

A single supplier
with a complete
range of products



PNEUMATIC
AUTOMATION



AUTOMOTIVE



MODULAR
TOOLING
SYSTEM

since **1971**
KNOW-HOW
RESEARCH
INNOVATION

since **1971** in **Industrial Automation**

~500 Global **Resources**

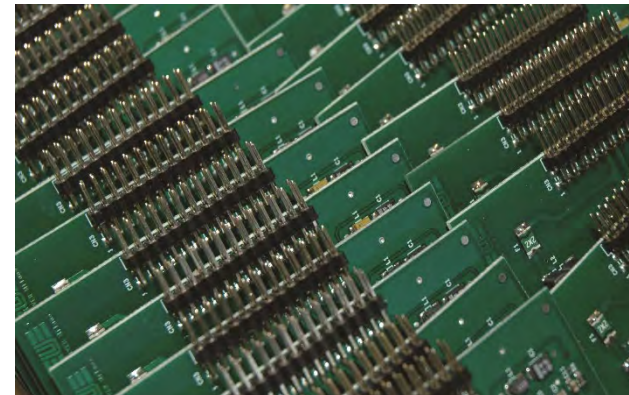
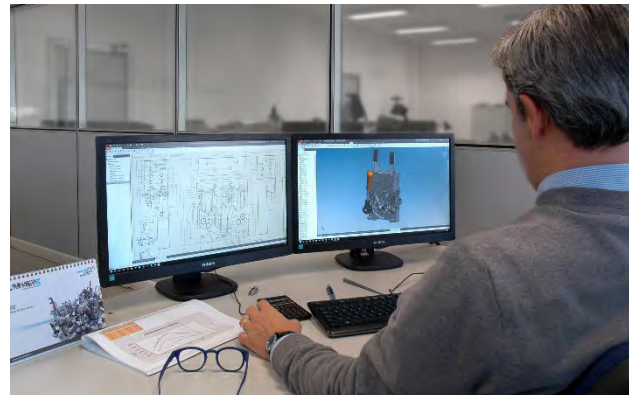
4 **Production** units

12 International **Subsidiaries**

~100 International **Distributors**

160 Registered **patents**

- Team of **qualified engineers**
- **Design, engineering and development** of each product, even on **customer demand**
- **Electronic division** for the design of the electronic components integrated into UNIVER products
- **Test room:** functional tests and life-testing



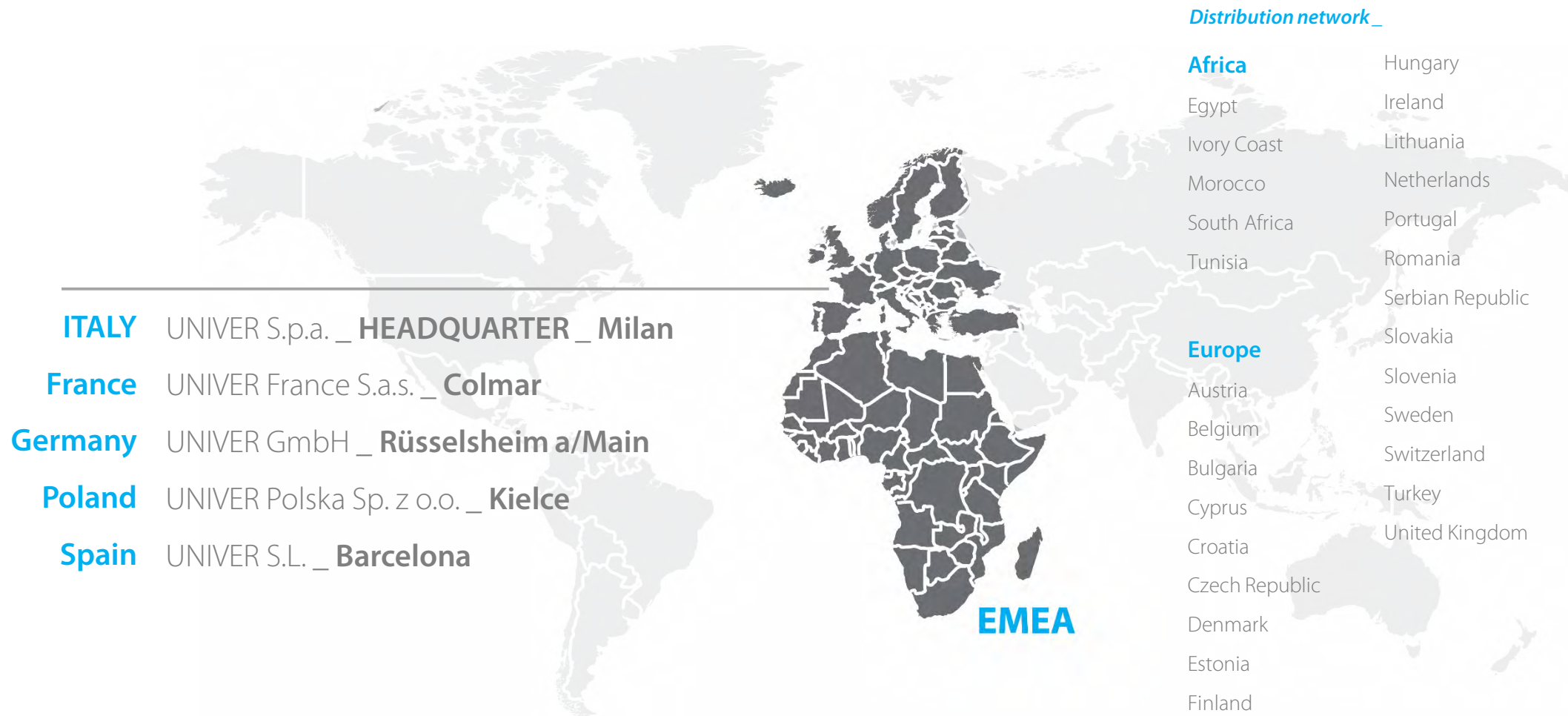
Certifications

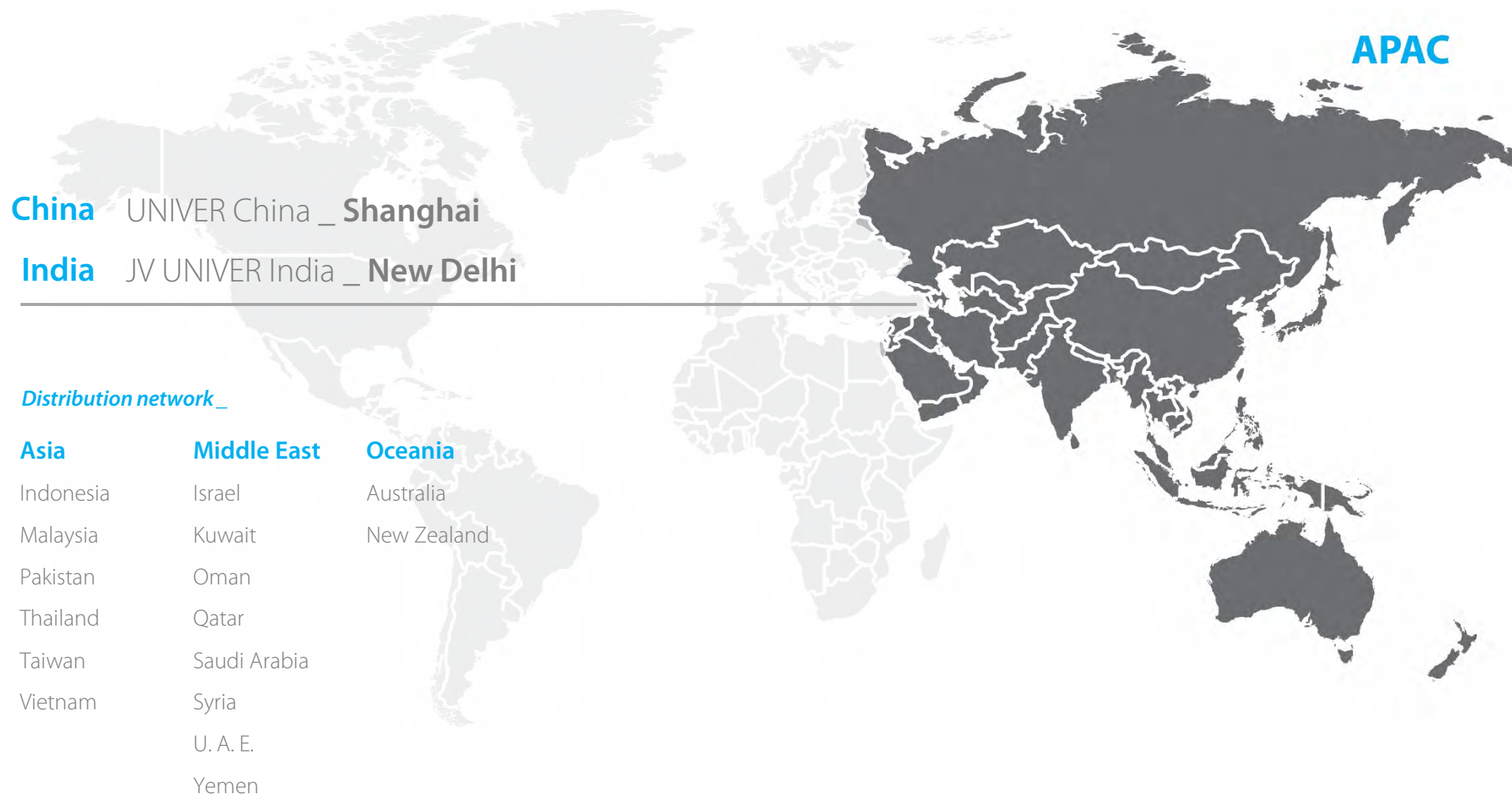
ISO 9001:2015 Quality Management System

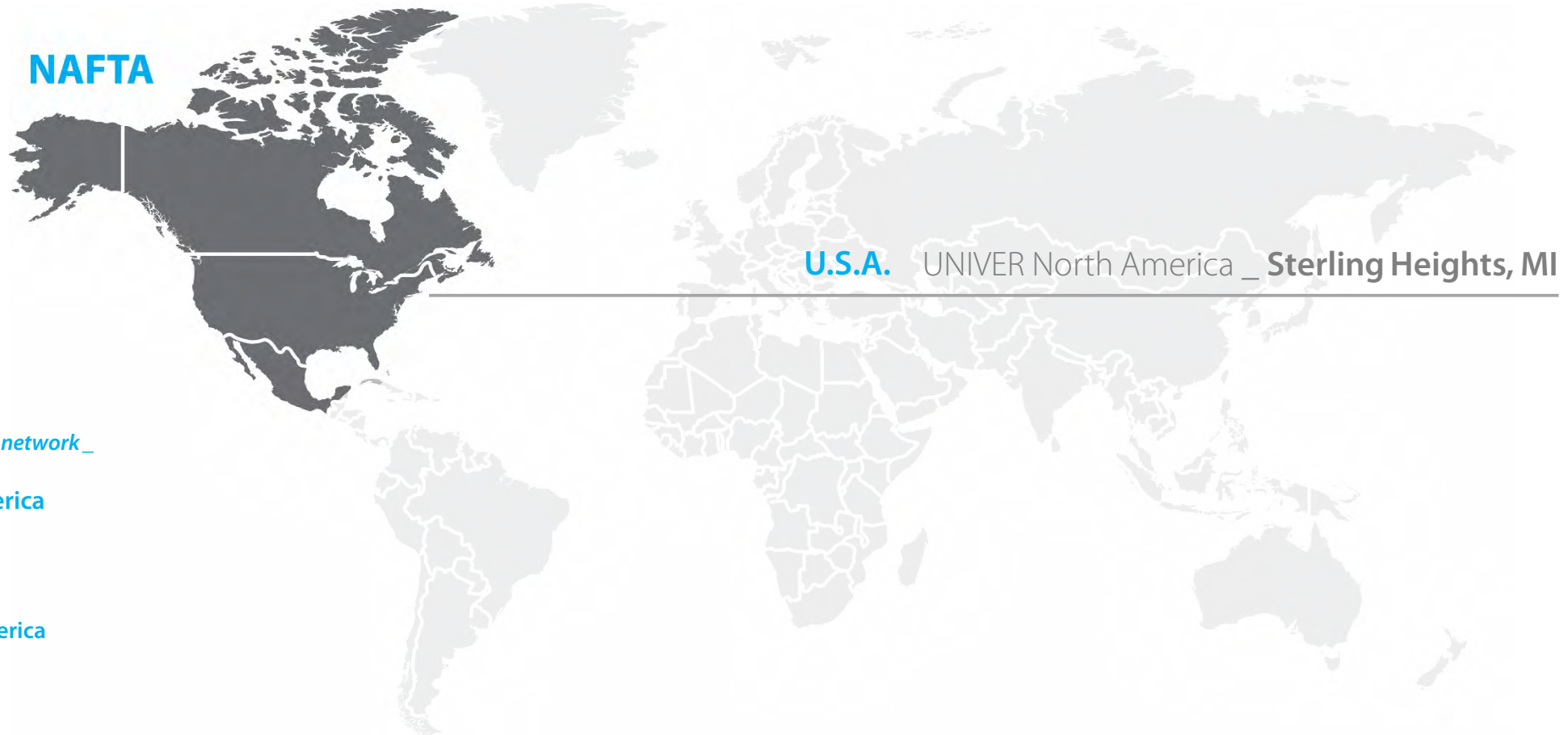


Product Certifications









Distribution network _

North America

Canada

Central America

Mexico

Distribution network _

South America

Argentina
Chile
Venezuela
Perú

LATAM

Brasil UNIVER do Brasil S/A _ Americana, SP



Pneumatic Automation

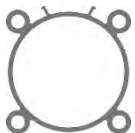
CYLINDERS AND ACTUATORS





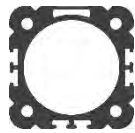
KL

Ø 32÷125 mm



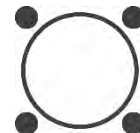
KD

Ø 32÷125 mm



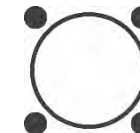
K160/200

Ø 160-200 mm



K250/320

Ø 250-320 mm



ISO 15552 Pneumatic cylinders

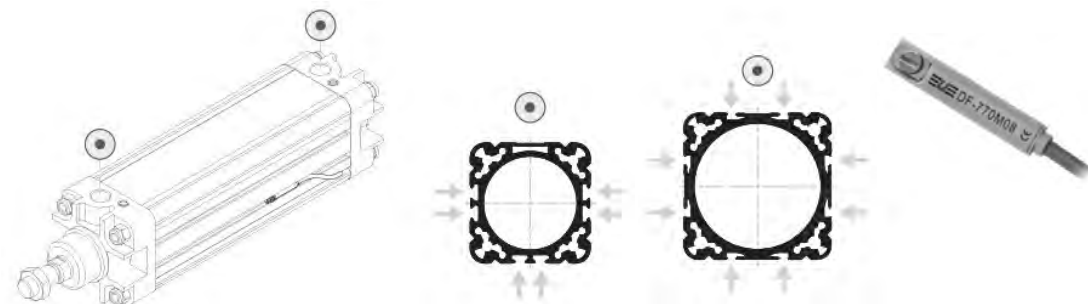
KD_Series



- Tube profile with **integrated sensor grooves**

HEAVY DUTY

Grooves position for DF magnetic sensors



Supply side

KD Ø32 ÷ Ø63 mm

Right/ left and opposite to
the supply side

KD Ø80 ÷ Ø125 mm

All sides

Bore mm

32÷125

Stroke mm


0÷1000

Type

Double- acting , single -acting, through piston rod,
tandem

Version preset for locking unit , magnetic version standard supplied

Constant monitoring of cylinder stroke

- **Analogic** output
-  **IO-Link** connection with constant **feedback**
- Zero-point can be freely selected
- Assembly on cylinders with «**T**» **groove** or through **adaptor**



DF-MS

32÷256 Strokes
for cylinders with T groove
IO-Link (*upon request*)



DF-MA

287÷1007 strokes
assembly through adapter
IO-Link (*standard supplied*)



Which application?



- + **Non-contact measurement** of the position
- + Detection and control of **process and product quality** (ex: size, thickness, etc.)
- + **Synchronization** of several actuators of the production line
- + **Process optimization**

Sensors specifications

Detection range	32÷1007mm
Resolution	0,03% FS (≥ 0,06mm)
Repeatability	0,06% FS (≥ 0,1mm)
Output function	4-20mA, 0-10V – IO-Link



STAINLESS STEEL AISI 304 BARREL AND PISTON ROD

SHOCK ABSORBERS STANDARD SUPPLIED

ADJUSTABLE PNEUMATIC CUSHIONINGS

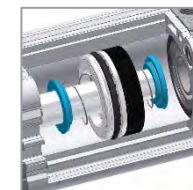
Bore mm	8÷25
Stroke mm	0÷500
Type	Double acting, single acting, through piston rod with cushionings
Preset for locking unit Ø 16÷25, magnetic version Ø10÷25	



ADJUSTABLE PNEUMATIC CUSHIONING

UNIVER Original since 1999

- No change in dimensions comparing to an equivalent cylinder without cushionings
- Standard supplied for all models



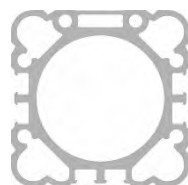
STANDARDS-BASED

Available in compliance with **UNITOP** and **ISO 21287** standards

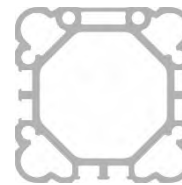
STANDARD AND OCTAGONAL TUBE

Available in standard version and non-rotating version with **UNIVER Original** octagonal tube

standard



octagonal



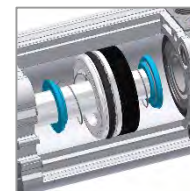
- Centering bores, interaxes and piston rods complying with **ISO 15552 standards**



ADJUSTABLE PNEUMATIC CUSHIONING

UNIVER Original since 1999

- No change in dimensions comparing to an equivalent cylinder without cushionings
- Standard supplied for all models

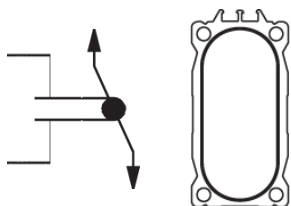


STRONG

Oversized guide and piston rods

ISO 15552

Interaxes, centering bores and piston rods complying with ISO 15552 standards



COMPACT

Up to **40%** width reduction if compared to standard cylinders

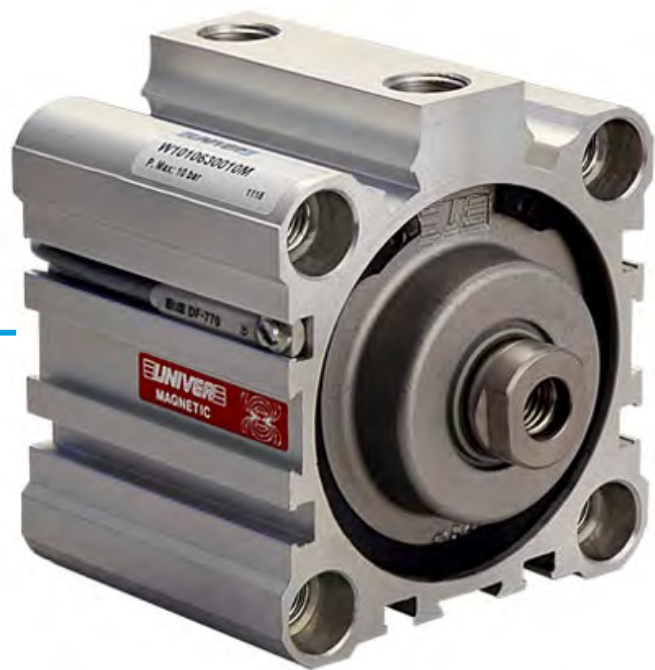
ANTI-ROTATION

Piston rod max rotation from **0,3° to 0,9°**

CUSHIONING

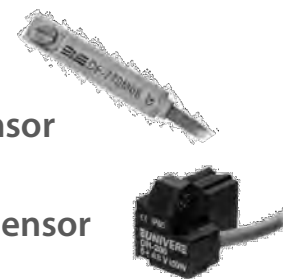
Standard supplied Ø18 - 80 mm
(adjustable pneumatic cushionings)

Bore mm	18÷80
Stroke mm	0÷320
Type	Double acting, through piston rod
Magnet and cushioning standard supplied Version : hollow piston rod	



1 Groove for DF Series recessed sensor

2 Groove for DH Series traditional sensor



Bore mm	12÷100
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Stroke mm	0÷100
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Type	Double acting, single acting, through piston rod, tandem
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Available with: hollow piston rod, non-rotating piston rod	
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Slide units for pneumatic cylinders

J_Series



J1

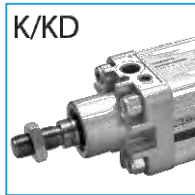
Cylinders **ISO 6432**

M



Cylinders **ISO 15552**

K/KD



J3

Rodless Cylinders

S1



J64RS

STRONG Cylinders

RS



J64RT2

Telescopic Cylinders

RT2



Slide units for pneumatic cylinders

J_Series



STRONG

Extruded aluminium profile structure

UNIVER Original

SMOOTH SLIDING

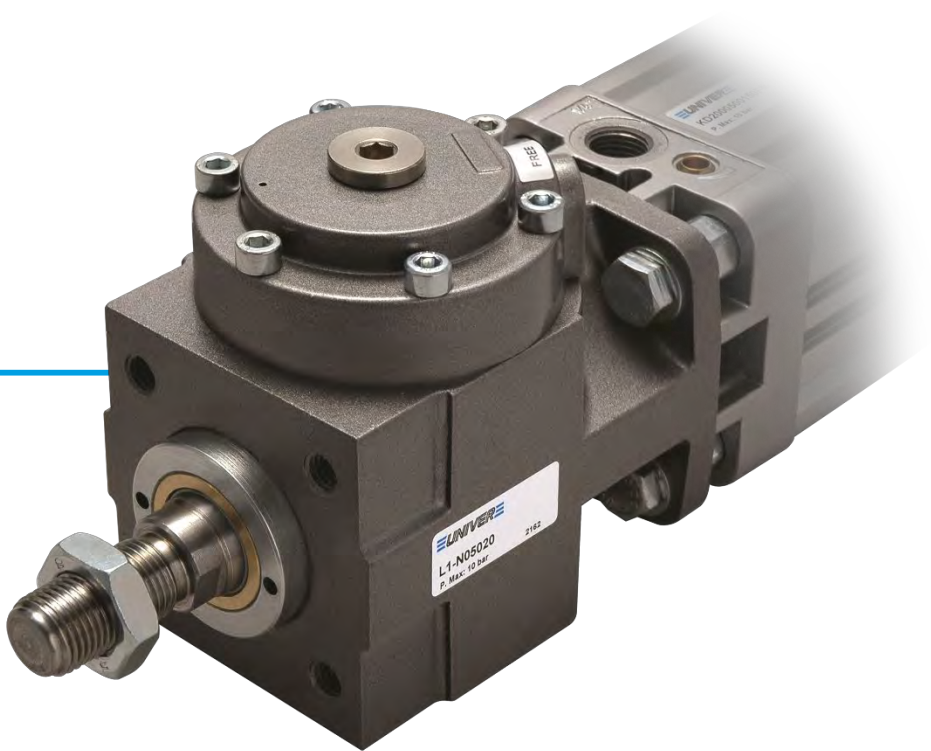
Self-lubricating guiding bushes made of special steel

STURDY

Oversized hollow guiding shafts made of chromium-plated steel

STANDARD

Wide range of standard solutions for any application requirement



ORIGINAL

Locking system **UNIVER Original** since 1998

STATIC/DYNAMIC

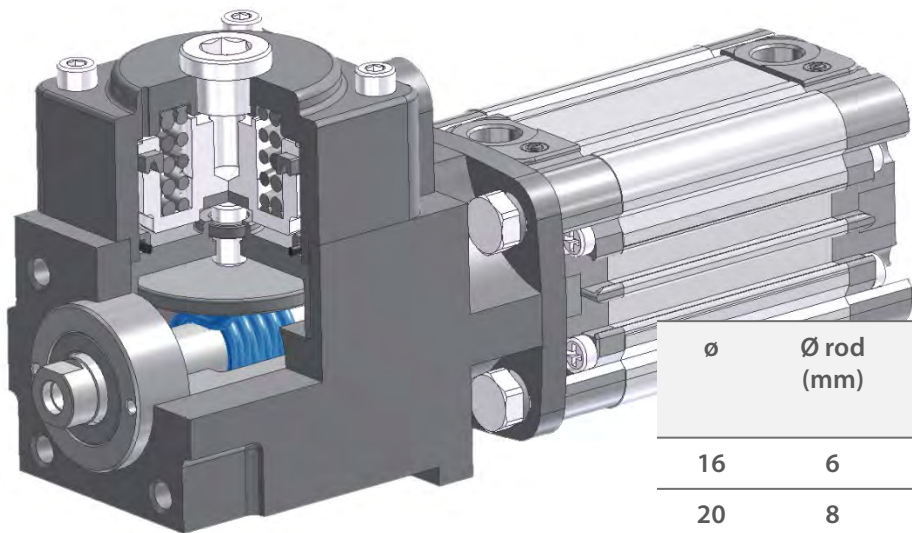
Static locking and dynamic braking in a single device

POWERFUL

The highest locking force among market equivalent devices

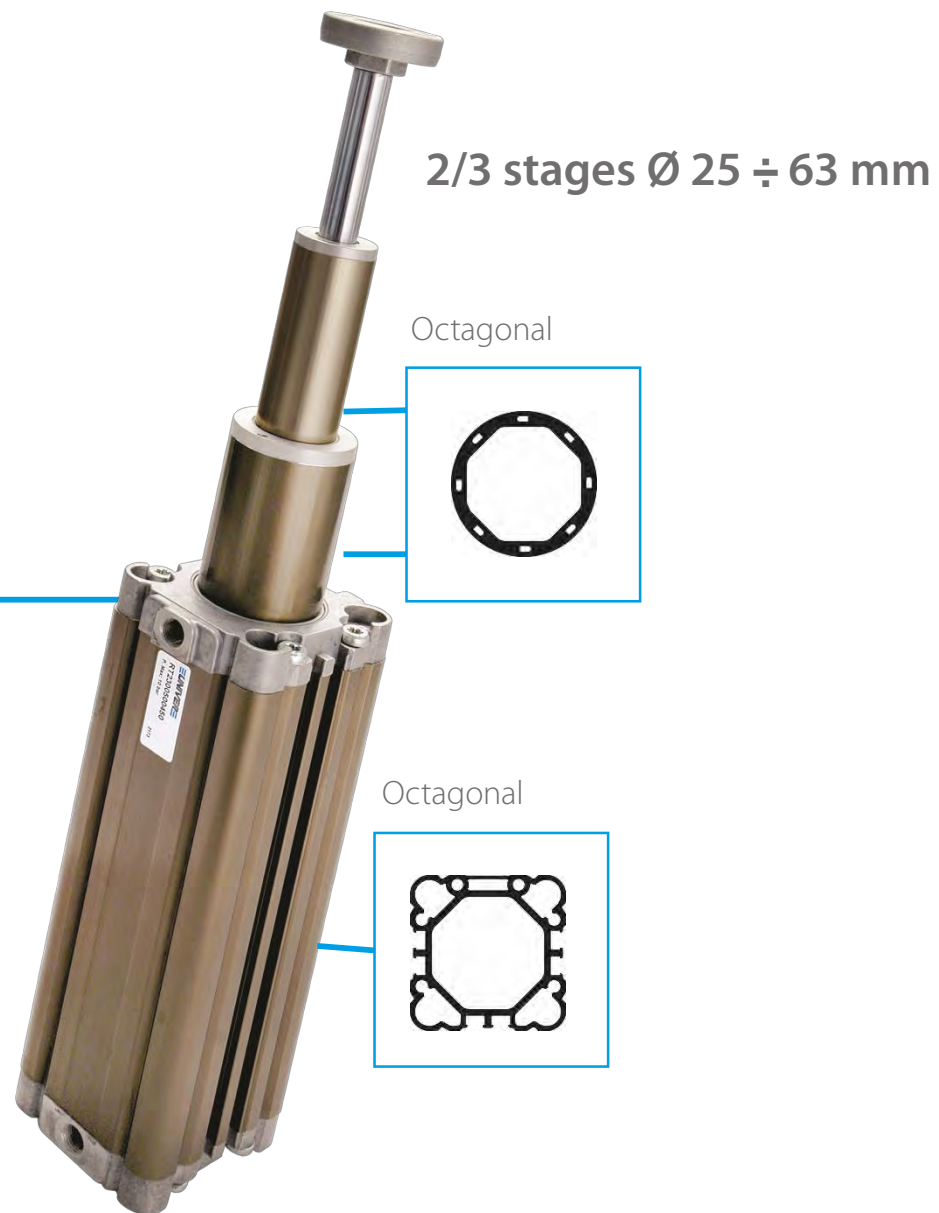
STANDARD

No rod slipping even if affected by oil and grease



Ø	Ø rod (mm)	Static Locking Force (N)
16	6	200
20	8	314
25	10	490
32	12	800
40	16	1260
50	20	2000
63	20	3100
80	25	5000
100	25	7850
125	32	12300

- **UNIVER Original** locking system
- **Excellent response time**, high **repeatability**, high **kinetic energy**, high **shock and vibration resistance**
- To be used only with chromium-plated cylinders
- Sudden **load changes are well supported**
- **No rod slipping even if affected by oil and grease**
- **Perfect comply with safety standards : air pressure can be used only for locking release (4 bar)**



ORIGINAL

UNIVER Original design and technology

INDUSTRIALIZED

Industrialized components and advanced technology

REDUCED DIMENSIONS

-60% less than standard cylinders

NON-ROTATING

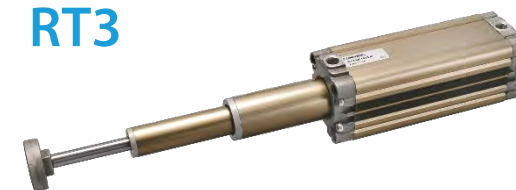
Non-rotation octagonal tube standard supplied

RT2



2 stages $\varnothing 25 \div 63$ mm

RT3



3 stages $\varnothing 40 \div 63$ mm

VALVES





BE

ISO 5599/1



BD

ISO 15407-1/2

■ ISO 5599/1 size **1-2-3-4**



M12

BE 3

ISO 1

1480

NI/min



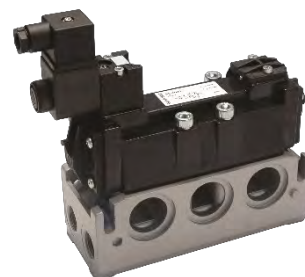
M12

BE 4

ISO 2

2300

NI/min



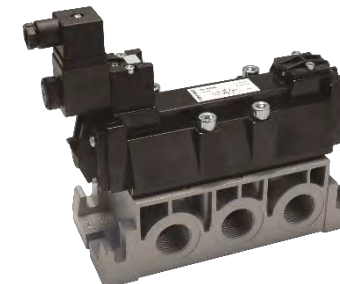
M12

BE 5

ISO 3

4200

NI/min



BE 6

ISO 4

6600

NI/min

■ G1/8 - G1 1/2



WIDE RANGE

G1/8 ÷ G1 1/2
2/2 - 3/2 NC-NO

COMPRESSED AIR VERSION

VACUUM VERSION

Available also with external pilot vacuum supply

HIGH FLOW RATE

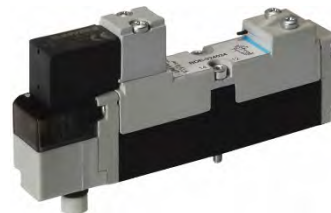
Up to **35000** NI/min (G1 1/2)

- ISO 15407-1/2 VDMA 24563
- Valve - **18/26 mm**



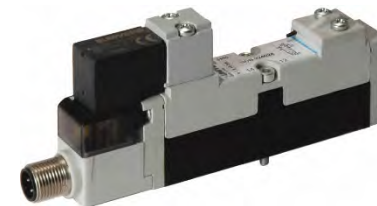
BDE

Integrated electrical connection (ISO 15407/2)



BDB

M12 connector (Automotive)



BDA

Single electrical connection (ISO 15407/1)



BDA

Pneumatic connection (ISO 15407/1)



- ISO 15407-1/2 VDMA 24563
- Valve - 18/26 mm



Standards-based valves

BD_Series

CANopen

EtherNet/IP

EtherCAT

PROFI BUS

DeviceNet

PROFI NET

IO-Link

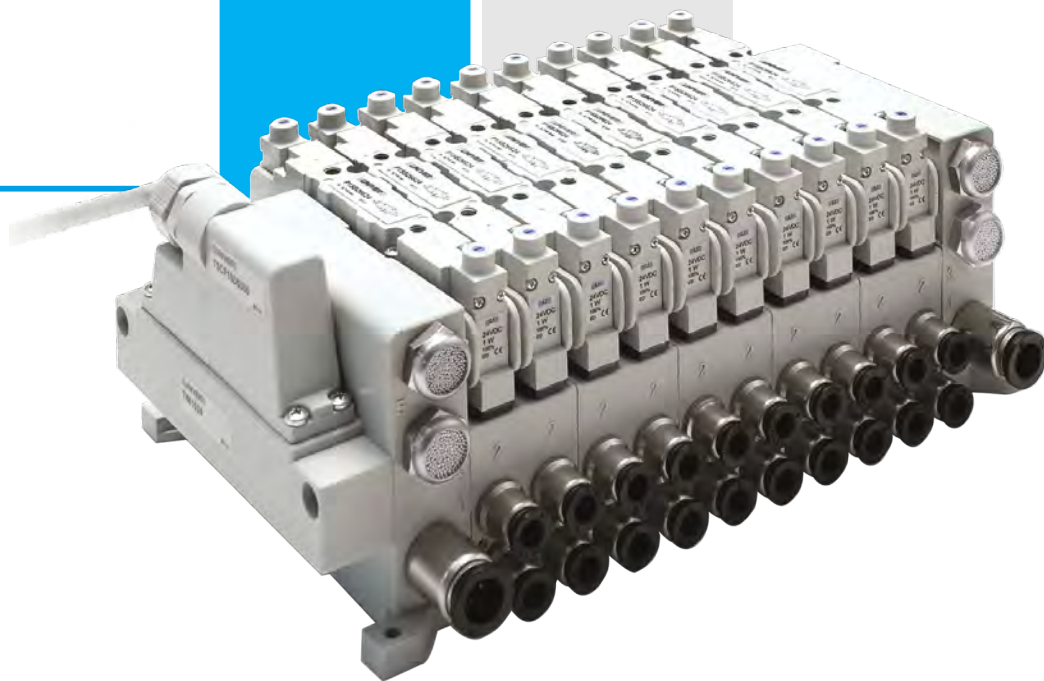
Funzioni	5/2 - 5/3 – 3/2 + 3/2	
Flow rate NI/min	18 mm	26 mm
Standard ISO/VDMA	620	1250
Oversized	800	1700
Voltage V DC (1,5 W) BDA	12-24-48-110	
BDE	24	
V AC (2,3 VA) BDA	12-24-48-110-230	

Modular sub-base, single electrical and multipolar connection

■ 10mm / 15mm / 22mm

1 w
Standard

0,3 w
Low
Consumption



HIGH FLOW RATE

310 NI/min [10 mm] / 800 NI/min [15 mm] / 1700 NI/min [22 mm]

COMPACT SIZE: 15 mm

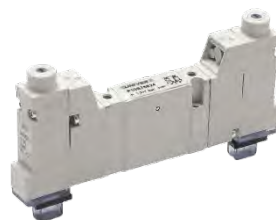
Highest reduction of overall dimensions

EASY INSTALLATION

All pneumatic connections on the same side

COMPLETE SOLUTION

Threaded body and body for sub-base mounting
5/2 – 5/3 – 3/2+3/2



C10

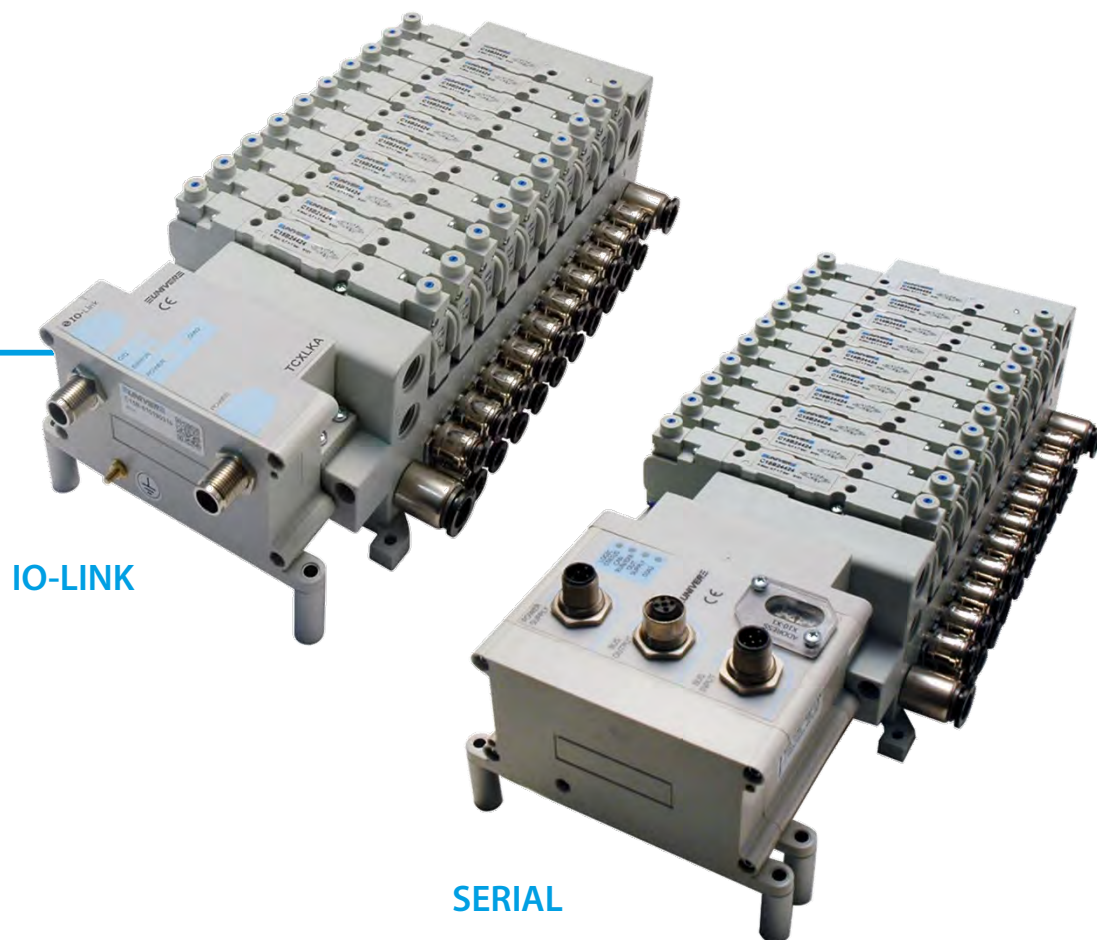


C15



C22

■ Communication system



 **IO-Link**

CANopen

Ether**CAT**[®]


EtherNet/IP[™]


DeviceNet[™]

PROFI[®]
BUS

PROFI[®]
NET

■ 18 mm (G1/8) 22 mm (G1/4)

G1/8
800
NI/min



G1/4
1700
NI/min

HIGH FLOW RATE

800 NI/mm (G1/8) 1700 NI/mm (G1/4)

REDUCED DIMENSIONS

18 mm (G1/8) 22 mm (G1/4)

COMPLETE SOLUTION

5/2 Monostable/Bistable

5/3 Closed centers/Open centers/Pressurized centers

3/2 NC+3/2 NC

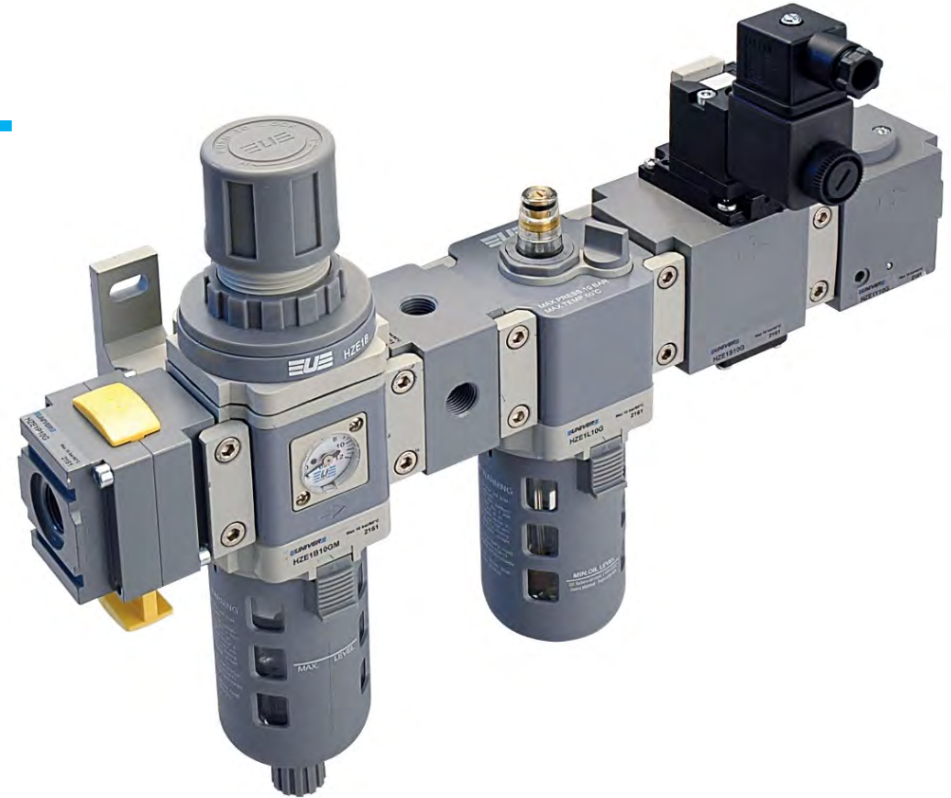
3/2 NC+3/2 NO

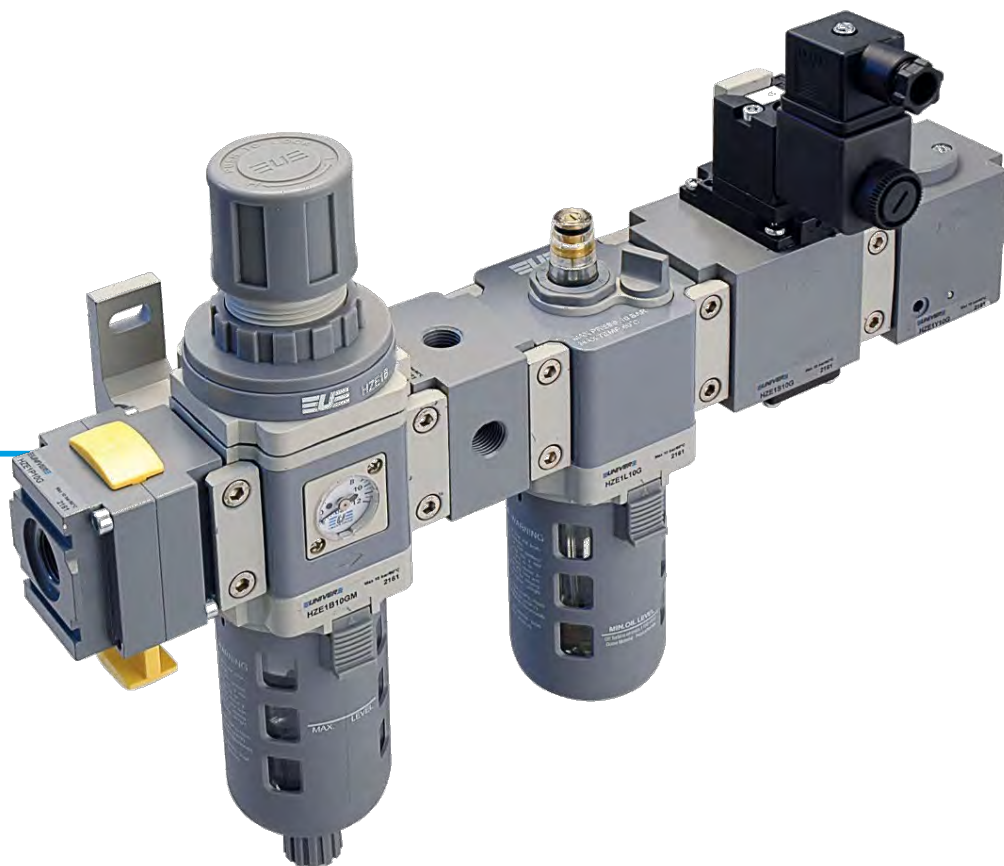
3/2 NO+3/2 NO

STRONG

Metallic body

AIR TREATMENT





MODULAR

40 mm	HZE0
50 mm	HZE05
63 mm	HZE1
80 mm	HZE2
92 mm	HZE3

INTEGRATED GAUGE

Standard supplied

COMPLETE SOLUTION

Possibility of assembling combinations complete with accessories



size **0**

600
NI/min



size **05**

1500
NI/min



size **1**

2800
NI/min



size **2**

4300
NI/min



size **3**

10000
NI/min

ACCESSORIES





HA series

Technopolimer
push-in fittings



HAR series

Space-saving
fittings



HB series

Metal push-in
fittings



HC series

Automatic fittings and
accessories with pneumatic
function



HD series

Metal standard
fittings



HGC series

Push-on fittings



HGO series

Olive compression
fittings



HGU series

Quick couplings for
compressed air



HE/HF series

Hoses

Thank you
for your attention