

## 4.132 Elevation Stage ES-100

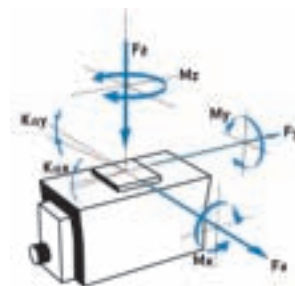
### FACTS

Load characteristics	$F_x(N)$	$F_y(N)$	$F_z(N)$	$M_x(Nm)$	$M_y(Nm)$	$M_z(Nm)$	$k^{\pm x}(\mu rad/Nm)$	$k^{\pm y}(\mu rad/Nm)$
DC-B-032	100	50	30	40	80	80	60	60
2Phase-044	100	50	55	40	80	80	60	60



### KEY FEATURES

- Travel range up to 26 mm (1")
- Uni-directional repeatability down to 0.05  $\mu m$
- Maximum speed 20 mm/sec
- Load capacity up to 5.5 kg
- Integrated mechanical / hall limit switches
- Option: linear scale (center mounted)



The ES-100 elevation stage matches the LS-110 and PRS-110 stage families. The elevation stage is driven by a precision ground re-circulating ball screw with a 1 mm pitch.

Newly developed cross-roller bearings guarantee a maximum rigidity and guiding quality. The ES-100 can be motorized with a DC or a 2-phase stepper motor and is equipped with two mechanical or hall limit switches. The travel ranges are 13 mm or 26 mm.

For demanding positioning tasks, the ES-100 elevation stages can be supplied with a cost-effective linear scale.

### TECHNICAL DATA

Travel range (mm)	13	26
Straightness / Flatness ( $\mu m$ )	$\pm 2$	$\pm 3$
Pitch ( $\mu rad$ )	$\pm 100$	$\pm 150$
Yaw ( $\mu m$ )	$\pm 100$	$\pm 150$
Weight (kg)	2.4	2.5

Motor (Pitch 1 mm)	DC-B-032	2Phase-044	
Linear scale			LS-050
Speed max. (mm/sec)	20	15	
Resolution calculated ( $\mu m$ )	0.5 (RE)	5 (FS)	0.05
Resolution typical ( $\mu m$ )	0.5	0.2	0.05
Bi-directional Repeatability ( $\mu m$ )	$\pm 1.5$	$\pm 1.5$	$\pm 0.1$
Uni-directional Repeatability ( $\mu m$ )	0.5	0.2	0.05
Nominal Current (A)	2.3	1.2	
Voltage Range (V)	24		

Accuracy	on request
Velocity range (mm/sec)	0.001 ... 20
Material	Aluminum, black anodized

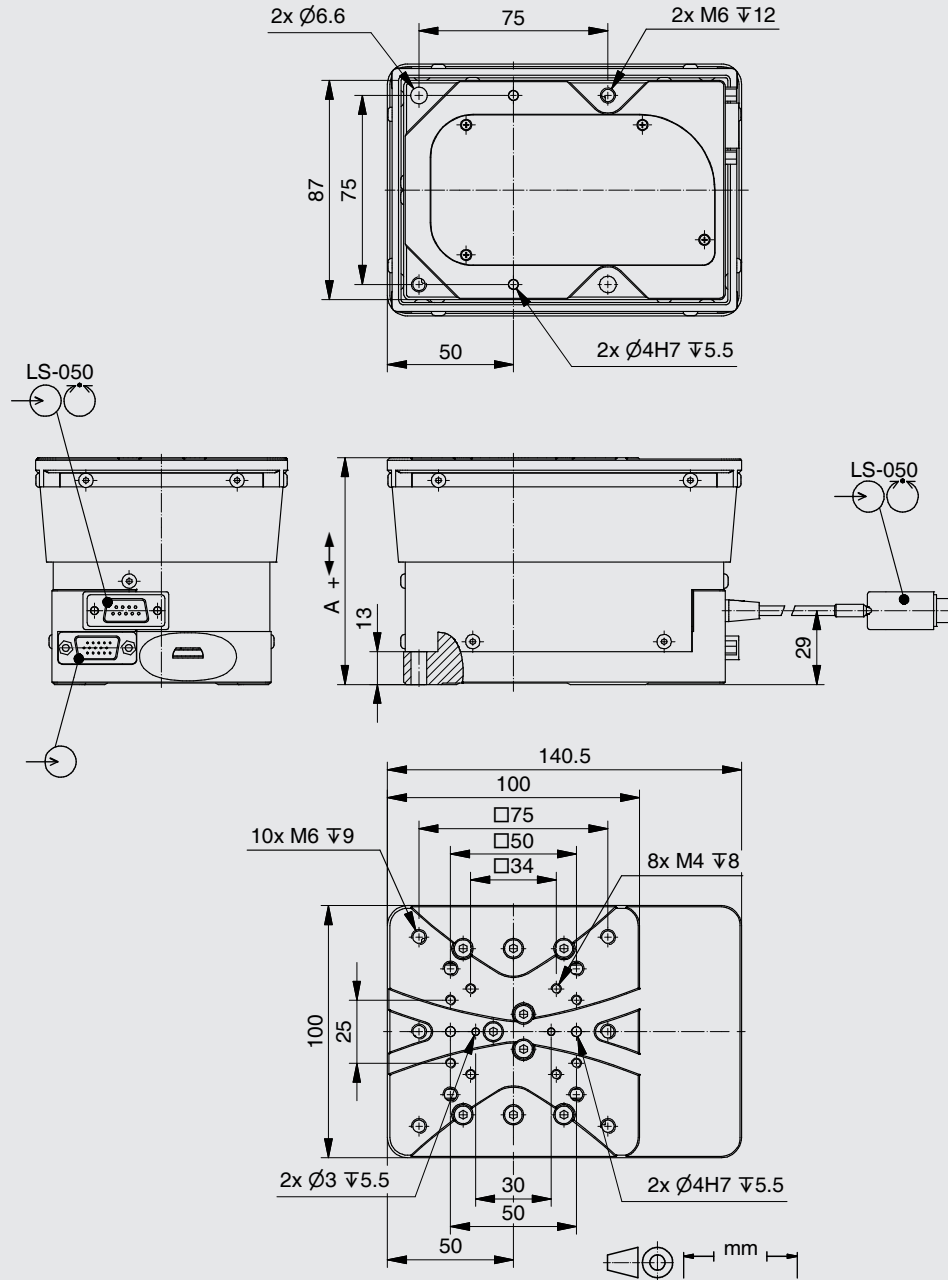
Note: FS = full step, RE = rotary encoder

More info: Detailed information concerning motors and encoders, see appendix.

Error and technical modifications are subject to change

Travel (mm)	13	26
A	90	105

Order No.	6611-9-				
DC-B-032		1			
2Phase-044		2			
13 mm (1/2")		1			
26 mm (1")		2			
without LS-050		0			
LS-050, Linear steel scale		1			
HLS-010, Hall limit switches		1			
MLS-020, Mechanical limit switches		2			



APPLICATIONS  
CONTROLLERS  
ROBOTICS

LINEAR STAGES

ROTATION STAGES

PIEZO STAGES

MANUAL STAGES

ACCESSORIES

APPENDIX

UPS-150

UPM-160

HPS-170

LS-270

LMS-230

LMS-180

LS-180

LS-120

LS-110

LMS-80

LMS-60

PLS-85

LS-65

MTS-65

MTS-70

VT-75

VT-80

LS-40

VT-215

CS-430

MS-8

MS-4

KT-120

MS-bio

NPE-200

UPL-120

ES-100

ES-82

ES-70

ES-50

MA-35

MP-20

MP-20 B

MP-15

ASS 5E