



- **Linear Direct Drive System**
LDDDS-032-C

LDDS-032-C

Features, benefits, applications, drawing

Features

- Precision short stroke actuator
- Two slotted linear motors inside, type: L1B-3P-100x50
- 300 m/s² at high force density (385 N/dm³ at ultimate force)

Benefits

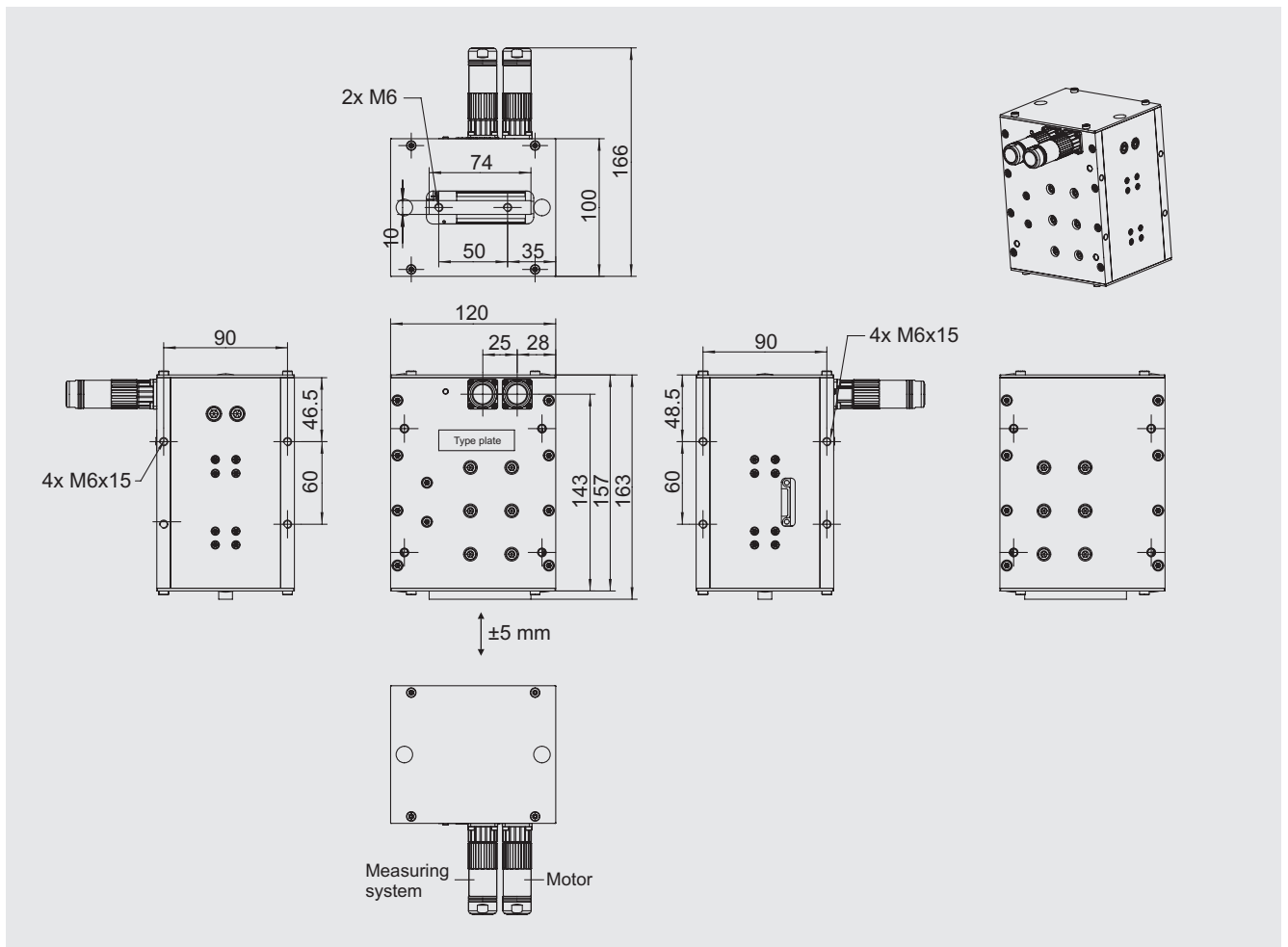
- Very long service life
- No attraction forces between primary and secondary parts of linear motors to relieve the linear guideways
- No moving cables

Applications

- Pick and place tasks
- Productronics
- For fast cycles



Drawing



LDDS-032-C

System data, system components, motor data

System data	Symbol	Unit	LDDS-032-C
Dimensions	L x W x H	mm	157 x 100 x 120
Total mass	m_{total}	kg	10.5
Moving net mass	m	kg	1.4
Maximum payload	m	kg	3.5
Maximum stroke			
· Stroke between limit switches	s	mm	±5.5
· Stroke between mechan. limit stops	s	mm	±8.4
Maximum acceleration	a_{max}	m/s ²	300
Maximum speed	v_{max}	m/s	1.1
Maximum acceleration (with payload)	a_{max}	m/s ²	80
Maximum speed (with payload)	v_{max}	m/s	0.6
Accuracy 3 sigma		µm	±5
System components	Symbol	Unit	LDDS-032-C
Guidance system			Miniature ball monorail guidance system
Measuring system			Incremental measuring system with optical scanning
Reference sensor			1 V _{pp} sin/cos, grating period 20 µm
Limit switch			NC MOS relay (max. 40 V _{DC} at 0.1 A)
			NC MOS relay (max. 40 V _{DC} at 0.1 A)
Motor data	Symbol	Unit	LDDS-032-C
Motor type: 2x L1B-3P-100x50			
Ultimate force at I _u	F _u	N	726
Peak force (saturation range) at I _p	F _p	N	640
Nominal force at I _c	F _c	N	222
Motor constant (25 °C)	k _m	N/√W	20.0
Ultimate current	I _u	A _{rms}	17.8
Peak current (saturation range)	I _p	A _{rms}	14.2
Nominal current	I _c	A _{rms}	3.8
DC link voltage	U _{DCL}	V	600



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