

# HMP-B linear modules

FESTO



## High-end

### **Robustness and precision for handling and assembly applications: The HMP-B.**

Ideal for assembling small workpieces, palletting, workpiece sorting, etc., not only in machine construction but in many other fields as well.

#### **Excellent guidance**

Even with ultra-fast travel times and long strokes, the HMP-B offers exceptionally precise guidance, low deformation under load and high repetition accuracy.

#### **New: End stops and intermediate-position modules**

These are exceptionally robust and long-lasting – and virtually wear-free.

#### **Flexibility guaranteed**

Defined interfaces and versatile connector system, optional intermediate position and facility for fitting any of Festo's wide range

of linear and swivel drives and grippers via adapters for all kinds of additional movements.

#### **Faster installation**

Modern design. Allows systems to be assembled simply and easily. Versatile adapter principle, LEDs for visual monitoring of hardware and stroke adjustment.

#### **Process security included**

Integrated clamping unit for emergency-stop situations, sensor strip and functional design with neat layout, e.g. cables and tubing ready-installed in pre-assembled systems.



Precise,



robust,



high load capacity.

146.1.PSI →

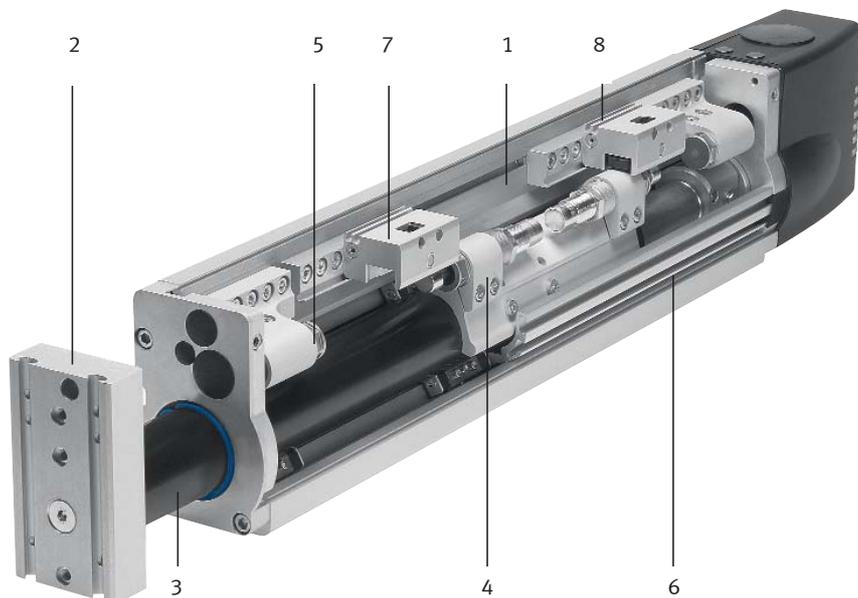
Product Short Information

# HMP-B linear modules

The HMP-B: A winning concept with versatile functionality



Modern drives – Systematically cost-effective\*



## 1 Basic profile

Drives and basic components can be fitted to the rigid light-alloy profile via adapters and connector and component kits.

## 2 Yoke plate

Rotatable 0 ... 360° (non-rotatable when used with clamping unit). Drives and grippers can be fitted to the yoke plate by means of adapter kits.

## 3 Guide

Minimal vibrational deformation thanks to precision polished, hardened and backlash-free bearing mounted steel guide barrel.

## 4 Guide

Precision-ground and hardened bearing tracks with backlash-free ball-bearing guides ensure minimal vibration deformation of the steel guide tube.

## 5 End stop

Adjustable and wear-resistant.

## 6 Intermediate-position module

Intermediate position is freely adjustable over the entire stroke range.

## 7 End-position cushioning

Extremely high dynamics, thanks to hydraulic shock absorbers to cushion the approach of the guide tube to the intermediate or end positions.

## 8 Sensor bar

For flexible sensing of any desired end positions and one intermediate position using up to 5 freely-adjustable SME/SMT-8 magnetic proximity sensors.

## 9 End-position sensing

Using integratable SME/SMT-8 magnetic proximity sensors.

## Technical data

| Linear modules                                     |   |  | 16                                     | 20   | 25   | 32   |
|--|---|--|--|------|------|------|
| Type HMP-B   | Size  |  |  |      |      |      |
| Pneumatic data                                     | Operating pressure [bar]  |  | 4 ... 8                                |      |      |      |
| Mechanical data                                    | Design: Double-acting piston cylinder with rotatable yoke plate |  |  |      |      |      |
| Sizes  | Piston Ø [mm]   |  | 16                                     | 20   | 25   | 32   |
| Nominal stroke (= effective stroke)                | 50 mm   |  |  |      | –    | –    |
|  | 100 mm  |  |  |      |      |      |
|  | 150 mm  |  |  |      |      |      |
|  | 200 mm  |  |  |      |      |      |
|  | 250 mm  |  |  |      |      |      |
|  | 320 mm  |  |  |      |      |      |
|  | 400 mm  |  | –                                      |      |      |      |
|  | Min. effective stroke [mm]                                      |  | 16                                     | 24   | 24   | 40   |
| Forces at 6 bar <sup>1)</sup>                      | Thrust [N]  |  | 121                                    | 188  | 295  | 483  |
|  | Return force [N]  |  | 104                                    | 158  | 247  | 415  |
| Speeds   | Max. advance speed [m/s]  |  | 0.8                                    | 1.1  | 1.1  | 1.2  |
|  | Max. return speed [m/s]   |  | 0.8                                    | 1.1  | 1.1  | 1.1  |
| Repetition accuracy                                | Max. [mm]   |  | 0.01                                   | 0.01 | 0.01 | 0.01 |
| Ambient conditions                                 | Temperature range [°C]  |  | 0 ... +60                              |      |      |      |
|  | Degree of protection (EN 60529)                                 |  | IP40 (electrical interface HMP-...-EL) |      |      |      |
| Max. permissible torque at yoke plate NM           |   |  | 20                                     | 30   | 40   | 50   |
| Max. permissible transverse forces at yoke plate N |   |  | 100                                    | 200  | 300  | 500  |

<sup>1)</sup> Theoretical value

\* Tested with representative examples and certified for the products ADVU, DGPL and DNC.

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