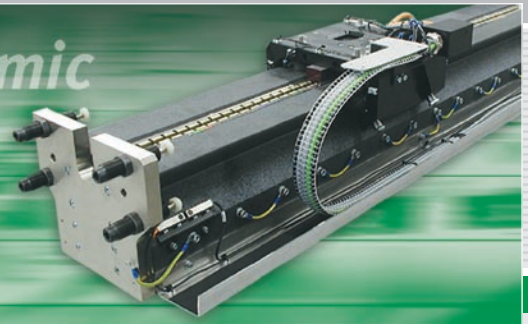


- *Highly dynamic*
- *Air-bearing*
- *Precise*



- **LDDS**
Linear Direct Drive System
- **LDDS-051**

LDDS-051

Features, benefits, applications, drawing

Features

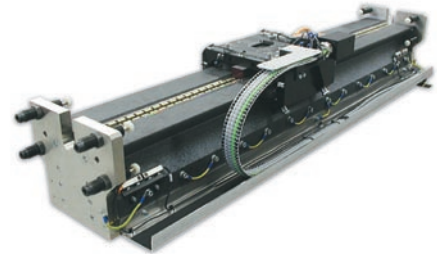
- Air-bearing precision axis
- Highly dynamic
- Ironless linear motor, type: ULIM
- Mass optimised
- Compact design
- Wear-free
- Optical incremental measurement system

Benefits

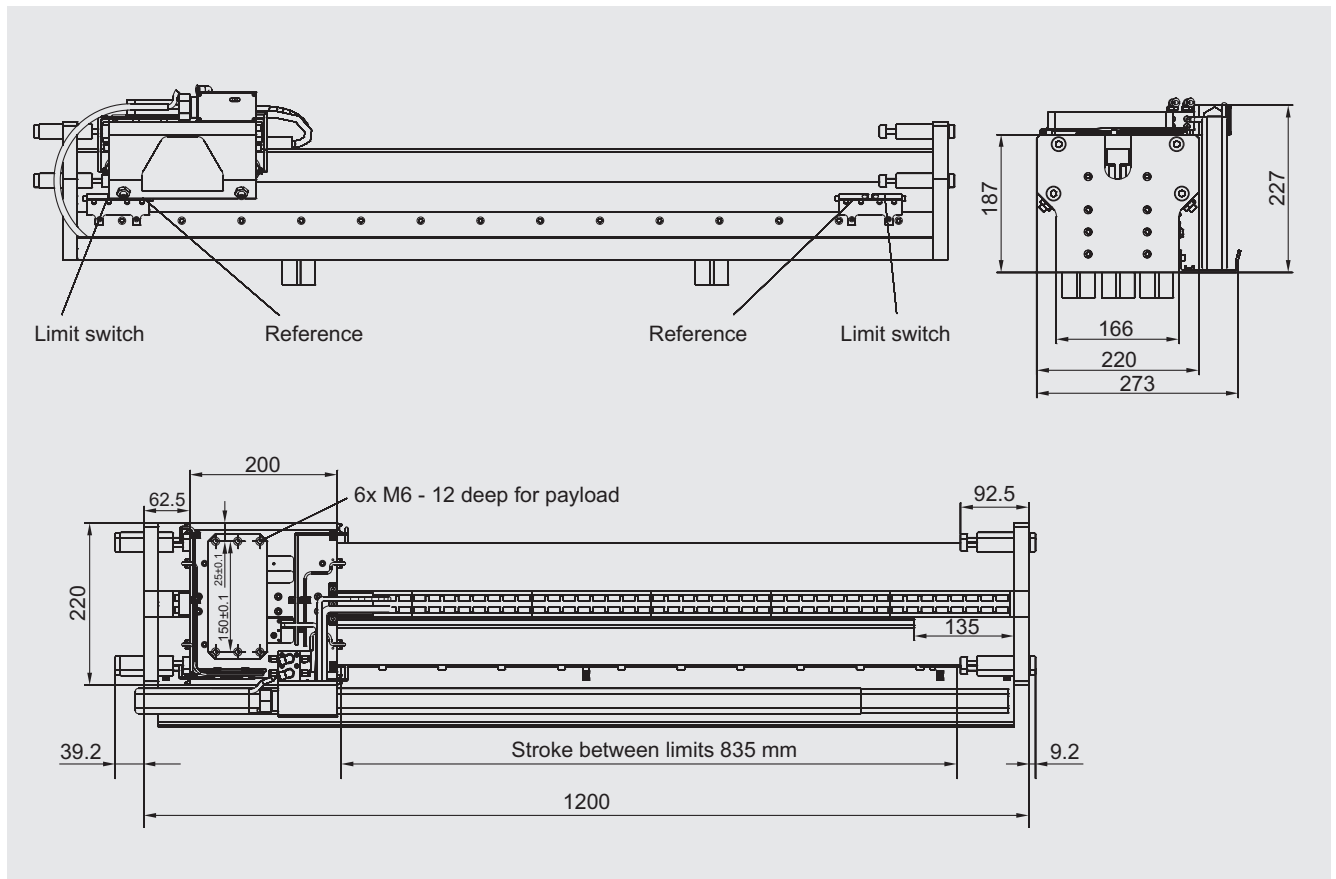
- High positioning accuracy
- No friction by using the combination ULIM/air bearing
- Excellent control response
- Very good synchronisation
- Excellent force-mass ratio
- High acceleration up to 93 m/s^2 (without payload)

Applications

- Productronics
- Semiconductor production
- Electronics assembly
- Measuring and inspection systems
- Precision automation
- Precision laser processing



Drawing



LDDS-051

Dimensions, masses, performance data, components

Dimensions/masses	Symbol	Unit	LDDS-051
Dimensions	L x W x H	mm	1200 x 273 x 227
Total mass	m_{total}	kg	106
Moving mass	m	kg	5.9
Maximum payload	m	kg	3
Usable stroke	s	mm	835
Performance data	Symbol	Unit	LDDS-051
Motor type: ULIM7-3P-243-HD1			
Peak force (saturation range) at I_p	F_p	N	975
Nominal force (not cooled) at I_c	F_c	N	239
Nominal force (cooled) at I_{cw}	F_{cw}	N	338
Motor constant (25 °C)	k_m	N/ \sqrt{W}	24.1
Peak current (saturation range)	I_p	A_{rms}	11.4
Nominal current (not cooled)	I_c	A_{rms}	2.8
Nominal current (cooled)	I_{cw}	A_{rms}	3.9
DC link voltage	U_{DCL}	V	600
Maximum acceleration (without payload)	a_{max}	m/s^2	93
Maximum speed	v_{max}	m/s	6
Positioning accuracy		$\mu m/mm$	$\pm 5 / 835$
Components	Symbol	Unit	LDDS-051
Guidance system			Air bearing
Measuring system			Optical incremental 1 V_{pp} sin/cos, grating period 20 μm



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