Southeast Asia Selected Products

FESTO

2021
Festo: a partner in dialogue, a partner for maximum productivity.

Our goal is to make you more productive. From actuators to accessories for factory automation as well as process automation - you can reduce procurement complexity for both the electric and pneumatic control chain.

At the same time, we work consistently on our production and delivery capacities worldwide to ensure that you receive the products you ordered promptly, even in large quantities.

Look out for the star!
Wherever you see this symbol in our printed or electronic catalogue, it identifies a product that is ready for dispatch from the Festo factory in 24 hours.
You are looking for cost-effective automation?
You need short delivery times?
We deliver large quantities fast and worldwide.

→ WE ARE THE ENGINEERS
   OF PRODUCTIVITY.
Ready for dispatch from the Festo factory in 24 hours
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Ready for dispatch from the Festo factory in 5 days or less
Terminal CPX

Modular Remote Electric I/O system & Pneumatics valve terminal for Easy connection & Diagnostics

CPX-MPA for Low flow & High-density connection

Supported Fieldbus system

CPX-VTSA for High Flow & High Availability

Distributed Remote I/O

CPX-AP-I : Keep your control closer to the process

Robust IP68/67 Digital & Analog I/O module

IO-Link Master for Field connection

VTUG/MPAL valve Terminals

Supported Fieldbus
Controls

Terminal CPX

- Comprehensive function integration with technology modules
- Installation variants:
  » Stand-alone as remote I/O
  » With valve terminal VTSA-F
  » With valve terminal VTSA
  » With valve terminal MPA-L
  » With valve terminal MPA-S
- I/O modules:
  » Digital
  » Analogue
- Optional CODESYS controller

Frequently bought together

PLC/Motion/Robotic Controller CPX-E

- CPX-E is a high-performance controller for automation solutions focusing primarily on motion & robotic controls
- The following modules are available:
  » PLC/Motion/Robotic Controller
  » Bus modules   » IO-Link master modules
  » Input/output modules   » Encoder Module

Frequently bought together

NEBU VTSA MPA-L MPA-S

VTUG CMMT-AS EMMB-AS CMMT-ST EMM-S ST CPX-AP-I
**Remote I/O system CPX-E**

- Reliable & cost effective remote I/O system
- Multi protocol support
- I/O module: analogue/digital
- IO-Link master
- Encoder Module

**Distributed Remote I/O system CPX-AP-I**

- IP65/IP67 Remote I/O system brings input/output controls closer to equipment or process, no electrical panel is needed to mount CPX-AP-I modules.
- Cost effective remote I/O system
- Multi protocol realtime connection
- I/O module: Analogue/Digital
- IO-Link master
- Pneumatic valve interface on high speed realtime Synchronized AP bus

Frequently bought together
**Pressure sensors SPAN**

**QS**
- Front panel + wall mounting kit.

**SASC**
- Easy installation by quick connector and L1 plug connector or M8 electrical adapters.

**NEBU**
- Compact design 30x30mm with IP40 protection.
- 13 pressure measuring ranges (with vacuum).
- Various switching functions.
- Digital (PNP/NPN, NO/NC) or Analogue outputs (0…10V, 4…20mA).
- Serial communication integrated using IO-Link 1.1.

**NEBS**
- Best fit for basic application.
- Compact design 30 x 30 mm with IP40.
- 3 pressure measuring ranges -1 to 10 bar.
- 1 switchable digital electrical output, PNP/NPN, NO/NC.
- Cu, ZN, Ni-free.

**SMAH**
- Front panel + wall mounting kit.

**SACC**
- Safety guard.

**SPAN**
- Precise pressure is monitored in production line.
- Compact design 30x30mm with IP40 protection.
- 13 pressure measuring ranges (with vacuum).
- Various switching functions.
- Digital (PNP/NPN, NO/NC) or Analogue outputs (0…10V, 4…20mA).
- Serial communication integrated using IO-Link 1.1.

**SPAN-B**
- Best fit for basic application.
- Compact design 30 x 30 mm with IP40.
- 3 pressure measuring ranges -1 to 10 bar.
- 1 switchable digital electrical output, PNP/NPN, NO/NC.
- Cu, ZN, Ni-free.
Pressure sensors SPAN

- Compact design 30 x 30 mm
- High-contrast display with blue backlighting
- 13 Pressure measuring range from -1 to 16 bar
- Voltage 20 ...30 V DC
- 2 Switching output PNP / NPN , NO/NC selectable
- Electrical output 0.1 ... 10 V, 1 ... 5 V, 4 ... 20 mA
- Pneumatic connection G1/8, R1/8, NPT1/8, M5, push-in connector 4 mm,
- Pressure/vacuum switches

Pressure sensors SPAN-B

- Best fit for basic application
- Compact 30 x 30 mm design
- Blue display with white writing, changeable to red display colour
- 3 pressure measuring range from -1 to 10 bar
- 1 switchable digital electrical output, PNP/NPN, NO/NC
- Intuitive menu navigation
- Pneumatic connection: G1/8,R1/8,M5, push-in connector 4mm
- Protection class IP40
- Cu, Zn, Ni-free
- Optional with electrical connection M8 cable

Pressure sensors SPAU

- Blue-red LCD
- IP65 protection
- Pressure measuring range: -1 to 16 bar
- Voltage: 20 ...30 V DC
- Switching output: 2x PNP or 2x NPN selectable
- Electrical output: 0.1 ... 10 V, 1 ... 5 V, 4 ... 20 mA
- Pneumatic connection: G1/8, R1/8, R1/4, NPT1/8, M5, M7, push-in connector 4 mm, 6 mm, 5/32".
- Pressure switch
- Vacuum switch
**Pressure sensors SDE5**

- Pressure measuring range: -1 ... 10 bar
- Voltage: 15 ... 30 V DC
- PNP/NPN digital output and 0...10V analogue output available
- Pressure/vacuum switches
- Switch status display by a visible LED
- Freely programmable

**Flow sensors SFAH**

- ECO function with option to switch off the display
- Serial communication integrated using IO-Link® 1.1
- Flow measuring ranges:
  - 0.002 ... 0.1 l/min
  - 0.01 ... 0.5 l/min
  - 0.02 ... 1 l/min
  - 0.1 ... 5 l/min
  - 0.2 ... 10 l/min
  - 1 ... 50 l/min
  - 2 ... 100 l/min
  - 4 ... 200 l/min
- Switching output:
  - NPN
  - PNP
  - IO-Link®
- Analogue output:
  - 0 .. 10V
  - 1 ... 5V
  - 4 ... 20mA

**Connecting cables NEBU**

- Smooth and harmonious fit and function
- Connecting cables for standard, drag chain and robot applications
- Versions with switching status display
- Welding field immune designs
- Easy-to-clean designs approved for use in the food and packaging sector
- Cable length: 0.1 ... 30 m freely selectable
Position sensors SRBS
- For semi-rotary drives DRVS 6...40 and DSM 8, 10
- Switching outputs PNP, NPN and NO, NC freely
- Programmable electrical connection: M8
- Sensing range: 0...270°

Inductive sensors SIEN
- Voltage 10...34V DC
- Size 4 mm, 5, 6.5 mm, M8, M12, M18, M30
- PNP, NPN
- Flush or non-flush mounting

Cylinder switches SMT-8M, SMT-10M
- The programmable proximity switch with auto teach-in.
- Capacitive teach button
- Automatic switching point detection
- Easier and faster installation, no precision adjustment needed.
- For T-Slot pneumatic actuator
- Programmable switching output PNP, NPN, NO, NC
- IP65/68
- Electrical connection M8 or open end
- 10...30V DC
- Available from Q3 2021
Cylinder switch SDBT-MSX

The programmable proximity switch with auto teach-in.
- Capacitive teach button
- Automatic switching point detection
- Easier and faster installation, no precision adjustment needed.
- For T-Slot pneumatic actuator
- Programmable switching output PNP, NPN and NO, NC
- IP65/68
- Electrical connection M8 or Open end
- 10...30V DC

Available from Q3 2021
Mini slides DGST

- All connections on one side.
- Sleeves for centring loads and attachments.
- Proximity sensors can be integrated.
- Both end-positions can be sensed from one side.
- Two sensor slots for sensing.

- 3 cushioning types:
  - Elastic cushioning at both ends, without end-position adjustment
  - Elastic cushioning at both ends, non-adjustable, with end-position adjustment.
  - Shock absorber at both ends, self-adjusting, with end-position adjustment.
- Precise end-position adjustment is possible from one side.

Lifting application with flexible mounting

Used in packaging line
**Mini slides DGST**
- Diameter: 6-25 mm
- Stroke lengths: 10-200 mm
- Force: 25 ... 589 N
- Cushioning variants:
  - Basic integrated elastic cushioning without stroke adjustment
  - Elastic polymer cushioning elements with stroke adjustment
  - Hydraulic shock absorbers with stroke adjustment

**Linear drives DGC**
- Guide variants:
  - Standard design
  - Plain-bearing guide
  - Recirculating ball bearing guide
- Diameter: 8, 12, 18, 25, 32, 40, 50, 63 mm
- Stroke length: 1 ... 8500 mm
- Force: 30 ... 1870 N
- Position sensing
- Various cushioning options

**Linear drives DGC-K**
- 1:1 interchangeable with linear drive DGP
- Compact design
- No external guide, for simple drive functions
- Diameter: 18, 25, 32, 40, 50, 63, 80 mm
- Stroke length: 1 ... 8500 mm
- Force: 153 ... 3016 N
- Position sensing
Guided drives DFM

- Diameter 6, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm
- Stroke length 5 ... 400 mm
- Force 51 ... 4712 N
- Position sensing
- Fixed/adjustable cushioning
- Plain-bearing guide
- Recirculating ball bearing guide
- Variants available.

Round cylinders DSNU

- Self-adjusting end-position cushioning
- Diameter: 8, 10, 12, 16, 20, 25 mm (standard)
- Diameter: 32, 40, 50, 63 mm
- Stroke length: 1 ... 500 mm
- Force: 19 ... 1870 N
- Double-acting
- Position sensing
- Fixed/adjustable/self-adjusting cushioning
- Mounting flange

Standard cylinders DSBC

- The universal cylinder
- Standard profile with two sensor slots
- Numerous variants
- Diameter: 32, 40, 50, 63, 80, 100, 125 mm
- Stroke length: 1 ... 2800 mm
- Force: 483 ... 7363 N
- Double-acting
- Position sensing
- Fixed/adjustable/self-adjusting cushioning
Actuators

**Compact cylinders ADN-S**
- Diameter: 6, 10 mm
- Stroke length: 5, 10 mm
- Space and weight saving
- Double-acting

**Semi-rotary drives DRVS**
- Housing protected against splash water and dust
- Size: 6, 8, 12, 16, 25, 32, 40 mm
- Torque: 0.15 ... 20 Nm
- Swivel angle: 90, 180, 270°
- Position sensing
- Fixed elastic cushioning elements on both sides

**Semi-rotary drives DRRD**
- System product for handling and assembly technology
- Size: 8, 10, 12, 16, 20, 25, 32, 35, 40, 50, 63 mm
- Torque: 0.2 ... 112 Nm
- Swivel angle: 0 ... 180°
- Position sensing
- Cushioning: elastic (P), hydraulic shock absorbers
- Flanged shaft
### Parallel grippers DHPS
- Size: 6, 10, 16, 20, 25, 35
- Stroke length: 2 ... 12.5 mm per gripper jaw
- Force: 13.5 ... 483 N per gripper jaw
- Position sensing
- Can be used as a double or single-acting gripper

### Radial grippers DHRS
- Size: 10, 16, 25, 32, 40
- Opening angle: 180°
- Total gripping torque: 15 ... 725 Nm
- Position sensing
- With or without gripping force backup

### Parallel grippers DHPC
- Size 6, 10, 16
- Stroke length 2 ... 6 mm per gripper jaw
- Force: 3.9 ... 64.7 N per gripper jaw
- Position sensing
- NO/ NC gripping
**Actuators**

**Compact cylinders ADN**
- Compact cylinder
- Diameter: 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 mm
- Stroke length: 1... 500 mm
- Force: 13.5 ... 483 N per gripper jaw
- Position sensing
- Can be used as a double or single-acting gripper

**Short stroke cylinders ADVC/AEVC**
- Short stoke cylinder
- Diameter: 4, 6, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm
- Stroke length: 2.5... 25 mm
- Force: 7.5 ... 4712 N
- Double-acting / single acting
- Position sensing
- Fixed cushioning

**Compact round cylinders DSNU-S**
- Compact round cylinder
- Diameter: 8, 12, 16, 20, 25 mm
- Stroke length: 10 ... 200 mm
- Force: 30 ... 294 N
- Double-acting
- Position sensing
- Fixed/self-adjusting cushioning

Frequently bought together

QS | PUN-H | NPQE
---|---|---

Numerous variants
Valves & Valve Terminal

Valve VUVG

- Highest flow-rate in the market for M5 & G1/8
- Providing fast air delivery and efficiency
- Hassle-free with captive screws which help to reduce downtime
- Fast switching time with air-return spring
- Better visibility for improved safety
- Defined compression with built-in step
- Multiple manifold options for in-line and sub-base design options
- Bigger manual override screw button with multiple accessory options
- Light weight & high reliability spool giving safe operation
- For areas of applications where limited mounting space is required

Used in textile machine for fast speed production of button hole

Gentle placement of large metal sheets from a transport system to a stack by multiple cylinders

Individual valves VUVG

- Connection: M3, M5, M7, G1/8, G1/4
- Push-in connector: 3, 4, 6, 8, 10 mm
- Flow rate: 90 ... 1380 l/min
- Pressure range: -0.9 ... 10 bar
- Temperature range: \(-5 \ldots +60\)°C
- Voltage: 5, 12 24 V DC
- In-line valves, semi in-line valves, sub-base valves
- Solenoid actuated, piloted
- Pneumatic and mechanical spring return

Plug-in valves VUVG

Individual valves VSVA

- Electrical linking via sub-base
- Port: M5, M7, G1/8, G1/4
- Push-in connector: 3, 4, 6, 8 mm
- Flow rate: 130 ... 1200 l/min
- Voltage: 24 V DC
- Semi in-line valves, sub-base valves
- Solenoid actuated, piloted
- Pneumatic and mechanical spring return

Individual valves VUVS

- Port G1/8, G1/4, G3/8
- Flow rate 500 - 2400 l/min
- Pressure range 1.5 ... 8 bar
- Temperature range \(-5 \ldots +50\)°C
- Voltage 12, 24 VDC. 24, 110, 230 VAC
- In-line valve , manifold
- Electrically actuated, piloted
- Pneumatic and mechanical spring return
Valves

Individual valves VUVG

- Connection: M3, M5, M7, G1/8, G1/4
- Push-in connector: 3, 4, 6, 8, 10 mm
- Flow rate: 90 ... 1380 l/min
- Pressure range: -0.9 ... 10 bar
- Temperature range: −5 ... +60°C
- Voltage: 5, 12 24 V DC
- In-line valves, semi in-line valves, sub-base valves
- Solenoid actuated, piloted
- Pneumatic and mechanical spring return

Plug-in valves VUVG

- Electrical linking via sub-base
- Port: M5, M7, G1/8, G1/4
- Push-in connector: 3, 4, 6, 8 mm
- Flow rate: 130 ... 1200 l/min
- Voltage: 24 V DC
- Semi in-line valves, sub-base valves
- Solenoid actuated, piloted
- Pneumatic and mechanical spring return

Individual valves VUVS

- Port G1/8, G1/4, G3/8
- Flow rate 500 - 2400 l/min
- Pressure range 1.5 ... 8 bar
- Temperature range −5 ... +50°C
- Voltage 12,24 VDC, 24,110, 230 VAC
- In-line valve, manifold
- Electrically actuated, piloted
- Pneumatic and mechanical spring return

Individual valves VSVA

- Flow rate: 400 ... 1400 l/min
- Voltage: 12, 24 V DC; 24, 110 or 230 V AC
- Sub-base valve
- Solenoid actuated, piloted
- Sub-bases
**Individual valves VSNC**

- All solenoid coils can be used on an armature tube
- Connection: G¼, NPT¼
- Flow rate: 900 ... 1000 l/min
- Voltage: 12, 24, 48 V DC, 24, 48, 120, 230 V AC
- NAMUR port pattern to VDE/VDI 3845
- Solenoid-actuated, piloted
- Mechanical spring return
- Diverse Ex solenoid systems, IEC Ex, FM EX
- Convertible from 5/2-way function to 3/2-way function

**Vacuum generators VN**

- Compact vacuum suction nozzle for decentralised, maintenance-free vacuum generation with more variants
- Nominal size: 0.45 to 3 mm
- Connection:
  - Plug connector QS4, QS6, QS8, QS10, QS12
  - Thread M5, G1/8, G1/4, G3/8
- Standard:
  - Vacuum port 90° to supply port
- Inline:
  - Vacuum port in line with supply port
- Solenoid valve, vacuum ON/OFF
- Pneumatic ejector pulse valve or Integrated vacuum switch.

**Vacuum generators OVEL**

- Mounting on supply manifold with max. 8 spaces
- Nominal size: 0.45 ... 0.95 mm
- Connection:
  - Push-in connector QS3, QS4, QS6
- Vacuum solenoid valve ON/OFF
- Optional with ejector pulse
- Integrated vacuum sensor
Manually operated valves VHEF

- Valve function 3/2, 5/2, 5/3
- G 1/8, G 1/4 connection
- Selector switch, finger level, hand lever, toggle lever, push-button
- Directly/Indirect actuated
- Vacuum operation possible
- Flow rate 650 - 1200 l/min

Mechanically actuated valves VMEF

- Valve function 3/2, 5/2
- G 1/8, G 1/4 connection
- Toggle lever, Roller, Stem
- Directly actuated, pneumatic piloted
- Vacuum operation possible
- Flow rate 750 - 1200 l/min
Valve Terminal VTUG

**VAEM**
- Variable multi-pin plug connection using Sub-D or ribbon cable
- Sub-D variant and fieldbus connection rated to IP67

**VUVG-S**
- Semi-inline valves for manifold assembly
- Fast troubleshooting thanks to 360° LED display
- Can be replaced quickly and easily
- Various choices of manual override

**CTEU**
- Festo-specific I-Port interface for bus nodes
- IO-Link® mode for direct connection to a higher-order IO-Link® master

**VABM**
- Multiple pressure zones available
- Internal or external pilot air in the same manifold rail
- Reversible piston spool valves with up to 24 valve positions

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**With IO-Link that was used in filling and packaging machine**

**Used in hygiene zone**
Valve terminals VTUG

- Flow rate: 220 ... 1300 l/min
- Valve size 10, 14, 18 mm
- Multi-pin, Fieldbus, IO-Link, I-Port connection
- Voltage 24 V DC
- Pressure -0.9 ... 10 bar
- Degree of protection IP40/IP67
- Semi in-line and sub-base valves
- Control-cabinet option available

Control cabinet VTUG

- Optimised, space-saving variant for installation in control cabinets
- Ready to install
- Valve size 10 & 14mm
- Multi-pin, Fieldbus, IO-Link, I-Port
- Flow rate 220 to 630 l/min
- Hot Swap function - Replace the valve during operation without depressurise valve terminal
- ATEX II 3G,3D (Zone 2/22)
- Degree of protection IP40/IP65/IP67
Valve terminals VTUS

- Flow rate 700 ... 2000 l/min.
- Valve size 20, 25, 30 mm
- Individual electrical connection
- Voltage 12, 24 V DC, 24, 110, 120, 230, 240 V AC
- Pressure -0.9 ... 10 bar
- Degree of protection IP65, IP67
- Inline valves
- Solenoid/Pneumatic actuated
- Metal manifold block

Valve terminals VTSA

- Mix of valve size for optimum flowrate
- Flow rate 770 ... 4000 l/min
- Valve size 18, 26, 42, 52, 65 mm
- Maximum 32 valves position
- Multi-pin plug, fieldbus connection
- Diagnostics function
- Protection class IP65
- Function integration with safety related pneumatic and vacuum generator
Valve terminals MPA-L

- Polymer sub base
- Valve size can be mixed and expandable
- Flow rate 360 ... 850 l/min
- Width 10, 14 and 20 mm
- Multi-pin, Fieldbus, IO-Link, I-Port connection
- Protection class IP65, IP67
- Valve functions 5/2, 5/3, 2x3/2, 2x2/2
- Ideal for control-cabinet installation

Valve terminals MPA-S

- Flow rate 360 to 700 l/min
- Valve size 10, 14, 20 mm
- Expandable up to 64 valve positions with 128 solenoid coils
- Fieldbus communication ready
- Pressure range -0.9 to 10 bar
- Protection class IP65
- Electrical remote I/O expandable by CPX electrical terminal
- Diagnostics function available
- Function integration with proportional pressure regulator VPPM
Spindle axes ELGC-BS

- Complete system comprising various motors, motor controllers and motor mounting kits.

- Wide range of flexible, compact and high quality drives.

- Suitable selection of servo and stepper motors.

- Two position sensing functions can be selected.

- Variety of controllers equipped with the latest technology.

Compact and precise testing unit in assembly line
**Servo drives CMMT-AS**

- **CPX-E**
  - High-performance control and automation system focusing primarily on motion control functions

- **EAMM**
  - Specific kit for all electro-mechanical axes from Festo.
  - Each kit includes coupling housing, couplings, motor flange and screws.
  - IP65 is available and option.

- **NEBM**
  - Motor cables with degree of protection to IP67.

- **EMMT-AS**
  - Suitable selection of servo motors.

- **EMMB-AS**
  - Complete motion control in packaging line

**EtherCAT**

- **EtherNet/IP**
  - Transfer of blood samples in and out of the cold storage system

**PROFINET**

**Modbus TCP**
Spindle actuators ELGC-B5

- Protected Linear Ball Screw Actuator
- Size 32, 45, 60, 80
- Max. stroke length 1000 mm
- Force 110 ... 780 N
- Integrated recirculating ball bearing guide

Frequently bought together:

- CMMB-AS
- EMMB-AS
- CMMT-AS
- EMMT-AS
- CMMS-ST
- EMMS-ST
- SMT-8M-A

Toothed belt actuators ELGC-TB

- Protected Linear Toothed Belt Actuator
- Size 45, 60, 80
- Max. stroke length: 2000 mm
- Force 75 ... 250 N
- Integrated recirculating ball bearing guide

Frequently bought together:

- CMMB-AS
- EMMB-AS
- CMMT-AS
- EMMT-AS
- CMMS-ST
- EMMS-ST
- SMT-8M-A

Mini slides EGSC-BS

- Guided ball screw actuator
- Size 25, 32, 45, 60
- Stroke length 25 ... 200 mm
- Integrated recirculating ball bearing guide

Frequently bought together:

- CMMB-AS
- EMMB-AS
- CMMT-AS
- EMMT-AS
- CMMS-ST
- EMMS-ST
- SMT-8M-A
Compact electric cylinders EPCC

- Rod style ball screw actuator
- Size: 25, 32, 45 and 60
- Force: 75 ... 1000 N
- Stroke: 25 ... 500 mm
- Speed up to 0.6 m/s

Toothed belt actuators EGC-TB

- Toothed belt actuator
- Size 50, 70, 80, 120, 185
- Stroke length 50 ... 8500 mm
- Force 50 ... 2500 N
- Speed up to 5 m/s

Electric cylinders ESBF

- Rod style ball screw actuator
- Feed forces of up to 17 kN
- Size: 32, 40, 50, 63, 80, 100
- Stroke length: 30 ... 1500 mm
- Force: 600 ... 17000 N
- Motor can be mounted using axial or parallel kit
- Speed up to 1.2 m/s
- Optional: Electric ball screw cylinder with clean design (food application)
Simplified series mini slide actuators EGSS

- Simplified guided ball screw actuator series for easy setup and control
- Easy control with only 2 digital inputs
- Precise closed-loop control of speed, position and force
- Size: 32, 45, 60
- Stroke length: 25 ... 200 mm
- Force: 60 ... 250 N
- Speed up to 0.25 m/s

Simplified series spindle and toothed belt actuators ELGS

- Simplified protected ball screw and toothed belt actuator series for easy setup and control
- Easy control with only 2 digital inputs
- Precise closed-loop control of speed, position and force
- ELGS-BS
  - Size: 32, 45, 60
  - Max stroke length: 800 mm
  - Speed up to 0.25 m/s
  - Force: 40 ... 200 N
- ELGS-TB
  - Size: 45, 60
  - Max stroke length: 2000 mm
  - Speed up to 1.3 m/s
  - Force: 65 ... 75 N
Simplified series toothed belt actuators ELGE

- Simplified rod guided toothed belt actuator series for easy setup and control
- Easy control with only 2 digital inputs
- Precise closed-loop control of speed, position and force
- Size: 35
- Stroke length: 50 ... 800 mm
- Force: 50 N
- Speed up to 1.2m/s

Simplified series rotary actuators ERMS

- Simplified rotary actuator series for easy setup and control
- Easy control with only 2 digital inputs
- Precise closed-loop control of speed, position and force
- Size 25, 32
- Peak torque 2.7 ... 5.6 Nm
- Rotation angles 90°, 180°
- Speed up to 100 RPM

Extra low voltage servo drives CMMT-ST

- Space-saving low voltage servo drive for stepper motors and brushless direct current motors (BLDC or EC motor)
- Voltage 24, 48 V DC
- Nominal current 8 A (peak 10 A)
- Power up to 300 W
Electrics

AC servo drives high performance CMMT-AS
- Nominal voltage: 1 phase 230 and 3 phase 400 V AC
- Nominal current: 2.8 ... 12 A
- Nominal power: 0.35 ... 6 kW

Frequently bought together
EMMB-AS EMMT-AS

AC servo drives economical CMMB-AS
(For use with EMMB-AS motor)
- Nominal voltage: 230 V AC
- Nominal current: 1.5 ... 7 A
- Nominal power: 100 ... 750 W

Frequently bought together
EMMB-AS

Stepper motors EMMS-ST
- Size 28, 42, 57, 87
- Holding torque 0.09 ... 8.6 Nm
- Voltage 24 ... 72 V DC
- Nominal current 1.4 ... 9.5 A
- Suitable motor mounting kit for all Festo actuators

Frequently bought together
CMMT-ST CMMO-ST
**AC servo motors economical EMMB-AS**

- Size 40, 60, 80
- Rated torque 0.32 ... 2.39 Nm
- Nominal current 1.4 ... 3.8 A
- Brake and Keyway option
- Single-turn/Multi-turn encoder options

**AC servo motors high performance EMMT-AS**

- Simple connection technology (OCP: one cable plug)
- Single-turn and Multi-turn (battery-less) EnDat 2.2 encoder technology
- Size 60 ... 100
- Nominal torque 0.6 ... 7.2 Nm
- Voltage 325 ... 565 V DC
- Nominal current 1.4 ... 4.7 A

**Simplified series short stroke toothed belt actuators EPCE**

- Simplified short stroke toothed belt actuator series for easy setup and control
- Easy control with only 2 digital inputs
- Precise closed-loop control of speed, position and force
- Size 45, 60
- Stroke length 5 ... 80 mm
- Force 85 ... 150 N
- Speed up to 0.6 m/s
Simplified series compact electrical cylinder actuators EPCS

- Simplified rod type ball screw actuator series for easy setup and control
- Easy control with only 2 digital inputs
- Precise closed-loop control of speed, position and force
- Size: 32, 45, 60
- Stroke length: 25 ... 500 mm
- Force: 150 ... 900 N
- Speed up to 0.22 m/s
Butterfly valve unit KVZA

**SRBC**
- For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators.

**DFPD**
- A rack and pinion combination with a constant torque characteristic which is suitable for the automation of butterfly valves, ball valves and air dampers.

**VSNC**
- For single and double acting quarter turn actuators with a port pattern to VDI/VDE 3845.

**VZAV**
- 2-way brass or stainless steel, corrosion-resistant
- 3-way stainless steel, corrosion-resistant

Used in explosive environment

Used in the production of honey
Quarter turn actuators DFPD

- With rack and pinion gear unit
- Size: 10 ... 2300
- Torque: 10 ... 2300 Nm
- Swivel angle: 0 ... 90°, 0 ... 180°
- Flange hole pattern to ISO 5211
- NAMUR connection pattern for solenoid valves/sensor boxes to VDI/VDE 3845
- Up to SIL3 low demand mode
- ATEX II 2GD c105°C (T4)X

Sensor boxes SRBC

- Measuring principle electromechanical magnetic reed or inductive
- Switching element function Toggle switch, single-pole (SPDT)
- For DC and AC
- Pre-fitted mounting bridge
- Cable connector and blanking plug included in the scope of delivery
- IP67, NEMA 4/4X protection
- ATEX II 2GD: Ex-ia-NAMUR version
- SIL2 according to IEC61508

Positioners CMSX

- Positioner for double/single-acting quarter-turn actuator or linear
- Namur connection interface (VDI/VDE 3845)
- Configurable characteristic curves: Linear/Equal percentage/User free
- Polycarbonate housing
- Configurable set-point signal 0-10V/0-20mA/4-20mA
- 24VDC operating voltage
- IP65 protection
- Analogue feedback signal 4-20mA
- Configurable emergency input signal: Open/Close/Hold
- Pressure range 3-8 bar
- Operating temperature -5 ... 60°C
- Rotation angle 0 ... 110°
- Repetition accuracy ± 1%
**Visual indicators SASF**

- For mounting on drive shafts of standard actuators in accordance with VDI/VDE 3845
- Four fixed actuating lugs at intervals of 90°
- For clockwise and anti-clockwise rotating actuators with 90° and 180° rotation

**Frequently bought together**

- SRBG

**Sensor boxes SRBG**

- Inductive measurement principle with dual sensor
- Switching component function N/O contact, in the case of AS-Interface switchable N/C-N/O contact
- Operating voltage 6 ... 60 V DC
- Direct mounting on quarter turn actuators to VDI/VDE 3845

**Frequently bought together**

- SASF

**Linear actuators DFPC**

- Optimised for process valves
- Diameter: 80, 100, 125, 160, 200 mm
- Stroke length: 40 ... 1600 mm
- Double-acting
- Mounting interface: ISO 5210, ISO 15552
- Option: Position sensor
- Fixed cushioning at both ends

**Frequently bought together**

- SME/T-8M
- GRLA
- QS
- NPQE
Angle seat valves VZX A

- Port DN 13, 1/2"; DN20, 3/4"; DN25, 1 1/4"; DN40, 1 1/2"; DN50, 2"; DN65, 2 1/2"
- G-thread to DIN ISO 228-1 or NPT-thread to ANSI/ASME B 1.20.1 or Rc-thread to DIN 10226-2
- Medium pressure 0 ... 30 bar
- Valve function 2/2, Normally Closed, Normally Open, Double Acting
- ATEX-approval
- Use with slightly contaminated media, up to 600mm²/s viscosity
- Use for steam applications possible
- Available with 3/2 banjo valve options

Solenoid valves VZW D

- 2/2 way valve
- Port: 1/8", 1/4"
- G threads or NPT threads
- Operating pressure: 0 ... 90 bar
- Nominal pressure: 40 bar
- Electrical actuation
- Voltage 24 V DC, 110 V AC, 230 V AC
- 2/2 way poppet valve (NC), directly actuated
- FPM sealing material
- Suitable for high-pressure applications with low flow rates
- Available in brass or stainless steel versions
- Medium temperature -10 ... 80°C
- Flow rate 0.06 ... 0.16 m³/h
Solenoid valves VZWM

- 2/2 way valve
- Connection G1/4 ... G2, also available with NPT thread
- Flow rate: 1400 to 31000 l/min or 1.6 ... 39 m³/h
- Cable connection
- Solenoid actuated, piloted, pneumatic spring return
- For control of gaseous and liquid media
- NBR sealing material
- Available in brass or stainless steel versions
- Varied range of coils available
- Medium temperature: -10 ... 60°C
- Operating pressure: 0.5 ... 10 bar

Solenoid valves VZWF

- Port 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
- G-thread or NPT threads
- Operating pressure: 0 ... 10 bar
- Nominal pressure: 40 bar
- Electrical actuation
- Voltage: 24 V DC, 110 V AC, 230 V AC
- 2/2 way diaphragm valve (N/C), force pilot operated
- Sealing material NBR, EPDM, FKM
- Appropriate for closed applications such as cooling or filling systems

Pinch valves VZQA

- 2/2 way function
- Normally open/closed versions
- Connection 1/4", 1/2", 1"
- G or NPT thread or clamp versions available
- Pressure range: 0 ... 6 bar
- Pneumatic actuation
- 2/2 way pinch valve
- Aluminium or stainless steel housing (Clean Design)
- Sealing material EPDM, NBR, silicone
- For controlling fluid/powder media, solids, and material mixtures up to viscosity level of 4000 mm²/s
- Suitable for use with closing application
Butterfly valve assembly units KVZA

- Connection type: Wafer, Lug
- Connection standard: PN10, PN16, ANSI #150
- Sizes: DN25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300
- Disc material: Ductile iron (Polyamide coated), St. 14408, St 1.4408 (PFA coated)
- Seat material: EPDM, EPDM high temperature, NBR, PTFE/Silicone

Ball valve assembly units KVZB

- Connection type: Flange, Threaded, Clamp, Welded end
- Operating pressure up to 63 bar
- Valve design: 2/2 way, 3/2 way
- Body material: Brass, Stainless steel

Actuator assembly units KDFP

- Torque range: 1 ... 3248 Nm
- Actuator type: Double acting, Single acting
- Flange size: F03 ... F16
- Shaft size: WAF8 ... WAF46
- Operating pressure: 2 ... 8 bar
Stainless steel filter regulators PCRP

- Robust housing for the specific requirements of the PA industry
- Suitable for use outdoors and at temperatures down to -60°
- Resistant to UV radiation and corrosive environments
- Port G 1/8, G 1/4, NPT 1/4, NPT 1/2
- Pressure 0.5 ... 7 bar, 0.5 ... 12 bar
- Flow rate 1800 ... 6440 L/min
- Manual drain
- Stainless steel filter cartridge
Air preparation MS2/4/6

- Port: G1/8, G1/4, G3/8, G1/2
- Proof pressure: 20 bar
- Pressure: 0.3 ... 7 bar, 0.3 ... 4 bar, 0.5 ... 12 bar, 0.5 ... 16 bar
- Filtration: 5 and 40 μm
- Flow rate: 850 ... 7,200 l/min
- Plastic or metal bown option
- Manual or Auto drain option

Air preparation MS2

- Regulator, filter regulator
- Connection: QS6, M5
- Flow rate: 140 ... 350 l/min
- Pressure range: 0.5... 7 bar
- Temperature range: −5... +50°C
- Filtration grade: 5 μm

Air preparation MS4

- Connection: G1/8, G1/4, G3/8
- Flow rate: 900 ... 2200 l/min
- Pressure range: 0.5... 12 bar
- Temperature range: −10... +60°C
- Filtration grade: 5, 40 μm
Air preparation MS4-B

- Regulator, filter regulator, manual on/off valve, electrical on/off valve
- Connection: G1/4
- Flow rate: 1200 ... 1400 l/min
- Pressure range: 0.5 ... 10 bar
- Temperature range: −5 ... +50°C
- Filtration grade: 5, 40 µm

Available from Q3 2021

Air preparation MS6

- Connection: G1/4, G3/8, G1/2, G3/4
- Flow rate: 2500 ... 8700 l/min
- Pressure range: 0.5 ... 12 bar
- Temperature range: −10 ... +60°C
- Filtration grade: 5, 40 µm

Air preparation MS6-B

- Regulator, filter regulator, manual on/off valve, electrical on/off valve
- Connection: G1/2
- Flow rate: 1500 ... 5800 l/min
- Pressure range: 0.5 ... 10 bar
- Temperature range: −5 ... +50°C
- Filtration grade: 5, 40 µm

Available from Q3 2021
Polyurethane tubings PUN-H

- Easy installation with “one-click” principle
- Hydrolysis-resistant and suitable for water applications
- Suitable for use in clean rooms, FDA compliant and corrosion-resistant

Used in process industry in harsh environment

Flexible and durable use in control cabinet
**Polyurethane tubings PUN-H**

- Large selection of variants
- Highly resistant to stress cracks, microbes and hydrolysis
- Outside diameter: 3 ... 16 mm
- Internal diameter: 2.1 ... 11 mm
- Temperature-dependent operating pressure: -0.95 ... 10 bar
- Ambient temperature: -35 ... 60°C
- Operating medium:
  - Compressed air
  - Vacuum
  - Water

**Push-in fittings QS**

- Wide designs & variations
- Mini-series port: M3, M5, M7, M 6x0.75, M 8x0.75, R1/8, G1/8
- Standard-series port: R1/8, R1/4, R1/2, R3/8, G1/8, G1/4, G1/2, G3/8, G3/4
- OD Tubing: 2, 3, 4, 6, 8, 10, 12, 16, 22 mm
- Threaded connection: Rc, NPT, G
- Suitable for vacuum

**Flow control valves GRLA/Z-D**

- Connection: M3, M5, G 1/8, G 1/4, G 3/8, G 1/2, also available with NPT thread
- Plug connector: 3, 4, 6, 8, 10, 12 mm
- Flow rate: 0 ... 1,400 l/min
- Non-return and flow control valve
**Piloted check valves HGL**

- Manually actuated venting with separate accessories possible
- Port: M5, G1/8, G1/4, G3/8, G1/2
- Flow rate: 130 ... 1600 l/min
- Shut-off valve:
  - Pneumatic piloted non-return valve

**Quick couplings sockets KD**

- Connection: M3, M5, G 1/8, G 1/4, G 3/8, G 1/2
- Diameter: 2, 3, 4, 6, 9, 13 mm
- Threaded connection:
  - Metric thread with sealing ring
  - G thread with sealing ring
- Shut-off on one side
- Shut-off on both sides
- Safety coupling to ISO 4414

**Safety couplings NPHS-D6/S6**

- AG connection: G 1/8, G 1/4, G 3/8, G 1/2
- IG connection: G 1/4, G 3/8, G 1/2
- Barbed connector: N9
- Optional 3/2-way hand slide valve
- Certified by IFA (Institute for Occupational Safety and Health)
Silencers AMTE

- High-temperature resistance up to 80°C
- Slim width
- Wide choice of variants
- Universal use
- Metal variant
- Connecting threads M3, M5, G1/8, G1/4, G3/8, G1/2, G3/4, G1, UNF10-32, NPT1/8-27, NPT1/4-18, NPT3/8-18, NPT1/2-14
- Sound pressure level: 71 ... 95 dB(A)

Silencers U

- Threaded connection: M5, G1/2, G1/4, G1/8, G3/8, G3/4, G1
- Barbed connector connection: PK-3, PK-4
- Noise level: 65 ... 84 dB(A)

Suction cups VAS

- Suction cup size diameter 1 to 125 mm
- Connection:
  » Male thread
- Round suction cup:
  » Standard
  » Bellows, 1.5 convolutions

Frequently bought together

OVERL VN
Compressed air reservoirs CRVZS

- Volume: 0.1 ... 20 l
- Material: High-alloy stainless steel
- Equivalent to AD 2000

Pressure boosters DPA

- Twin-piston pressure booster
- Pressure ratio: 1:2
- Pneumatic port: G1/4, G3/8, G1/2
- Supply pressure: 2 ... 10 bar
- Output pressure: 4 ... 16 bar
- Flow rate: 300 ... 3000 Nl/min
- Ambient temperature: +5 ... +60°C

Push-in fittings NPQE

- Wide designs & variations
- Standard thread: M3, M5, M7, R1/8, R1/4, R3/8, R1/2
- OD Tubing: 3, 4, 6, 8, 10, 12, 14, 16 mm
- Threaded connection: R thread

Flow control valves VFOE

- Connection: M5, M7, R1/8, R1/4, R 3/8, R 1/2, G 1/8, G 1/4, G 3/8, G 1/2
- Plug connector 4, 6, 8, 10, 12 mm
- Flow rate 0 ... 1300 l/min
- Non-return, throttle in and throttle out function

Available from Q3 2021
### Accessories

**Air Preparation**

- **Compressed air reservoirs CRVZS**
  - Volume: 0.1 ... 20 l
  - Material: High-alloy stainless steel
  - Equivalent to AD 2000

- **Pressure boosters DPA**
  - Twin-piston pressure booster
  - Pressure ratio: 1:2
  - Pneumatic port: G1/4, G3/8, G1/2
  - Supply pressure: 2 ... 10 bar
  - Output pressure: 4 ... 16 bar
  - Flow rate: 300 ... 3000 Nl/min
  - Ambient temperature: +5 ... +60°C

**Electrics & Light Assembly**

- **Terminal CPX**
- **PLC/Motion/Robotic Controller CPX-E**
- **Remote I/O system CPX-E**
- **Distributed Remote I/O system CPX-AP-I**
- **Pressure sensors SPAN**
- **Pressure sensors SPAN-B**
- **Pressure sensors SPAU**
- **Pressure sensors SDE5**
- **Flow sensors SFAH**
- **Connecting cables NEBU**
- **Cylinder switches SMT-8M, SMT-10M**
- **Inductive sensors SIEN**
- **Position sensors SRBS**
- **Cylinder switch SDBT-MSX**
- **Mini slides DGST**
- **Linear drives DGC**
- **Linear drives DGC-K**
- **Guided drives DFM**
- **Round cylinders DSNU**
- **Standard cylinders DSBC**
- **Compact cylinders ADN-S**
- **Semi-rotary drives DRVS**
- **Semi-rotary drives DRRD**
- **Parallel grippers DHPS**
- **Frequently bought together**

### Industry Segments

- **Targeted Industry Segments**
- **Possible Industry Segments**

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### Industry Segments

- **Targeted Industry Segments**
- **Possible Industry Segments**

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Industry Segments

- Targeted Industry Segments
- Possible Industry Segments

### Electronics & Light Assembly
- Tothed belt actuators EGC-TB
- Electric cylinders ESBF
- Simplified series spindle and toothed belt actuators ELGS
- Simplified series mini slide actuators EGSS
- Simplified series toothed belt actuators ELGE
- Simplified series rotary actuators ERMS
- Extra low voltage servo drives CMMT-ST
- AC servo drives high performance CMMT-AS
- AC servo drives economical CMNB-AS (For use with EMMB-AS motor)
- Stepper motors EMMS-ST
- AC servo motors economical EMMB-AS
- AC servo motors high performance EMMT-AS
- Simplified series short stroke toothed belt actuators EPCE
- Simplified series compact electrical cylinder actuators EPCS

### Automotive & Tier 1 Suppliers
- Quarter turn actuators DFPD
- Sensor boxes SRBC
- Positioners CMSX

### Food & Packaging
- Visual indicators SASF
- Sensor boxes SRBG

### Process Industries
- Linear actuators DFPC
- Angle seat valves VZXA

### General Industries
- Solenoid valves VZWD

### LifeTech
- 

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Industry Segments

- Targeted Industry Segments
- Possible Industry Segments

<table>
<thead>
<tr>
<th>Industry Segments</th>
<th>Electronics &amp; Light Assembly</th>
<th>Automotive &amp; Tier 1 Suppliers</th>
<th>Food &amp; Packaging</th>
<th>Process Industries</th>
<th>General Industries</th>
<th>LifeTech</th>
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Electronics & Light Assembly
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- Push-in fittings NPQE
- Flow control valves VFOE
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