

Project Planning Sheet

Linear modules



Editor:		Date:	
Company:		Contact person:	
Street:		Phone:	
Town:		Telefax:	
Web:		E-Mail:	
Quantity:		Time schedule:	
Project:		Project no.:	

Application (which industry, machine, application etc.?)

Sketch (Mounting situation, installation space limitation, etc.)

Installation position and system data

<p>Position of the axis in space:</p> <p>Angle A = <input style="width: 50px;" type="text"/> (°)</p>	<p>Position of the axis in space:</p> <p>Angle B = <input style="width: 50px;" type="text"/> (°)</p>	<p>Payload / moving mass:</p> <p>m = <input style="width: 100px;" type="text"/> (kg)</p> <p>Connection of the mass to the carriage:</p> <p>xm = <input style="width: 100px;" type="text"/> (mm)</p> <p>ym = <input style="width: 100px;" type="text"/> (mm)</p> <p>zm = <input style="width: 100px;" type="text"/> (mm)</p> <p>Additional external forces F:</p> <p>Fx = <input style="width: 100px;" type="text"/> (N)</p> <p>Fy = <input style="width: 100px;" type="text"/> (N)</p> <p>Fz = <input style="width: 100px;" type="text"/> (N)</p> <p>Force transmission point:</p> <p>xF = <input style="width: 100px;" type="text"/> (mm)</p> <p>yF = <input style="width: 100px;" type="text"/> (mm)</p> <p>zF = <input style="width: 100px;" type="text"/> (mm)</p>
Preferred drive	<input type="checkbox"/> Spindle <input type="checkbox"/> Toothed belt <input type="checkbox"/> Linear motor	
Travel / stroke including reserve	(mm)	
Max. Overall length	(mm)	
Velocity	(m/s)	
Acceleration	(m/s ²)	
Repeatability	(mm)	
Positioning accuracy	(mm)	
Ambient conditions	<p>Ambient temperature: <input style="width: 50px;" type="text"/> (°C)</p> <p>Air moisture: <input style="width: 50px;" type="text"/> (%)</p> <p>Chips/Dust/Oil/Dirt: <input style="width: 100%; height: 20px;" type="text"/></p> <p>Clean room class: <input style="width: 50px;" type="text"/></p>	
Noise development deciding	<input type="checkbox"/> yes <input style="width: 50px;" type="text"/> (dB) <input type="checkbox"/> no	

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Cycle description (travel distance, time, speed, acceleration and non-productive times (break, gripping times, etc.))							
Path No.	Travel distance (mm)	Positioning time (s)	v max. (m/s)	a max. (m/s ²)	Break (s)	Process force (N)	Description of the operation or non-productive times
1							
2							
3							
4							
5							
6							

Operating times				Required lifetime	
Cycles/hour (c/h) =	<input type="text"/>	1-shift-operating	<input type="checkbox"/>	in Cycles (z)	Lz = <input type="text"/>
Working days/year(d/y) =	<input type="text"/>	2-shift-operating	<input type="checkbox"/>	in Kilometers	Lu = <input type="text"/>
		3-shift-operating	<input type="checkbox"/>	in Years (y)	Ly = <input type="text"/>

Options linear module	
Cover	<input type="checkbox"/> without <input type="checkbox"/> Sheet metal cover <input type="checkbox"/> Bellows cover
Limit switch	<input type="checkbox"/> without <input type="checkbox"/> 2 Piece Opener with plug <input type="checkbox"/> 2 Piece Opener with open cable end <input type="checkbox"/> 2 Piece Normally open with plug <input type="checkbox"/> 2 Piece Normally open with open cable end
Reference switch	<input type="checkbox"/> without <input type="checkbox"/> Opener with plug <input type="checkbox"/> Opener with open cable end <input type="checkbox"/> Normally open with plug <input type="checkbox"/> Normally open with open cable end
Several Carriage	<input type="checkbox"/> no <input type="checkbox"/> yes Quantity: <input type="text"/> Distance: <input type="text"/> mm <div style="text-align: center;"> </div>

Options motor and gear box			
Motor	<input type="checkbox"/> without <input type="checkbox"/> AC servo motor <input type="checkbox"/> Stepper motor		
Preferred motor		Manufacturer	<input type="text"/>
Gear box	<input type="checkbox"/> without <input type="checkbox"/> Gear box straight <input type="checkbox"/> Angular gear box	Ratio:	<input type="text"/>
Preferred gear box		Manufacturer	<input type="text"/>

Options drive amplifier				
Drive amplifier	<input type="checkbox"/> without <input type="checkbox"/> with			
Preferred drive amplifier		Manufacturer		
Bus interface	<input type="checkbox"/> CAN <input type="checkbox"/> EtherCAT <input type="checkbox"/> PROFINET <input type="checkbox"/> PROFIBUS <input type="checkbox"/> Ethernet/IP <input type="checkbox"/> SERCOS			
Other bus interface				
Supply voltage	<input type="checkbox"/> 1x230 VAC <input type="checkbox"/> 3x230 VAC <input type="checkbox"/> 3x400 VAC other: <input style="width: 80px;" type="text"/>			
Options position measuring system				
Position measuring system	<input type="checkbox"/> without <input type="checkbox"/> analog <input type="checkbox"/> digital			
Distance measurement	<input type="checkbox"/> incremental <input type="checkbox"/> absolute			
Interface	incremental <input type="checkbox"/> 1Vpp <input type="checkbox"/> TTL	absolute <input type="checkbox"/> BiSS C <input type="checkbox"/> EnDat 2.1 <input type="checkbox"/> EnDat 2.2 <input type="checkbox"/> SSI <input type="checkbox"/> Hyperface		
Preferred Position measuring system		Manufacturer		
Options cable and cable management				
Cables	<input type="checkbox"/> without <input type="checkbox"/> Motor cable Length: <input style="width: 60px;" type="text"/> mm <input type="checkbox"/> Feedback cable Length: <input style="width: 60px;" type="text"/> mm <input type="checkbox"/> Limit switch cable Length: <input style="width: 60px;" type="text"/> mm			
Cable chain	<input type="checkbox"/> without <input type="checkbox"/> with			
Additional cables in the cable chain	Piece	Description	Diameter (mm)	Bending radius (mm)
Remarks				