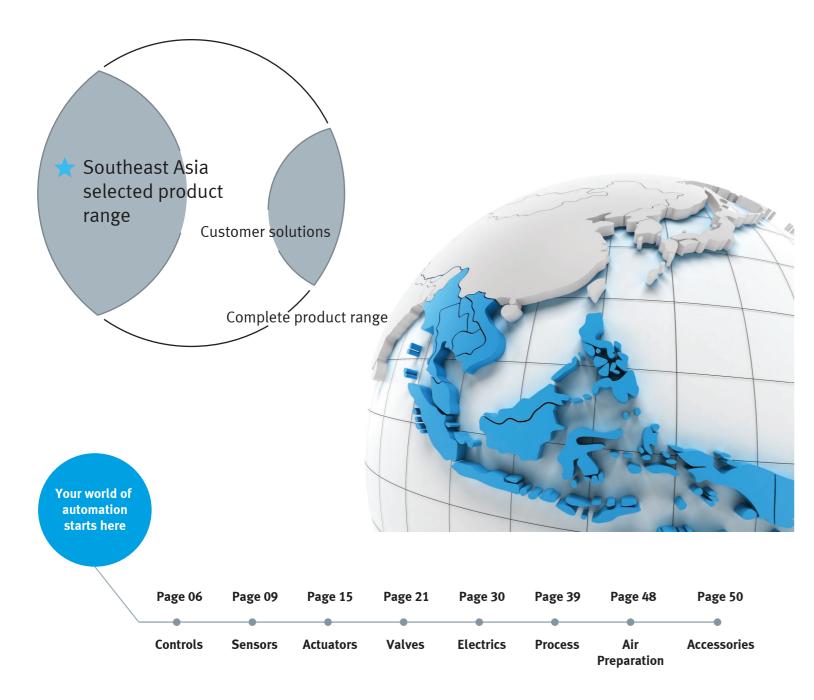
## **Southeast Asia Selected Products**



## 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

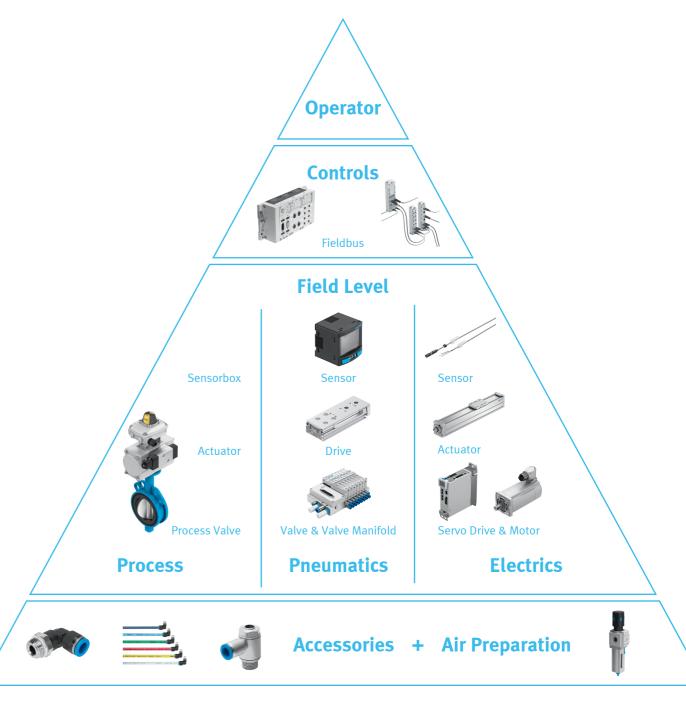


# A star, a distinction, a promise: the best for your task. You can choose from an extensive portfolio

and benefit from high-quality components at particularly attractive prices

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.









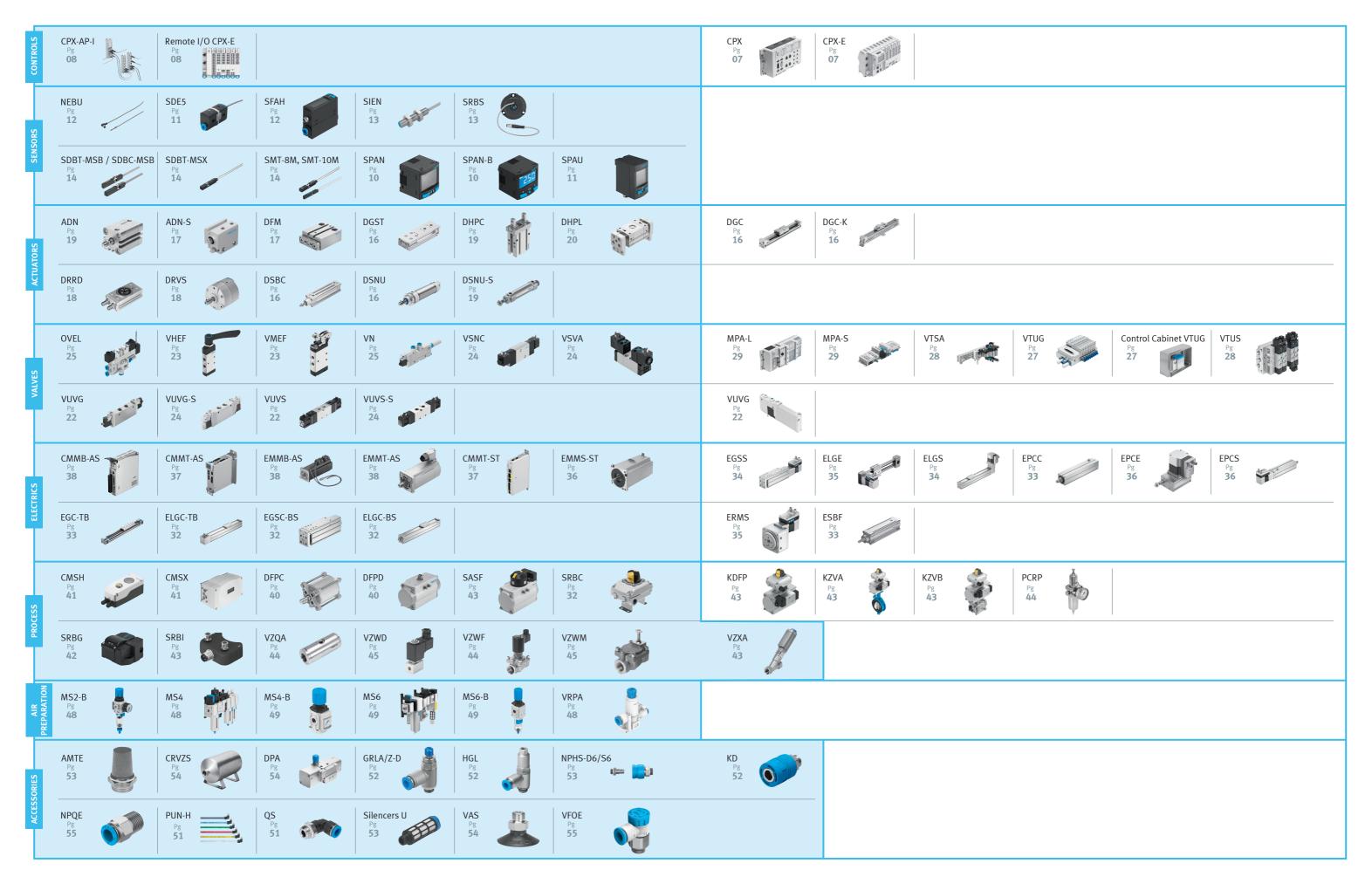








## Ready for dispatch from the Festo factory in 24 hours



## **Terminal CPX**



PLC/Motion + Pneumatics Words 1st Hybrid Controller Modular Remote Electric I/O system & Pneumatics valve terminal for Easy connection & Diagnostics

CPX-MPA for Low flow & High-density connection



CPX-VTSA for High Flow & High Availability

Supported Fieldbus system











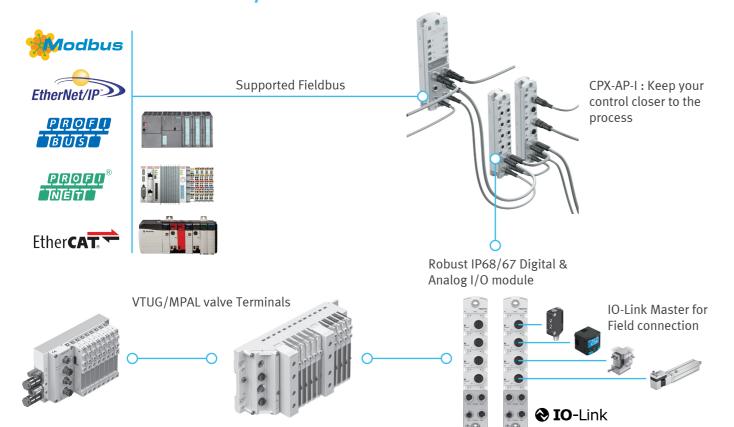








## **Distributed Remote I/O**











## Frequently bought together









### **Terminal CPX**

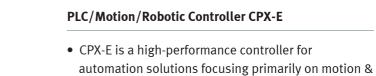
- Comprehensive function integration with technology modules
- Installation variants:
- Stand-alone as remote I/O
- With valve terminal VTSA-F
- With valve terminal VTSA
- With valve terminal MPA-L
- With valve terminal MPA-S
- I/O modules:
  - Digital
- Analogue
- Optional CODESYS controller







Controls



- The following modules are available:
- PLC/Motion/Robotic Controller
- Bus modules

robotic controls

- Input/output modules
- IO-Link master modules
- Encoder Module



























# Controls

### 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













## Frequently bought together







### 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
- 10-Link master
- Pneumatic valve interface on highspeed realtime Synchronized AP bus













## Frequently bought together











### **Pressure sensors SPAN**



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



### **SPAN**

- 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 intergrated using IO-Link 1.1.



Safety guard.



### **SPAN-B**

NEW

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



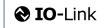
s monitored in production line

Sensors

Sensors Sensors

### **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



### Frequently bought together











### **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,
- 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

## Frequently bought together







### **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

**IO**-Link

## Frequently bought together













### **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





• ECO function with option to switch off the display

• Serial communication integrated using IO-Link® 1.1

- 0.01 ... 0.5 l/min
- 0.02 ... 1 l/min
- 0.1 ... 5 l/min

Flow sensors SFAH

- 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











Sensors

PUN-H

**IO**-Link

### **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

## Frequently bought together













- Voltage 10 ... 34V DC
- Size 4 mm, M5, 6.5 mm, M8, M12, M18, M30
- PNP, NPN
- Flush or non-flush mounting

## Frequently bought together





Sensors

### **Position sensors SRBS**

- For semi-rotary drives DRVS 6 ... 40 and DSM 8, 10, 12
- Switching outputs PNP, NPN and NO, NC freely programmable
- Electrical connection: M8
- Sensing range: 0 ... 270°













Sensors Actuators

### 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
- For T-Slot pneumatic actuator
- Programmable switching output PNP, NPN and NO, NC
- IP65/68
- Electrical connection M8 or Open end
- 10.....30V DC

## Frequently bought together







### Cylinder switches SDBT-MSB / SDBC-MSB



- Basic cylinder switches with solid-state technology
- Best fit for basic application
- For T slot & C slot pneumatic actuator
- Switching outputs PNP, NPN and NO option available
- Electrical connection M8, open end cable
- 5 ... 30 V DC

## Frequently bought together









### Cylinder switches SMT-8M, SMT-10M



- Cylinder switches with solid-state technology
- For T slot & C slot pneumatic actuator
- Switching outputs PNP, NPN and NO, NC option
- Electrical connection M8, M12, open end cable
- 5 ... 30 V DC

## Frequently bought together





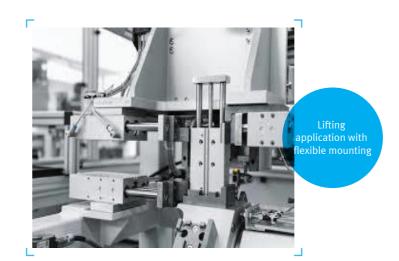


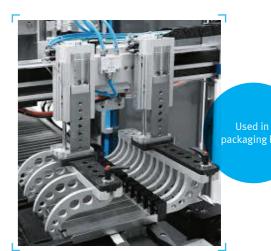




## Mini slides DGST







**Actuators** Actuators



### Mini slides DGST

- Diameter: 6-25 mm
- Stroke lengths: 10-200 mm
- Force: 25 ... 589 N
- Cushioning variants:
  - Basic integrated elastic cushioning without stroke
- Elastic polymer cushioning elements with stroke
- Hydraulic shock absorbers with stroke adjustment

### Frequently bought together























### **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

## Frequently bought together





















### **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

### Frequently bought together



















- Diameter 6, 10, 12, 16, 20, 25, 32, 40, 50, 63, 80, 100 mm
- Stroke length 5 ... 400 mm
- Force 51 ... 4712 N

**Guided drives DFM** 

- Position sensing
- Fixed/adjustable cushioning
- Plain-bearing guide
- Recirculating ball bearing guide
- Variants available

## Frequently bought together















### **Round cylinders DSNU**

- Self-adjusting end-position cushioning
- Diameter: 8, 10, 12, 16, 20, 25 mm (standard)

• Fixed/adjustable/self-adjusting cushioning

- Diameter: 32, 40, 50, 63 mm
- Stroke length: 1 ... 500 mm
- Force: 19 ... 1870 N
- Double-acting
- Position sensing
- Mounting flange

## Frequently bought together

















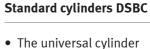












- Standard profile with two sensor slots
- Numerous variants
- Diameter: 32, 40, 50, 63, 80, 100, 125 mm
- Stroke length: 1 ... 2800 mm
- Force: 483 ... 7363 N • Double-acting
- Position sensing
- Fixed/adjustable/self-adjusting cushioning

## Frequently bought together

PUN-H



SDBT-MSB



GRLA















**Actuators** Actuators



### **Short stroke cylinder ADN-S**

- Size: 6, 10, 12, 16, 20, 25, 32, 40, 50, 63mm
- Stroke length: 5, 10, 15, 20, 25, 30, 35,40, 45,50 mm
- Male and female thread
- Space and weight saving
- Double-acting and single acting
- Copper and zinc free variant available

### Frequently bought together



















### **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

### Frequently bought together



















### **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

## Frequently bought together



SDBT-MSB



GRLA











## Parallel grippers DHPC

- Size 6, 10, 16, 20, 25, 32, 40
- Stroke length 2 ...15 mm per gripper jaw
- Force: 3.9 ...388 N per gripper jaw
- Position sensing
- NO/ NC gripping
- Standard and flat gripper finger design

## Frequently bought together



















### Compact cylinders ADN

- Compact cylinder
- Diameter: 12, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125 mm
- Stroke length: 1... 500 mm
- Force: 68 ... 7363 N
- Double-acting / single acting
- Position sensing
- Fixed/self-adjusting cushioning
- Numerous variants

## Frequently bought together























### 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



SDBT-MSB



GRLA































### Valves **Actuators**



### Long stroke parallel gripper DHPL

• Size 10, 16, 20, 25, 32, 40

• Stroke perjaw: 10, 15, 25, 30, 35, 40, 50, 60, 80, 100

• Gripping force: 21...536 N

• Rack and pinion design

• Double acting with plain bearing guide

## Frequently bought together









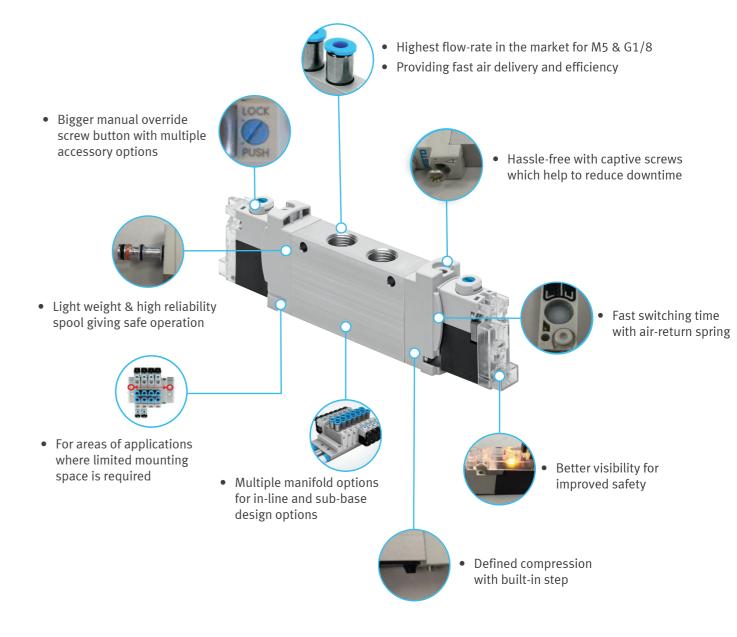








## **Valve VUVG**







**Valves** 

Manually operated valves VHEF

• Valve function 3/2, 5/2, 5/3

Frequently bought together

**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





## Frequently bought together

















### **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







### Frequently bought together

















Frequently bought together

### 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















**Valves** 



### **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

## Frequently bought together





**Valves** 













### **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/CNOMO interface
- Mechanical spring return
- Diverse Ex solenoid systems, IEC Ex, FM EX
- Convertible from 5/2-way function to 3/2-way function





## Frequently bought together















### 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.

## Frequently bought together













### **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

### **IO**-Link













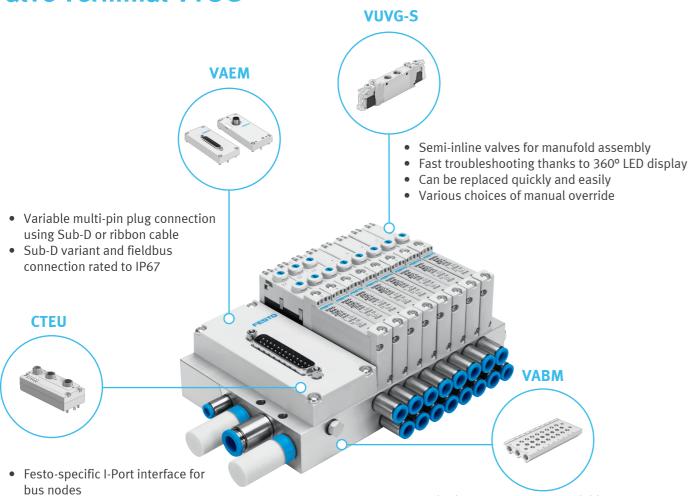


## **Valve Terminal VTUG**

• IO-Link® mode for direct

10-Link® master

connection to a higher-order



- **IO**-Link
- Internal or external pilot air in the same manifold
- Reversible piston spool valves with up to 24 valve positions

• Multiple pressure zones available





### 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



# **② IO-Link EtherCAT CAN**Op⊘a

## Frequently bought together













### **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



















**Valves Valves** 



### **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

### Frequently bought together



















### 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 postition
- Multi-pin plug, fieldbus connection
- Diagnostics function
- Protection class IP65
- Function integration with safetly related pneumatic and vacuum generator













## Frequently bought together

























## CANOPOR

Valve terminals MPA-L

• Flow rate 360 ... 850 l/min

• Protection class IP65, IP67

• Width 10, 14 and 20 mm

• Valve size can be mixed and expandable

• Valve functions 5/2, 5/3, 2x3/2, 2x2/2

• Ideal for control-cabinet installation

• Multi-pin, Fieldbus, IO-Link, I-Port connection

• Polymer sub base



## Frequently bought together













### 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 propotional pressure regulator VPPM















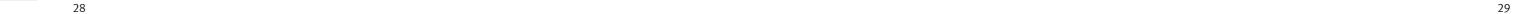






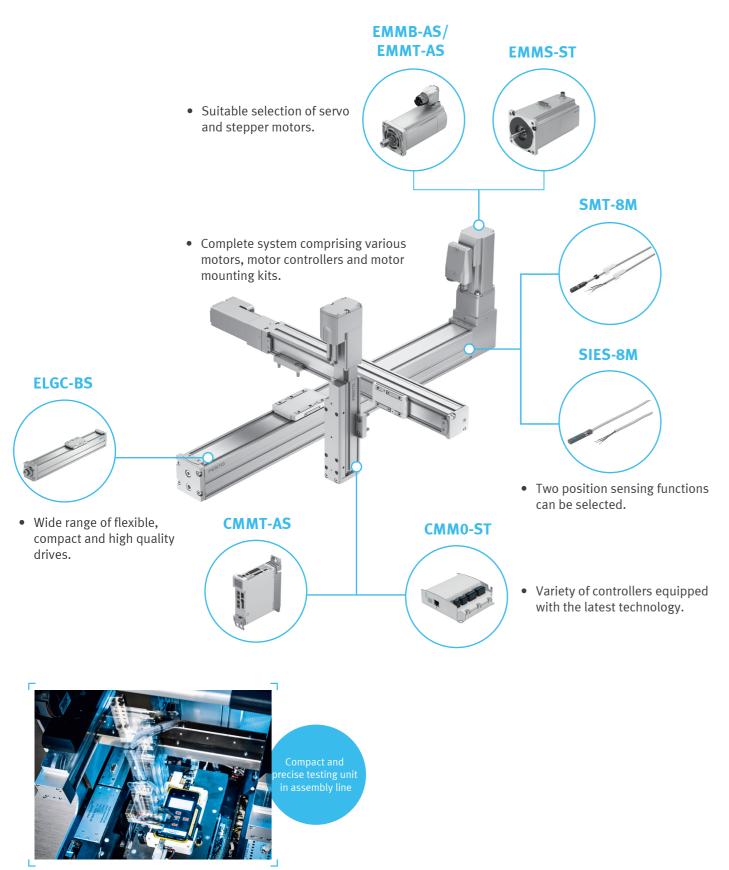


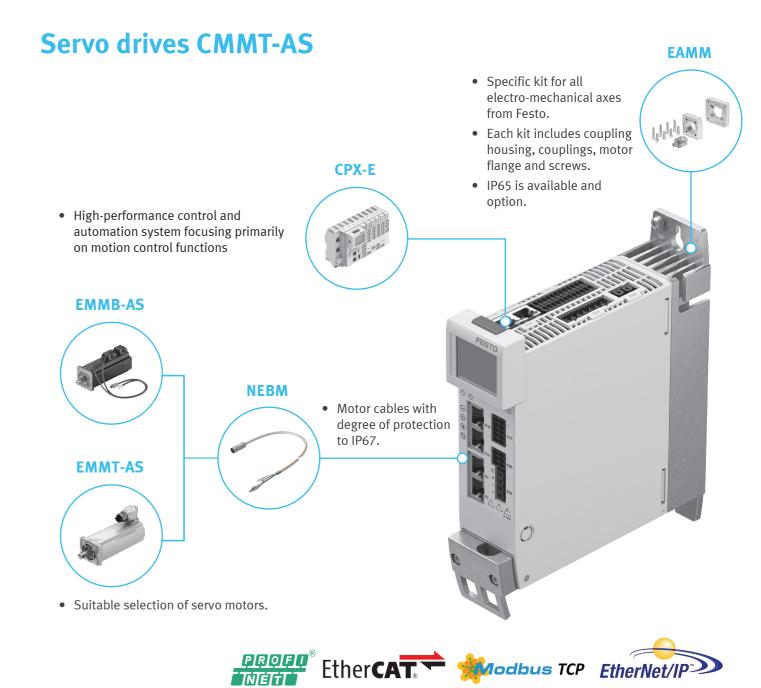




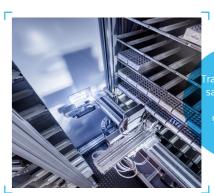
**Electrics Electrics** 

## **Spindle axes ELGC-BS**









ansfer of blood amples in and out of the cold storage system

**Electrics Electrics** 



### Spindle actuators ELGC-BS

- 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























### **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



















### 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





















## Frequently bought together













### Frequently bought together









### **Toothed belt actutators EGC-TB**

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 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**

- Rodstyle 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 1.2m/s
- Optional: Electric ball screw cylinder with clean design (food application)

## Frequently bought together







































**Electrics Electrics** 



Frequently bought together

**IO**-Link

### 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: 800mm
  - Speed up to 0.25 m/s
  - Force: 40 ... 200 N
- ELGS-TB
- Size: 45, 60
- Max stroke length: 2000mm
- Speed up to 1.3 m/s
- Force: 65 ... 75 N











### 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

## Frequently bought together













## 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

## Frequently bought together



**IO**-Link







### 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

## **IO**-Link

### Frequently bought together

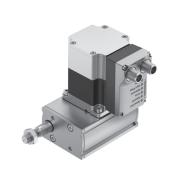






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**Electrics Electrics** 



**IO**-Link

## Frequently bought together



NEBC

### 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









**O**IO-Link

## Frequently bought together







### 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
- Size: 32, 45, 60
- Stroke length: 25 ... 500 mm
- Force: 150 ... 900 N
- Speed up to 0.22 m/s









## Frequently bought together





CMMT-ST CMMO-ST

### **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





### 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







## Frequently bought together



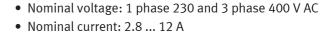






## AC servo drives high performance CMMT-AS

• Nominal power: 0.35 ... 6 kW

























### **Electrics Process**



### 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





### 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 ... 190
- Nominal torque 0.6 ... 82.4 Nm
- Voltage 325 ... 680 V DC
- Nominal current 1.4 ... 20 A









### 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

## Frequently bought together

Frequently bought together





CMMT-AS CMMB-AS





## **Butterfly valve unit KVZA**

• For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators





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

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

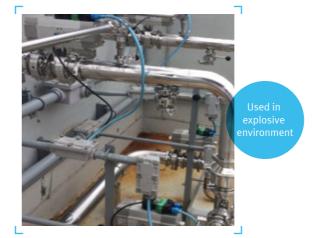


**VZAV** 

**DFPD** 

**SRBC** 

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





### **Process Process**

### **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



### Frequently bought together





SIL certified















### **Linear actuators DFPC**

- Optimised for process valves
- Diameter: 80, 100, 125, 160, 200, 250, 300 mm
- Stroke length: 40 ... 1600 mm
- Double-acting
- Mounting interface: ISO 5210, ISO 15552
- Option: Position sensor
- Fixed cushioning at both ends
- ATEX Declaration



### Frequently bought together



















## Frequently bought together







### **Positioners CMSH**

- Intelligent positioner for double/single-acting quarter-turn actuator or linear
  - Namur connection interface (VDI/VDE 3845-1 or VDI/VDE 3847-2
  - HART interface
  - 4-20mA loop-powered, 2-wire
- Aluminium, powder-coated housing
- IP66, IP67 protection
- Swapable manifold block for double/single acting function
- Self monitoring and diagnostics option
- Partial-stroke test
- Option for pressure gauge connection
- Pressure range 1.4-8 bar
- Operating temperature -40 ... 80°C
- Rotation angle 0 ... 115°









Frequently bought together

### **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%

















# **Process**



### **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



## Frequently bought together









### **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**



## SIL certified

## Frequently bought together









## Frequently bought together



### **Sensor boxes SRBI**

- Compact limit switch box designed for small actuator sizes
- Inductive measurement principle with dual sensor
- PNP switching output
- Operating voltage 10 ... 30 V DC
- Direct mounting on quarter turn actuators to **VDI/VDE 3845**



**Process** 

### Frequently bought together





### **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



## Angle seat valves VZXA

- Port DN 13, 1/2"; DN20, 3/4"; DN25, 1"; DN32, 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 600mm<sup>2</sup>/s viscosity
- Use for steam applications possible
- Available with 3/2 banjo valve options











**Process Process** 

### 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 mm<sup>2</sup>/s
- Suitable for use with closing application



## Frequently bought together





















### **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



### Solenoid valves VZWD

- 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
- Available in brass or stainless steel versions
- Medium temperature -10 ... 80°C
- Flow rate 0.06 ... 0.16 m<sup>3</sup>/h

## Frequently bought together









### Solenoid valves VZWM

- 2/2 way valve
- Connection G1/4 ... G2, also available with NPT
- Flow rate: 1400 to 31000 l/min or 1.6 ... 39 m<sup>3</sup>/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





**Actuator assembly units KDFP** 

• Flange size: F03 ... F16

• Shaft size: WAF8 ... WAF46

• Operating pressure: 2 ... 8 bar



**Process** 





## Frequently bought together















### Ball valve assembly units KVZB

Butterfly valve assembly units KVZA

St. 14408, St 1.4408 (PFA coated)

• Connection standard: PN10, PN16, ANSI #150

• Sizes: DN25, 32, 40, 50, 65, 80, 100, 125, 150,

• Disc material: Ductile iron (Polyamide coated),

• Seat material: EPDM, EPDM high temperature,

• Connection type: Wafer, Lug

200, 250, 300

NBR, PTFE/Silicone

- Connection type: Flange, Threaded, Clamp,
- Sizes: 1/4", 3/8", 1/2", 3/4", 1", 1-1/2", 2", 2-1/2", 3", 4", 6", 8"
- Operating pressure up to 63 bar
- Valve design: 2/2 way, 3/2 way
- Body material: Brass, Stainless steel









## Frequently bought together















## Frequently bought together





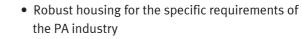
SIL certified according IEC 61508

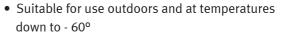




**Process** 

### Stainless steel filter regulators PCRP





- 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 1600 ... 6440 L/min
- Manual drain
- Stainless steel filter cartridge



## Frequently bought together







Process

# Pressure regulator VRPA

- In line with /without pressure gauge
- L-shape with pressure gauge
- Connection: QS4, QS6, QS8, M5, R1/4, R1/2
- Flow rate: 80 ... 130 l/min
- Pressure range: 1 ... 8 bar

## Frequently bought together

Air Preparation







### Air preparation MS2-B

- 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 um

### Frequently bought together













### 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 um

### Frequently bought together



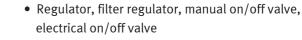








### Air preparation MS4-B



- Connection: G1/4
- Flow rate: 1200 ... 1400 l/min
- Pressure range: 0.5 ... 10 bar
- Temperature range: -5 ... +50°C
- Filtration grade: 5, 40 um

## Frequently bought together









**Air Preparation** 



## 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 um

## Frequently bought together

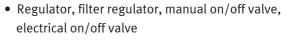








### Air preparation MS6-B



- Connection: G1/2
- Flow rate: 1500 ... 5800 l/min
- Pressure range: 0.5 ... 10 bar
- Temperature range: −5 ... +50°C
- Filtration grade: 5, 40 um

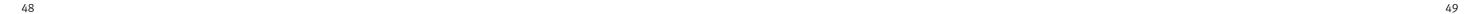




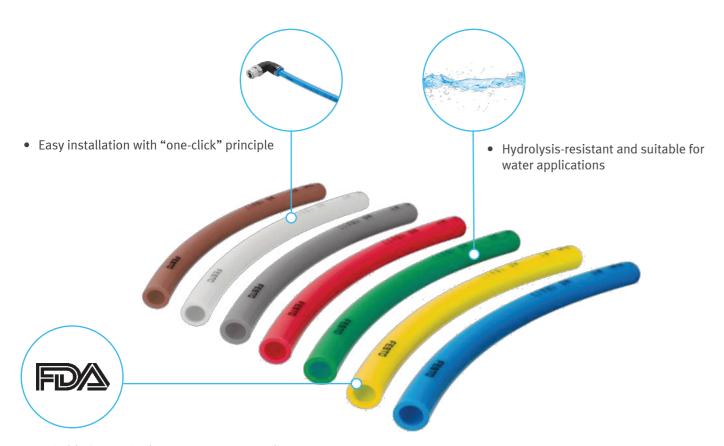








## Polyurethane tubings PUN-H



• Suitable for use in clean rooms, FDA compliant and corrosion-resistant





### 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

## Frequently bought together









### **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/
- OD Tubing: 2, 3, 4, 6, 8, 10, 12, 16, 22 mm
- Threaded connection: Rc, NPT, G
- Suitable for vacuum

## Frequently bought together





**Accessories** 

### 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

## Frequently bought together







### 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

### Frequently bought together











### **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

## Frequently bought together







### 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

## Frequently bought together









Accessories



### 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)







**Accessories** Accessories



## **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













- Volume: 0.1 ... 20 l
- Material: High-alloy stainless steel

Compressed air reservoirs CRVZS

• 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

## Frequently bought together









### **Push-in fittings NPQE**

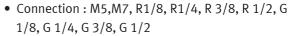
- Wide designs & variations
- Standard thread :M3, M5, M7, R1/8, R1/4, R3/8, R1/2
- OD Tubing: 3, 4, 6, 8, 10, 12, 14, 16 mm
- Threaded connection: R thread

## Frequently bought together





## Flow control valves VFOE



- Plug connector 4, 6, 8, 10, 12 mm
- Flow rate 0 ... 1300 l/min
- Non-return, throttle in and throttle out function

## Frequently bought together







Industry segments

## **Industry segments**

- Targeted Industry Segments
- O Possible Industry Segments





Automotive

& Tier 1

Suppliers



Food &

Packaging



**Process** 

Industries



General

Industries



LifeTech



O Possible Industry Segments

Mini slides EGSC-BS

Pg **31** 



Electronics

& Light

Assembly



Automotive

& Tier 1

Suppliers



Food &

Packaging



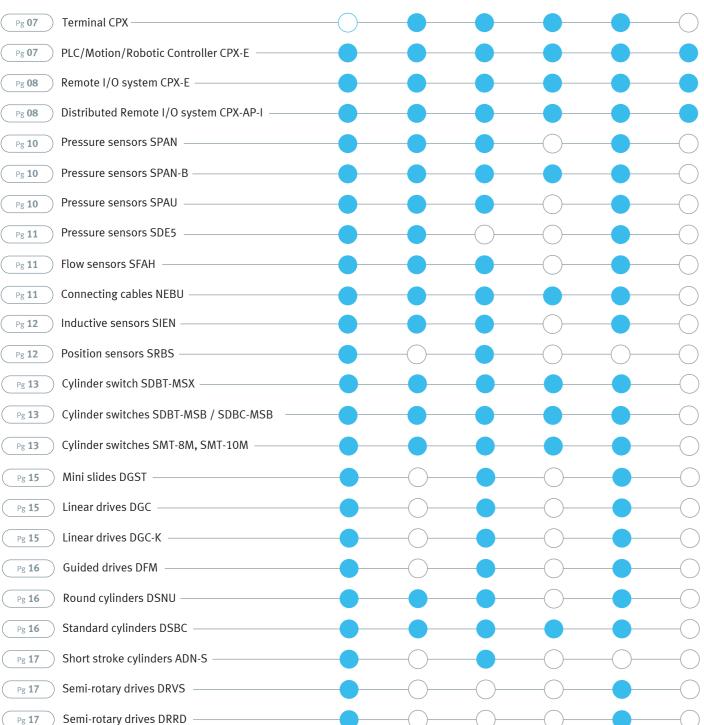
Process

Industries



General LifeTech Industries

Electronics & Light Assembly



Pg **18** Compact cylinders ADN Pg **18** Parallel grippers DHPC Pg **18** Compact round cylinders DSNU-S Pg **19** Long stroke parallel gripper DHPL Pg **21** Individual valves VUVG Pg **21** Plug-in valves VUVG Pg **21** Individual valves VUVS Individual valves VSVA Pg **21** Individual valves VSNC Pg **22** Pg **22** Vacuum generators VN Vacuum generators OVEL Pg **22** Pg **23** Manually operated valves VHEF Mechanically actuated valves VMEF Pg **23** Individual valves VUVG-S Pg **24** Pg **24** Individual valves VUVS-S Pg **26** Valve terminals VTUG Control cabinet VTUG Pg **26** Valve terminals VTUS Pg **27** Valve Terminals VTSA Pg **27** Pg **28** Valve Terminals MPA-L Valve Terminals MPA-S Pg **28** Spindle actuators ELGC-BS Pg **31** Toothed belt actuators ELGC-TB Pg **31** 

Industry segments

## **Industry segments**

- Targeted Industry Segments
- Possible Industry Segments



Electronics

& Light

Assembly

Automotive

& Tier 1

Suppliers



Food &

Packaging



General

Industries

Process

Industries





LifeTech



O Possible Industry Segments









LifeTech

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Electronics Automotive & Light & Tier 1 Assembly **Suppliers** 

Food & **Process** Packaging Industries

General Industries

industry Seg	bie	Possi	
Compact 6		Pg <b>32</b>	
Toothed b		Pg <b>32</b>	
Electric cy		Pg <b>32</b>	
Simplified actuators		Pg <b>33</b>	
Simplified		Pg <b>33</b>	
Simplified		Pg <b>34</b>	
Simplified		Pg <b>34</b>	
Extra low v		Pg <b>34</b>	
AC servo d		Pg <b>35</b>	
AC servo o		Pg <b>35</b>	
Stepper m		Pg <b>35</b>	
AC servo n		Pg <b>36</b>	
AC servo n		Pg <b>36</b>	

Pg **41** 

Pg **41** 

Angle seat valves VZXA

Solenoid alves VZWD

Solenoid valves VZWM



Pg **42** Solenoid valves VZWF Pg **42** Pinch valves VZQA Pg **43** Butterfly valve assembly units KVZA Pg **43** Ball valve assembly units KVZB Pg **43** Actuator assembly units KDFP Pg **44** Stainless steel filter regulators PCRP Pg **44** Positioners CMSH Pg **45** Sensor boxes SRBI Pg **46** Air preparation MS2/4/6 Pg **46** Air preparation MS2-B Pg **46** Air preparation MS4 Pg **47** Air preparation MS4-B Pg **47** Air preparation MS6 Pg **47** Air preparation MS6-B Pg **48** Pressure regulator VRPA Pg **50** Polyurethane tubings PUN-H Push-in fittings QS Pg **50** Flow control valves GRLA/Z-D Pg **50** Pg **51** Piloted check valves HGL Pg **51** Quick couplings sockets KD Safety couplings NPHS-D6/S6 Pg **51** Silencers AMTE Pg **52** Pg **52** Silencers U Suction cups VAS

## **Industry segments**

Targeted Industry Segments





Electronics

& Light

Assembly



Automotive

& Tier 1

**Suppliers** 



Food &

Packaging



Process

Industries



LifeTech General Industries



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