

Small.  
Dynamic.  
Powerful.



- **Linear Direct Drive System**  
LDDS-078-B

# LDDS-078-B

## Features, benefits, applications, drawing

### Features

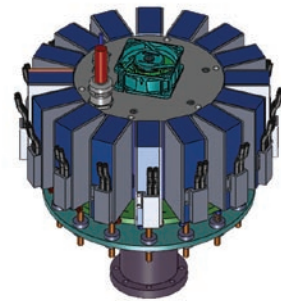
- Compact short stroke actuator
- High force density
- Up to 300 m/s<sup>2</sup> acceleration at only 5.5 W power loss
- Low moving mass
- Motor with small electrical time constant
- Integrated measuring system
- Weight compensation

### Benefits

- 2.8 billions cycles maintenance-free tested
- Low warming of the axis
- Low heat transfer to the machine
- High dynamics
- Fast build up of force in the axis
- Precise, controlled motion and positioning

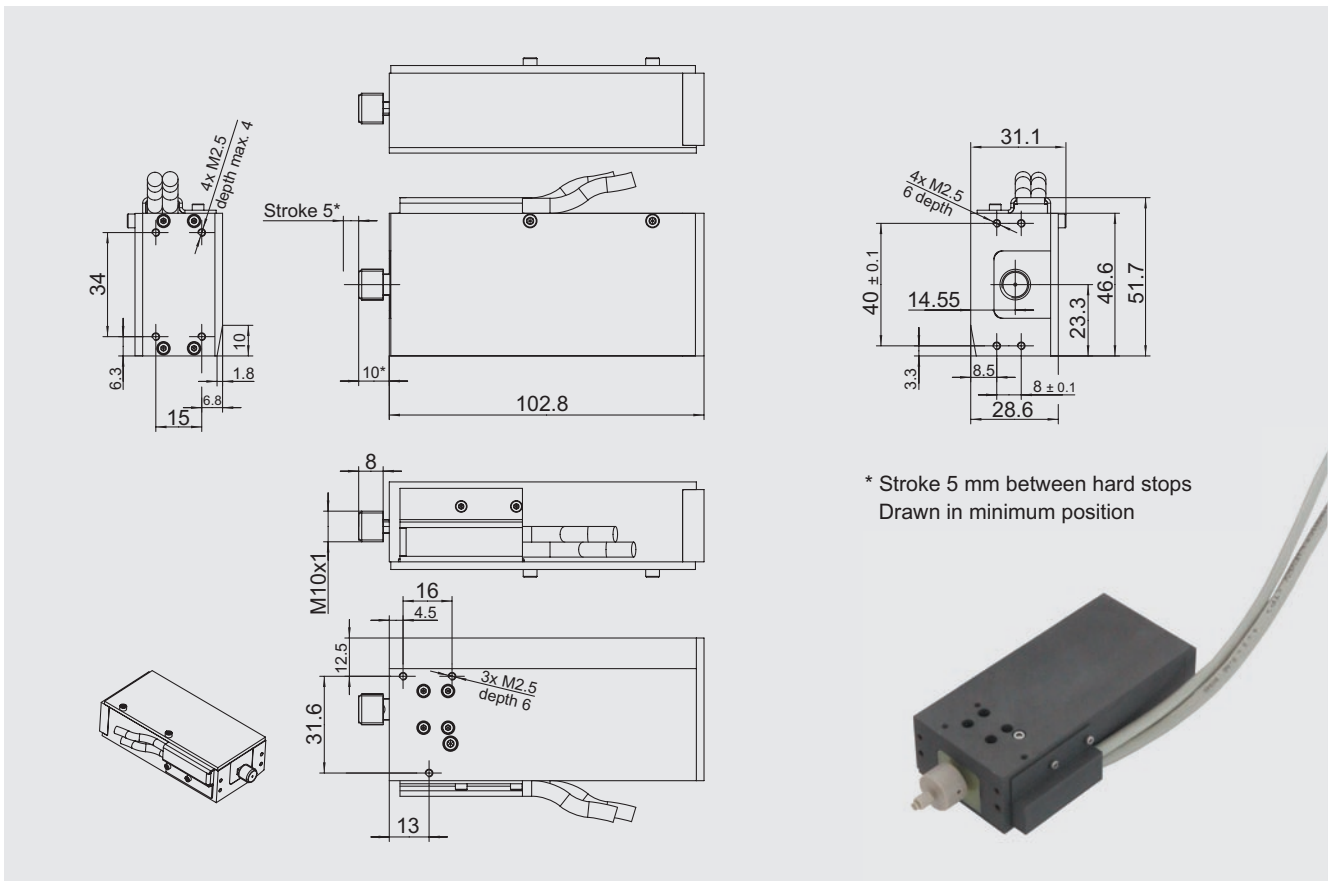
### Applications

- Test and sorting machines
- Indexer, e. g. in the electronics industry, medical engineering
- Productronics



### Drawing

Turret handler in the productronics consisting of RDDS-20 and LDDS-078



## LDDS-078-B

### System data, system components, motor data

System data	Symbol	Unit	LDDS-078-B
Dimensions	L x W x H	mm	53.7 x 31.1 x 102.8 (with cable outlet, screw heads)
Push pin	$L_{pin}$	mm	10
Total mass (without cables)	$m_{total}$	g	832
Moving net mass	m	g	77
Cable length	L	m	1
Stroke	s	mm	5
Maximum acceleration	$a_{max}$	$m/s^2$	300
Maximum speed	$v_{max}$	m/s	2
Accuracy		$\mu m$	$\pm 15$
Repeat accuracy		$\mu m$	$\pm 2$
Weight compensation (force)	$F_{WC}$	N	1.5
System components	Symbol	Unit	LDDS-078-B
Guidance system			Miniature ball monorail guidance system
Measuring system			Incremental measuring system with magnetic scanning
Motor data	Symbol	Unit	LDDS-078-B
<b>Motor type: voice coil motor</b>			
Impulse force (1 s) at $I_{mp}$	$F_{mp}$	N	65
Peak force (3 s) at $I_p$	$F_p$	N	48
Nominal force, not cooled at $I_c$	$F_c$	N	24
Nominal force, cooled at $I_{cw}$	$F_{cw}$	N	36
Motor constant (25 °C)	$k_m$	$N/\sqrt{W}$	10.3
Impulse current	$I_{mp}$	$A_{rms}$	8.0
Peak current	$I_p$	$A_{rms}$	6.0
Nominal current, not cooled	$I_c$	$A_{rms}$	3.0
Nominal current, cooled	$I_{cw}$	$A_{rms}$	4.5
DC link voltage	$U_{DCL}$	V	48



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