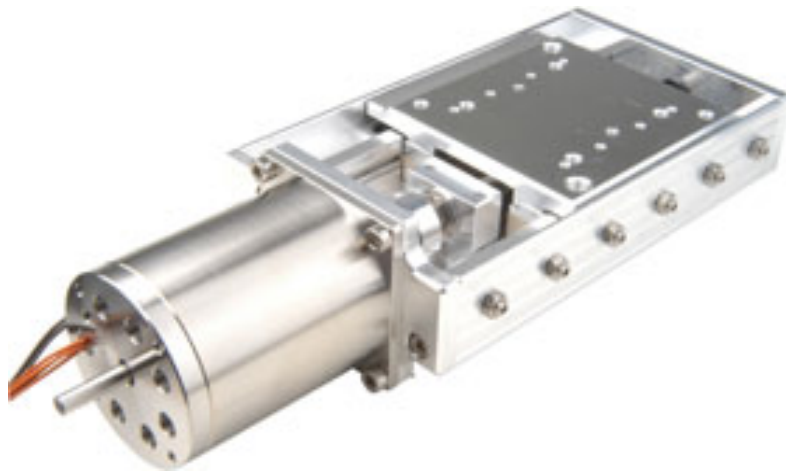


4.102 Translation Stage VT-80 Vacuum



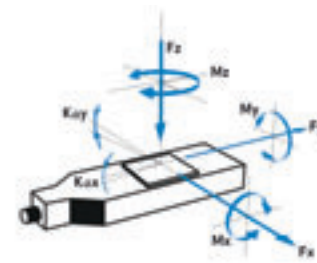
FACTS

Load characteristics	$F_x(N)$	$F_y(N)$	$F_z(N)$	$M_x(Nm)$	$M_y(Nm)$	$M_z(Nm)$	$k_{ax}(\mu rad/Nm)$	$k_{ay}(\mu rad/Nm)$
FV	40	30	50	2.5	5	2.5	220	150
10-6	40	30	50	2.5	5	2.5	220	150
HV	40	30	50	2.5	5	2.5	220	150
UHVG	40	30	50	2.5	5	2.5	220	150



KEY FEATURES

- Vacuum up to 10⁻⁹ hPa
- Travel range up to 300 mm
- Uni-directional repeatability down to 0.4 μ m
- Maximum speed 4 mm/sec
- Load capacity up to 5 kg
- Integrated limit switches



The VT-80 Vacuum translation stage is a popular laboratory stage that offers a wide range of travel lengths. A backlash-free re-circulating ball bearing along with a backlash compensated lead screw guarantee a quiet and smooth motion. The VT-80 Vacuum translation stages are equipped with integrated limit switches and is motorized with a special 2-phase stepper vacuum motor. All VT-80 Vacuum translation stages can be directly assembled in XY configurations. The XY systems with a travel of 25 mm must be assembled at the factory and must be specified when ordering.

TECHNICAL DATA

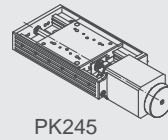
Travel range (mm)	25	50	75	100	150	200	250	300
Straightness / Flatness (μ m)	± 8	± 10	± 11	± 12	± 14	± 20	± 25	± 35
Pitch (μ rad)	± 100	± 110	± 120	± 130	± 150	± 170	± 190	± 21
Yaw (μ rad)	± 150	± 150	± 150	± 150	± 150	± 150	± 150	± 150
Weight (kg)	0.55	0.65	0.7	0.75	0.85	0.95	1.1	1.25

Vacuum type	FV	10-6	HV	UHVG
Speed max. (mm/sec)	4	1.6	1.6	1.6
Resolution calculated (μ m)	5 (FS)	5 (FS)	5 (FS)	5 (FS)
Resolution typical (μ m)	0.2	0.2	0.2	0.2
Bi-directional Repeatability (μ m)	± 10	± 10	± 10	± 10
Uni-directional Repeatability (μ m)	0.4	0.4	0.4	0.4
Nominal Current (A)	1.2	1.2	1.2	1.2

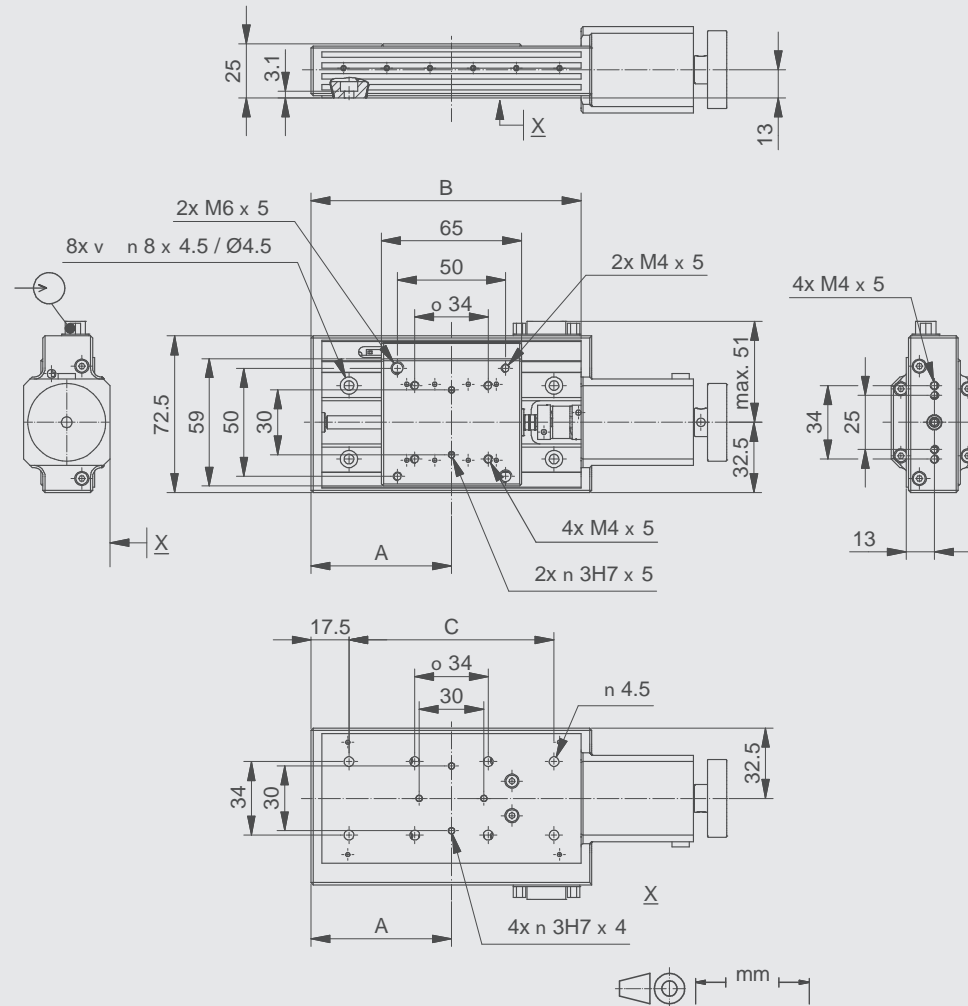
Accuracy	on request
Velocity range (mm/sec)	0.001 ... 6
Material	Aluminum or Stainless steel, suitable for vacuum

Vacuum Note: FS = full step, RE = rotary encoder
More info: Detailed information concerning motors and encoders, see appendix.

Travel (mm)	25	50	75	100	150	200	250	300
A	52.5	65	77.5	90	115	140	165	190
B	100	125	150	175	225	275	325	375
C	70	95	120	145	195	245	295	345



drawings for the corresponding vacuum class must be requested separately.
The installed motor types are:
PK245 for FV
VSS 42.200.1.2-E for HV & UHVG



Order No.	6230-V-			0	0	0
FV		1				
HV		2				
UHVG		3				
10-6		6				
25 mm (xy set up by PI miCos)		1				
50 mm		2				
75 mm		3				
100 mm		4				
150 mm		5				
200 mm		6				
250 mm		7				
300 mm		8				

- APPLICATIONS
- CONTROLLERS
- ROBOTICS
- LINEAR STAGES**
- ROTATION STAGES
- PIEZO STAGES
- ACCESSORIES
- APPENDIX

- UPM-160
- HPS-170
- LS-270
- LS-180
- LS-120
- LS-110
- PLS-85
- LS-65
- MTS-65
- MTS-70
- VT-80**
- LS-40
- MCS
- NPE-200
- UPL-120
- ES-100
- ES-82
- MA-35
- MP-20
- MP-20 B
- MP-15

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