

4.084 High Precision Stage HPS-170



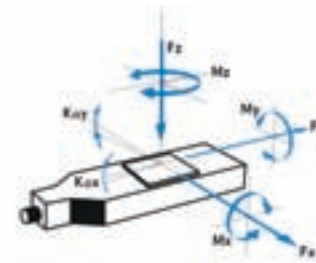
FACTS

Load characteristics	$F_x(N)$	$F_y(N)$	$F_z(N)$	$M_x(Nm)$	$M_y(Nm)$	$M_z(Nm)$	$k^+x(\mu rad/Nm)$	$k^+y(\mu rad/Nm)$
DC-B-040	150	100	350	300	400	300	12	8
2Phase-048	150	150	350	300	400	300	12	8



KEY FEATURES

- Travel range up to 305 mm (12")
- Uni-directional repeatability down to 0.05 μm
- Maximum speed 90 mm/sec
- Load capacity up to 35 kg
- Integrated mechanical limit switches
- Option: linear scale (center mounted)



precision positioning. Due to its precise and smooth operation this linear stage is perfectly suited for measuring and inspection equipment. High-quality cross-roller bearings mounted on a stress-relieved, tempered aluminum alloy body guarantee maximum load capacity and long-time stability. The HPS-170 precision stage is available with a DC or a 2-phase stepper motor and is equipped with two mechanical limit switches. A linear scale with a resolution of less than 0.05 μm is optional. Optical and inductive limit switches as well as a certificate of performance can be supplied on request.

The HPS-170 precision stage was developed to meet the demands of high

TECHNICAL DATA

	52	102	155	205	305
Travel range (mm)					
Straightness / Flatness (μm)	± 0.75	± 1	± 2	± 3	± 4
Pitch (μrad)	± 20	± 25	± 30	± 35	± 40
Yaw (μm)	± 40	± 40	± 40	± 40	± 40
Weight (kg)	5	5.5	6	6.5	7

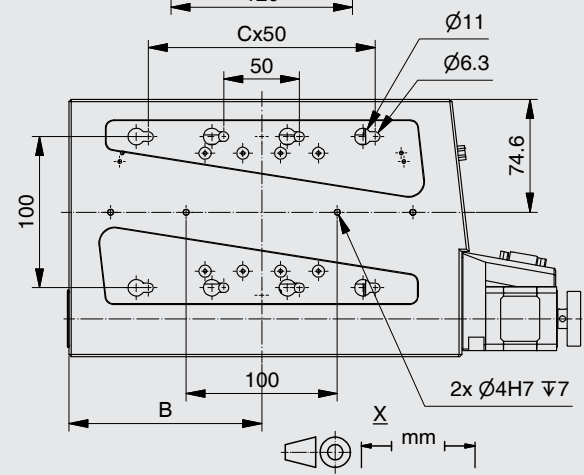
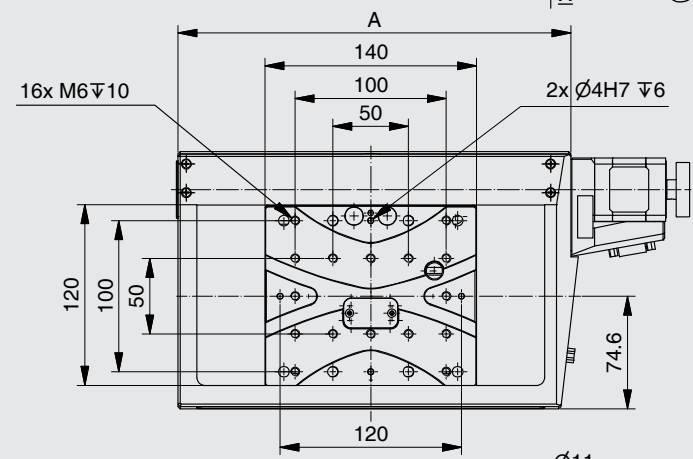
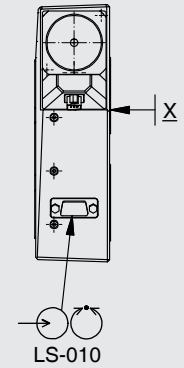
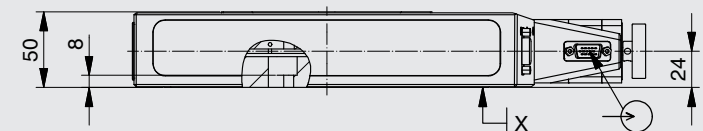
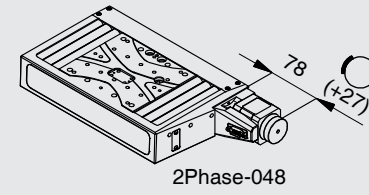
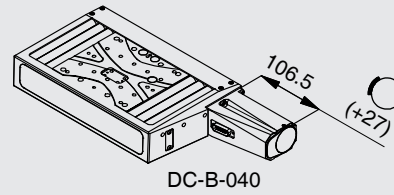
Motor (Pitch 2 mm)	DC-B-040	2Phase-048	
Linear scale			LS-010
Speed max. (mm/sec)	90	35	
Resolution calculated (μm)	0.1 (RE)	10 (FS)	0.05
Resolution typical (μm)	0.2	0.1	0.05
Bi-directional Repeatability (μm)	± 1	± 1	± 0.05
Uni-directional Repeatability (μm)	0.2	0.2	0.05
Nominal Current (A)	3.8	1.2	
Voltage Range (V)	24		

Accuracy	on request
Velocity range (mm/sec)	0.001 ... 90
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)	52	102	155	205	305
A	261	311	381	456	556
B	127.5	152.5	187.5	225	275
C	3	3	5	6	7



Order No.	6262-9-			
DC-B-040		1		
2Phase-048		2		
2 mm (2")		1		
102 mm (4")		2		
155 mm (6")		3		
205 mm (8")		4		
305 mm (12")		5		
without LS-010		0		
LS-010, Linear steel scale		1		
without brake		0		
with brake		1		

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