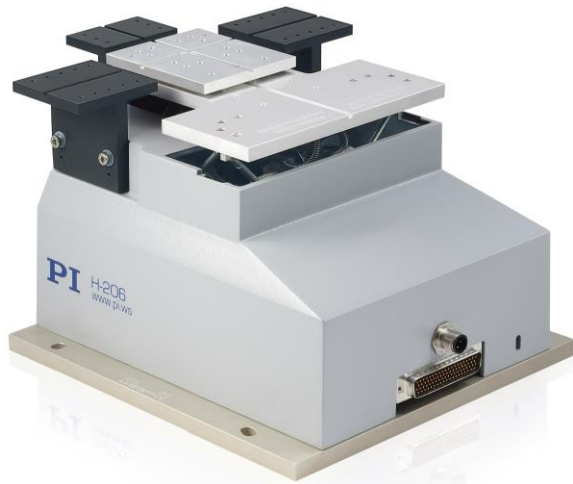


6-Axis Alignment System

Ideal for Fiber Alignment



H-206

- High-precision due to flexures
- Integrated scan routines for fiber optic alignment
- Repeatability 0.3 μm
- Velocity to 8 mm/s
- Freely programmable virtual pivot point
- Removable magnetic plate

Parallel-kinematic design for six degrees of freedom making it significantly more compact and stiff than serial-kinematic systems, guidance errors of individual axes do not add up. Higher dynamics, higher reliability.
With DC gear motors

Flexure joints and hexapod design with passive struts

Positioning with highest precision and repeatability

PI Hexapod Simulation Tool

The simulation software simulates the limits of the workspace and load capacity of a hexapod. Therefore, even before making a purchase, you can check whether a particular hexapod model can handle the loads, forces, and torques occurring in an application. For this purpose, the simulation tool takes into account the position and motion of the hexapod as well as the pivot point and several reference coordinate systems.

Fields of application

Research and industry. For fiber alignment, micromanipulation systems, optical test equipment.

Specifications

Motion and positioning	H-206.F2	Unit	Tolerance
Active axes	X, Y, Z, θ_x , θ_y , θ_z		
Travel range* X	-8 to 5.7	mm	
Travel range* Y	± 5.7	mm	
Travel range* Z	± 6.7	mm	
Travel range* θ_x	± 5.7	°	
Travel range* θ_y	± 6.6	°	
Travel range* θ_z	± 5.5	°	
Minimum incremental motion X, Y, Z	0.5	μm	Typ.
Minimum incremental motion θ_x , θ_y , θ_z	2 (0.4")	μrad	Typ.
Repeatability X, Y, Z	0.3	μm	Typ.
Repeatability θ_x , θ_y , θ_z	6	μrad	Typ.
Velocity X, Y, Z	8	mm/s	Max.
Velocity θ_x , θ_y , θ_z	2	mm/s	Typ.
Load capacity (horizontal base plate)	1.5	kg	Max.

Miscellaneous	H-206.F2	Unit	Tolerance
Operating temperature range	5 to 35	°C	
Material	Aluminum		
Mass	5.8	kg	$\pm 5\%$
Recommended controller	C-887.5x		

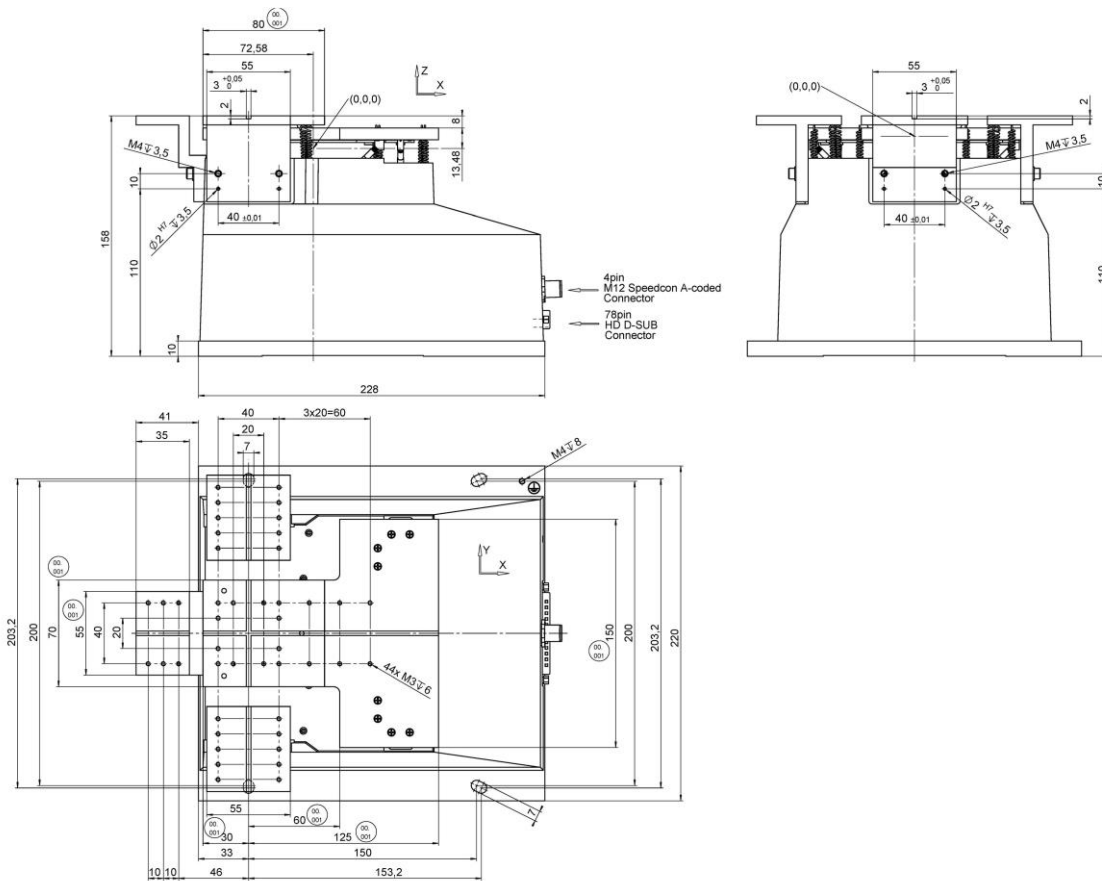
Technical data specified at 22 ± 3 °C.

* The travel ranges of the individual coordinates (X, Y, Z, θ_x , θ_y , θ_z) are interdependent. The data for each axis in this table shows its maximum travel range, where all other axes and the pivot point are at the reference position.

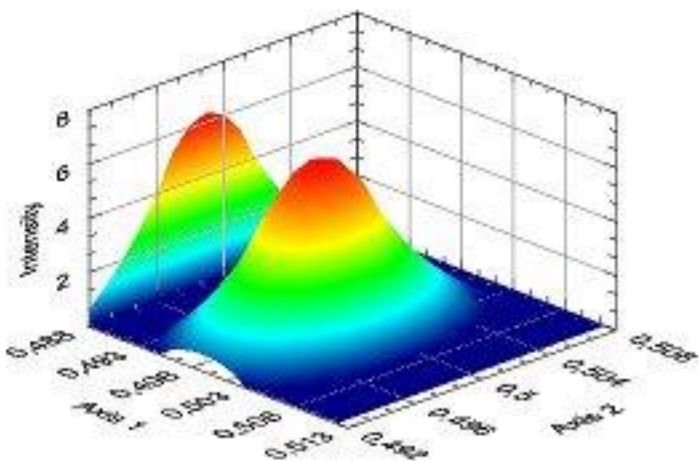
Connecting cables are not in the scope of delivery and must be ordered separately.

Ask about customized versions.

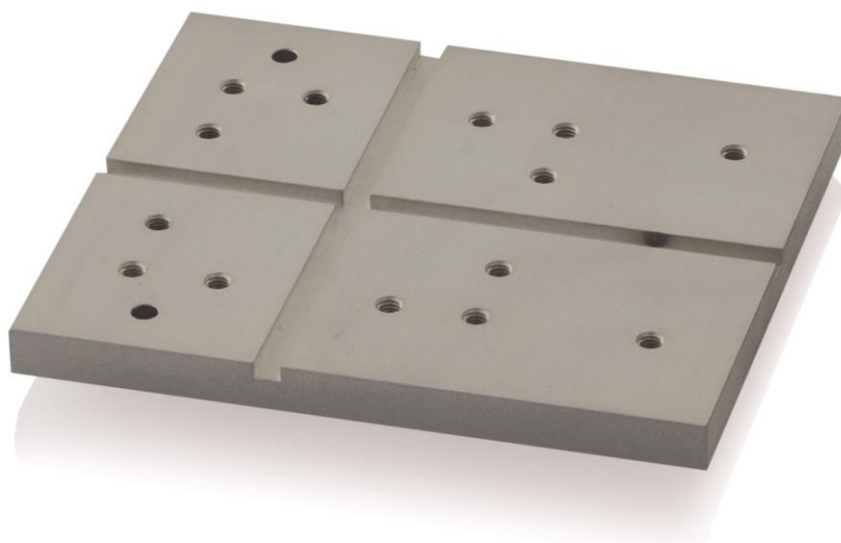
Drawings / Images



H-206.F2, dimensions in mm. Note that a comma is used in the drawings instead of a decimal point.



The H-206 includes rapid automatic scan routines for fast multi-axis alignment. The graphic shows 2-D optical signal intensity of a fiber optic component. Complete device scan ensures detection of the global peak and prevents locking on to a local maximum.



F-206.TMU, removable plate available as accessory

Ordering Information

H-206.F2

Hexapod microrobot optical alignment, removable magnetic plate, DC motor, 1.5 kg load capacity, 8 mm/s velocity. Connecting cables are not in the scope of delivery and must be ordered separately.

C-815.82D03

Data transmission cable for hexapods, drag-chain compatible, HD D-sub 78 m/f, 3 m

C-815.82P03E

Power supply cable for hexapods, drag-chain compatible, M12 m/f straight, 3 m

Data transmission cables in other lengths

C-815.82D02

Data transmission cable for hexapods, drag-chain compatible, HD D-sub 78 m/f, 2 m

C-815.82D05

Data transmission cable for hexapods, drag-chain compatible, HD D-sub 78 m/f, 5 m

C-815.82D07

Data transmission cable for hexapods, drag-chain compatible, HD D-sub 78 m/f, 7.5 m

C-815.82D10

Data transmission cable for hexapods, drag-chain compatible, HD D-sub 78 m/f, 10 m

C-815.82D20

Data transmission cable for hexapods, drag-chain compatible, HD D-sub 78 m/f, 20 m

Power supply cables in other lengths

C-815.82P02E

Power supply cable for hexapods, drag-chain compatible, M12 m/f straight, 2 m

C-815.82P05E

Power supply cable for hexapods, drag-chain compatible, M12 m/f straight, 5 m

C-815.82P07E

Power supply cable for hexapods, drag-chain compatible, M12 m/f straight, 7.5 m

C-815.82P10E

Power supply cable for hexapods, drag-chain compatible, M12 m/f straight, 10 m

C-815.82P20E

Power supply cable for hexapods, drag-chain compatible, M12 m/f straight, 20 m

Accessories

F-206.TMU

Additional removable magnetic plate, for fast replacement of different assemblies