

# Electronic End Position Controller

## Smart Soft Stop CMPX-C-1-H1

**FESTO**



### Smart Soft Stop

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Servopneumatic technology has its place in the “positioning” world. For applications requiring high dynamics, force density, compactness, and positioning capability servopneumatics is an ideal solution.

#### The Principle

The electronic end-position control enables a cycle time reduction of about 30 % together with almost vibration-free travel to the mechanical end-positions. The Smart Soft Stop can move loads up to 300 kg very dynamically. The system also enables travel to two additional, freely definable intermediate positions without a (fixed) stop.

#### Networking

It is possible to connect to a higher-level PLC via all of the available fieldbus nodes in the CPX range. Stand alone control is alternatively possible via the Front End controller CPX-FEC and CPX-CEC.

#### New Features

- “Teach” process takes less than 2 minutes
- The mid-position can be written dynamically via the fieldbus
- Pneumatic brake/clamp unit actuation as an integral component of the Smart Soft Stop system
- Comprehensive diagnostics and trouble shooting

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### Overview of Actuators Available for the Smart Soft Stop CMPX-C-1-H1

#### DGCI Rodless Linear Actuator

- DGCI actuator with digital absolute displacement encoder and recirculating ball bearing guide
- Ø 18 ... 63 mm
  - Stroke: 100 ... 2000 mm

#### Actuators with External Potentiometer

- Potentiometer type LWG or TLF for attachment to the actuator
- Ø 25 ... 80 mm
  - Stroke: 100 ... 2000 mm

#### DNCI Standard Cylinders

- Standard cylinder with integrated displacement encoder (DIN ISO 6432)
- Ø 32 ... 63 mm
  - Stroke: 100 ... 500 mm

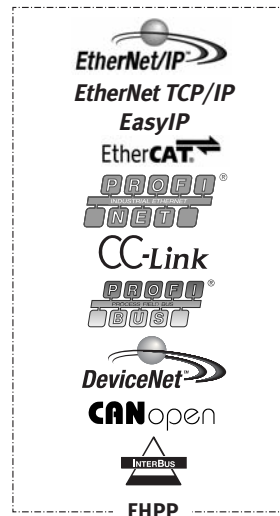
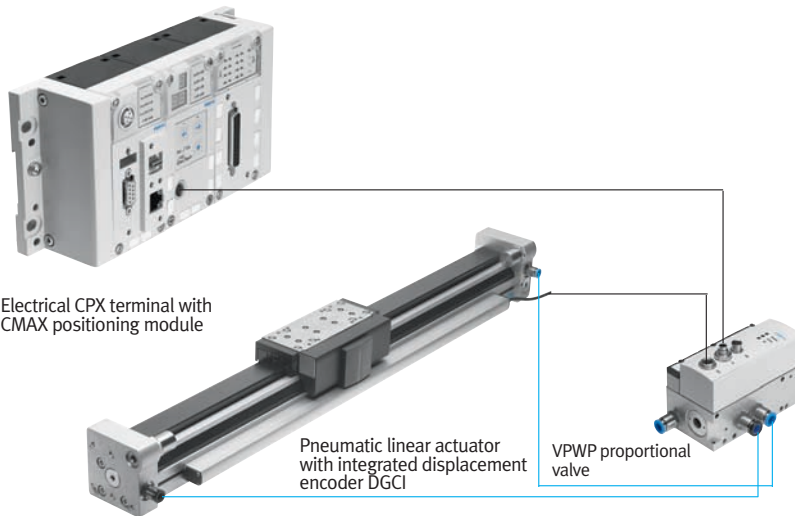
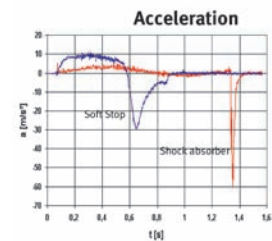
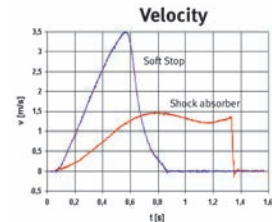
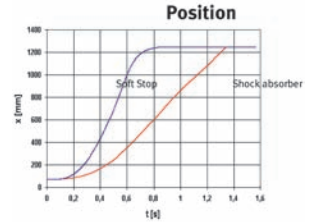
#### DSMI Semi-Rotary Actuator

- Semi-rotary actuator with integrated potentiometer
- Sizes: 25 and 40
  - Swivel angle (max.) 270°
  - Max. torque 5 or 20 Nm

Key Features	
Moving loads	1 - 300 kg horizontal 1 - 100 kg vertical
Actuation	Via all fieldbuses available in CPX Front End Controller CPX-FEC and CPX-CEC
Mid-positions	Up to two freely programmable mid-positions (also possible via a fieldbus) Accuracy ± 0.25 % of the displacement encoder length, and no less than ± 2 mm. Standstill monitoring via pressure sensors in the valve Reliable in combination with the "Brake" function
Max. cable length between the controller and the drive: 30 m	
Fast, vibration-free travel between two (fixed) stops	



### Performance comparison Standard cylinder with shock absorbers Vs. Soft Stop



### Festo Corporation

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Smart Soft Stop



Communication



Safety first