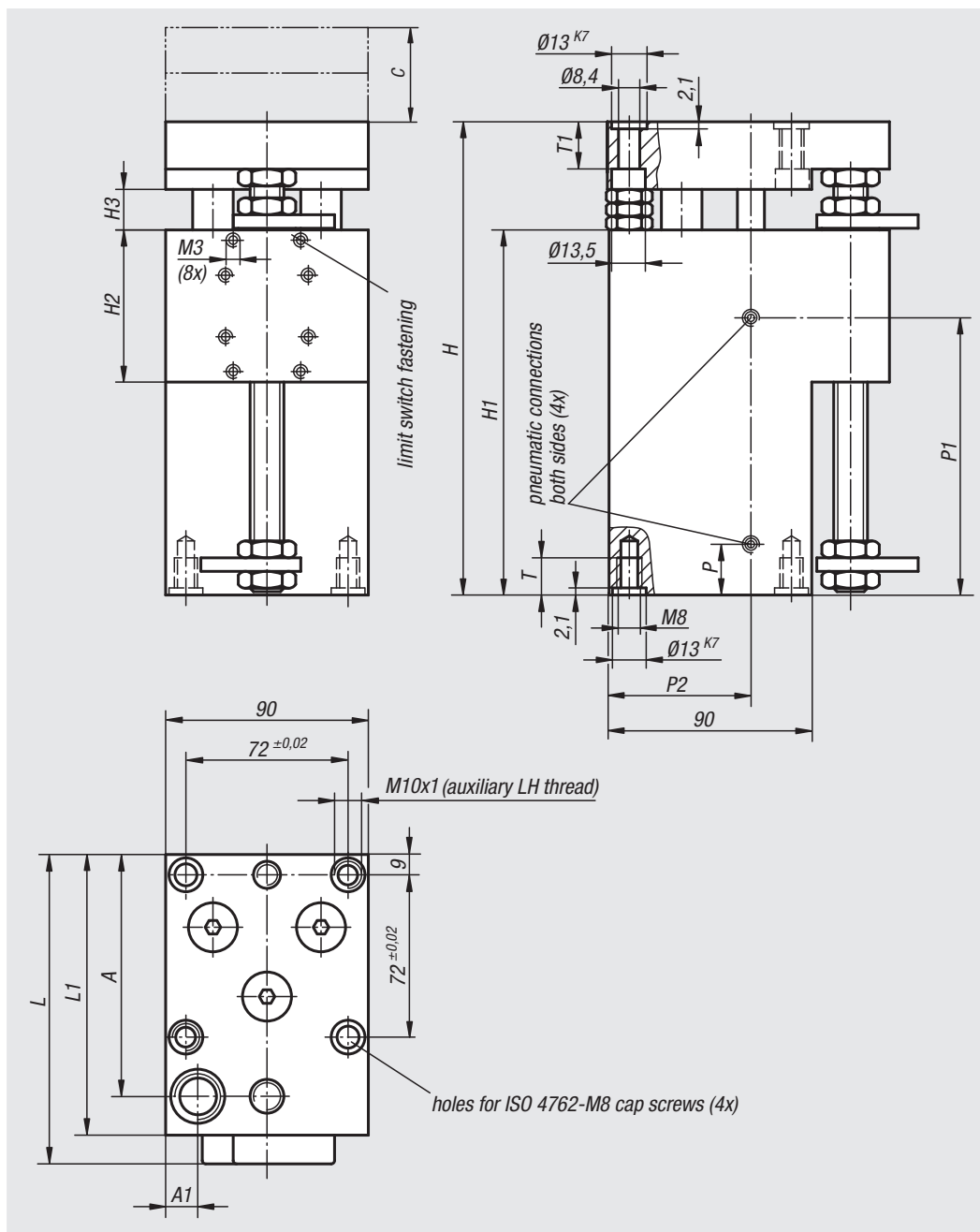
Repeat accuracy ±0.02 mm.

**On request:**

Lifting units with shorter strokes available.

**Accessories:**

See table for shock absorber, proximity switch and plug connector.



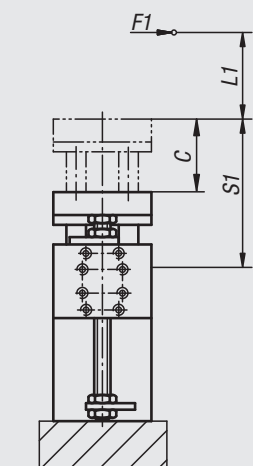
Order No.	Size	C (travel)	A	A1	H	H1	H2	H3	L	L1	P	P1	P2	T	T1
20056-9050	9	50	101,5	24,5	150	108	45	12	121	113	15,5	83	68	16	13
20056-9075	9	75	101,5	24,5	175	133	45	12	121	113	15,5	108	68	16	13
20056-9100	9	100	101,5	24,5	200	158	45	12	121	113	15,5	133	68	16	13

Order No.	Size	Piston force at 6 bar (N)	Retraction force at 6 bars (N)	Cylinder Ø	Air consumption per cycle at 6 bar (ccm)	Suitable shock absorber	Suitable proximity switch	Suitable plug connector
20056-9050	9	360	325	32	56	26310-1410012	83000-05-010	80150-010X2000
20056-9075	9	360	325	32	84	26310-1410012	83000-05-010	80150-010X2000
20056-9100	9	360	325	32	112	26310-1410012	83000-05-010	80150-010X2000

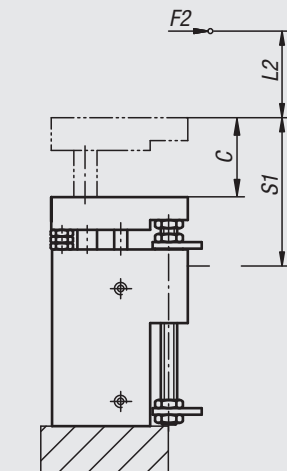
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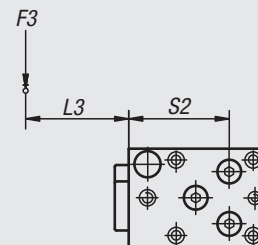
## Load data



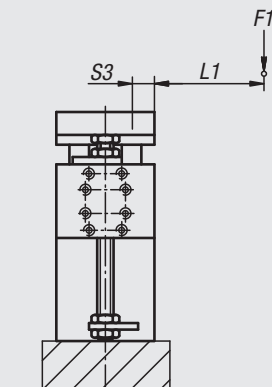
$$M1 = (S1 + L1) \times F1$$



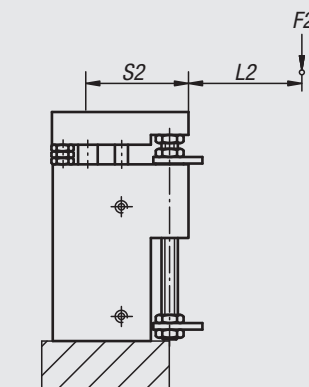
$$M2 = (S1 + L2) \times F2$$



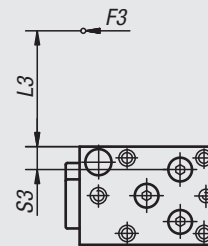
$$M3 = (S2 + L3) \times F3$$



$$M1 = (S3 + L1) \times F1$$



$$M2 = (S2 + L2) \times F2$$



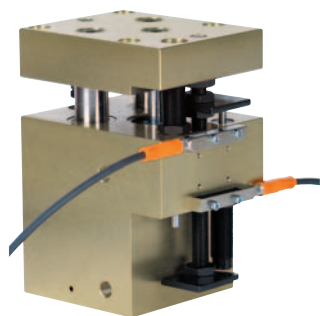
$$M3 = (S3 + L3) \times F3$$

$$\frac{M1_{eff}}{M1_{zul}} + \frac{M2_{eff}}{M2_{zul}} + \frac{M3_{eff}}{M3_{zul}} \leq 1$$

Calculating the lifespan:

$$L = \left( \frac{M_{zul}}{M_{eff}} \right)^3 \times 10^5$$

L = lifespan (m)  
 M<sub>zul</sub> = permissible torque (Nm)  
 M<sub>eff</sub> = calculated torque (Nm)



Order No.	Size	M1 Nm	M2 Nm	M3 Nm	S1	S2	S3
20056-9050	9	43	43	72	57 + C/2 (travel)	73	20
20056-9075	9	43	43	72	57 + C/2 (travel)	73	20
20056-9100	9	43	43	72	57 + C/2 (travel)	73	20