

940-0218

PRECISION VERTICAL POSITIONER



940-0218-01

- True vertical elevation of the platform
- Compact design
- Long life time**
- Vacuum version available

940-0218-02 model constructed for operating in clean room, with cleanliness class up to 100. This model also equipped with vacuum sleeve for dust removal from inside the stage, which accumulates during stage operation.

RECOMMENDED CONTROLLERS

- 980-0040-USB see page 8.189

Precision vertical positioner provides high-precision positioning and smooth travel for loads up to 10 kg. The wedge design, driven by precision rolled lead screw, converts horizontal motion into vertical. Together with high quality linear bearing guide the system ensures rigid and smooth movement across all range of travel and

long lifetime. Precision bearings provide platform stiffness and stability while the screw mechanism assures positioning accuracy. For protection of mechanics, optical limit switches are installed.

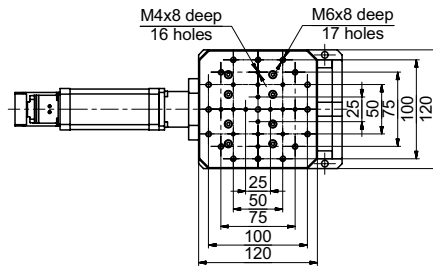
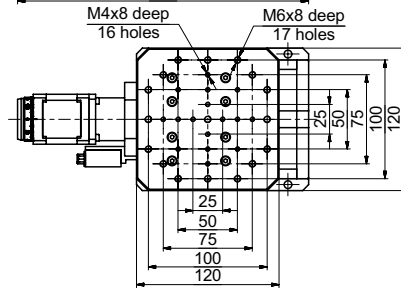
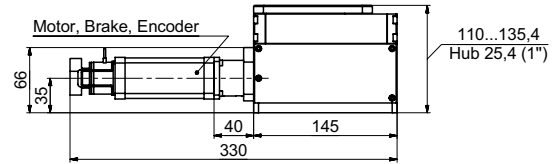
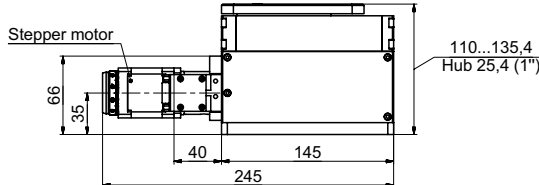
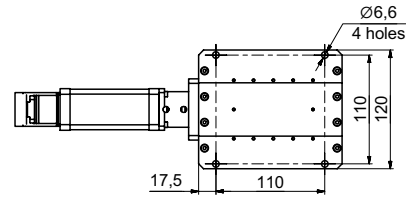
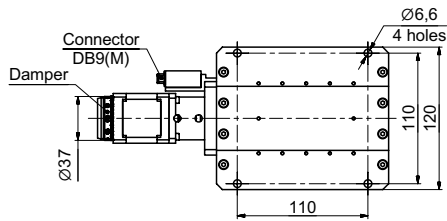
Based on specifics of application other stepper motors or servos can be used. Stepper motor can be equipped with linear encoder and brake.

SPECIFICATIONS

Model	940-0218-01	940-0218-02
Travel range	25.4 mm (1 inch)	
Resolution in full step	5 µm	–
Resolution in 1/256 step	0.019 µm*	–
Encoder pulses per revolution	by request	4000
Travel per 1 pulse	–	0.36 µm
Lead screw pitch	1 mm	1.44 mm**
Wedge reduction rate	1 : 1	
Unidirectional Repeatability	1.5 µm	
Bidirectional Repeatability	3 µm	
Accuracy	10 µm	
Lift parallelism (to the base)	35 µm	
	(by request up to 15 µm)	
Maximum speed	20 mm/s	25 mm/s
Maximum load capacity	10 kg	10 kg
	(15 kg by request)	
Stepper motor	4247	–
Brushless DC motor	–	DB42-100
Brake	by request	+
Optocoupler end limit switches	2	3
Switch polarity	Pushed is open	
Motor connector	DB9(M)	By request
Material	Aluminium	
Finish	Black anodize hard cover	
Weight	4.05 kg	4.5 kg

* With 980-0040-USB controller.

** Screw coated with BlackIce TFE coating and equipped with plastic anti-backlash self-lubricating nut, which provide up time equal to 7 million cycles.

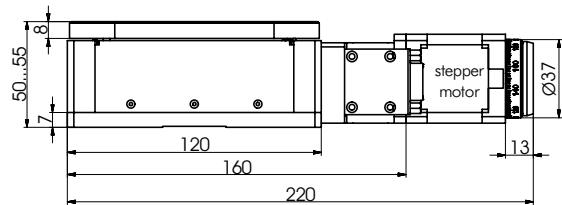


940-0218-01

940-0218-02

940-0220

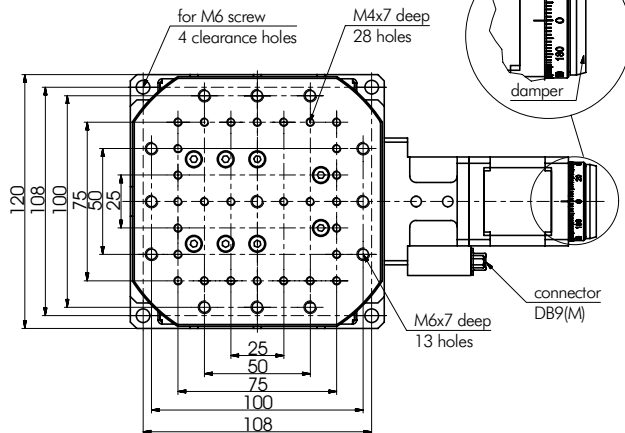
MOTORIZED VERTICAL LIFT STAGE



- Compact
- Stiff and stable
- Two optical limit switches
- Clean room grease

SPECIFICATIONS

Travel range	5 mm
Resolution in full step	0.625 µm
in 1/8 step	0.078 µm
Lead screw pitch	0.5 mm
Wedge reduction rate	4:1
Repeatability	3 µm
Accuracy	10 µm
Lift parallelism (to the base)	20 µm
Mounting surface flatness	10 µm
Position stability (max)	3 µm
Maximum speed	2.5 mm/s
Maximum load capacity	8 kg
Limit switches	optoelectronic couple
Motor connector	DB9(M)
Stepper motor	4247
Optocoupler end limit switches	2
Switch polarity	pushed is open



Motorized Vertical Lift Stage 940-0220 offers precise vertical translation for elevating object up to 8 kg. An optional 1000-line rotary encoder is available for the stepper motor.

Code	Price, EUR
940-0220	1483

RECOMMENDED CONTROLLERS



980-0030-RS232
see page 8.188



980-0040-USB
see page 8.189