

Linear Modules

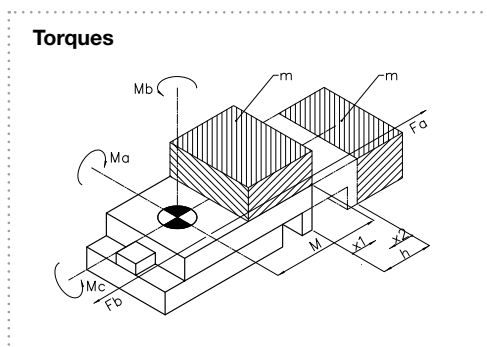
Tecnical Data – Summary 8 F-Series

		Pneumatic			
		LM 8 F			
		F-60	F-120	F-240	F-360
Stroke lengths [mm]: h	0-30				
	0-60	●			
	0-90				
	0-120		●		
	0-180				
	0-240			●	
	0-270				
	0-360				●
Theor. force Fa/Fb [N]: (pneumatic design at 5 bar)	50/38				
	113/85				
	201/173				
	110/110				
	394/346	●	●	●	●
Max. permissible mass [kg]:	0,8				
	2,5				
	5				
	8	●	●	●	●
Cylinder diameter [mm]:	2xØ8				
	2xØ12				
	2xØ16				
	1xØ32	●	●	●	●
Air consumption per cycle at 5 bar and nominal stroke [NI]:		0,28	0,55	1,10	1,65
Weight [kg]:		5,0	5,40	7,50	9,70
Point of application of force for all torques [mm]:	M	138,0	138,0	138,0	138,0
Max. static Torques [Nm]:	Ma	386,4	386,4	386,4	386,4
	Mb	783,8	783,8	783,8	783,8
	Mc	336,0	336,0	336,0	336,0
Front stop range of adjustment [mm]:	x2	0-60	0-120	0-240	0-360
Rear stop range of adjustment mm]:	x1	0-60	0-120	0-120	0-120
Repeat accuracy [mm]:		±0,01	±0,01	±0,01	±0,01

This applies to calculations:

* $M_a/M_{a \max} + M_b/M_{b \max} + M_c/M_{c \max} < 1$

* For stresses during the drive of the carriage $M_{\max} = 20\% M_{\max \text{ static}}$

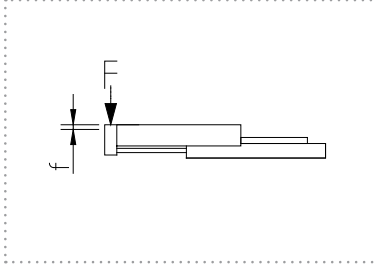


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Load Diagrams

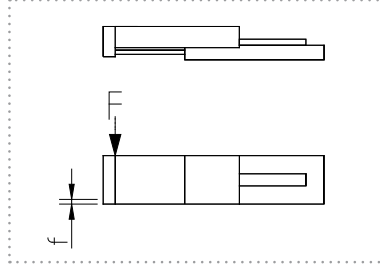
Axial Load

The graph shows the deflection f of the slide under the effect of the force F .



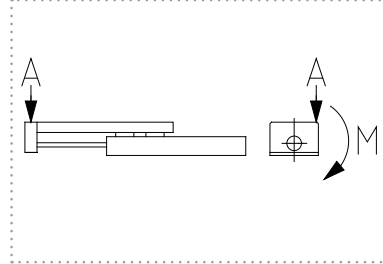
Transverse Load

The graph shows the deflection f of the slide under the effect of the force F .

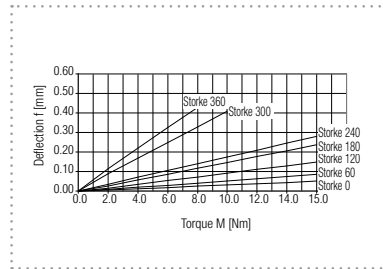
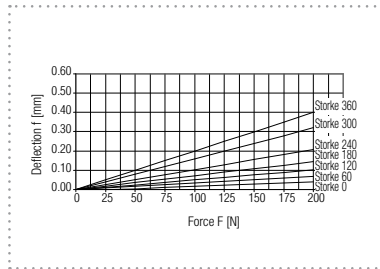
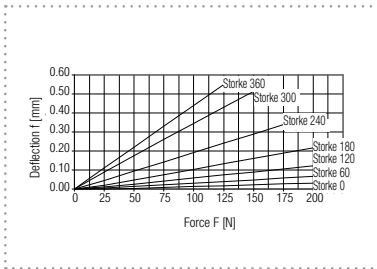


Lateral Load

The graph shows the deflection f of the slide at point A under the effect of the torque.



LM 8 F / LM 8 F-ZA



Linear Modules

LM 8 F – Pneumatics Linearmodul

LM 8F



Technical data, stroke-independent

Cylinder diameter		Ø32 mm
Theor. force (at 5 bar)	Fa	394 N
	Fb	346 N
max. Geschwindigkeit		0,7 m/s
Pneumatic connections		G 1/8"
Medium		Compressed-air filtered, oiled or non-oiled
Operating pressure range		3 to 7 bar
Temperature range		0 to +60 °C
Repeat accuracy		+/-0.01 mm
Max. permissible mass		8 kg

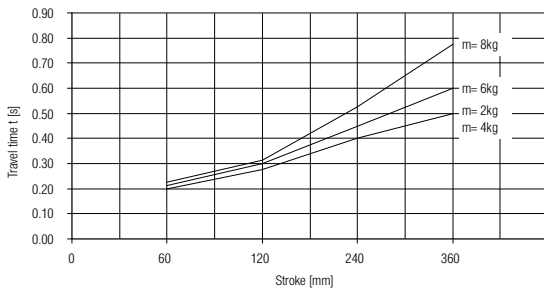
Technical data, stroke-dependent

See page 52

Permissible travel time t relative to the stroke length and the additional mass m

The travel time t determined from the diagram may not be undershot.

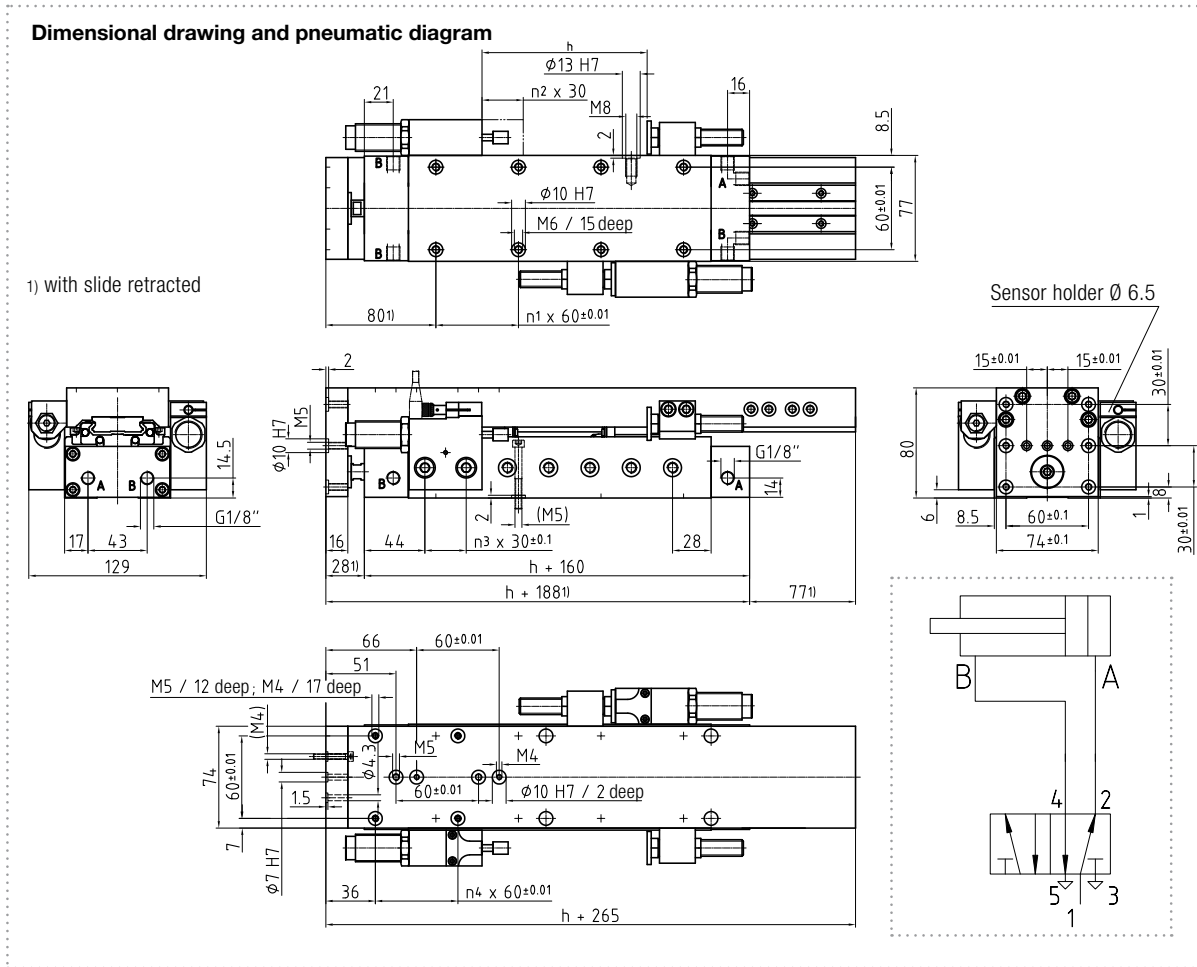
Recommendation: When selecting the module, the travel time t should be assumed as being 20% more.



Permissible travel time t = travel time without valve switching time, at nominal pressure 6 bar.

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LM 8 F – Pneumatics Linearmodul



Designation	h	n ₁	n ₂	n ₃	n ₄
LM 8 F-60	60	2	1	3	1
LM 8 F-120	120	3	3	6	1
LM 8 F-240	240	5	7	10	2
LM 8 F-360	360	7	11	14	4

Designation	Order number	Options
LM 8 F-60	300 5259	Intermediate stop see page 82
LM 8 F-120	300 5229	
LM 8 F-240	300 5230	
LM 8 F-360	300 5231	

Incl. hydraulic shock absorber and
4 Centering rings \varnothing 10

Accessories

Centering ring \varnothing 10	300 1522
Limit switch \varnothing 6,5	300 1845
Centering coupling ZK 5/6	300 2478
Shock absorber	300 9320

See chapter Accessories