

# Servo-pneumatic drive solution YHBP for balancers of all kinds

FESTO



## Move loads effortlessly!

### Highlights

- Very fast, automatic weight detection
- Safety variant for Performance Level d
- Very low operating forces
- Suitable for almost all commercially available kinematic systems
- For loads from 70 to 999 kg

People who continuously move loads need technical and ergonomic support. With servo-pneumatic balancers, heavy loads can be moved at the touch of a finger. At the heart of the balancer is Festo's safe and powerful drive solution YHBP. It offers extremely fast, automatic weight detection and safety up to Performance Level d, perfect for the automotive, electronics, food and packaging industries.

### Intelligent and flexible

Operation is child's play thanks to intuitive control using a pneumatically activated, ergonomic handle. The system automatically detects the weight of the load and adjusts the balancing force itself. It also takes into account weight changes in the suspended state. This is helpful in keeping production processes with large numbers of variants really flexible.

### Controlled and reliable

The safety variant of the drive solution conforms to Performance Level d, which means that a safe status is always guaranteed in the event of a component defect – even in case of voltage failure or a sudden pressure drop. Load losses can also be detected.

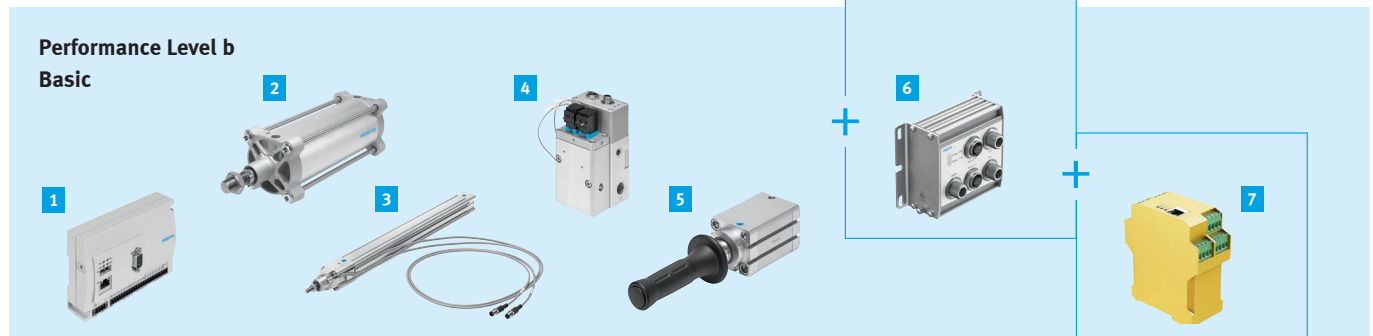
### Wide range of applications

The drive system from a single source is suitable for almost all common kinematic systems, such as lifting columns, articulated arms and parallel kinematics – and is easily retrofitted into existing kinematic systems.

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## Coordinated functions – the system components at a glance

The servo-pneumatic drive solution comes in three different variants.



**1 Balancer controller CECC-D-BA**  
 • with preinstalled WebVisu for commissioning and diagnostics

**2 Standards-based pneumatic cylinder DSBG**  
 • Piston diameter 80 – 200 mm  
 • Stroke 100 – 1000 mm  
 • Optionally with running characteristic L1 (balancer)

**3 Displacement encoder DNCI**  
 • 1-channel or 2-channel

**4 Valve unit VPCB**  
 • 3/3-way proportional pressure regulator  
 • Two integrated 2/2-way shut-off valves  
 • With or without switching position sensing

**5 Control component VAOH**  
 • Pneumatic action  
 • Ergonomically shaped handle

**6 Sensor interface CASB**

**7 Safety switching device**  
 • Speed monitoring function

**Performance Level Safety**

## Wide range of applications

**For applications in all industry segments where heavy loads need to be moved in defined, repeatable sequences**

- Loading and unloading
- Stacking and destacking
- Assembly in production lines

- Loading, palletising
- Rotating, swivelling, tilting, emptying containers



## The safety package in detail

An additional safety component guarantees the safety of the system to PL d. It monitors the system for a safely limited speed. If this speed is exceeded, the air in the cylinder is shut off in two ducts so that the system stops. The system will also remain at a standstill in case of a voltage or compressed air failure (SLS, SSC).