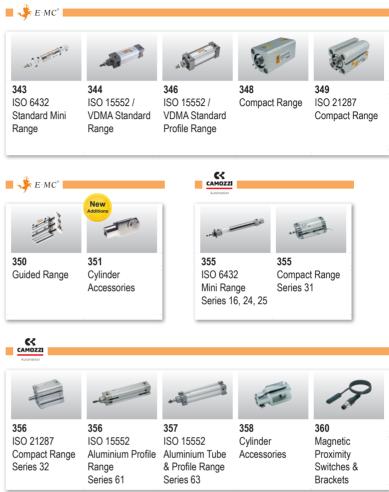


**PNEUMATIC CYLINDERS & ACCESSORIES** 





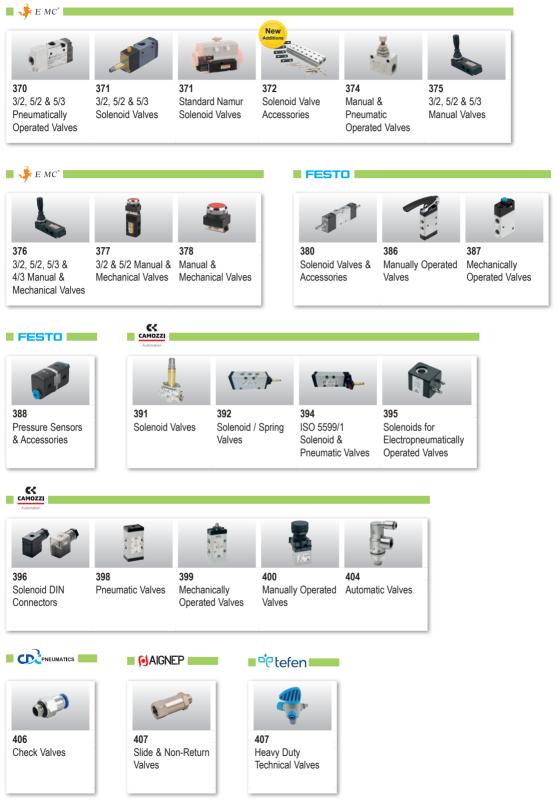


## PNEUMATIC CYLINDERS & VALVES

Pneumatic cylinders are mechanical devices that use the power of compressed air to generate linear motion. Pneumatic valves control airflow and direction.

## **PNEUMATIC CYLINDERS & VALVES**

## **SOLENOID & PNEUMATIC VALVES**



# **E.MC** Cylinders

E.MC boasts over 50 patents and provides pneumatic solutions to more than 50 different industries. Their products ensure high production efficiency with precision and low consumption of pneumatics. Their world-class manufacturing and testing facilities are designed to cater to the industry's ever-growing demand for streamlined performance and durability.

E.MC provides a wide range of pneumatic cylinders designed for the automation industry. These cylinders come in bore sizes ranging from 10 mm to 125 mm. They are engineered to deliver exceptional performance and reliability, fully enhancing productivity and efficiency.

E.MC uses high-precision American and Japanese CNC robots to assemble and test cylinders. Their automated machining process ensures that bores are accurately cut, increasing the devices' lifespan. We offer a variety of cylinder styles, including the ISO 15552/VDMA standard and profile cylinders, compact cylinders, the ISO 21287 compact cylinder, and guided cylinders, with a range of accessories.

#### Specifications

Cylinder type: \*Single or double acting, magnetic positioning Max. operating pressure: 10 bar Operating temperature: -20°C to +80°C (dry air)

\*Single acting - ISO 6432 standard mini cylinder

#### **Available Ranges**

Mini cylinders Compact cylinders Guided cylinders VDMA standard cylinders VDMA standard profile cylinders









## ISO 6432 STANDARD MINI CYLINDERS



#### FEATURES / BENEFITS

- · Front / rear covers machined by high precision CNC machine, giving high consistency & concentricity
- · Japanese anti-dust seal, providing better sealing performance & dust protection
- · German grease provides a longer cylinder life
- · Riveted cylinder barrel structure & front / rear cover gives higher efficiency, performance & improved compression resistance
- Cap positioning machine guarantees front & rear caps locate at same horizontal position, making them easier to install

### SPECIFICATIONS

Cylinder type	Single or double acting Magnetic positioning
Materials	Aluminium end blocks. S45C hard chrome carbon steel piston rod. Stainless steel barrel NBR seals
Max. operating pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Speed range	Double acting: 30 to 800 mm/s Single acting: 50 to 800 mm/s
Bore	ø10 mm, ø12 mm, ø16 mm, ø20 mm, ø25 mm
Mounting	Foot, front / rear flange & rear clevis
Available stroke length	0 – 500 mm
Cushion type	Rubber or adjustable air cushion

#### IA SERIES DOUBLE ACTING **RUBBER CUSHIONED** 10 MM BORE



## (1) BORE STROKE

EM-IA10X25-S	10 mm	25 mm	
EM-IA10X50-S	10 mm	50 mm	
EM-IA10X80-S	10 mm	80 mm	
EM-IA10X100-S	10 mm	100 mm	

#### 12 MM BORE

PART NUMBER

EM-IA12X25-S	12 mm	25 mm	
EM-IA12X50-S	12 mm	50 mm	
EM-IA12X80-S	12 mm	80 mm	
EM-IA12X100-S	12 mm	100 mm	

#### 16 MM BORE

EM-IA16X25-S	16 mm	25 mm	
EM-IA16X50-S	16 mm	50 mm	
EM-IA16X80-S	16 mm	80 mm	
EM-IA16X100-S	16 mm	100 mm	
EM-IA16X125-S	16 mm	125 mm	
EM-IA16X150-S	16 mm	150 mm	

#### 20 MM BORE

EM-IA20X25-S	20 mm	25 mm	
EM-IA20X50-S	20 mm	50 mm	
EM-IA20X80-S	20 mm	80 mm	
EM-IA20X100-S	20 mm	100 mm	
EM-IA20X125-S	20 mm	125 mm	
EM-IA20X150-S	20 mm	150 mm	

#### 25 MM BORE

EM-IA25X25-S	25 mm	25 mm	
EM-IA25X50-S	25 mm	50 mm	
EM-IA25X80-S	25 mm	80 mm	
EM-IA25X100-S	25 mm	100 mm	
EM-IA25X125-S	25 mm	125 mm	
EM-IA25X150-S	25 mm	150 mm	

For cylinder dimensional drawings please see page 344

#### IAC SERIES DOUBLE ACTING **AIR CUSHIONED**

IAC SERIES DOU AIR CUSHIONED 16 MM BORE		NOT EMANY	3610
PART NUMBER	BORE	STROKE	
EM-IAC16X25-S	16 mm	25 mm	
EM-IAC16X50-S	16 mm	50 mm	
EM-IAC16X80-S	16 mm	80 mm	
EM-IAC16X100-S	16 mm	100 mm	
EM-IAC16X125-S	16 mm	125 mm	
EM-IAC16X150-S	16 mm	150 mm	
20 MM BORE			
EM-IAC20X25-S	20 mm	25 mm	
EM-IAC20X50-S	20 mm	50 mm	
EM-IAC20X80-S	20 mm	80 mm	
EM-IAC20X100-S	20 mm	100 mm	
EM-IAC20X125-S	20 mm	125 mm	
EM-IAC20X150-S	20 mm	150 mm	

#### 25 MM BORE

EM-IAC25X25-S	25 mm	25 mm	
EM-IAC25X50-S	25 mm	50 mm	
EM-IAC25X80-S	25 mm	80 mm	
EM-IAC25X100-S	25 mm	100 mm	
EM-IAC25X125-S	25 mm	125 mm	
EM-IAC25X150-S	25 mm	150 mm	

11 - martin

3610

#### **IASB SERIES SINGLE ACTING SPRING RETURN** 12 MM BORE

-			
PART NUMBER	BORE	STROKE	
EM-IASB12X25-S	12 mm	25 mm	
EM-IASB12X50-S	12 mm	50 mm	
EM-IASB12X80-S	12 mm	80 mm	
EM-IASB12X125-S	12 mm	125 mm	
EM-IASB12X150-S	12 mm	150 mm	

#### 16 MM BORE

EM-IASB16X25-S	16 mm	25 mm	
EM-IASB16X50-S	16 mm	50 mm	
EM-IASB16X80-S	16 mm	80 mm	
EM-IASB16X125-S	16 mm	125 mm	
EM-IASB16X150-S	16 mm	150 mm	

#### 20 MM BORE

EM-IASB20X25-S	20 mm	25 mm	
EM-IASB20X50-S	20 mm	50 mm	
EM-IASB20X80-S	20 mm	80 mm	
EM-IASB20X125-S	20 mm	125 mm	
EM-IASB20X150-S	20 mm	150 mm	

#### 25 MM BORE

EM-IASB25X10-S	25 mm	10 mm	
EM-IASB25X25-S	25 mm	25 mm	
EM-IASB25X50-S	25 mm	50 mm	
EM-IASB25X80-S	25 mm	80 mm	
EM-IASB25X125-S	25 mm	125 mm	
EM-IASB25X150-S	25 mm	150 mm	







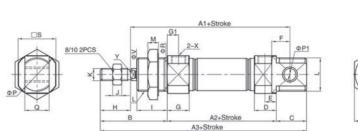
## **CYLINDER DIMENSIONAL DRAWINGS**



## **EMC-IA SERIES**

## IA Φ8-Φ25

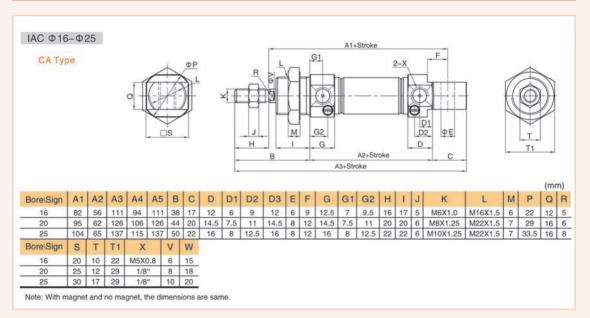
СА Туре





																								(mn	ר)
Bore\Sign	A1	A2	A3	A4	A5	В	С	C1	C2	D	E	F	G	G1	н	1	J	к	L	М	Р	P1	Q	R	S
8	64	46	86	74	-	28	12	9.5	5	9.5	5.2	6	11.5	7	12	12	3	M4X0.7	M12X1.25	7	17	4	8	12	15
10	64	46	86	74	1.25	28	12	9.5	5	9.5	5.2	6	11.5	7	12	12	3	M4X0.7	M12X1.25	7	17	4	8	12	15
12	75	50	105	88	105	38	17	10	5	10	5	9	12	7	16	17	5	M6X1.0	M16X1.5	6	19.7	6	12	16	18.
16	82	56	111	94	111	38	17	10.5	5.5	10.5	5.5	9	12.5	7	16	17	5	M6X1.0	M16X1.5	6	22	6	12	16	20
20	95	62	126	106	126	44	20	14.5	7.5	14.5	7.5	12	14.5	7.5	20	20	6	M8X1.25	M22X1.5	7	29	8	16	22	25
25	104	65	137	115	137	50	22	16	8	16	8	12	16	8	22	22	6	M10X1.25	M22X1.5	7	33.5	8	16	22	30
Bore\Sign	т		T1	Х		V	W	Y						G				· · · · · · · · ·							
8	7		17	M5X0	0.8	4	-	-	1.1																
10	7		17	M5X0	0.8	4	-	-																	
	10		22	M5X0	0.8	6	15	5																	
12																									
12 16	10		22	M5X0	0.8	6	15	5																	
	10 12	_	22 29	M5X0		6 8	15 18	5	_																

## **EMC-IAC SERIES**







## **FVBC SERIES**

#### DESCRIPTION

The updated FVBC / VBC series of pneumatic cylinders fully adheres to the ISO 15552 standard. The bore sizes range from 32mm to 100mm. The cylinder has been designed with a complete change of covers and piston, an entire PU sealing system, a magnet integrated into the wear ring slot, a double cushion structure, and a strengthened cushion needle and guider. We have studied every process that will improve quality, from material choice, die-casting technology, machining consistency, testing style, etc. All of this has resulted in further improvements. High-precision CNC machine robots machine the pneumatic cylinder, which is automatically assembled and tested.

#### FEATURES

- · Highlighted products for process optimisation
- Adheres to ISO15552 standard
- · All PU sealing system
- Strong guiding design with high concentricity
- · Bronze bearing with much better lateral loading
- Strengthened cushion design, soft ending
- Double cushioning system
   2000 km loaded stroke life



SPECIFICATIONS	
Cylinder type	Double acting, magnetic positioning
Materials	Aluminium end caps. S45C hard chrome carbon steel piston rod. Hard anodised aluminium barrel. PU seals
Max. working pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Speed range	50 to 800 mm/s
Bore	ø32 mm, ø40 mm, ø50 mm, ø63 mm, ø80 mm, ø100 mm
Mounting	Foot, rear trunnion, 90° rear trunnion, front flange, rear flange.
Available stroke length	0 – 1900 mm
Cushion type	Adjustable air cushion

#### **FVBC SERIES** CYLINDER 32 MM BORE

			3010
PART NUMBER	BORE	STROKE	
EM-FVBC32X25-S	32 mm	25 mm	
EM-FVBC32X50-S	32 mm	50 mm	
EM-FVBC32X80-S	32 mm	80 mm	
EM-FVBC32X100-S	32 mm	100 mm	
EM-FVBC32X125-S	32 mm	125 mm	
EM-FVBC32X160-S	32 mm	160 mm	
EM-FVBC32X200-S	32 mm	200 mm	
EM-FVBC32X250-S	32 mm	250 mm	

#### 40 MM BORE

EM-FVBC40X25-S	40 mm	25 mm	
EM-FVBC40X50-S	40 mm	50 mm	
EM-FVBC40X80-S	40 mm	80 mm	
EM-FVBC40X100-S	40 mm	100 mm	
EM-FVBC40X125-S	40 mm	125 mm	
EM-FVBC40X160-S	40 mm	160 mm	
EM-FVBC40X200-S	40 mm	200 mm	
EM-FVBC40X250-S	40 mm	250 mm	

#### 50 MM BORE

EM-FVBC50X25-S	50 mm	25 mm	
EM-FVBC50X50-S	50 mm	50 mm	
EM-FVBC50X80-S	50 mm	80 mm	
EM-FVBC50X100-S	50 mm	100 mm	
EM-FVBC50X125-S	50 mm	125 mm	
EM-FVBC50X160-S	50 mm	160 mm	
EM-FVBC50X200-S	50 mm	200 mm	
EM-FVBC50X250-S	50 mm	250 mm	

#### 63 MM BORE

EM-FVBC63X25-S	63 mm	25 mm	
EM-FVBC63X50-S	63 mm	50 mm	
EM-FVBC63X80-S	63 mm	80 mm	
EM-FVBC63X100-S	63 mm	100 mm	
EM-FVBC63X125-S	63 mm	125 mm	
EM-FVBC63X160-S	63 mm	160 mm	
EM-FVBC63X200-S	63 mm	200 mm	
EM-FVBC63X250-S	63 mm	250 mm	
EM-FVBC63X320-S	63 mm	320 mm	
EM-FVBC63X400-S	63 mm	400 mm	
EM-FVBC63X500-S	63 mm	500 mm	

#### 80 MM BORE

3610

PART NUMBER	BORE	STROKE	
EM-FVBC80X25-S	80 mm	25 mm	
EM-FVBC80X50-S	80 mm	50 mm	
EM-FVBC80X80-S	80 mm	80 mm	
EM-FVBC80X100-S	80 mm	100 mm	
EM-FVBC80X125-S	80 mm	125 mm	
EM-FVBC80X160-S	80 mm	160 mm	
EM-FVBC80X200-S	80 mm	200 mm	
EM-FVBC80X250-S	80 mm	250 mm	
EM-FVBC80X320-S	80 mm	320 mm	
EM-FVBC80X400-S	80 mm	400 mm	
EM-FVBC80X500-S	80 mm	500 mm	

#### 00 MM BORE

EM-FVBC100X25-S	100 mm	25 mm	
EM-FVBC100X50-S	100 mm	50 mm	
EM-FVBC100X80-S	100 mm	80 mm	
EM-FVBC100X100-S	100 mm	100 mm	
EM-FVBC100X125-S	100 mm	125 mm	
EM-FVBC100X160-S	100 mm	160 mm	
EM-FVBC100X200-S	100 mm	200 mm	
EM-FVBC100X250-S	100 mm	250 mm	
EM-FVBC100X320-S	100 mm	320 mm	
EM-FVBC100X400-S	100 mm	400 mm	
EM-FVBC100X500-S	100 mm	500 mm	







## **VBC SERIES**

#### DESCRIPTION

The VBC series pneumatic cylinder is designed to meet the standards set in ISO 15552, with bore sizes ranging from 32 mm to 250 mm. The cylinder has been newly designed with a complete change of covers and piston, an entire PU sealing system, a magnet integrated into a wear ring slot, a double cushion structure, and a strengthened cushion needle and guider. E.MC has also improved every process that contributes to better quality, including material choice, die-casting technology, machining consistency, and testing style. The pneumatic cylinders are machined with high-precision CNC machines and automatically assembled and tested. Additionally, the VBC series offers Mickey Mouse and tie-rod-type pneumatic cylinders in its range.

#### FEATURES

Six

- · Highlighted products for process optimisation
- Adheres to ISO15552 standard
- · All PU sealing system
- Strong guiding design with high concentricity
- · Bronze bearing with much better lateral loading
- Strengthened cushion design, soft ending
- Double cushioning system



#### VBC SERIES STANDARD PROFILE CYLINDER 32 MM BORE

32 MM BORE	6	Ca.	3610
PART NUMBER	BORE	STROKE	
EM-VBC32X25-S	32 mm	25 mm	
EM-VBC32X50-S	32 mm	50 mm	
EM-VBC32X80-S	32 mm	80 mm	
EM-VBC32X100-S	32 mm	100 mm	
EM-VBC32X125-S	32 mm	125 mm	
EM-VBC32X160-S	32 mm	160 mm	
EM-VBC32X200-S	32 mm	200 mm	
EM-VBC32X250-S	32 mm	250 mm	
EM-VBC32X320-S	32 mm	320 mm	

#### 40 MM BORE

EM-VBC40X25-S	40 mm	25 mm	
EM-VBC40X50-S	40 mm	50 mm	
EM-VBC40X80-S	40 mm	80 mm	
EM-VBC40X100-S	40 mm	100 mm	
EM-VBC40X100-3	40 mm	125 mm	
EM-VBC40X160-S	40 mm	160 mm	
EM-VBC40X200-S	40 mm	200 mm	
EM-VBC40X250-S	40 mm	250 mm	
EM-VBC40X320-S	40 mm	320 mm	

#### 50 MM BORE

EM-VBC50X25-S	50 mm	25 mm	
EM-VBC50X50-S	50 mm	50 mm	
EM-VBC50X80-S	50 mm	80 mm	
EM-VBC50X100-S	50 mm	100 mm	
EM-VBC50X125-S	50 mm	125 mm	
EM-VBC50X160-S	50 mm	160 mm	
EM-VBC50X200-S	50 mm	200 mm	
EM-VBC50X250-S	50 mm	250 mm	
EM-VBC50X320-S	50 mm	320 mm	

#### 63 MM BORE

EM-VBC63X25-S	63 mm	25 mm	
EM-VBC63X50-S	63 mm	50 mm	
EM-VBC63X80-S	63 mm	80 mm	
EM-VBC63X100-S	63 mm	100 mm	
EM-VBC63X125-S	63 mm	125 mm	
EM-VBC63X160-S	63 mm	160 mm	
EM-VBC63X200-S	63 mm	200 mm	
EM-VBC63X250-S	63 mm	250 mm	
EM-VBC63X320-S	63 mm	320 mm	
EM-VBC63X400-S	63 mm	400 mm	
EM-VBC63X500-S	63 mm	500 mm	

#### SPECIFICATIONS

Cylinder type	Double acting, magnetic positioning
Materials	Aluminium end caps. S45C hard chrome carbon steel piston rod. Hard anodised aluminium barrel. PU seals
Max. working pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Speed range	50 – 800 mm/s
Mounting	Foot, rear trunnion, 90° rear trunnion, front flange, rear flange.
Available bore sizes	ø32 – 250 mm
Available stroke length	0 – 1900 mm
Cushion type	Adjustable air cushion

#### 80 MM BORE

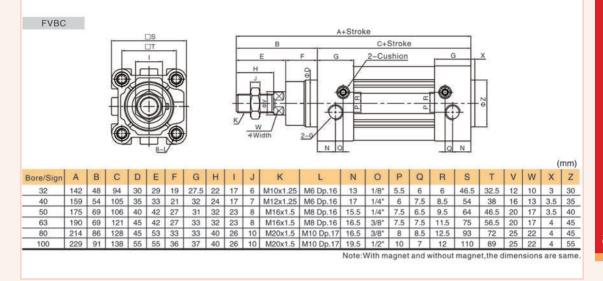
PART NUMBER	BORE	STROKE	
EM-VBC80X25-S	80 mm	25 mm	
EM-VBC80X50-S	80 mm	50 mm	
EM-VBC80X80-S	80 mm	80 mm	
EM-VBC80X100-S	80 mm	100 mm	
EM-VBC80X125-S	80 mm	125 mm	
EM-VBC80X160-S	80 mm	160 mm	
EM-VBC80X200-S	80 mm	200 mm	
EM-VBC80X250-S	80 mm	250 mm	
EM-VBC80X320-S	80 mm	320 mm	
EM-VBC80X400-S	80 mm	400 mm	
EM-VBC80X500-S	80 mm	500 mm	
100 MM BORE			
EM-VBC100X25-S	100 mm	25 mm	
EM-VBC100X50-S	100 mm	50 mm	
EM-VBC100X80-S	100 mm	80 mm	
EM-VBC100X100-S	100 mm	100 mm	
EM-VBC100X125-S	100 mm	125 mm	
EM-VBC100X160-S	100 mm	160 mm	
EM-VBC100X200-S	100 mm	200 mm	
EM-VBC100X250-S	100 mm	250 mm	
EM-VBC100X320-S	100 mm	320 mm	
EM-VBC100X400-S	100 mm	400 mm	
EM-VBC100X500-S	100 mm	500 mm	
125 MM BORE			
EM-VBC125X50-S	125 mm	50 mm	
EM-VBC125X80-S	125 mm	80 mm	
EM-VBC125X100-S	125 mm	100 mm	
EM-VBC125X125-S	125 mm	125 mm	
EM-VBC125X160-S	125 mm	160 mm	
EM-VBC125X200-S	125 mm	200 mm	
EM-VBC125X250-S	125 mm	250 mm	
EM-VBC125X320-S	125 mm	320 mm	
EM-VBC125X400-S	125 mm	400 mm	
EM-VBC125X500-S	125 mm	500 mm	



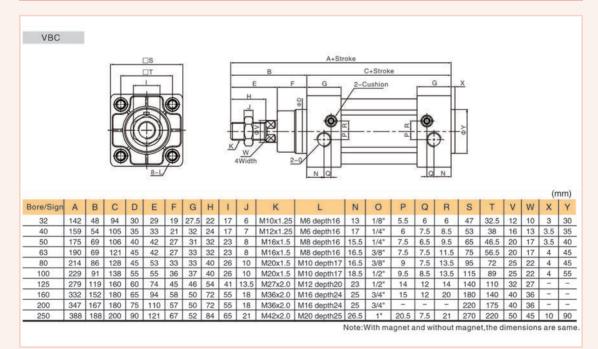


## **CYLINDER DIMENSIONAL DRAWINGS**





#### **EMC-VBC SERIES**





## **COMPACT CYLINDERS**



3620

#### DESCRIPTION

SQN COMPACT SERIES

The SQN series compact pneumatic cylinder has a bore size ranging from 12 to 100 mm. All dynamic seals are imported and are lubricated with grease. The cylinder features robust, self-lubricating bronze bearings, providing high guiding performance and concentricity. Its piston rod and rod connection have a rotary riveting structure that ensures high concentricity, smooth running, and low starting pressure.

The compact cylinder has slots for three-sided magnetic switches for easier mounting. The rear cap and cylinder body are riveted together, ensuring superior assembling reliability. The front cap and barrel are connected by a buckle, making maintenance easier.

#### FEATURES

- All dynamic seals from Japan, with German grease, longer life
- Strong self-lubricating bronze bearings, high lateral loading performance
- · Piston rod & rod connection is rotary riveted, high concentricity
- Rear cover & body are riveted together, reliable

#### SPECIFICATIONS

Cylinder type	Double acting, magnetic positioning
Max. working pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Available bore size	ø16, ø20, ø25, ø32, ø40, ø50 mm
Available stroke length	0 – 50 mm
Cushion type	Anti-bump cushioning
Mounting type	Through hole mounting



#### SQN SERIES DIAMOND PROFILE CYLINDER 16 MM BORE

16 MM BORE			3620
PART NUMBER	BORE	STROKE	
EM-SQN16X30-S	16 mm	30 mm	
20 MM BORE			
EM-SQN20X10-S	20 mm	10 mm	
EM-SQN20X15-S	20 mm	15 mm	
EM-SQN20X20-S	20 mm	20 mm	
EM-SQN20X25-S	20 mm	25 mm	
EM-SQN20X30-S	20 mm	30 mm	
EM-SQN20X40-S	20 mm	40 mm	
EM-SQN20X50-S	20 mm	50 mm	
25 MM BORE			
EM-SQN25X10-S	25 mm	10 mm	

EM-SQN25X10-S	25 mm	10 mm	
EM-SQN25X15-S	25 mm	15 mm	
EM-SQN25X20-S	25 mm	20 mm	
EM-SQN25X25-S	25 mm	25 mm	
EM-SQN25X30-S	25 mm	30 mm	
EM-SQN25X40-S	25 mm	40 mm	
EM-SQN25X50-S	25 mm	50 mm	

#### SQN SERIES SQUARE PROFILE CYLINDER 32 MM BORE

PART NUMBER	BORE	STROKE
EM-SQN32X10-S	32 mm	10 mm
EM-SQN32X15-S	32 mm	15 mm
EM-SQN32X20-S	32 mm	20 mm
EM-SQN32X25-S	32 mm	25 mm
EM-SQN32X30-S	32 mm	30 mm
EM-SQN32X40-S	32 mm	40 mm
EM-SQN32X50-S	32 mm	50 mm

#### 40 MM BORE

EM-SQN40X10-S	40 mm	10 mm	
EM-SQN40X15-S	40 mm	15 mm	
EM-SQN40X20-S	40 mm	20 mm	
EM-SQN40X25-S	40 mm	25 mm	
EM-SQN40X30-S	40 mm	30 mm	
EM-SQN40X40-S	40 mm	40 mm	
EM-SQN40X50-S	40 mm	50 mm	

#### 50 MM BORE

EM-SQN50X10-S	50 mm	10 mm	
EM-SQN50X15-S	50 mm	15 mm	
EM-SQN50X20-S	50 mm	20 mm	
EM-SQN50X25-S	50 mm	25 mm	
EM-SQN50X30-S	50 mm	30 mm	
EM-SQN50X40-S	50 mm	40 mm	
EM-SQN50X50-S	50 mm	50 mm	

Additional strokes available on all bore sizes



## **ISO 21287 COMPACT CYLINDERS**



#### DESCRIPTION

SF SERIES

The SF series ISO21287 is a standard compact pneumatic cylinder with a bore size ranging from 20 to 100 mm. The cylinder is designed to be more robust with self-lubricating bronze bearings that provide high guiding performance. The piston rod and rod connection are designed with a rotary riveting structure to ensure high concentricity, smooth running, and low starting pressure.

The compact cylinder features slots for four-sided magnetic switches and has various mountings that make installation easy. The rear cap and cylinder body are riveted for superior assembling reliability, while the front cap and barrel are connected by a buckle for easier maintenance.

#### SPECIFICATIONS

Cylinder type	Double acting, magnetic positioning
Max. working pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Available bore size	ø20 – 100 mm
Available stroke length	10 – 50 mm
Cushion type	Rubber

#### FEATURES / BENEFITS

ISO21287 standard cylinder

Compact structure, 50% space saving compared to ISO15552 standard pneumatic cylinders

Double-ended cushion gasket, provides smooth reversing, less impact & mechanical damage

Rotary riveted piston rod & rod connection, offering high concentricity Riveted rear cover & body for reliability



Find it on pages 497 - 501, section eight

# Six.



## SF SERIES

20 MIM BORE			3620
PART NUMBER	BORE	STROKE	
EM-SF20X10-S	20 mm	10 mm	
EM-SF20X15-S	20 mm	15 mm	
EM-SF20X20-S	20 mm	20 mm	
EM-SF20X25-S	20 mm	25 mm	
EM-SF20X30-S	20 mm	30 mm	
EM-SF20X40-S	20 mm	40 mm	
EM-SF20X50-S	20 mm	50 mm	

#### 25 MM BORE

EM-SF25X10-S	25 mm	10 mm	
EM-SF25X15-S	25 mm	15 mm	
EM-SF25X20-S	25 mm	20 mm	
EM-SF25X25-S	25 mm	25 mm	
EM-SF25X30-S	25 mm	30 mm	
EM-SF25X40-S	25 mm	40 mm	
EM-SF25X50-S	25 mm	50 mm	

#### 32 MM BORE

EM-SF32X10-S	32 mm	10 mm	
EM-SF32X15-S	32 mm	15 mm	
EM-SF32X20-S	32 mm	20 mm	
EM-SF32X25-S	32 mm	25 mm	
EM-SF32X30-S	32 mm	30 mm	
EM-SF32X40-S	32 mm	40 mm	
EM-SF32X50-S	32 mm	50 mm	

Additional strokes available on all bore sizes

#### 40 MM BORE

PART NUMBER	BORE	STROKE	
EM-SF40X10-S	40 mm	10 mm	
EM-SF40X15-S	40 mm	15 mm	
EM-SF40X20-S	40 mm	20 mm	
EM-SF40X25-S	40 mm	25 mm	
EM-SF40X30-S	40 mm	30 mm	
EM-SF40X40-S	40 mm	40 mm	
EM-SF40X50-S	40 mm	50 mm	

#### 50 MM BORE

EM-SF50X10-S	50 mm	10 mm	
EM-SF50X15-S	50 mm	15 mm	
EM-SF50X20-S	50 mm	20 mm	
EM-SF50X25-S	50 mm	25 mm	
EM-SF50X30-S	50 mm	30 mm	
EM-SF50X40-S	50 mm	40 mm	
EM-SF50X50-S	50 mm	50 mm	

#### 63 MM BORE

EM-SF63X10-S	63 mm	10 mm	
EM-SF63X15-S	63 mm	15 mm	
EM-SF63X20-S	63 mm	20 mm	
EM-SF63X25-S	63 mm	25 mm	
EM-SF63X30-S	63 mm	30 mm	
EM-SF63X40-S	63 mm	40 mm	
EM-SF63X50-S	63 mm	50 mm	





## **EXS-M SERIES**

#### DESCRIPTION

The EXS-M is a precision-guided cylinder with twin rods and a slide bearing. Its double-cylinder design increases its force output while maintaining a compact profile and good resistance to side loads. The cylinder has multiple mounting points and an adjustable return stroke cushion that can be set between 0 and 5 mm.

## SPECIFICATIONS

Cylinder type	Double acting, magnetic positioning
Max. working pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Available bore sizes	ø6 – 32 mm
Available stroke length	10 – 200 mm
Cushion type	Cushioned both ends, adjustable on return stroke 0 – 5 mm



#### EXS SERIES GUIDED CYLINDER 10 MM BORE

PART NUMBER	BORE	STROKE	
EM-EXSM10X25-S	10 mm	25 mm	
EM-EXSM10X75-S	10 mm	75 mm	

#### 16 MM BORE

25 mm	16 mm	EM-EXSM16X25-S
50 mm	16 mm	EM-EXSM16X50-S
75 mm	16 mm	EM-EXSM16X75-S
75 mm	16 mm	EM-EXSM16X75-S

#### 20 MM BORE

EM-EXSM20X10-S	20 mm	10 mm	
EM-EXSM20X25-S	20 mm	25 mm	
EM-EXSM20X50-S	20 mm	50 mm	
EM-EXSM20X75-S	20 mm	75 mm	

#### 25 MM BORE

EM-EXSM25X25-S	25 mm	25 mm	
EM-EXSM25X50-S	25 mm	50 mm	
EM-EXSM25X75-S	25 mm	75 mm	

#### 32 MM BORE

EM-EXSM32X25-S	32 mm	25 mm	
EM-EXSM32X50-S	32 mm	50 mm	
EM-EXSM32X75-S	32 mm	75 mm	

Alternative stroke sizes available upon request
--

## SGM SERIES

#### DESCRIPTION

The SGM cylinder is a heavy-duty triple rod with a slide bearing, offering strong resistance to side loads and easy installation with multiple mounting points.

## SPECIFICATIONS

Cylinder type	Double acting, magnetic positioning
Max. working pressure	10 bar
Operating temperature	-20°C to +80°C (dry air)
Available bore sizes	ø12 – 63 mm
Available stroke sizes	5 – 250 mm
Cushion type	Rubber cushioned



#### SGM SERIES TRIPLE ROD GUIDED CYLINDER

12 MM BORE	¢		3660
PART NUMBER	BORE	STROKE	
EM-SGM12X25-S	12 mm	25 mm	
EM-SGM12X50-S	12 mm	50 mm	
EM-SGM12X75-S	12 mm	75 mm	
16 MM BORE			
EM-SGM16X25-S	16 mm	25 mm	
EM-SGM16X50-S	16 mm	50 mm	
EM-SGM16X75-S	16 mm	75 mm	
20 MM BORE			
EM-SGM20X25-S	20 mm	25 mm	
EM-SGM20X50-S	20 mm	50 mm	
EM-SGM20X75-S	20 mm	75 mm	
25 MM BORE			
EM-SGM25X25-S	25 mm	25 mm	
EM-SGM25X50-S	25 mm	50 mm	
EM-SGM25X75-S	25 mm	75 mm	
32 MM BORE			
EM-SGM32X25-S	32 mm	25 mm	
EM-SGM32X50-S	32 mm	50 mm	
EM-SGM32X75-S	32 mm	75 mm	
40 MM BORE			
EM-SGM40X25-S	40 mm	25 mm	
EM-SGM40X50-S	40 mm	50 mm	
EM-SGM40X75-S	40 mm	75 mm	
50 MM BORE			
EM-SGM50X25-S	50 mm	25 mm	
EM-SGM50X50-S	50 mm	50 mm	
EM-SGM50X75-S	50 mm	75 mm	
63 MM BORE			
EM-SGM63X25-S	63 mm	25 mm	
EM-SGM63X50-S	63 mm	50 mm	
EM-SGM63X75-S	63 mm	75 mm	



## **CYLINDER ACCESSORIES**



## ISO 6432 STANDARD MINI CYLINDER ACCESSORIES – IASB, IAS, IA SERIES

## FOOT MOUNTS

PAIR		3610
PART NUMBER	CYLINDER BORE	
EM-FJ-IA12LB	12 mm / 16 mm	
EM-FJ-IA20LB	20 mm / 25 mm	

## SINGLE ROD FORK END



.

PART NUMBER	CYLINDER BORE	THREAD
EM-FJ-M6X1IJ	12 mm / 16 mm	M6 x 1
EM-FJ-M8X1.25IJ	20 mm	M8 x 1.25
EM-FJ-M10X1.25IJ	25 mm	M10 x 1.25



3610

#### **REAR CLEVIS**

PART NUMBER	CYLINDER BORE	
EM-FJ-IA12SDB	12 mm / 16 mm	
EM-FJ-IA20SDB	20 mm / 25 mm	

MAGNETIC SWIT	СН	3610
PART NUMBER	DESCRIPTION	
EM-HX-13D	2 wire without contact switch 10 – 28 V DC, 2 m lead	
EM-HX-13N	NPN type 3 wire 5 - 30 V DC, 2 m lead	
EM-HX-13P	PNP type 3 wire 5 - 30 V DC, 2 m lead	
EM-HX-13R	2 wire reed switch 5 – 240 V AC/DC, 2 m lead	

New



PART NUMBER	CYLINDER BORE	
EM-FJ-IA12FA	12 mm / 16 mm	
EM-FJ-IA20FA	20 mm / 25 mm	

Street Witnesser	

ROD FORK END		0		36	10
	PART NUMBER	CYLINDER BORE	THREAD		
	EM-FJ-M6X1YCJ	12 mm / 16 mm	M6 x 1		
	EM-FJ-M8X1.25YCJ	20 mm	M8 x 1.25		

FIXED STEEL BE		3610
PART NUMBER	BORE	
EM-PAB-13	6 to 63 mm	

New ROD EYE			3610
PART NUMBER	CYLINDER BORE	THREAD	
EM-FJ-M6X1BJ	12 mm / 16 mm	M6 x 1	
EM-FJ-M8X1.25BJ	20 mm	M8 x 1.25	

Do you also need?
E·MC <sup>*</sup> 25 mm rod fork end
Find it on page 352, section six





## CYLINDER ACCESSORIES



#### ISO 15552 / VDMA CYLINDER ACCESSORIES



#### **FEMALE REAR TRUNNION & PIN**

		-	0010
PART NUMBER	CYLINDER BORE		
EM-FJ-VBC32CB	32 mm		
EM-FJ-VBC40CB	40 mm		
EM-FJ-VBC50CB	50 mm		
EM-FJ-VBC63CB	63 mm		
EM-FJ-VBC80CB	80 mm		
EM-FJ-VBC100CB	100 mm		
EM-FJ-VBC125CB	125 mm		

CYLINDER BORE

32 mm

40 mm

50 mm

63 mm

80 mm

100 mm

125 mm



\* EM-FJ-M10X1.25YCJ is also suitable for 25 mm IASB, IAS, IA series mini cylinders



ROD

3610

3610

ROD EYE			3610
PART NUMBER	CYLINDER BORE	THREAD	
EM-FJ-M10X1.25BJ*	32 mm	M10 x 1.25	
EM-FJ-M12X1.25BJ	40 mm	M12 x 1.25	
EM-FJ-M16X1.5BJ	50 mm / 63 mm	M16 x 1.5	
EM-FJ-M20X1.5BJ	80 mm / 100 mm	M20 x 1.5	
EM-FJ-M27X2BJ	125 mm	M27 x 2	

\* EM-FJ-M10X1.25BJ is also suitable for

25 mm IASB, IAS, IA series mini cylinders



#### 90° MALE REAR TRUNNION

MALE REAR TRUNNION

PART NUMBER

EM-FJ-VBC32CA

EM-FJ-VBC40CA

EM-FJ-VBC50CA

EM-FJ-VBC63CA

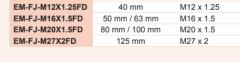
EM-FJ-VBC80CA

EM-FJ-VBC100CA

EM-FJ-VBC125CA

PART NUMBER	CYLINDER BORE	
EM-FJ-VBC32CR	32 mm	
EM-FJ-VBC40CR	40 mm	
EM-FJ-VBC50CR	50 mm	
EM-FJ-VBC63CR	63 mm	
EM-FJ-VBC80CR	80 mm	
EM-FJ-VBC100CR	100 mm	
EM-FJ-VBC125CR	125 mm	







## **FRONT & REAR FLANGE**

PART NUMBER	CYLINDER BORE	
EM-FJ-VBC32FA	32 mm	
EM-FJ-VBC40FA	40 mm	
EM-FJ-VBC50FA	50 mm	
EM-FJ-VBC63FA	63 mm	
EM-FJ-VBC80FA	80 mm	
EM-FJ-VBC100FA	100 mm	
EM-FJ-VBC125FA	125 mm	





**FVBC SERIES** 

PART NUMBER

## **CYLINDER ACCESSORIES**





## **MAGNETIC SWITCH** DESCRIPTION 2 wire reed auto switch

EM-HX-31R	SPST normally open Operating voltage 5 – 240 V DC/AC Red LED indicator, 2 m lead IP67 rated surge protection	
EM-HX-31N	NPN 3 wire solid state auto switch Normally open (input) Operating voltage 5 – 30 V DC Red LED indicator, 2 m lead IP67 rated surge protection	
EM-HX-31P	PNP 3 wire solid state auto switch Normally open (output) Operating voltage 5 – 30 V DC Red LED indicator, 2 m lead IP67 rated surge protection	

#### **HX-07 MAGNETIC SWITCH** FOR USE WITH

SQ, SGM & EXH SERIES										
PART NUMBER	PART NUMBER DESCRIPTION									
EM-HX-07R	Standard 2 wire reed switch Normally open Operating votage 5 – 240 V DC/AC Red LED indicator, 1 m lead IP67 rated									
EM-HX-07N	NPN 3 wire solid state auto switch Normally open (input) Operating voltage 5 – 30 V DC Red LED indicator, 2 m lead IP67 rated surge protection									
EM-HX-07P	PNP 3 wire solid state auto switch Normally open (output) Operating voltage 5 – 30 V DC Red LED indicator, 2 m lead IP67 rated surge protection									



3610

#### HX21 SWITCH CLAMP ALUMINIUM ALLOY PART NUMBER

**VBC SERIES** 

PART NUMBER	BORE	
EM-PI-1	32 mm / 40 mm	
EM-IH-50	50 mm	
EM-IH-63	63 mm	
EM-PI-3	80 mm	
EM-PI-4	100 mm	
EM-PI-5	125 mm	



#### **CYLINDER SEAL KIT** SUITABLE FOR VBC & FVBC SERIES

PART NUMBER	BORE SIZE								
EM-VBC32-XLB	32 mm								
EM-VBC40-XLB	40 mm								
EM-VBC50-XLB	50 mm								
EM-VBC63-XLB	63 mm								
EM-VBC80-XLB	80 mm								
EM-VBC100-XLB	100 mm								
EM-VBC125-XLB	125 mm								



#### **VBC SERIES MAGNETIC SWITCH**

PART NUMBER	DESCRIPTION	
EM-HX-21R	Standard 2 wire reed switch Normally open Operating voltage 5 – 240 V DC/AC 1 m lead IP67 rated surge protection	
EM-HX-21N	NPN 3 wire solid state auto switch Normally open (input) Operating voltage 5 – 30 V DC Red LED indicator, 1 m lead IP67 rated surge protection	
EM-HX-21P	PNP 3 wire solid state auto switch Normally open (output) Operating voltage 5 – 30 V DC Red LED indicator, 2 m lead IP67 rated surge protection	



# **Camozzi Cylinders**

Series 16, 24, and 25 cylinders are designed to comply with the European Standard Specifications CETOP RP52-P and DIN/ISO 6432. They are made from high-quality materials and are highly versatile and reliable. The head and cap of each cylinder are precisely crimped to ensure perfect alignment of all parts.

Series 16 and 24 cylinders can operate at very high speeds. Bumpers are added to the piston to reduce noise and wear caused by high-impact loads. The Series 24 cylinder can accommodate magnetic proximity switches. The Series 31 single and double-acting magnetic cylinders are compact and can be installed in tight spaces. These cylinders come with feet brackets and guides inserted in the external profile parallel to the sliding axis on three sides. The guides are used to locate the switches that sense the piston position. The construction design of these cylinders provides excellent axis stability. The Series 32 cylinders are compact and can be installed in confined spaces.

The Series 61 cylinders comply with the dimensions in the ISO 15552 standards. These cylinders have a permanent magnet mounted on the piston that enables information to be received regarding the piston position using proximity switches mounted in grooves along the cylinder profile. The grooves can be covered with a slot cover profile. This cylinder series is equipped with adjustable end-stroke and mechanical cushioning to reduce the impact of the piston as it reaches the end of the stroke.

The Series 63 pneumatic cylinders have been developed per the ISO 15552 standard to ensure high performance and versatility. These cylinders feature a new system of adjustable pneumatic cushioning that provides the best regulation while significantly reducing the noise caused by the impact of the piston on the end block.





Six

## ISO 6432 MINI CYLINDERS – SERIES 16, 24, 25

001	Code
z	Camozzi Cylinder
002	Series
16	Non magnetic
24	Magnetic
25	Magnetic, adjustable cushioning
003	Version
Ν	Standard
004	Operation
1	Single-acting, front spring, no cushion
2	Double-acting
3	Double-acting, through-rod
7	Single-acting, through-rod
005	Materials
Α	Rolled 303 stainless steel rod, 304 stainless steel tube, anodised aluminium end-blocks
006	Bore Size (mm)
	8, 10, 12, 16, 20, 25
007	Construction
Α	Nose nut Mod. V + Piston rod lock nut Mod. U
RL	Cylinder with rod lock ø20 - ø25
008	Stroke (mm)
	See standard strokes table (right)



Series	ø	10	25	40	50	80	100	125	160	200	250	300	320	400	500
16	8														
16	10														
16	12														
24	16														
24	20														
24	25														
25	16														
25	20														
25	25														
		D	oub	le-a	cting	3			• :	Sing	e-ac	ting			

Please contact your distributor for further information

#### **COMPACT CYLINDERS – SERIES 31**

001	Code
Z	Camozzi Cylinder
002	Series
31	Compact magnetic
003	Version
м	Male rod thread, mounted with rod nut Mod. U
F	Female rod thread
R	Non-rotating with flange only double-acting
004	Operation
1	Single-acting, front spring
2	Double-acting
3	Double-acting, through-rod
4	Single-acting, rear spring
7	Single-acting, through-rod
005	Materials
Α	Rolled 303 stainless steel rod – Aluminium tube profile
006	Bore Size (mm)
	12, 16, 20, 25, 32, 40, 50, 63, 080, 100
007	Design Type
Α	Standard
008	Stroke (mm)
	See standard strokes table (right)

	002				
Ζ	31		Α	Α	



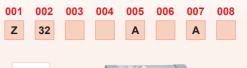
STANDARD STROKES											
ø	5	10	15	20	25	30	40	50	60	80	
12	■X●	■X●	X	∎ X	X	X	X				
16	∎X●	∎X ●	∎X ●	∎X ●	∎X●	X	X				
20	∎X●	∎X ●	∎X ●	∎X ●	∎X ●	X	X	X			
25	■X●	∎x●	∎x•	■X●	■X●	X	X	X			
32	∎X●	∎X●	∎X ●	∎X ●	∎X●	X	X	X			
40	∎X•	∎X ●	∎X ●	∎X ●	∎X•	X	X	×	×	X	
50		■X●	∎x•	■X●	■X●	X	X	X	■ X	X	
63		∎X ●	∎X e	∎X ●	∎X e	X	X	×	X	X	
80		∎X ●	∎X ●	∎X ●	∎X ●	X	X	X	X	X	
100		■X●	■x•	■X●	■X●	X	X	×	×	X	
Double-acting x Non-rotating • Single-acting female, male											

Please contact your distributor for further information





001	Code
7	Camozzi Cylinder
-	,
002	Series
32	Compact magnetic
003	Version
М	Male rod thread, mounted with rod nut Mod. U
F	Female rod thread
R	Antirotation with flange (not for single-acting version)
004	Operation
1	Single-acting, front spring
2	Double-acting
3	Double-acting, through-rod
4	Single-acting, rear spring
005	Materials
Α	Anodised aluminium body, end blocks & piston, PU seals (rod, end-blocks OR & piston)
006	Bore Size (mm)
	20, 25, 32, 40, 50, 63, 80, 100
007	Construction
Α	Standard
008	Stroke (mm)
	See standard strokes table (right)





ø	5	10	15	20	25	30	40	50	60	80
20	∎X●	∎X ●	∎X ●	∎X ●	∎X•	Хe	Хe	Хe		
25	■X●	■X●	■X●	■X●	■X●	Х•	Х·	Хø		
32	∎X●	∎X ●	∎X e	∎X ●	∎X ●	Хe	Хe	Хe	Хe	Xe
40	∎X●	∎X ●	∎X ●	∎X ●	∎X•	Хe	Хe	Хe	Хø	Хe
50		■X●	∎x•	■X●	■X●	Х•	Хø	Хø	Хø	Хø
63		∎X ●	∎X e	∎X ●	∎X•	Хe	Хe	Хe	Хe	Xe
80		∎X ●	∎X ●	∎X ●	∎X•	Хe	Хe	Хe	Хø	Xe
100		■X●	■X●	■X●	■X●	Хø	Х·	Хø	Хø	X •

rear spring, male / female rod thread

VDMA

 Double-acting female, male rod thread

ISO 1	15552 ALUMINIUM PROFILE CYLINDERS – SERIES 61
001 Z	002 003 004 005 006 007 008 009 61 <b>TOMA</b>
001 Z	Code Camozzi Cylinder
002	Series
61	ISO 15552 Aluminium Profile
003	Version
M	Standard, magnetic
L	Low friction, magnetic
004	Operation
1	Single-acting, front spring (ø 32 ± ø 100)
2	Double-acting, front & rear cushioned
3	Double-acting, no cushion
4	Double-acting, rear cushioned

STAN	DARI	D ST	ROK	ES										
ø	25	50	75	80	100	125	150	160	200	250	300	320	400	500
32	ШX	ШX	ШX	х	х	х	х	х	х	х	х	х	х	х
40	×	×	×	х	х	х	х	х	х	х	х	х	х	х
50	×	×	×	х	х	х	х	х	х	х	х	х	х	х
63	ШX	ШX	ШX	х	х	х	х	х	х	х	х	х	х	х
80	×	×	×	х	х	х	х	х	х	х	х	х	х	х
100		×	×	х	х	х	х	х	х	х	х	х	х	х
125		х	х	х	х	х	х	х	х	х	х	х	х	х
	■ Single-acting								Doul	ole-a	cting			

Please contact your distributor for further information

006	Bore Size (mm)
	32, 40, 50, 63, 80, 100, 125
007	Design Type
Α	Standard with rod nut
RL	Cylinder with rod lock
008	Stroke (mm)
	See standard strokes table (above)
009	Seals
	Standard
v	FKM rod seal
N	Tandem
R	NBR rod seal
W	All FKM seals +130°C
С	PU coated cylinder. Colour: Grey *
L	Low friction version without rod seal (rear supply only) ** ( ) = extended piston rod mm
G	with brass rod scraper (chrome plated 420B stainless steel rod, NBR rod seal)

#### 005 Materials

5 6

7 8

P See specifications table

Double-acting, front cushioned

Double-acting, through-rod, no cushion

Single-acting, through-rod

- R 420B stainless steel tie-rods, 303 stainless steel tie-rod nuts, other materials (see specifications table)
- C Rolled 303 stainless steel piston rod, 304 stainless steel piston rod nut

Double-acting, through-rod, front & rear cushioned

- U Rolled 303 stainless steel piston rod, stainless steel 304 piston-rod nut, stainless steel 420B tie-rods, stainless steel 303 tie-rod nuts
- W Rolled 304 stainless steel piston rod, stainless steel 304 piston-rod nut, 420B stainless steel tie-rods, 303 stainless steel tie-rod nuts
- Z Chrome plated 420B stainless steel rod, 304 stainless steel rod nut, 420B stainless steel tie-rods, 303 stainless steel tie-rods nuts, seals for low temperature (-40°C), brass rod scraper
- Y Chrome plated 420B stainless steel rod, 304 stainless steel rod nut, 420B stainless steel tie-rods, 303 stainless steel tie-rods nuts, seals for low temperature (-50°C), brass rod scraper



01	002 003 004 005 006 007 008 009	010 0	011 (	012	013	5 (	014									
2	63															
001 Z	Code Camozzi Cylinder									R	2 PA					
002	Series					٦	DI	IA		I	50	)				
63	ISO 15552 Cylinder									×						
03	Version													_	-	_
M	Standard, magnetic				1	100-1	-	_		-	_	-	_	-	20	
v	Uniform movement (no stick slip), magnetic		-	1				_	_	_	_	_		_	1	
L	Low friction, magnetic			100		_	_	_	_	_	_	_	_	_		
04	Construction				-										15	
T	Round tube			51	0-						-					2
P	Profile															
05	Operation															
1	Single-acting, front spring	STA	NDARE	) STRC	KES											
2	Double-acting	ø	25	50	75	80	100	125	150	160	200	250	300	320	400	) 5
6	Double-acting, through-rod	32		∎•x	X	х	x	х	х	х	х	х	х	х	х	
7	Single-acting, through-rod	40		∎ • X	X	х	x	х	х	х	х	х	х	х	х	
9	Single-acting, rear spring	50		∎•X	X	х	х	х	х	х	х	х	х	х	х	
06	Cushioning	63		∎•x	X	х	x	х	х	х	х	х	х	х	х	
N	No cushioning (mechanical endstops)	80		∎ ● X	X	х	х	х	х	х	х	х	x	х	х	
С	Cushioning on both sides	100		∎•x	ШX	х	x	х	х	х	х	х	х	х	х	
F	Front cushioning	125		∎ ● X	X	х	x	x	х	х	х	x	x	x	x	
R	Rear cushioning		ingle-ad				хD	oubl	le-ac	ting			Sir	ngle	-acti	ing
07	Bore Size (mm)	f	ront spr	ring									re	ear s	prin	۱g
	32, 40, 50, 63, 80, 100, 125															
80	Construction		DIA													
Α	Standard with rod nut		Pie	ase co	ntact	you	r ais	tribu	itor t	or n	irtne	r inte	orma	tion		
RL	Cylinder with rod lock															
	Back to back cylinder with DC accessory [X1/X2]															
rr F	Back to back cylinder for round tube [X1/X2] Cylinder with centre trunnion	01		Variat												
				ndard (r			nread	l)								
09	Stroke (mm)	F		ale rod												
	Standard – See standard strokes table (right)	ĸ		caps w												
N /	Tandem More positions X1/X2 [X1 <x2]< td=""><td>L</td><td></td><td>out rod 1 rod se</td><td></td><td>(real</td><td>r air ii</td><td>niet c</td><td>oniy)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></x2]<>	L		out rod 1 rod se		(real	r air ii	niet c	oniy)							
		R		rod se												
10				bricate		ratio	n									
	Standard (-20°/+80°)	H		rolytic e												
W Z	High temperatures (150°C) Low temperatures (-40°C)	A	1.	in food				ent wa	ashd	own	appli	catio	ns			
	Low temperatures (-40 C)	G		& dusty								aper				
	Resistance to Corrosion		& ch	irome-p												
Y	Standard	В		nder wi												
Y		B2		nder wit	in thro	ough	rod 8 d	α NB	K be	NOI	rod p	orote	ction	on b	oth	SIC
Y 11			(	_) = ex	.enue	a 10	u									
Y 11 21	Rod nut 304 stainless steel, rod 304 stainless steel															
Y 11 21		01				1 = 1										
Y 11 01 02 03	Rod nut 304 stainless steel, rod 304 stainless steel End cap treated screws (profile) or stainless steel 303 tie-rods & stainless steel 420B tie-rods (round tube) C2 + AISI 316 rod nut, stainless steel 316 rod	01: P		er nder wit	h RA	L 70	35 pc	olyure	ethar	ne co	ating					
2 Y 11 C1 C2 C3 C4 C5	Rod nut 304 stainless steel, rod 304 stainless steel End cap treated screws (profile) or stainless steel 303 tie-rods & stainless steel 420B tie-rods (round tube)		Cylir Cert	nder wit		L 70	35 pc	olyure	ethar	ne co	ating					



## **CYLINDER ACCESSORIES**



## FOOT MOUNTS

PAIR		and the second se	2530
PART NUMBER	CYLINDER BORE	SERIES	
ZB-8-10	8 – 10 mm	16	
ZB-12/16	12 – 16 mm	16, 24, 25	
ZB-20-25	20 – 25 mm	16, 24, 25	



#### **FRONT & REAR FLANGE**

PART NUMBER	CYLINDER BORE	SERIES	
ZDE-32-20	20 mm	32	
ZDE-32-25	25 mm	32	
ZDE-41-32	32 mm	32, 61	
ZDE-41-40	40 mm	32, 61	
ZDE-41-50	50 mm	32, 61	
ZDE-41-63	63 mm	32, 61	
ZDE-41-80	80 mm	32, 61	
ZDE-41-100	100 mm	32, 61	



## FOOT MOUNTS PAIR

	~	2000
CYLINDER BORE	SERIES	
20 mm	32	
25 mm	32	
32 mm	32, 61, 63	
40 mm	32, 61, 63	
50 mm	32, 61, 63	
63 mm	32, 61, 63	
80 mm	32, 61, 63	
100 mm	32, 61, 63	
	20 mm 25 mm 32 mm 40 mm 50 mm 63 mm 80 mm	20 mm         32           25 mm         32           32 mm         32, 61, 63           40 mm         32, 61, 63           50 mm         32, 61, 63           63 mm         32, 61, 63           80 mm         32, 61, 63



	FLANGE MOUNT	ING		2530
I	PART NUMBER	CYLINDER BORE	SERIES	
	ZE-8-10	8 – 10 mm	16	
	ZE-12/16	12 – 16 mm	16, 24, 25	
	ZE-20/25	20 – 25 mm	16, 24, 25	



## COUNTER BRACKET PAIR

PART NUMBER	CYLINDER BORE	SERIES	
ZBF-32	32 mm	61	
ZBF-40-50	40 – 50 mm	61	
ZBF-63-80	63 – 80 mm	61	
ZBF-100-125	100 – 125 mm	61	



#### **CENTRE TRUNNION**

PART NUMBER	CYLINDER BORE	SERIES	
ZF-61-32	32 mm	61	
ZF-61-40	40 mm	61	
ZF-61-50	50 mm	61	
ZF-61-63	63 mm	61	
ZF-61-80	80 mm	61	
ZF-61-100	100 mm	61	



#### FEMALE REAR TRUNNION

FEMALE REAR T	RUNNION	and the second	2530
PART NUMBER	CYLINDER BORE	SERIES	
ZC-41-32	32 mm	32, 61, 63	
ZC-41-40	40 mm	32, 61, 63	
ZC-41-50	50 mm	32, 61, 63	



#### **FEMALE FRONT & REAR TRUNNION**

PART NUMBER	CYLINDER BORE	SERIES
ZCH-41-63	63 mm	32, 61, 63
ZCH-41-80	80 mm	32, 61, 63
ZCH-41-100	100 mm	32, 61, 63

ROD FORK END		-	2530
PART NUMBER	CYLINDER BORE	SERIES	
ZG-8-10	8 – 10 mm	16	
ZG-12-16	12 – 16 mm	16	
ZG-20	20 mm	16, 24, 32, 35	
ZG-25-32	25 – 32 mm	16, 24, 25, 32, 61, 63	
ZG-40	40 mm	32, 61, 63	
ZG-50-63	50 – 63 mm	32, 61, 63	
ZG-80-100	80 – 100 mm	32, 61, 63	



#### **ROD EYE**

PART NUMBER	CYLINDER BORE	SERIES	
ZGA-32	32 mm	61, 63	
ZGA-40	40 mm	61, 63	
ZGA-50-63	50 – 63 mm	61, 63	
ZGA-80-100	80 – 100 mm	61, 63	



## **CYLINDER ACCESSORIES**

2530





## PISTON ROD SOCKET JOINT

PART NUMBER	CYLINDER BORE	SERIES	
ZGY-32	32 mm	61, 63	
ZGY-40	40 mm	61, 63	
ZGY-50-63	50 – 63 mm	61, 63	
ZGY-80-100	80 – 100 mm	61, 63	

JOINT			2530
CYLINDER BORE	SERIES		
32 mm	61, 63		
40 mm	61, 63		
50 mm	61, 63		
63 mm	61, 63		
80 mm	61, 63		
100 mm	61, 63		
	<b>CYLINDER BORE</b> 32 mm 40 mm 50 mm 63 mm 80 mm	CYLINDER BORE         SERIES           32 mm         61, 63           40 mm         61, 63           50 mm         61, 63           63 mm         61, 63           80 mm         61, 63	CYLINDER BORE         SERIES           32 mm         61, 63           40 mm         61, 63           50 mm         61, 63           63 mm         61, 63           80 mm         61, 63



#### FEMALE FRONT TRUNNION

PART NUMBER	CYLINDER BORE	SERIES
ZH-41-32	32 mm	61, 63
ZH-41-40	40 mm	61, 63
ZH-41-50	50 mm	61, 63
ZH-41-63	63 mm	61, 63

TRUNNION PIN			2530
PART NUMBER	CYLINDER BORE	SERIES	
ZS-32	32 mm	32, 61, 63	
ZS-40	40 mm	32, 61, 63	
ZS-50	50 mm	32, 61, 63	
ZS-63	63 mm	32, 61, 63	
ZS-80	80 mm	32, 61, 63	
ZS-100	100 mm	32, 61, 63	



LOCKING NUT

90° MALE TRUNNION

#### TRUNNION BRACKET

PART NUMBER	CYLINDER BORE	SERIES
ZI-8-10	8 – 10 mm	16
ZI-12/16	12 – 16 mm	16, 24, 25
ZI-20/25	20 – 25 mm	16, 24, 25



PART NUMBER	CYLINDER BORE	SERIES
ZU-25-32	25 – 32 mm	24, 25, 61, 63
ZU-40	40 mm	61, 63
ZU-50-63	50 – 63 mm	61, 63
ZU-80-100	80 – 100 mm	61, 63



#### MALE REAR TRUNNION

PART NUMBER	CYLINDER BORE	SERIES	
ZL-32-20	20 mm	32	
ZL-32-25	25 mm	32	
ZL-41-32	32 mm	32, 61, 63	
ZL-41-40	40 mm	32, 61, 63	
ZL-41-50	50 mm	32, 61, 63	
ZL-41-63	63 mm	32, 61, 63	
ZL-41-80	80 mm	32, 61, 63	
ZL-41-100	100 mm	32, 61, 63	



#### 2530

PART NUMBER	CYLINDER BORE	SERIES	
ZZC-32	32 mm	32	
ZZC-40	40 mm	32	
ZZC-50	50 mm	32	
ZZC-63	63 mm	32	
ZZC-80	80 mm	32	
ZZC-100	100 mm	32	





## MAGNETIC PROXIMITY SWITCHES

#### DESCRIPTION

The SK - CSV sensors are designed to fit into the grooves provided in the profile barrel of compact, rodless & ISO cylinders or on the surface of roundline & tie rod cylinders by using mounting bands or brackets.

**SWITCHES** 



#### **SWITCHES** DEED

Six

				2530
SLOT	WIRE	VOLTAGE	CABLE	
Т	2	3 - 130 V AC/DC	2 m	
V	2	10-110 V AC/DC	2 m	
Т	3	5 – 30 V AC/DC	2 m	
V	3	5 – 30 V AC/DC	2 m	
Т	2	5 – 230 V AC/DC	5 m	
	T	T 2 V 2 T 3 V 3	T         2         3 - 130 V AC/DC           V         2         10 - 110 V AC/DC           T         3         5 - 30 V AC/DC           V         3         5 - 30 V AC/DC	T         2         3 - 130 V AC/DC         2 m           V         2         10 - 110 V AC/DC         2 m           T         3         5 - 30 V AC/DC         2 m           V         3         5 - 30 V AC/DC         2 m

#### MAGNETO RESISTIVE- PNP

ZSKH3C01200	-				
201110001200	1	3	3 – 28 V DC	2 m	
ZCSV-332	V	3	10 – 27 V DC	2 m	



PART NUMBER	SLOT	WIRE	VOLTAGE	CABLE
PARTNUMBER	SLUI	WIRE	VOLIAGE	CADLE
ZSKR2C01M8	Т	2	5 – 50 V AC/DC	0.3 m
ZCSV-250N	V	2	10 - 110 V AC/DC	0.3 m
ZSKR3C01M8	Т	3	5 - 30 V AC/DC	0.3 m
ZCSV-262	V	3	5 – 30 V AC/DC	0.3 m

**SWITCHES** FOR USE WITH SERIES 63 **PROFILE CYLINDERS** REED 2530 PART NUMBER SLOT WIRE CABLE VOLTAGE ZCSH-223-2 Н 2 10 - 30 V AC/DC 2 m 10 – 30 V AC/DC ZCSH-233-2 Н 3 2 m

### BRACKETS – FOR USE WITH T SLOT TYPE SWITCHES



PARTNUMBER	BURE
ZSF16	16 mm
ZSF20	20 mm
ZSF25	25 mm



# **Festo Pneumatic Cylinders**



- \* Innovative, industry leading, precision engineering
- Extensive range of high quality Festo components \*
- \* Single components to complete turnkey solutions

Typical uses of pneumatic cylinders include clamping, lifting, countersinking, pushing, pulling, feeding, turning, gripping, holding, joining, stopping, stamping, and embossing.

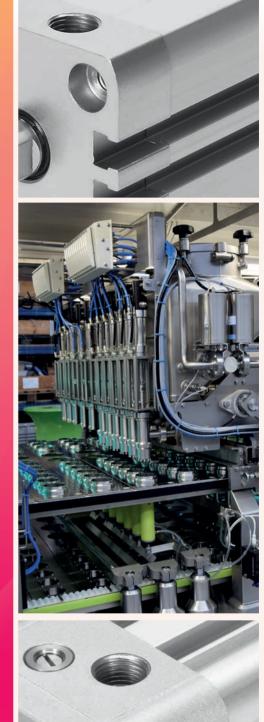
#### Festo pneumatic cylinders increase safety with optional integrated braking modules for emergency stops.

- High holding forceDynamic braking function
- · Holding brake Emergency stop function for braking and holding a
- Double acting
- · Extensive range of accessories to make installation possible virtually
- Contactless position sensing
- · Self-adjusting cushioning

#### Save energy with Festo's range of energy efficient profile cylinders!

Festo's innovative cylinders can help you save significantly on compressed air consumption. You can save energy costs by adequately sizing pneumatic cylinders and reducing compressed air pressure. With every one-bar reduction in operating pressure, you can save up to 14% on compressed air costs. Festo DSBC cylinders are designed with highintegrity seals that prevent compressed air leaks, saving you considerable money over time.





361

Six.



001

DSNU .

Optional entry

001

DSNU

002

.... 003

...

004

P PPV

PPS

005

Α

STANDARD CONFIGURATION

Type

Bore Size (mm) 8, 10, 12, 16, 20, 25

160, 200, 250, 300, 320

Stroke (mm)

Cushioning

**Position Sensing** None

Via proximity switch

## PNEUMATIC CYLINDERS

## STANDARD-BASED CYLINDERS DSNU, TO ISO 6432, DOUBLE-ACTING



10, 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 100, 125, 150,

Elastic cushioning rings / plates at both ends

Pneumatic cushioning adjustable at both ends

Pneumatic cushioning, self-adjusting at both ends

Double-acting standard-based cylinder

## FEATURES

- ISO 6432
- · Wide range of variants for customised applications
- · Good running performance & long service life
- · Self-adjusting pneumatic end-position cushioning saves time during commissioning & adapts optimally to load & speed changes
- · Piston rod with male thread

For position sensing

#### DSNU-S ultra short range available on request

PRODUCT OPTIONS		
1 500 mm maximum stroke		
MQ	Alternative plain cylinder end cap, lateral connection	
MA	Alternative plain cylinder end cap, axial connection	
MH	Alternative cylinder end cap, direct mounting	
Q	With protection against rotation	
S2	Through piston rod	
S6	Heat-resistant seals up to max. 120°C	
S10	Slow speed	
S11	Low friction	
KP	With clamping unit	
K2	Extended male piston rod thread	
K3	Female piston rod thread	
K5	Special piston rod thread	
K6	Shortened male piston rod thread	
K8	Extended piston rod	
R3	High corrosion protection	
KP	Clamping unit on the piston rod	

Please contact your distributor for further information

## ROUND CYLINDERS DSNU, DOUBLE-ACTING



#### STANDARD CONFIGURATION

001	Туре
DSNU	Double acting round cylinder
002	Bore Size (mm)
	32, 40, 50, 63
003	Stroke (mm)
	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320
004	Cushioning
Р	Elastic cushioning rings / plates at both ends
PPV	Pneumatic cushioning adjustable at both ends
PPS	Pneumatic cushioning, self-adjusting at both ends
005	Position Sensing
Α	Via proximity switch

#### FEATURES

- · Wide range of variants for customised applications
- · Good running performance & long service life
- · Self-adjusting pneumatic end-position cushioning saves time during commissioning & adapts optimally to load & speed changes
- · Piston rod with female or male thread
- · For position sensing

1 500 mm maximum stroke         MQ       Alternative plain cylinder end cap, lateral connection         MA       Alternative plain cylinder end cap, axial connection         MH       Alternative cylinder end cap, direct mounting         Q       With protection against rotation         S2       Through piston rod         S6       Heat-resistant seals up to max. 120°C         S10       Slow speed         S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K4       Shortened male piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R8       Dust protection (scraper)         A6       Metal scraper         KP       Clamping unit on the piston rod	PRODUCT OPTIONS		
MA       Alternative plain cylinder end cap, axial connection         MH       Alternative cylinder end cap, direct mounting         Q       With protection against rotation         S2       Through piston rod         S6       Heat-resistant seals up to max. 120°C         S10       Slow speed         S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R4       Dust protection (scraper)         A6       Metal scraper	1 500 mm maximum stroke		
MH       Alternative cylinder end cap, direct mounting         Q       With protection against rotation         S2       Through piston rod         S6       Heat-resistant seals up to max. 120°C         S10       Slow speed         S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R8       Dust protection (scraper)         A6       Metal scraper	MQ	Alternative plain cylinder end cap, lateral connection	
Q       With protection against rotation         S2       Through piston rod         S6       Heat-resistant seals up to max. 120°C         S10       Slow speed         S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K5       Special piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R4       Dust protection (scraper)         A6       Metal scraper	MA	Alternative plain cylinder end cap, axial connection	
S2       Through piston rod         S6       Heat-resistant seals up to max. 120°C         S10       Slow speed         S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K5       Special piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R4       Dust protection (scraper)         A6       Metal scraper	MH	Alternative cylinder end cap, direct mounting	
S6       Heat-resistant seals up to max. 120°C         S10       Slow speed         S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K5       Special piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R8       Dust protection (scraper)         A6       Metal scraper	Q	With protection against rotation	
S10Slow speedS11Low frictionKPWith clamping unitK2Extended male piston rod threadK3Female piston rod threadK5Special piston rod threadK6Shortened male piston rod threadK8Extended piston rodR3High corrosion protectionR8Dust protection (scraper)A6Metal scraper	S2	Through piston rod	
S11       Low friction         KP       With clamping unit         K2       Extended male piston rod thread         K3       Female piston rod thread         K3       Female piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R8       Dust protection (scraper)         A6       Metal scraper	S6	Heat-resistant seals up to max. 120°C	
KPWith clamping unitK2Extended male piston rod threadK3Female piston rod threadK5Special piston rod threadK6Shortened male piston rod threadK8Extended piston rodR3High corrosion protectionR8Dust protection (scraper)A6Metal scraper	S10	Slow speed	
K2       Extended male piston rod thread         K3       Female piston rod thread         K5       Special piston rod thread         K6       Shortened male piston rod thread         K8       Extended piston rod         R3       High corrosion protection         R8       Dust protection (scraper)         A6       Metal scraper	S11	Low friction	
K3     Female piston rod thread       K5     Special piston rod thread       K6     Shortened male piston rod thread       K8     Extended piston rod       R3     High corrosion protection       R8     Dust protection (scraper)       A6     Metal scraper	KP	With clamping unit	
K5Special piston rod threadK6Shortened male piston rod threadK8Extended piston rodR3High corrosion protectionR8Dust protection (scraper)A6Metal scraper	K2	Extended male piston rod thread	
K6     Shortened male piston rod thread       K8     Extended piston rod       R3     High corrosion protection       R8     Dust protection (scraper)       A6     Metal scraper	K3	Female piston rod thread	
K8     Extended piston rod       R3     High corrosion protection       R8     Dust protection (scraper)       A6     Metal scraper	K5	Special piston rod thread	
R3     High corrosion protection       R8     Dust protection (scraper)       A6     Metal scraper	K6	Shortened male piston rod thread	
R8         Dust protection (scraper)           A6         Metal scraper	K8	Extended piston rod	
A6 Metal scraper	R3	High corrosion protection	
· · · · · · · · · · · · · · · · · · ·	R8	Dust protection (scraper)	
KP Clamping unit on the piston rod	A6	Metal scraper	
	KP	Clamping unit on the piston rod	

#### Please contact your distributor for further information



#### STANDARD-BASED CYLINDERS DSBC, TO ISO 15552, DOUBLE-ACTING



#### STANDARD CONFIGURATION

	-
001	Туре
DSBC	Double-acting standard-based cylinder
002	Bore Size (mm)
	32, 40, 50, 63, 80, 100, 125
003	Stroke (mm)
	20, 25, 30, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500
004	Cushioning
PPV	Pneumatic cushioning, adjustable at both ends
PPS	Pneumatic cushioning, self-adjusting at both ends
005	Position Sensing
Α	Via proximity switch
006	Standard
N3	Conforms to ISO 15552

Please contact your distributor for further information



Industries' growing awareness about climate protection, energy prices, and rising cost pressures has made energy efficiency a key focus.

The DSBC cylinder has been designed with highintegrity seals to reduce compressed air leaks, saving money.

Properly sizing pneumatic cylinders and reducing compressed air pressure can significantly save energy costs.

Every one-bar reduction in operating pressure can result in a 14% reduction in compressed air costs.



#### FEATURES

- ISO 15552 (ISO 6431, VDMA 24562)
- Self-adjusting pneumatic end-position cushioning saves time during commissioning & adapts optimally to load & speed changes
- Standard profile with two sensor slots
  Wide range of variants for customised applications
- Comprehensive range of mounting accessories for just about every type
- of installation • For position sensing
- Variants with copper & zinc content less than 1% recommended for
- production facilities for manufacturing lithium-ion batteries
- · Male thread piston rod at one end

#### PRODUCT OPTIONS

1 2800	1 2800 mm maximum stroke		
Q	With protection against rotation		
L	Running characteristic low friction		
U	Constant, slow movement		
L1	Low friction for balancer applications		
С	Clamping unit attached		
E1	End-position locking at both ends		
E2	End-position locking with advanced piston rod		
E3	End-position locking with retracted piston rod		
Т	Through piston rod		
F	Female piston rod thread		
D3	Sensor slot on 3 sides of the profile		
Р	Elastic cushioning rings / plates both ends		
R3	High corrosion protection		
T1	Heat-resistant seals up to max. 120°C		
Т3	Low temperature -40 +80°C		
T4	Temperature range 0 +150°C		
P2	Bellows on bearing cap		
A1	Increased chemical resistance		
A2	Hard scraper		
A3	Suitable for unlubricated operation		
A6	Metal scraper		
F1A	Recommended for production facilities for manufacturing lithium-ion batteries (Cu<=1%, Zn<=1%, Ni<=1%)		
EX4	EU certification (II 2GD)		
E	Extended piston rod 1 500 mm		
L	Extended piston rod thread 0 70 mm		

#### Do you also need?

## FESTO

Energy saving regulator LRL, LRLL

- Constant differential pressure between input
   & output
- Cuts energy usage on cylinder return stroke approx. 20%
- Connecting thread M5, R1/8", R1/4", R3/8", R1/2"
- Push-in connector for tube OD 4, 6, 8, 10, 12 mm
- Rotatable 360°

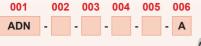


Please contact your distributor for further information





### COMPACT CYLINDERS ADN, TO ISO 21287, DOUBLE-ACTING





## FEATURES

PRODUCT OPTIONS

#### ISO 21287

- Up to 50% less installation space than comparable standardsbased cylinders to ISO 15552
- · Piston rod with female or male thread
- · Wide range of variants for customised applications
- · For position sensing

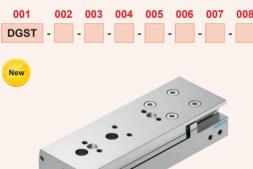
#### ADN-S ultra short range available on request

STANDARD C	STANDARD CONFIGURATION		
001	Туре		
ADN	Double-acting compact cylinder, to ISO 21287		
002	Bore Size (mm)		
	12, 16, 20, 25, 32, 40, 50, 63, 80		
003	Stroke (mm)		
	5, 10, 15, 20, 25, 30, 40, 50, 60, 80		
004	Piston Rod Thread Type		
Α	Male Thread		
I	Female thread		
005	Cushioning		
Р	Elastic cushioning rings / plates at both ends		
PPS	Pneumatic cushioning, self-adjusting at both ends		
006	Position Sensing		
Α	Via proximity switch		

Please contact your distributor for further information

#### 100, 125 mm bore sizes 1 ... 500 mm maximum stroke Recommended for production facilities for manufacturing F1A lithium-ion batteries (Cu<=1%, Zn<=1%, Ni<=1%) Q Square piston rod K8 Extended piston rod Reinforced piston rod S1 S2 Through piston rod S20 Through, hollow piston rod K2 Extended male piston rod thread K5 Special piston rod thread K10 Smooth anodised aluminium piston rod S6 Heat-resistant seals up to max. 120°C S10 Constant, slow movement S11 Low friction R3 High corrosion protection R8 Dust protection ΤI Laser etched rating plate TT Low temperature -40 ... +80°C ĸР With clamping unit, attached EL... With end-position locking

## MINI SLIDE



IRES	
pact mini slide & yoke plate as a single component	

#### FEATU

- Comp
- Slide
- · Excellent value for money
- · High feed forces
- · Symmetrical mounting interfaces
- Precise & resilient roller bearing guide
- · Simple design with symmetrical mounting interfaces
- · Can be operated without additional cushioning components

Please contact your distributor for further information

#### STANDARD CONFIGURATION

001	Туре
DGST	Mini Slide
002	Bore Size (mm)
	6, 8, 10, 12, 16, 20, 25
003	Stroke (mm)
	10, 20, 30, 40, 50, 80, 100, 125, 150, 200
004	Version
	Standard
L	Mirror-inverted
005	Cushioning
005 P	
P1	Elastic cushioning rings / plates on both sides
	Elastomer cushioning, adjustable on both sides, with fixed stop
E	Elastomer cushioning, short, on both sides
E1	Elastomer cushioning, double-sided, stroke not adjustable
Y12	Shock absorber, self-adjusting, linear at both ends, external
006	Position Sensing
Α	For proximity sensor
007	Special material properties
	None
F1A	Recommended for production facilities for the manufacture of lithium-ion batteries
008	Lubrication
	Standard
H1	Food-safe lubrication

# **DSBC, ADN & DSNU ACCESSORIES**

TYPE

SG-M10x1,25

SG-M12x1.25

SG-M16x1,5

SG-M20x1,5

SG-M27x2-B

SG-M4

SG-M6

SG-M8

## **CYLINDER ACCESSORIES**

0

3110

3110

FOO		5
2 PIF	CES	

2112020	0110		
PART NUMBER	TYPE	FOR BORE	
FES5124	HBN-8/10X2	8, 10 mm	
FES5126	HBN-12/16X2	12, 16 mm	
FES5128	HBN-20/25X2	20, 25 mm	

#### FLANGE MOUNTING

FLANGE MOUNT	ING		3110
PART NUMBER	TYPE	FOR BORE	
FES5129	FBN-8/10	8, 10 mm	
FES5130	FBN-12/16	12, 16 mm	
FES5131	FBN-20/25	20, 25 mm	





ROD EYE		3110
PART NUMBER	TYPE	
FES9253	SGS-M4	
FES9254	SGS-M6	
FES9255	SGS-M8	
FES9261	SGS-M10x1,25	
FES9262	SGS-M12x1,25	
FES9258	SGS-M16	
FES9263	SGS-M16X1,5	
FES9264	SGS-M20X1,5	

## **ROD FLOATING JOINT**

**ROD FORK END** 

PART

NUMBER

FES6532

FES3110

FES3111

FES6144

FES6145

FES6146

FES6147

FES14987

PART NUMBER	TYPE	
FES6528	FK-M4	
FES30984	FK-M5	
FES2061	FK-M6	
FES2062	FK-M8	
FES2063	FK-M10	
FES6140	FK-M10x1,25	
FES2064	FK-M12	
FES6141	FK-M12x1,25	
FES2065	FK-M16	
FES6142	FK-M16x1,5	
FES6143	FK-M20x1,5	
FES10746	FK-M36x2	

BORE SIZE

FOR DSBC

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32 mm

40 mm

50, 63 mm

80, 100 mm

125 mm

BORE SIZE

FOR ADVC

10 mm 16 mm

20, 25 mm

32, 40 mm

50, 63 mm

80, 100 mm

125 mm



#### **ROD CLEVIS**

-		4	
PART NUMBER	TYPE	FOR BORE	
FES32954	SGA-M10X1.25	32, 40 mm	
FES10767	SGA-M12X1.25	50, 63 mm	
FES10768	SGA-M16X1.5	80, 100 mm	

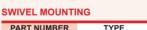
#### **CENTRE TRUNNION** 3110 PART NUMBER TYPE FOR BORE FES8608 WBN-8/10 8, 10 mm FES8609 WBN-12/16 12, 16 mm FES8610 WBN-20/25 20, 25 mm





#### **REAR CLEVIS**

PART NUMBER	TYPE	FOR BORE
FES6057	LBN-8/10	8, 10 mm
FES6058	LBN-12/16	12, 16 mm
FES6059	LBN-20/25	20, 25 mm
FES195860	LBN-32	32 mm
FES195861	LBN-40	40 mm
FES195862	LBN-50/63	50, 63 mm



PART NUMBER	TYPE	FOR BORE	
FES539927	SBN-20/25	20, 25 mm	

#### FOOT MOUNTS

PAIR			3110
PART NUMBER	TYPE	FOR BORE	
FES174369	HNC-32	32 mm	
FES174370	HNC-40	40 mm	
FES174371	HNC-50	50 mm	
FES174372	HNC-63	63 mm	
FES174373	HNC-80	80 mm	
FES174374	HNC-100	100 mm	

FES9253	SGS-M4
FES9254	SGS-M6
FES9255	SGS-M8
FES9261	SGS-M10x1,25
FES9262	SGS-M12x1,25
FES9258	SGS-M16
FES9263	SGS-M16X1,5
FES9264	SGS-M20X1 5

## **CYLINDER ACCESSORIES**

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## **DSBC & ADN ACCESSORIES**

FRONT & REAR FLANGE



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PART NUMBER	TYPE	FOR BORE
FES174376	FNC-32	32 mm
FES174377	FNC-40	40 mm
FES174378	FNC-50	50 mm
FES174379	FNC-63	63 mm
FES174380	FNC-80	80 mm
FES174381	FNC-100	100 mm
FES174382	FNC-125	125 mm

LEVIS FOOT		3110
TYPE	FOR BORE	
LQG-32	32 mm	
LQG-40	40 mm	
LQG-50	50 mm	
LQG-63	63 mm	
LQG-80	80 mm	
LQG-100	100 mm	
	LQG-32 LQG-40 LQG-50 LQG-63 LQG-80	TYPE         FOR BORE           LQG-32         32 mm           LQG-40         40 mm           LQG-50         50 mm           LQG-63         63 mm           LQG-80         80 mm



#### MALE REAR TRUNNION

PART NUMBER	TYPE	FOR BORE	
FES174404	SNCL-32	32 mm	
FES174405	SNCL-40	40 mm	
FES174406	SNCL-50	50 mm	
FES174407	SNCL-63	63 mm	
FES174408	SNCL-80	80 mm	
FES174409	SNCL-100	100 mm	
FES174410	SNCL-125	125 mm	



#### **MULTI-POSITION KIT**

PART NUMBER	TYPE	FOR BORE
FES174422	DPNC-80	80 mm
FES174423	DPNC-100	100 mm



#### 90° REAR TRUNNION

PART NUMBER	TYPE	FOR BORE	
FES33890	LNG-32	32 mm	
FES33891	LNG-40	40 mm	
FES33892	LNG-50	50 mm	
FES33893	LNG-63	63 mm	
FES33894	LNG-80	80 mm	
FES33895	LNG-100	100 mm	
FES33896	LNG-125	125 mm	

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#### FRONT REAR TRUNNION PART NUMBER TYPE

PART NUMBER	TYPE	FOR BORE	
FES174390	SNCB-32	32 mm	
FES174391	SNCB-40	40 mm	
FES174392	SNCB-50	50 mm	
FES174393	SNCB-63	63 mm	
FES174394	SNCB-80	80 mm	
FES174395	SNCB-100	100 mm	
FES174396	SNCB-125	125 mm	



#### FOOT MOUNTS DAID

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PART NUMBER	TYPE	FOR BORE
FES537237	HNA-12	12 mm
FES537238	HNA-16	16 mm
FES537239	HNA-20	20 mm
FES537240	HNA-25	25 mm
FES537241	HNA-32	32 mm
FES537242	HNA-40	40 mm
FES537243	HNA-50	50 mm
FES537244	HNA-63	63 mm
FES537249	HNA-80	80 mm
FES537250	HNA-100	100 mm



## **MULTI-POSITION KIT**

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PART NUMBER	TYPE	FOR BORE	
FES537263	DPNA-12	12 mm	
FES537264	DPNA-16	16 mm	
FES537265	DPNA-20	20 mm	
FES537266	DPNA-25	25 mm	
FES537267	DPNA-32	32 mm	
FES537268	DPNA-40	40 mm	
FES537269	DPNA-50	50 mm	
FES537270	DPNA-63	63 mm	
FES537271	DPNA-80	80 mm	
FES537272	DPNA-100	100 mm	



## **PROXIMITY SENSORS**

## **PROXIMITY SENSORS**

#### FEATURES

- · Switching output via reed contact or non-contacting
- Insertable in the slot from above, does not protrude over the cylinder profile
- Suitable for use with energy chains
- · Cable clip & inscription labels included in the scope of delivery
- With switching status display
- Types in accordance with ATEX directive for potentially explosive atmospheres

#### FEATURES

- · Magneto-resistive
- Ex2 II 3GD in accordance with EU Directive 94/9/EC

SPECIFICATIONS		
Design	8M	For T-slot, insertable in the slot from above
Design	10M	For C-slot, insertable in the slot from above
Switching output,	ZS	N/O contact, 2-wire
switching element	PS	PNP, N/O contact, 3-wire
function	NS	NPN, N/O contact, 3-wire
	PO	PNP, N/C contact, 3-wire
Rated operating	24 V DC	
voltage	24 V	DC
, ,	24 V E	DC Energy chain + robot
voltage		
voltage Cable characteristics	E	Energy chain + robot
voltage Cable characteristics Connection	E OE	Energy chain + robot Open end
voltage Cable characteristics Connection	E OE M8	Energy chain + robot Open end Cable with plug M8x1, snap-on flange

MT-8		3110	
PART NUMBER	ТҮРЕ	CABLE LENGTH	
FES574334	SMT-8M-A-PS-24V-E-0,3-M8D	0.3 m	
FES574337	SMT-8M-A-PS-24V-E-0,3-M12	0.3 m	
FES574335	SMT-8M-A-PS-24V-E-2,5-OE	2.5 m	
FES574336	SMT-8M-A-PS-24V-E-5,0-OE	5.0 m	
FES574342*	SMT-8M-A-PS-24V-E-0,3-M8D-Ex2	0.3 m	
FES574340	SMT-8M-A-PO-24V-E-7,5-OE	7.5 m	
FES574338	SMT-8M-A-NS-24V-E-2,5-OE	2.5 m	
FES574339	SMT-8M-A-NS-24V-E-0,3-M8D	0.3 m	
FES574341*	SMT-8M-A-ZS-24V-E-5,0-OE-Ex2	5.0 m	
MT-10			
FES551379	SMT-10M-NS-24V-E-0,3-L-M8D	0.3 m	
FES551377	SMT-10M-NS-24V-E-2,5-L-OE	2.5 m	
FES551375	SMT-10M-PS-24V-E-0,3-L-M8D	0.3 m	
FES551373	SMT-10M-PS-24V-E-2,5-L-OE	2.5 m	
FES551382	SMT-10M-ZS-24V-E-2,5-L-OE	2.5 m	



\* FES574342 & FES574341 are ATEX approved

## PROXIMITY SENSOR ACCESSORIES FOR DSNU CYLINDERS



#### SMBR MOUNTING KIT

TYPE	FOR BORE	
SMBR-8-8	8 mm	
SMBR-8-10	10 mm	
SMBR-8-12	12 mm	
SMBR-8-16	16 mm	
SMBR-8-20	20 mm	
SMBR-8-25	25 mm	
	SMBR-8-8 SMBR-8-10 SMBR-8-12 SMBR-8-16 SMBR-8-20	SMBR-8-8         8 mm           SMBR-8-10         10 mm           SMBR-8-12         12 mm           SMBR-8-16         16 mm           SMBR-8-20         20 mm

## PROXIMITY SWITCH

#### DESCRIPTION

Electronic proximity switch for T-slot can be inserted from above; commissioning without a power supply is quick, easy & very reliable, without the need for precision adjustment or re-adjustment, either via auto teach-in or programming.

#### FEATURES

- Measuring principle: magnetic Hall
- Auto teach-in: automatic teach-in of the switching point at system start-up
   Programmable: PNP/NPN, NO/NC & switching window range between
- 2 ... 15 mm
- · Insertable in the slot from above, screw-clamped
- · LED status indicator





## **DFPD QUARTER TURN ACTUATORS**

#### DESCRIPTION

The DFPD series features a rack & pinion combination with a constant torque characteristic across the entire swivel range. The quarter turn actuators DFPD are perfect for automating your butterfly valves, ball valves & dampers.

#### FEATURES

- · Uniform torque characteristic across the entire rotation angle of 90° with the double-acting version
- Version with swivel angle 120°, 135°, 180° for the sizes 40, 120, 240, 480, double-acting
- · Process valve connection to ISO 5211
- Mounting hole pattern to VDI/VDE 3845
- · Sturdy, non-slip & easy-to-clean aluminium housing
- · Long service life, low wear · Increased corrosion protection

#### SPECIFICATIONS

Temperature range	-20°C to +80°C
Operating pressure	2 bar to 8 bar (29 psi to 116 psi)

DFPD					
QUARTER TURN ACTUATORS					
PART NUMBER	TYPE	BORE			
FES8048142	DFPD-480-RP-90-RS60-F1012	480 mm			
FES8048127	DFPD-480-RP-90-RD-F1012	480 mm			
FES8048140	DFPD-300-RP-90-RS60-F0710	300 mm			
FES8048126	DFPD-300-RP-90-RD-F0710	300 mm			
FES8048138	DFPD-240-RP-90-RS60-F0710	240 mm			
FES8048125	DFPD-240-RP-90-RD-F0710	240 mm			
FES8048136	DFPD-160-RP-90-RS60-F0710	160 mm			
FES8048124	DFPD-160-RP-90-RD-F0710	160 mm			
FES8048134	DFPD-120-RP-90-RS60-F0507	120 mm			
FES8048123	DFPD-120-RP-90-RD-F0507	120 mm			
FES8047626	DFPD-80-RP-90-RS60-F0507	80 mm			
FES8047616	DFPD-80-RP-90-RD-F0507	80 mm			
FES8047624	DFPD-40-RP-90-RS60-F0507	40 mm			
FES8047615	DFPD-40-RP-90-RD-F0507	40 mm			
FES8047622	DFPD-20-RP-90-RS60-F04	20 mm			
FES8047614	DFPD-20-RP-90-RD-F04	20 mm			
FES8047613	DFPD-10-RP-90-RD-F03	10 mm			

#### ACCESSORIES

#### FEATURES

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- · Digital, electropneumatic positioner
- · Simple & efficient position control of single- & double-acting pneumatic rotary & linear drives
- · With integrated or external path / angular detection
- · Simple commissioning through automatic initialisation function
- · Intuitive menu navigation
- 4-conductor technology
- · Variants with safety functions



#### POSITIONER

PART NUMBER	TYPE	
FES3929539	CMSX-P-SE-C-U-F1-D-130-A	
FES3929370	CMSX-P-S-C-U-F1-S-50-A	
FES3929313	CMSX-P-S-C-U-F1-D-50-A	
FES2110841	CMSX-P-S-C-U-F1-D-50-C-G1	

#### DHPC PARALLEL GRIPPERS

#### FEATURES

- · Resilient & precise ball guide
- · High gripping force & compact size
- Max. repetition accuracy
- Can be used as a double-acting or single-acting gripper
- · Single-acting variant or with gripping force retention normally open (NO) or normally closed (NC)
- · Suitable for external & internal gripping
- · Wide variety of mounting & attachment options
- · Sustainable in production thanks to reduced use of materials

Alternative gripper designs DHDS, DHWC, DHRC, HGDS also available. Please contact your distributor for further information.



3110

#### FEATURES

- · Pre-assembled mounting adaptor for ease of installation
- · The trip cams can be easily set without additional tools
- · Sturdy, corrosion-resistant design, ideal for use in harsh ambient conditions
- · Clearly visible 3D position indicator allows the current position of the quarter turn actuator to be quickly detected
- · With safety functions
- · Variants to EU Explosion Protection Directive (ATEX)



#### LIMIT SWITCH BOX

TYPE
SRBC-CA3-YR90-N-20N-ZC
SRBC-CA3-YR90-N-1-P-C2
SRBC-CA3-YR90-MW-22A-

C-C2P20 2P20 -1W-C2P20





PART NUMBER	TYPE	SIZE	
FES8116753	DHPC-10-A-S	10 mm	
FES8116785	DHPC-16-A-S	16 mm	
FES8116817	DHPC-20-A-S	20 mm	
FES8116849	DHPC-25-A-S	25 mm	
FES8116881	DHPC-32-A-S	32 mm	



# **E.MC** Valves

E.MC is a precision-engineering manufacturer that produces components for the pneumatics industry. They use highprecision machinery to assemble every E.MC valve in their state-of-the-art facility, ensuring that each undergoes quality testing.

Pneumatic valves are crucial in controlling the amount and direction of airflow. They can function as control and safety valves to stop the air supply or depress the system during hazardous situations.

#### Every valve consists of three elements:

- 1, A port is an opening with a thread into which a coupling can be inserted. Valves generally have 2, 3, or 5 ports. Two ports are the minimum requirement for powering the valve. The third port is used for exhausting the valve. If five ports are available, it is usually to control a double-acting cylinder.
- The switching mechanism is contained in a housing, which directs compressed air to the correct working port. Different switching technologies allow for various functions and applications.
- 3, A controller ensures that the valve switches at the appropriate time. It can be operated manually, mechanically, pneumatically, or electrically.

#### **Available Ranges**

- 3/2, 5/2 and 5/3 pneumatically operated valves
- 3/2, 5/2 and 5/3 solenoid valves
- Manual and pneumatic-operated valves
- Manual and mechanical valves
- Automatic valves
- 3/2, 5/2 and 5/3 manual and pneumatic valves
- 3/2, 5/2, 5/3 and 4/3 manual and mechanical valves
- 3/2, 5/2 manual and mechanical valves
- 3/2, 5/2 manual valves









## 3/2, 5/2 & 5/3 PNEUMATICALLY OPERATED VALVES



## **RV SERIES**

#### SPECIFICATIONS

of Lon IoAnono	
Working medium	Clean air
Working pressure	1.5 to 8 bar
Guaranteed pressure	12 bar
Working temperature	-20°C to +70°C (dry air)
Valve type	3/2, 5/2 & 5/3
Acting type	Internal pilot / external pilot type

#### **RV SERIES PILOT VALVE** 3/2 SINGLE PILOT NORMALLY CLOSED

SPRING RETURN



PART NUMBER FUNCTION BODY SIZE PORT SIZE EM-RVA3211-060 3/2 18 mm 1/8' EM-RVA3221-08Q 3/2 22 mm 1/4" EM-RVA3231-10Q 3/2 27 mm 3/8' EM-RVA3241-15 3/2 34 mm 1/2'

\* Air return for products ending in Q

# fit together

Symbol key

#### **RV SERIES PILOT VALVE** 5/3 DOUBLE PILOT CENTRE CLOSED



BODY PART NUMBER FUNCTION EXHAUST INLET SIZE EM-RVA5312C-06 5/3 18 mm 1/8" 1/8" EM-RVA5322C-08 5/3 22 mm 1/8' 1/4" EM-RVA5332C-10 5/3 27 mm 1/4" 3/8" EM-RVA5342C-15 5/3 34 mm 1/2" 1/2"

#### **RV SERIES PILOT VALVE** 3/2 DOUBLE PILOT NORMALLY CLOSED

	PART NUMBER	FUNCTION	BODY SIZE	PORT SIZE
igodol	EM-RVA3212-06	3/2	18 mm	1/8"
lacksquare	EM-RVA3222-08	3/2	22 mm	1/4"
lacksquare	EM-RVA3232-10	3/2	27 mm	3/8"
	EM-RVA3242-15	3/2	34 mm	1/2"





# PRESSURED CENTRE

	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET	
$\circ$	EM-RVA5312P-06	5/3	18 mm	1/8"	1/8"	
	EM-RVA5322P-08	5/3	22 mm	1/8"	1/4"	
	EM-RVA5332P-10	5/3	27 mm	1/4"	3/8"	
	EM-RVA5342P-15	5/3	34 mm	1/2"	1/2"	

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#### **RV SERIES PILOT VALVE** 5/2 SINGLE PILOT SPR

EM-RVA5241-15

SPRING RETURN	-		60		363
PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET	
EM-RVA5211-06Q	5/2	18 mm	1/8"	1/8"	
EM-RVA5221-08Q	5/2	22 mm	1/8"	1/4"	
EM-RVA5231-10Q	5/2	27 mm	1/4"	3/8"	

1/2'

34 mm \* Air return for products ending in Q

5/2



1/2'

#### **RV SERIES PILOT VALVE** 5/2 DOUBLE PILOT

	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET
$\bigcirc$	EM-RVA5212-06	5/2	18 mm	1/8"	1/8"
	EM-RVA5222-08	5/2	22 mm	1/8"	1/4"
	EM-RVA5232-10	5/2	27 mm	1/4"	3/8"
	EM-RVA5242-15	5/2	34 mm	1/2"	1/2"



#### **RV SERIES PILOT VALVE** 5/3 DOUBLE PILOT CENTRE EXHAUST

	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET	
	EM-RVA5312E-06	5/3	18 mm	1/8"	1/8"	
)	EM-RVA5322E-08	5/3	22 mm	1/8"	1/4"	
)	EM-RVA5332E-10	5/3	27 mm	1/4"	3/8"	
	EM-RVA5342E-15	5/3	34 mm	1/2"	1/2"	





## 3/2, 5/2 & 5/3 SOLENOID VALVES



## **RV SERIES – BODY ONLY**

#### SPECIFICATIONS

of Lon IoAnono	
Working medium	Clean air
Working pressure	1.5 to 8 bar
Guaranteed pressure	12 bar
Working temperature	-20°C to +70°C (dry air)
Valve type	3/2, 5/2 & 5/3
Acting type	Pilot type



#### RV SERIES 3/2 SINGLE SOLENOID

NORMALLY CLOSED

	PART NUMBER	FUNCTION	BODY SIZE	PORT SIZE	
igodol	EM-RV3211-06Q-WX	3/2	18 mm	1/8"	
lacksquare	EM-RV3221-08Q-WX	3/2	22 mm	1/4"	
•	EM-RV3241-15-WX	3/2	34 mm	1/2"	

\* Air return available for products ending in Q



3640

#### RV SERIES 3/2 DOUBLE SOLENOID

NORMALLY CLOSED

	PART NUMBER	FUNCTION	BODY SIZE	PORT SIZE
0	EM-RV3212-06-WX	3/2	18 mm	1/8"
	EM-RV3222-08-WX	3/2	22 mm	1/4"
	EM-RV3242-15-WX	3/2	34 mm	1/2"



## RV SERIES

5/2 SINGLE SOLENOID

	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET	
$\circ$	EM-RV5211-06Q-WX	5/2	18 mm	1/8"	1/8"	
	EM-RV5221-08Q-WX	5/2	22 mm	1/8"	1/4"	
•	EM-RV5241-15-WX	5/2	34 mm	1/2"	1/2"	

\* Air return available for products ending in Q

	RV SERIES 5/2 DOUBLE SOLENOID			3640			
	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET		
igodol	EM-RV5212-06-WX	5/2	18 mm	1/8"	1/8"		
	EM-RV5222-08-WX	5/2	22 mm	1/8"	1/4"		
	EM-RV5242-15-WX	5/2	34 mm	1/2"	1/2"		



## IP65 RATED

**RV SERIES** 

5/3 DOUBLE SOLENOID CENTRE CLOSED

IP65 = Dust tight; full protection & protection against directed water jets of low pressure (6.3 mm) from any angle this is only if the DIN plug (DIN43650/pg9) is correctly fitted to coil with the rubber seal in place.



	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET	
$\bigcirc$	EM-RV5312C-06-WX	5/3	18 mm	1/8"	1/8"	
	EM-RV5322C-08-WX	5/3	22 mm	1/8"	1/4"	
	EM-RV5342C-15-WX	5/3	34 mm	1/2"	1/2"	

## RV SERIES 5/3 DOUBLE SOLENOID PRESSURE HELD

PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET	
M-RV5312P-06-WX	5/3	18 mm	1/8"	1/8"	
M-RV5322P-08-WX	5/3	22 mm	1/8"	1/4"	
M-RV5342P-15-WX	5/3	34 mm	1/2"	1/2"	
	M-RV5312P-06-WX M-RV5322P-08-WX	EM-RV5312P-06-WX 5/3 EM-RV5322P-08-WX 5/3	M-RV5312P-06-WX         5/3         18 mm           EM-RV5322P-08-WX         5/3         22 mm	M-RV5312P-06-WX         5/3         18 mm         1/8"           M-RV5322P-08-WX         5/3         22 mm         1/8"	M-RV5312P-06-WX         5/3         18 mm         1/8"         1/8"           M-RV5322P-08-WX         5/3         22 mm         1/8"         1/4"

## RV SERIES 5/3 DOUBLE SOLENOID PRESSURE EXHAUST

	PART NUMBER	FUNCTION	BODY SIZE	EXHAUST	INLET
0	EM-RV5312E-06-WX	5/3	18 mm	1/8"	1/8"
	EM-RV5322E-08-WX	5/3	22 mm	1/8"	1/4"
	EM-RV5342E-15-WX	5/3	34 mm	1/2"	1/2"

## STANDARD NAMUR SOLENOID VALVES

FEATURES	
Manual override control     5/2-3/2 Interchangeable	Various voltages are available
SPECIFICATIONS	
Working pressure	1.5 to 8 bar
Working temperature	-5°C to +60°C

#### RV SERIES (5/2) (3/2) NAMUR VALVE

# SINGLE SOLENOID – BODY ONLY PART NUMBER VALVE BODY PORT SIZE EM-V523231-08MREX 3/8" 1/4"



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## **RV SERIES ACCESSORIES**

## New



#### **RV SERIES COIL C/W PLUG** FOR USE WITH 18 MM BODY SIZE VALVES

1			_
	PART NUMBER	VOLTAGE	
	EM-XHD-V1-E1	110 / 50 V AC	
)	EM-XHD-V1-E2	220 / 50 V AC	
	EM-XHD-V1-E4	24 V DC	
	EM-XHD-V1-E5	12 V DC	
)	EM-XHD-V1-E7	24 V AC	

#### FOR USE WITH 22 MM & 34 MM BODY SIZE VALVES

EM-XHD-V2-	1 110 / 50 V AC
EM-XHD-V2-	2 220 / 50 V AC
EM-XHD-V2-	4 24 V DC
EM-XHD-V2-	5 12 V DC
EM-XHD-V2-	7 24 V AC

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#### **IP65 RATED**

IP65 = Dust tight; full protection & protection against directed water jets of low pressure (6.3 mm) from any angle this is only if the DIN plug (DIN43650/pg9) is correctly fitted to coil with the rubber seal in place.

# **RV SERIES PLUG CONNECTOR**

#### (DIN43650/pg9) FOR USE WITH 1/8" VALVES

	PART NUMBER	VOLTAGE	
$\bigcirc$	EM-DC-A2TEL	110 / 50 V AC & 220 / 50 V AC	
$\bigcirc$	EM-DC-A1TEL	24 V AC	
$\bigcirc$	EM-DC-D1TEL	12 V DC / 24 V DC	
	FOR USE WITH 1	/4" & 1/2" VALVES	
-			

	EM-DB-A2ELR	110 / 50 V AC & 220 / 50 V AC
	EM-DB-A1ELR	24 V AC
$\bullet$	EM-DB-D1ELR	12 V DC / 24 V DC



34 mm

1/2"

100

#### **RV SERIES MANIFOLD** FOR USE WITH 3/2 VALVES

PART NUMBER	NO. OF VALVES	BODY SIZE	PORT SIZE	
EM-V321-2F	2	18 mm	1/8"	
EM-V321-4F	4	18 mm	1/8"	
EM-V321-6F	6	18 mm	1/8"	
EM-V321-8F	8	18 mm	1/8"	
EM-V321-10F	10	18 mm	1/8"	
EM-V322-2F	2	22 mm	1/4"	
EM-V322-4F	4	22 mm	1/4"	
EM-V322-6F	6	22 mm	1/4"	
EM-V322-8F	8	22 mm	1/4"	
EM-V322-10F	10	22 mm	1/4"	
EM-V324-2F	2	34 mm	1/2"	
EM-V324-4F	4	34 mm	1/2"	
EM-V324-6F	6	34 mm	1/2"	
EM-V324-8F	8	34 mm	1/2"	
EM-V324-10F	10	34 mm	1/2"	

#### FOR USE WITH 5/2 & 5/3 VALVES

EM-V521-2F	2	18 mm	1/8"	
EM-V521-4F	4	18 mm	1/8"	
EM-V521-6F	6	18 mm	1/8"	
EM-V521-8F	8	18 mm	1/8"	
EM-V521-10F	10	18 mm	1/8"	
EM-V522-2F	2	22 mm	1/4"	
EM-V522-4F	4	22 mm	1/4"	
EM-V522-6F	6	22 mm	1/4"	
EM-V522-8F	8	22 mm	1/4"	
EM-V522-10F	10	22 mm	1/4"	
EM-V524-2F	2	34 mm	1/2"	
EM-V524-4F	4	34 mm	1/2"	
EM-V524-6F	6	34 mm	1/2"	
EM-V524-8F	8	34 mm	1/2"	
EM-V524-10F	10	34 mm	1/2"	

#### VP SERIES SOLENOID VALVES



#### VP SERIES (3/2) SINGLE SOLENOID - 24 V DC

PART NUMBER	FUNCTION	VALVE BODY	PORT SIZE
EM-VP321-06E4	3/2	1/8"	1/8"

Symbol key fit together

C 

C



## **VALVE TERMINAL & ACCESSORIES**



# **E.MC Valve Terminal**

- An integrated valve manifold with integrated wiring using a 15-pin D-Sub connector. The COM pin is universal for both positive and negative poles.
- It is possible to integrate 5/2 ways single control, 5/2 ways double control, and 5/3 ways on the same valve manifold.
- The integrated valve manifold has a double control core and a technical patent resulting from its innovative design.
- •Each connector now has an LED to provide a more intuitive experience.
- DIN coils are easy to assemble and maintain and come conveniently in a low-power option.
- New sub-base design with optional DIN guide rail assembly, same installation size as RV manifold.

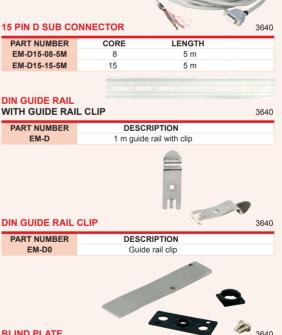


#### **SR SERIES VALVE TERMINAL & ACCESSORIES**



#### SR SERIES INTEGRATED MANIFOLD – PLUG-IN TYPE COMPLETE WITH 5/2 SOL / SPRING VALVES 3640

PART NUMBER	NO. OF VALVES	BODY SIZE	PORT SIZE	
EM-S1R3S-06E4	3	1 Series	1/8"	
EM-S1R4S-06E4	4	1 Series	1/8"	
EM-S1R5S-06E4	5	1 Series	1/8"	
EM-S1R6S-06E4	6	1 Series	1/8"	
EM-S1R7S-06E4	7	1 Series	1/8"	
EM-S1R8S-06E4	8	1 Series	1/8"	
EM-S1R9S-06E4	9	1 Series	1/8"	
EM-S1R10S-06E4	10	1 Series	1/8"	
EM-S1R11S-06E4	11	1 Series	1/8"	
EM-S1R12S-06E4	12	1 Series	1/8"	
EM-S1R13S-06E4	13	1 Series	1/8"	
EM-S1R14S-06E4	14	1 Series	1/8"	
EM-S2R3S-08E4	3	2 Series	1/4"	
EM-S2R4S-08E4	4	2 Series	1/4"	
EM-S2R5S-08E4	5	2 Series	1/4"	
EM-S2R6S-08E4	6	2 Series	1/4"	
EM-S2R7S-08E4	7	2 Series	1/4"	
EM-S2R8S-08E4	8	2 Series	1/4"	
EM-S2R9S-08E4	9	2 Series	1/4"	
EM-S2R10S-08E4	10	2 Series	1/4"	
EM-S2R11S-08E4	11	2 Series	1/4"	
EM-S2R12S-08E4	12	2 Series	1/4"	
EM-S2R13S-08E4	13	2 Series	1/4"	
EM-S2R14S-08E4	14	2 Series	1/4"	



BLIND PLATE		3640
PART NUMBER	SIZE	
EM-SRBP521	1/8"	
EM-SRBP522	1/4"	

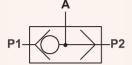


## **MANUAL & PNEUMATIC OPERATED VALVES**



#### SPECIFICATIONS

Control type
Working pressure
Working temperature





Pneumatic 1.5 to 8 bar

-20°C to +70°C

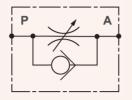
#### SHUTTLE VALVE (OR GATE)

PART NUMBER	PORT SIZE
EM-QS-06	1/8"
EM-QS-08	1/4"

## FLOW REGULATORS

#### SPECIFICATIONS

Working medium	Clean air
Working pressure	0.5 to 10 bar
Guaranteed pressure	15 bar
Working temperature	-20°C to +70°C



FLOW REGULATOR UNI DIRECTIONAL

PART NUMBER

EM-QSC-06

EM-QSC-08

EM-QSC-10

EM-QSC-15



PORT SIZE

1/8"

1/4"

3/8"

1/2"

3630

#### SPECIFICATIONS

of Lon Torritorito	
Control type	External control
Working pressure	0.5 to 8 bar
Working temperature	-5°C to +60°C



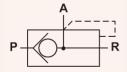


#### **IN-LINE NON-RETURN VALVE**

PART NUMBER	PORT SIZE
EM-EA-06	1/8"
EM-EA-08	1/4"
EM-EA-10	3/8"
EM-EA-15	1/2"

## AUTOMATIC VALVES

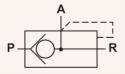
SPECIFICATIONS	
Working pressure	1.5 to 8 bar
Working temperature	-5°C to +60°C





#### QUICK EXHAUST VALVE

PART NUMBER	PORT SIZE
EM-KKP-06	1/8"
EM-KKP-08	1/4"
EM-KKP-10	3/8"
EM-KKP-15	1/2"





#### QUICK EXHAUST VALVE

PART NUMBER	PORT SIZE	
EM-KKP-20	3/4"	
EM-KKP-25	1"	



## 3/2, 5/2 & 5/3 MANUAL VALVES



## **H SERIES – MANUAL**

#### SPECIFICATIONS

OI LOII IOATIONO	
Working medium	Clean air
Working pressure	0 to 8 bar
Guaranteed pressure	12 bar
Working temperature	-5°C to +60°C
Valve type	3/2, 5/2 & 5/3
Seal material	NBR
Acting type	Manual



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#### 3/2 LEVER / SPRING SPRING RETURN

PART NUMBER	FUNCTION	PORT SIZE
EM-H321-06S	3/2	1/8"
EM-H322-08S	3/2	1/4"
EM-H323-10S	3/2	3/8"
EM-H324-15S	3/2	1/2"

## 5/3 LEVER / SPRING / LEVER

#### SPRING TO CENTRE - CENTRES CLOSED

PART NUMBER	FUNCTION	EXHAUST	INLET	
EM-H531C-06S	5/3	1/8"	1/8"	
EM-H532C-08S	5/3	1/8"	1/4"	
EM-H533C-10S	5/3	1/4"	3/8"	
EM-H534C-15S	5/3	1/2"	1/2"	



3630

3640

Six'



#### 3/2 LEVER / LEVER DETENTED

PART NUMBER	FUNCTION	PORT SIZE	
EM-H321-06	3/2	1/8"	
EM-H322-08	3/2	1/4"	
EM-H323-10	3/2	3/8"	
EM-H324-15	3/2	1/2"	



#### 5/2 LEVER / SPRING SPRING RETURN

SPRING RETURN	1			 3630
PART NUMBER	FUNCTION	EXHAUST	INLET	
EM-H521-06S	5/2	1/8"	1/8"	
EM-H522-08S	5/2	1/8"	1/4"	
EM-H523-10S	5/2	1/4"	3/8"	
EM-H524-15S	5/2	1/2"	1/2"	

## 5/3 LEVER / SPRING / LEVER SPRING TO CENTRE - CENTRES EXHAUST

PART NUMBER	FUNCTION	EXHAUST	INLET	
EM-H531E-06S	5/3	1/8"	1/8"	
EM-H532E-08S	5/3	1/8"	1/4"	
EM-H533E-10S	5/3	1/4"	3/8"	
EM-H534E-15S	5/3	1/2"	1/2"	



#### 5/3 LEVER / SPRING / LEVER MANUAL – PRESSURED CENTRES

PART NUMBER	FUNCTION	EXHAUST	INLET
EM-H531P-06S	5/3	1/8"	1/8"
EM-H532P-08S	5/3	1/8"	1/4"
EM-H533P-10S	5/3	1/4"	3/8"
EM-H534P-15S	5/3	1/2"	1/2"



#### 5/2 LEVER / LEVER DETENTED

PART NUMBER	FUNCTION	EXHAUST	INLET
EM-H521-06	5/2	1/8"	1/8"
EM-H522-08	5/2	1/8"	1/4"
EM-H523-10	5/2	1/4"	3/8"
EM-H524-15	5/2	1/2"	1/2"

#### 5/3 LEVER / LEVER / LEVER DETENTED – CENTRES CLOSED



375



# 3/2, 5/2, 5/3 & 4/3 MANUAL & MECHANICAL VALVES



# H SERIES – MECHANICAL

SPECIFICATIONS	
Working medium	Clean air
Working pressure	0 to 8 bar
Guaranteed pressure	12 bar
Working temperature	-5°C to +60°C
Valve type	5/3
Seal material	NBR
Acting type	External control



3630

3630

#### 5/3 LEVER / LEVER / LEVER MANUAL – CENTRES EXHAUST

		-	
FUNCTION	EXHAUST	INLET	
5/3	1/8"	1/8"	
5/3	1/8"	1/4"	
5/3	1/4"	3/8"	
5/3	1/2"	1/2"	
	<b>FUNCTION</b> 5/3 5/3 5/3	5/3         1/8"           5/3         1/8"           5/3         1/4"	FUNCTION         EXHAUST         INLET           5/3         1/8"         1/8"           5/3         1/8"         1/4"           5/3         1/4"         3/8"



# 5/3 LEVER / LEVER / LEVER

MANUAL – PRESSURED CENTRES

PART NUMBER	FUNCTION	EXHAUST	INLET	
EM-H531P-06	5/3	1/8"	1/8"	
EM-H532P-08	5/3	1/8"	1/4"	
EM-H533P-10	5/3	1/4"	3/8"	
EM-H534P-15	5/3	1/2"	1/2"	



#### 4/3 ROTARY LEVER VALVE

PART NUMBER	FUNCTION	PORT SIZE	
EM-R432-08	4/3	1/4" BSPP	
EM-R432-10	4/3	3/8" BSPP	
EM-R432-15	4/3	1/2" BSPP	

#### SPECIFICATIONS

SPECIFICATIONS	
Control type	Manual
Working pressure	0 to 8 bar
Working temperature	-5°C to +60°C



#### FOOT VALVE

PART NUMBER	FUNCTION	DESCRIPTION	PORT SIZE	
EM-F322-08	3/2	Foot valve no cover	1/4"	
EM-F422-08	4/2	Foot valve no cover	1/4"	
EM-F522C-08L	5/2	Foot pedal with lock & cover	1/4"	

# L SERIES – MANUAL

SPECIFICATIONS	
Working medium	Clean air
Working pressure	0 to 8 bar
Guaranteed pressure	12 bar
Working temperature	-5°C to +60°C
Valve type	3/2 & 5/2
Acting type	Manual



3630

#### 3/2 & 5/2 BUTTON VALVE DETENTED

PART NUMBER	FUNCTION	PORT SIZE	
EM-L321-06	3/2	1/8"	
EM-L322-08	3/2	1/4"	
EM-L323-10	3/2	3/8"	
EM-L324-15	3/2	1/2"	
EM-L521-06	5/2	1/8"	
EM-L522-08	5/2	1/4"	
EM-L523-10	5/2	3/8"	
EM-L524-15	5/2	1/2"	

#### SPECIFICATIONS



3630

#### 3/2 & 5/2 HAND PULL VALVE BUTTON SPRING

FUNCTION	PORT SIZE	
3/2	1/8"	
3/2	1/4"	
3/2	3/8"	
3/2	1/2"	
5/2	1/8"	
5/2	1/4"	
5/2	3/8"	
5/2	1/2"	
	3/2 3/2 3/2 3/2 5/2 5/2 5/2 5/2	3/2         1/8"           3/2         1/4"           3/2         3/8"           3/2         1/8"           5/2         1/8"           5/2         1/4"           5/2         3/8"



# 3/2 & 5/2 MANUAL & MECHANICAL VALVES



# MANUAL & MECHANICAL VALVE WITH MANUAL OPERATING HEADS

#### SPECIFICATION

of Lon IoAnon	
Working pressure	0 to 8 bar
Guaranteed pressure	12 bar
Working temperature	-5°C to +60°C
Valve type	MV series: 3/2 M series: 3/2 & 5/2
Acting type	External control
Panel cut out size	Ø 22.5 mm
Panel cut out size	Ø 22.5 mm



3630

#### PUSH BUTTON SPRING **RETURN VALVE** FLAT BUTTON

PART NUMBER	FUNCTION	PORT SIZE	
EM-MV32-06S5R	3/2	1/8"	
EM-M32-08S5R	3/2	1/4"	
EM-M52-08S5R	5/2	1/4"	



#### PUSH BUTTON SPRING **RETURN VALVE** RAISED BUTTON

PART NUMBER	FUNCTION	PORT SIZE	
EM-MV32-06S4G	3/2	1/8"	
EM-M32-08S4G	3/2	1/4"	
EM-M52-08S4G	5/2	1/4"	



3630

#### PALM BUTTON SPRING RETURN VALVE

PART NUMBER	FUNCTION	PORT SIZE	
EM-MV32-06S6R	3/2	1/8"	
EM-M32-08S6R	3/2	1/4"	
EM-M52-08S6R	5/2	1/4"	



#### 3/2 ROLLER LEVER VALVE

PART NUMBER	FUNCTION	PORT SIZE	
EM-MV32-06S2	3/2	1/8"	
EM-MJ32-08S2	3/2	1/4"	
EM-M52-08S2	5/2	1/4"	



#### **TWO POSITION SELECTOR** SWITCH VALVE

#### WITH INDICATING ARROW

PART NUMBER	FUNCTION	PORT SIZE	
EM-MV32-06S1B	3/2	1/8"	
EM-M32-08S1B	3/2	1/4"	
EM-M52-08S1B	5/2	1/4"	

#### M style body

3630



#### **BASIC - NO BUTTON** VALVES

### SPRING RETURN

PARTNUMBER	FUNCTION	PORTSIZE	
EM-MV322-06S7	3/2	1/8"	
EM-M32-08S7	3/2	1/4"	
EM-M52-08S7	5/2	1/4"	



#### TWIST LOCK PALM SWITCH VALVE

PART NUMBER	FUNCTION	PORT SIZE	
EM-MV32-06S3R	3/2	1/8"	
EM-M32-08S3R	3/2	1/4"	
EM-M52-08S3R	5/2	1/4"	



ł

# **MANUAL & MECHANICAL VALVES**



# MANUAL & MECHANICAL VALVE WITH MANUAL OPERATING HEADS



PUSH BUTTON SHROUDED
S5 VALVE HEAD

		_
PART NUMBER	TO SUIT	
EM-M32-06S5R-P01	M32, M52 & MV32 valves	

PALM TWIST UNLO S3 VALVE HEAD	OCK	4)
PART NUMBER	TO SUIT	

EM-M32-06S3R-P01

M32, M52 & MV32 valves



0	

#### PUSH BUTTON RAISED

S4 VALVE HEAD		363
PART NUMBER	TO SUIT	
EM-M32-06S4G-P01	M32, M52 & MV32 valves	





Polyurethane tubing
Find it on pages 644 – 645, section ten

# **Festo Valves**

#### Pneumatically and mechanically actuated industrial process valves and media valves

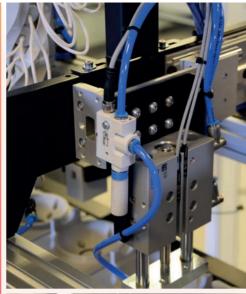
Festo's process and media valves are designed to regulate and control both liquids and gases. These valves are used in a variety of applications such as process automation, factory automation, filling and dispensing, cooling, heating/preheating, lubrication, steam distribution, and in machinery such as steam boilers, sterilisers, autoclaves, textile processing machines, filling systems, and industrial washing machines. They are also suitable for viscous media, dirty and aggressive liquids like acids, steam, various gases, and vacuum.

#### Solenoid valves

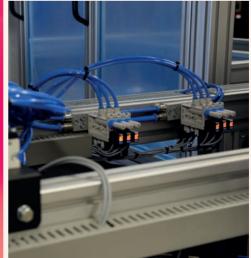
Solenoid valves for controlling liquid and gas flows are essential for various industrial and commercial applications. These valves work by using an electromagnet to control the opening and closing of a valve seat. Depending on the design principle, solenoid valves can be classified into three types: directly controlled, servo-controlled, and force pilot-operated valves. These types differ in terms of how they are operated and maintained.

#### **Available Ranges**

- Solenoid valves: VUVG & VUVS
- Namur solenoid valves: VS
- · Manually operated valves
- Mechanically operated valves
- Pressure sensors









# **SOLENOID VALVES**

# **VUVG SERIES**



3110

#### FEATURES

Six

- Universal valve
- Basic valve & E-box combinations
- Width 10 mm, 14 mm & 18 mm
   Internal pilot air supply with VUVG-L
- · Can be mounted as individual valve or sub-base valve on sturdy
- aluminium manifold rail
- Operating voltage 24 V DC without E-box

SPECIFIC	CATION	S
	T32C	2 x 3/2-way valve, normally closed
	T32U	2 x 3/2-way valve, normally open
Valve	M52	5/2-way valve, single solenoid
function	B52	5/2-way valve, double solenoid
	P53C	5/3-way valve, mid-position closed
	P53E	5/3-way valve, mid-position exhausted
	AT	Pneumatic spring / internal / non-detenting, detenting with accessories
	RT	Pneumatic-mechanical spring / internal / non-detenting, detenting with accessories
Reset	ZT	Without / external / non-detenting, detenting
method	Т	Without / internal / non-detenting, detenting
	AZT	Pneumatic spring / external / non-detenting, detenting with accessories
	RZT	Pneumatic-mechanical spring / external / non-detenting, detenting



#### **VUVG SERIES** IN-LINE VALVE / INDIVIDUAL VALVE 10 MM WIDTH

10 MM WIDTH			3110
PART NUMBER	TYPE	THREAD	
FES8042540	VUVG-LK10-B52-T-M5-1H2L-S	M5	
FES8042544	VUVG-LK10-B52-T-M5-1R8L-S	M5	
FES8042548	VUVG-LK10-B52-T-M7-1H2L-S	M7	
FES8042552	VUVG-LK10-B52-T-M7-1R8L-S	M7	
FES8042539	VUVG-LK10-M52-AT-M5-1H2L-S	M5	
FES8042543	VUVG-LK10-M52-AT-M5-1R8L-S	M5	
FES8042547	VUVG-LK10-M52-AT-M7-1H2L-S	M7	
FES8042551	VUVG-LK10-M52-AT-M7-1R8L-S	M7	
FES8042538	VUVG-LK10-T32C-AT-M5-1H2L-S	M5	
FES8042546	VUVG-LK10-T32C-AT-M7-1H2L-S	M7	
FES8042550	VUVG-LK10-T32C-AT-M7-1R8L-S	M7	

#### 14 MM WIDTH

VUVG-LK14-B52-T-G18-1H2L-S	G1/8	
VUVG-LK14-B52-T-G18-1R8L-S	G1/8	
VUVG-LK14-M52-AT-G18-1H2L-S	G1/8	
VUVG-LK14-M52-AT-G18-1R8L-S	G1/8	
VUVG-LK14-T32C-AT-G18-1H2L-S	G1/8	
VUVG-LK14-T32C-AT-G18-1R8L-S	G1/8	
	VUVG-LK14-B52-T-G18-1R8L-S VUVG-LK14-M52-AT-G18-1H2L-S VUVG-LK14-M52-AT-G18-1R8L-S VUVG-LK14-T32C-AT-G18-1H2L-S	VUVG-LK14-B52-T-G18-1R8L-S         G1/8           VUVG-LK14-M52-AT-G18-1H2L-S         G1/8           VUVG-LK14-M52-AT-G18-1R8L-S         G1/8           VUVG-LK14-M52-AT-G18-1R8L-S         G1/8           VUVG-LK14-T32C-AT-G18-1H2L-S         G1/8

#### 18 MM WIDTH

FES8031532	VUVG-L18-M52-MT-G14-1R8L	G1/4	
FES8031531	VUVG-L18-M52-RT-G14-1R8L	G1/4	
FES8031534	VUVG-L18-P53C-T-G14-1R8L	G1/4	

#### **VUVG SERIES** SUB-BASE VALVE 10 MM WIDTH

		0110
PART NUMBER	TYPE	
FES566487	VUVG-B10-T32C-AZT-F-1P3	
FES566488	VUVG-B10-T32U-AZT-F-1P3	
FES566490	VUVG-B10-M52-RZT-F-1P3	
FES566491	VUVG-B10-B52-ZT-F-1P3	
FES566492	VUVG-B10-P53C-ZT-F-1P3	
FES566493	VUVG-B10-P53E-ZT-F-1P3	
FES8042556	VUVG-BK10-B52-T-F-1H2L-S	
FES8042560	VUVG-BK10-B52-T-F-1R8L-S	
FES8042555	VUVG-BK10-M52-AT-F-1H2L-S	
FES8042554	VUVG-BK10-T32C-AT-F-1H2L-S	
FES8042558	VUVG-BK10-T32C-AT-F-1R8L-S	

#### 14 MM WIDTH

FES566513	VUVG-B14-T32C-AZT-F-1P3
FES566514	VUVG-B14-T32U-AZT-F-1P3
FES566516	VUVG-B14-M52-AZT-F-1P3
FES566517	VUVG-B14-B52-ZT-F-1P3
FES566518	VUVG-B14-P53C-ZT-F-1P3
FES566519	VUVG-B14-P53E-ZT-F-1P3
FES8042572	VUVG-BK14-B52-T-F-1H2L-S
FES8042576	VUVG-BK14-B52-T-F-1R8L-S
FES8042571	VUVG-BK14-M52-AT-F-1H2L-S
FES8042575	VUVG-BK14-M52-AT-F-1R8L-S
FES8042570	VUVG-BK14-T32C-AT-F-1H2L-S
FES8042574	VUVG-BK14-T32C-AT-F-1R8L-S



# **VUVG ACCESSORIES**

FESTO

3110



# SEAL VABD-L1-10X

TO WIW SIZE			3110
PART NUMBER	TYPE	THREAD	
FES566672	VABD-L1-10X-S-M5	M5	
FES566673	VABD-L1-10X-S-M7	M7	
14 MM SIZE			
FES566675	VABD-L1-14X-S-G18	G1/8	



3110

#### MANIFOLD RAIL VABM FOR INDIVIDUAL VALVE VUVG-L WITH SEAL VABM-L1-10X 10 MM SIZE

PART NUMBER	TYPE	THREAD	VALVE POS.	
FES566558	VABM-L1-10S-G18-2	G1/8	2	
FES566559	VABM-L1-10S-G18-3	G1/8	3	
FES566560	VABM-L1-10S-G18-4	G1/8	4	
FES566562	VABM-L1-10S-G18-6	G1/8	6	
FES566564	VABM-L1-10S-G18-8	G1/8	8	
FES566566	VABM-L1-10S-G18-10	G1/8	10	
FES576363	VABM-B10-20-G38-2-P53	G3/8	2	
FES576365	VABM-B10-20-G38-4-P53	G3/8	4	
FES576367	VABM-B10-20-G38-6-P53	G3/8	6	
FES576369	VABM-B10-20-G38-8-P53	G3/8	8	
FES576371	VABM-B10-20-G38-10-P53	G3/8	10	
FES8026261	VABM-B10-25S-G38-2	G3/8	2	
FES8026263	VABM-B10-25S-G38-4	G3/8	4	
FES8026265	VABM-B10-25S-G38-6	G3/8	6	
FES8026267	VABM-B10-25S-G38-8	G3/8	8	
FES8026269	VABM-B10-25S-G38-10	G3/8	10	

#### 14 MM SIZE

FES566618	VABM-L1-14S-G14-2	G1/4	2	
FES566619	VABM-L1-14S-G14-3	G1/4	3	
FES566620	VABM-L1-14S-G14-4	G1/4	4	
FES566622	VABM-L1-14S-G14-6	G1/4	6	
FES566624	VABM-L1-14S-G14-8	G1/4	8	
FES566626	VABM-L1-14S-G14-10	G1/4	10	

# MANIFOLD RAIL VABM FOR SUB-BASE VALVE VUVG-B 10 MM SIZE

FES566648 VABM-L1-14W-G14-8

FES566650 VABM-L1-14W-G14-10

PART NUMBER	ТҮРЕ	THREAD	VALVE POS.	
FES566582	VABM-L1-10W-G18-2	M5	2	
FES566583	VABM-L1-10W-G18-2	M5	3	
FES566584	VABM-L1-10W-G18-4	M5	4	
FES566586	VABM-L1-10W-G18-6	M5	6	
FES566588	VABM-L1-10W-G18-8	M5	8	
FES566590	VABM-L1-10W-G18-10	M5	10	
FES566606	VABM-L1-10HW-G18-2	M7	2	
FES566607	VABM-L1-10HW-G18-3	M7	3	
FES566608	VABM-L1-10HW-G18-4	M7	4	
FES566610	VABM-L1-10HW-G18-6	M7	6	
FES566612	VABM-L1-10HW-G18-8	M7	8	
FES566614	VABM-L1-10HW-G18-10	M7	10	
FES576417	VABM-B10-20S-G14-2	G1/4	2	
FES576419	VABM-B10-20S-G14-4	G1/4	4	
FES576421	VABM-B10-20S-G14-6	G1/4	6	
FES576423	VABM-B10-20S-G14-8	G1/4	8	
FES576425	VABM-B10-20S-G14-10	G1/4	10	
FES8026219	VABM-B10-25-G12-2-P53	G1/2	2	
FES8026221	VABM-B10-25-G12-4-P53	G1/2	4	
FES8026223	VABM-B10-25-G12-6-P53	G1/2	6	
FES8026225	VABM-B10-25-G12-8-P53	G1/2	8	
FES8026227	VABM-B10-25-G12-10-P53	G1/2	10	
FES8026379	VABM-B10-30S-G12-4	G1/2	4	
FES8026381	VABM-B10-30S-G12-6	G1/2	6	
FES8026383	VABM-B10-30S-G12-8	G1/2	8	
FES8026385	VABM-B10-30S-G12-10	G1/2	10	
14 MM SIZE				
FES566642	VABM-L1-14W-G14-2	G1/8	2	
FES566643	VABM-L1-14W-G14-3	G1/8	3	
FES566644	VABM-L1-14W-G14-4	G1/8	4	
FES566646	VABM-L1-14W-G14-6	G1/8	6	

G1/8

G1/8

8



FEATURES • LED

**VUVG SERIES** 





#### **SEPARATOR VABD-B**

**COVER VMPA/INSCRIPTION** 

TYPE

VMPA-HBT-B

ASLR-D-L1

VAME-T-M4

LABEL ASLR/H-RAIL **MOUNTING VAME** 

PART

NUMBER FES540897

FES570818

FES569998

PART NUMBER	TYPE	SIZE	FOR USE WITH
FES569995	VABD-8-B	10	Individual Valve VUVG-L
FES569996	VABD-10-B	14	Individual Valve VUVG-L & Sub-Base Valve VUVG-B
FES569994	VABD-6-B	10	Sub-Base Valve VUVG-B

ASLR

SIZE

10, 14

10, 14

10, 14



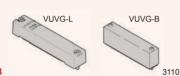
VMPA

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#### **VAVE SERIES E-BOXES** FLYING LEADS

PART NUMBER	TYPE	LENGTH	VOLTAGE
FES566722	VAVE-L1-1VL1-LP	0.5 m	24 & 12 V DC
FES566723	VAVE-L1-1VL2-LP	1.0 m	24 & 12 V DC
FES566724	VAVE-L1-1VL3-LP	2.5 m	24 & 12 V DC
/ERTICAL PL	.UG		
FES566715	VAVE-L1-1VH3-LP	-	24 & 12 V DC
HORIZONTAL PLUG			
FES566714	VAVE-L1-1VH2-LP	-	24 & 12 V DC



VAME

PIECES

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#### **COVER PLATE VABB**

PART NUMBER	TYPE	SIZE	FOR USE WITH	
FES566462	VABB-L1-10-S	10	Individual Valve VUVG-L	
FES569989	VABB-L1-14	14	Individual Valve VUVG-L & Sub-Base Valve VUVG-B	
FES566495	VABB-L1-10-W	10	Sub-Base Valve VUVG-B	



#### VABF SERIES SUPPLY PLATE FOR USE WITH INDIVIDUAL VALVE VUVG-L

PART NUMBER	TYPE	SIZE	THREAD
FES569991	VABF-L1-10-P3A4-M5	10	M5
FES569992	VABF-L1-10-P3A4-M7	10	M7
FES569993	VABF-L1-14-P3A4-G18	14	G1/8

#### **NEBV SERIES PLUG SOCKET** WITH CABLE 2-PIN STRAIGHT SOCKET -FLYING LEADS, OPEN END



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PART NUMBER	TYPE	CABLE LENGTH
FES566654	NEBV-H1G2-KN-0.5-N-LE2	0.5 m
FES566655	NEBV-H1G2-KN-1-N-LE2	1.0 m
FES566656	NEBV-H1G2-KN-2.5-N-LE2	2.5 m

#### **NEBV SERIES PLUG SOCKET** WITH CABLE 2-PIN STRAIGHT SOCKET -

# INDIVIDUAL CABLE, OPEN END

PART NUMBER	ТҮРЕ	CABLE LENGTH
FES566658	NEBV-H1G2-P-0.5-N-LE2	0.5 m
FES566659	NEBV-H1G2-P-1-N-LE2	1.0 m
FES566660	NEBV-H1G2-P-2.5-N-LE2	2.5 m



**VUVS SERIES** 

# SOLENOID VALVES

# FEATURES

- A reliable, heavy duty valve with a long service life
  Low-cost universal valve with no performance limits
- · Wide range of valve functions
- · Durable, thanks to tried & tested piston spools

#### SPECIFICATIONS

SPECIFICATIONS	
Width	20 mm, 25 mm & 30 mm
Connection	G1/8, G1/4, G3/8
Spring	Mechanical & air

VALVE FUNCTION	l
M32C	3/2-way closed, single solenoid
M32U	3/2-way open, single solenoid
M52	5/2-way, single solenoid
B52	5/2-way, double solenoid
P53C	5/3-way mid closed, double solenoid
P53E	5/3-way mid exhaust, double solenoid
P53U	5/3-way mid press, double solenoid



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#### SOLENOID VALVES LK20 TYPE

PART NUMBER	TYPE	
FES8043215	VUVS-LK20-B52-D-G18-1C1-S	
FES8043213	VUVS-LK20-M32C-AD-G18-1C1-S	
FES8043214	VUVS-LK20-M52-AD-G18-1C1-S	

# 3110

#### SOLENOID VALVES L30 TYPE

PART NUMBER	TYPE
FES575628	VUVS-L30-P53U-MZD-G38-F8-1B2
FES575626	VUVS-L30-P53U-MZD-G38-F8-1C1



# 3110

FESTO

# SOLENOID VALVES

PART NUMBER	TYPE	
FES8043219	VUVS-LK25-B52-D-G14-1B2-S	
FES8043217	VUVS-LK25-M32C-AD-G14-1B2-S	
FES8043218	VUVS-LK25-M52-AD-G14-1B2-S	



SOLENOID VALVES LK30 TYPE

PART NUMBER	TYPE	
FES8049882	VUVS-LK30-B52-D-G38-1B2-S	
FES8049880	VUVS-LK30-M32C-AD-G38-1B2-S	
FES8049881	VUVS-LK30-M52-AD-G38-1B2-S	



#### SOLENOID VALVES INTERNAL PILOT AIR SUPPLY L20 TYPE

PART NUMBER	TYPE	
FES575260	VUVS-L20-M32C-MD-G18-F7	
FES575262	VUVS-L20-M32U-MD-G18-F7	
FES575250	VUVS-L20-M52-MD-G18-F7	
FES575251	VUVS-L20-B52-D-G18-F7	
FES575254	VUVS-L20-P53C-MD-G18-F7	
FES575252	VUVS-L20-P53E-MD-G18-F7	
FES575253	VUVS-L20-P53U-MD-G18-F7	



#### SOLENOID VALVES EXTERNAL PILOT AIR SUPPLY L20 TYPE

PART NUMBER	ТҮРЕ
FES575259	VUVS-L20-M32C-MZD-G18-F7
FES575261	VUVS-L20-M32U-MZD-G18-F7
FES575679	VUVS-L20-M52-MZD-G18-F7
FES575682	VUVS-L20-B52-ZD-G18-F7
FES575685	VUVS-L20-P53C-MZD-G18-F7
FES575691	VUVS-L20-P53E-MZD-G18-F7
FES575688	VUVS-L20-P53U-MZD-G18-F7

#### **VUVS SERIES WITH 24 V COIL TO PATTERN TYPE C, EN175301** INTERNAL PILOT AIR SUPPLY

L20 TYPE

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PARTNUMBER	ITPE	
FES575274	VUVS-L20-M32C-MD-G18-F7-1C1	
FES575276	VUVS-L20-M32U-MD-G18-F7-1C1	
FES575264	VUVS-L20-M52-MD-G18-F7-1C1	
FES575265	VUVS-L20-B52-D-G18-F7-1C1	
FES575268	VUVS-L20-P53C-MD-G18-F7-1C1	
FES575266	VUVS-L20-P53E-MD-G18-F7-1C1	
FES575267	VUVS-L20-P53U-MD-G18-F7-1C1	

TVDE

#### **VUVS SERIES WITH 24 V COIL** TO PATTERN TYPE C, EN175301 **EXTERNAL PILOT AIR SUPPLY** L20 TYPE

PART NUMBER	TYPE	
FES575273	VUVS-L20-M32C-MZD-G18-F7-1C1	
FES575275	VUVS-L20-M32U-MZD-G18-F7-1C1	
FES575680	VUVS-L20-M52-MZD-G18-F7-1C1	
FES575683	VUVS-L20-B52-ZD-G18-F7-1C1	
FES575686	VUVS-L20-P53C-MZD-G18-F7-1C1	
FES575692	VUVS-L20-P53E-MZD-G18-F7-1C1	
FES575689	VUVS-L20-P53U-MZD-G18-F7-1C1	







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#### SOLENOID COIL VACS CONNECTION PATTERN TYPE C FOR VUVS VALVES

PART NUMBER	TYPE	VOLTAGE
FES8025330	VACS-C-C1-1	24 V DC
FES8025335	VACS-C-C1-1A	24 V AC / 50/60 Hz
FES8025337	VACS-C-C1-7A	48 V AC
FES8025334	VACS-C-C1-16B	110/120 V AC / 50/60 Hz
FES8025338	VACS-C-C1-3W	230/240 V AC / 50/60 Hz



#### SOLENOID COIL FOR COIL CONNECTION PATTERN TYPE A

#### SUITABLE FOR VZWM-L

PART NUMBER	TYPE	VOLTAGE	TO FIT ARMATURE TUBE	
FES549903	MD-2-24VDC-PA	24 V DC	F4	
FES549904	MD-2-110VAC-PA	110 V AC	F4	
FES549905	MD-2-230VAC-PA	230 V AC	F4	
FES549906	MH-2-24VDC-PA	24 V DC	F5	
FES549907	MH-2-110VAC-PA	110 V AC	F5	
FES549908	MH-2-230VAC-PA	230 V AC	F5	

#### PLUG SOCKET FOR MD & MH COILS



PART NUMBER	TYPE	
FES550067	MSSD-N	

#### FEATURES

- Suitable for coil connection pattern type C
- Pre-assembled
   Cable length: 2.5 m, 5 m, 10 m



#### PLUG SOCKET KMEB WITH CABLE

SOLENOID COILS

PART NUMBER	ТҮРЕ	CABLE LENGTH	SUITABLE FOR COIL VOLTAGE	
FES151688	KMEB-1-24-2,5-LED	2.5 m	24 V DC	
FES151689	KMEB-1-24-5-LED	5 m	24 V DC	
FES193457	KMEB-1-24-10-LED	10 m	24 V DC	
FES151690	KMEB-1-230AC-2,5	2.5 m	230 V AC	
FES151691	KMEB-1-230AC-5	5 m	230 V AC	

#### FEATURES

• For solenoid coils & valves, port pattern per DIN EN175 301, type C

3110

#### PLUG SOCKET MSSD FOR COIL CONNECTION PATTERN TYPE C

PART NUMBER         TYPE         CABLE CONNECTOR           FES151687         MSSD-EB         Screw terminal			
FES151687 MSSD-EB Screw terminal	PART NUMBER	TYPE	CABLE CONNECTOR
	FES151687	MSSD-EB	Screw terminal

# **ILLUMINATING SEAL MEB-LD**

PART NUMBER	TYPE	VOLTAGE	
FES151717	MEB-LD-12-24DC	12 – 24 V DC	
FES151718	MEB-LD-230AC	230 V DC	

#### FEATURES

· For solenoid coils & valves, standard industry port pattern





PART NUMBER	TYPE	VOLTAGE
FES4527	MSFG-24/42-50/60	24 V DC / 42 V AC
FES34411	MSFG-24/42-50/60-OD	24 V DC / 42 V AC



# 3/2 & 5/2 SOLENOID VALVES

FESTO

# NAMUR SOLENOID VALVES

#### FEATURES

- Operating voltage DC
- Cost optimised variant with plastic cover, brass armature tube & IP65 coils
- Conversion from 3/2 way to 5/2 way valve simply by turning the seal



# VSNC NAMUR SOLENOID VALVE

SINGLE SOLENOID, 24 V DC, TYPE B CONNECTOR 3110

PART NUMBER	TYPE	FUNCTION	
FES577295	VSNC-FC-M52-MD-G14-F8-1B2	5/2-way or 3/2-way	



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# VSNC NAMUR SOLENOID VALVE

DOODLE O		CONNECTOR	5110
PART NUMBER	ТҮРЕ	FUNCTION	
FES577296	VSNC-F-B52-D-G14-F8-1B2	5/2-way	

#### VSNC NAMUR SOLENOID VALVE SINGLE SOLENOID, WITHOUT COIL 9 MM ARMATURE TUBE

9 MM ARMATURE TUBE			3110
PART NUMBER	TYPE	FUNCTION	
FES577267	VSNC-FC-M52-MD-G14-FN	5/2-way or 3/2-way	



#### VSNC NAMUR SOLENOID VALVE SINGLE SOLENOID, WITHOUT COIL 8 MM ARMATURE TUBE

	ATORE TODE		5110
PART NUMBER	TYPE	FUNCTION	
FES577257	VSNC-FC-M52-MD-G14-F8	5/2-way or 3/2-way	

#### SOLENOID COILS



#### SOLENOID COILS

PART NUMBER	TYPE	SIZE	VOLTAGE
FES8029144	VACN-N-A1-1	9 mm	24 V DC 0.7 W
FES8030822	VACF-A-A1-1	8 mm	24 V DC 2.6 W





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#### FINGER LEVER VALVE

PART NUMBER	TYPE	FUNCTION	
FES4500004	VHEF-L-M52-E-G14	5/2	
FES4500005	VHEF-L-M52-E-G18	5/2	
FES4500000	VHEF-L-M52-M-G14	5/2	
FES4500001	VHEF-L-M52-M-G18	5/2	
FES4500008	VHEF-LT-M32-M-G14	3/2	
FES4500009	VHEF-LT-M32-M-G18	3/2	

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#### PUSH BUTTON VALVE

PUSH BUTTON VALVE			3110
PART NUMBER	TYPE	FUNCTION	
FES5299716	VHEF-P-B52-G14	5/2	
FES5299710	VHEF-P-B52-G18	5/2	
FES5299715	VHEF-P-M52-M-G14	5/2	
FES5299709	VHEF-P-M52-M-G18	5/2	
FES5299713	VHEF-PTC-B32-G14	3/2	
FES5299707	VHEF-PTC-B32-G18	3/2	
FES5299711	VHEF-PTC-M32-M-G14	3/2	
FES5299705	VHEF-PTC-M32-M-G18	3/2	
FES5299714	VHEF-PTCZ-B32-G14	3/2	
FES5299708	VHEF-PTCZ-B32-G18	3/2	
FES5299712	VHEF-PTCZ-M32-M-G14	3/2	
FES5299706	VHEF-PTCZ-M32-M-G18	3/2	



#### HAND LEVER VALVE

PART NUMBER	TYPE	FUNCTION	
FES4165864	VHEF-HS-B52-G14	5/2	
FES4165863	VHEF-HS-B52-G18	5/2	
FES4165866	VHEF-HS-B53C-G14	5/3	
FES4165865	VHEF-HS-B53C-G18	5/3	
FES4165868	VHEF-HS-B53E-G14	5/3	
FES4165867	VHEF-HS-B53E-G18	5/3	
FES4165856	VHEF-HS-M52-M-G14	5/2	
FES4165855	VHEF-HS-M52-M-G18	5/2	
FES4165858	VHEF-HS-P53C-M-G14	5/3	
FES4165857	VHEF-HS-P53C-M-G18	5/3	
FES4165860	VHEF-HS-P53E-M-G14	5/3	
FES4165859	VHEF-HS-P53E-M-G18	5/3	
FES4165862	VHEF-HST-B32-G14	3/2	
FES4165861	VHEF-HST-B32-G18	3/2	
FES4165854	VHEF-HST-M32-M-G14	3/2	
FES4165853	VHEF-HST-M32-M-G18	3/2	

### SELECTOR VALVE

PART NUMBER	TYPE	FUNCTION	
FES4106817	VHEF-ES-B52-G14	5/2	
FES4106816	VHEF-ES-B52-G18	5/2	
FES4106819	VHEF-ES-B53C-G14	5/3	
FES4106818	VHEF-ES-B53C-G18	5/3	
FES4106821	VHEF-ES-B53E-G14	5/3	
FES4106820	VHEF-ES-B53E-G18	5/3	
FES4106809	VHEF-ES-M52-M-G14	5/2	
FES4106808	VHEF-ES-M52-M-G18	5/2	
FES4106811	VHEF-ES-P53C-M-G14	5/3	
FES4106810	VHEF-ES-P53C-M-G18	5/3	
FES4106813	VHEF-ES-P53E-M-G14	5/3	
FES4106812	VHEF-ES-P53E-M-G18	5/3	
FES4106815	VHEF-EST-B32-G14	3/2	
FES4106814	VHEF-EST-B32-G18	3/2	
FES4106807	VHEF-EST-M32-M-G14	3/2	
FES4106806	VHEF-EST-M32-M-G18	3/2	



# **MECHANICALLY OPERATED VALVES**





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#### STEM ACTUATED VALVE

PART NUMBER	TYPE	FUNCTION
FES8031304	VMEF-S-M52-E-G14	5/2
FES8031299	VMEF-S-M52-E-G18	5/2
FES8031302	VMEF-S-M52-M-G14	5/2
FES8031297	VMEF-S-M52-M-G18	5/2
FES8031300	VMEF-ST-M32-M-G14	3/2 NO or NC
FES8031295	VMEF-ST-M32-M-G18	3/2 NO or NC



#### **ROLLER LEVER VALVE**

PART NUMBER	TYPE	FUNCTION	
FES8047102	VMEF-K-M52-M-G14	5/2	
FES8049240	VMEF-K-M52-M-G18	5/2	
FES8047103	VMEF-KT-M32-M-G14	3/2	
FES8049241	VMEF-KT-M32-M-G18	3/2	
FES8047093	VMEF-R-M52-E-G14	5/2	
FES8047092	VMEF-R-M52-E-G18	5/2	
FES8047094	VMEF-R-M52-M-G14	5/2	
FES8049238	VMEF-R-M52-M-G18	5/2	
FES8047095	VMEF-RT-M32-M-G14	3/2	
FES8049239	VMEF-RT-M32-M-G18	3/2	

#### ACCESSORIES

FES9306

**SELECTOR SWITCH** 

PART NUMBER

FES9301

FES9302

New Additions FRONT PANEL VA	ALVE		3110	MUSHROOM PU	SH BUTTON
PART NUMBER	TYPE	FUNCTION		PART NUMBER	TYPE
FES6817	SV-3-M5	3/2 Closed		FES9293	P-22-SW
FES11914	SV-5-M5-B	5/2 Closed		FES9295	P-30-SW
KEY ACTUATOR				MUSHROOM PUS	SH BUTTON
KET ACTUATOR			3110	PART NUMBER	TYPE
PART NUMBER	TYI	ΡE		FES9297	PR-22-RT
FES573107	Q-22			FES9298	PR-30-RT
FES9304	Q-30	)		FES573108	PRS-22-RT-B
				FES9300	PRS-30-RT
TOGGLE SWITCH	1		3110	PUSH BUTTON A	ACTUATOR
PART NUMBER	TYI	PE		PART NUMBER	TYPE F
FES9305	H-22-			FES9290	T-22-GE
				FES0007	T-22-RT

H-30-SW

TYPE

N-22-SW

N-30-SW

# SH BUTTON



COLOUR

Black

Black

3110

PART NUMBER	TYPE	DESCRIPTION	COLOUR
FES9297	PR-22-RT	Non-lockable	Red
FES9298	PR-30-RT	Non-lockable	Red
FES573108	PRS-22-RT-B	Lockable	Red
FES9300	PRS-30-RT	Lockable	Red



3110

#### ACTUATOR

PART NUMBER	TYPE	FUNCTION	COLOUR	
FES9290	T-22-GE	3/2	Yellow	
FES9997	T-22-RT	3/2	Red	
FES9289	T-22-SW	3/2	Black	
FES9292	T-30-GE	3/2	Yellow	
FES10014	T-30-RT	3/2	Red	
FES9291	T-30-SW	3/2	Black	



# **PRESSURE SENSORS & ACCESSORIES**

# PRESSURE SENSORS



#### FEATURES

Programmable & configurable pressure switch for simple pressure
sensing tasks

- Relative pressure measurementTeach-in function for programming
- Integrated microprocessor
- Switching status indicated by an LED visible from all sides

#### SPECIFICATIONS

	-	
	FP	Freely programmable, N/O contact, N/C contact
	0	Threshold value with fixed hysteresis, 1 teach-in pressure, N/O contact
	С	Threshold value with fixed hysteresis, 1 teach-in pressure, N/C contact
Output function	01	Threshold value with fixed hysteresis, 2 teach-in pressures, N/O contact
	02	Threshold value with variable hysteresis, 2 teach-in pressures, N/O contact
	O3	O3 Window comparator with fixed hysteresis, 2 teach-in pressures, N/O contact
Electrical output	Р	1 switching output PNP





SDE5 PRESSU	IRE SENSORS		3160
PART NUMBER	TYPE	PRESSURE RANGE (BAR)	
FES542887	SDE5-V1-FP-Q6-P-M8	-1 to 0	
FES527461	SDE5-V1-O-Q6E-P-M8	-1 to 0	
FES527458	SDE5-V1-O-Q6-P-M8	-1 to 0	
FES527460	SDE5-V1-O-Q4E-P-M8	-1 to 0	
FES527457	SDE5-V1-O-Q4-P-M8	-1 to 0	
FES542886	SDE5-V1-O1-Q6-P-M8	-1 to 0	
FES542888	SDE5-D2-O-Q6E-P-K	0 to 2	
FES542897	SDE5-D10-FP-Q6E-P-M8	0 to 10	
FES542898	SDE5-D10-FP-Q6-P-M8	0 to 10	
FES542901	SDE5-D10-FP-Q4E-P-K	0 to 10	
FES542900	SDE5-D10-FP-Q4E-P-M8	0 to 10	
FES542899	SDE5-D10-FP-Q6-P-K	0 to 10	
FES527467	SDE5-D10-O-Q6E-P-M8	0 to 10	
FES542890	SDE5-D10-O-Q6E-P-K	0 to 10	
FES527464	SDE5-D10-O-Q6-P-M8	0 to 10	
FES527466	SDE5-D10-O-Q4E-P-M8	0 to 10	
FES527463	SDE5-D10-O-Q4-P-M8	0 to 10	
FES542894	SDE5-D10-C-Q6E-P-M8	0 to 10	
FES542889	SDE5-D10-C-Q4E-P-M8	0 to 10	
FES542895	SDE5-D10-C-Q6E-P-K	0 to 10	
FES542892	SDE5-D10-O2-Q6-P-M8	0 to 10	
FES542891	SDE5-D10-O2-Q6E-P-M8	0 to 10	

#### PRESSURE SENSOR ACCESSORIES



#### SDE5 CONNECTING CABLES CONNECTING CABLES ANGLED SOCKET

PART NUMBER	TYPE	CABLE LENGTH	
FES541338	NEBU-M8W3-K-2.5-LE3	2.5 m	
FES541341	NEBU-M8W3-K-5-LE3	5.0 m	
FES541335	NEBU-M8W3-K-10-LE3	10.0 m	
FES575833	NEBU-M8W4-K-10-LE4	10.0 m	

#### SDE5 CONNECTING CABLES CONNECTING CABLES STRAIGHT SOCKET

3110

PART NUMBER	ТҮРЕ	CABLE LENGTH	
FES541333	NEBU-M8G3-K-2.5-LE3	2.5 m	
FES541334	NEBU-M8G3-K-5-LE3	5.0 m	
FES541363	NEBU-M12G5-K-2.5-LE3	2.5 m	
FES550326	NEBU-M12G5-K-2.5-LE4	2.5 m	
FES541330	NEBU-M12G5-K-2.5-LE5	2.5 m	
FES541364	NEBU-M12G5-K-5-LE3	5.0 m	
FES541328	NEBU-M12G5-K-5-LE4	5.0 m	
FES541331	NEBU-M12G5-K-5-LE5	5.0 m	
FES541332	NEBU-M8G3-K-10-LE3	10.0 m	
FES541348	NEBU-M8G3-K-2.5-M8G3	2.5 m	
FES541349	NEBU-M8G3-K-5-M8G3	5.0 m	
FES554035	NEBU-M8G4-K-2.5-M8G4	2.5 m	



# **PRESSURE SENSORS & ACCESSORIES**

# PRESSURE SENSORS

#### FEATURES

- Two part, multi-coloured display
  Copy function (settings can be transferred from one device to another)
  Simple commissioning, thanks to intuitive operation
- Compact design 30 x 30 mm
- Electric output 2 x NPN



#### SPAN PRESSURE SENSORS WITH DISPLAY CABLE CONNECTION



PART NUMBER	ТҮРЕ	PRESSURE RANGE (BAR)	
FES8035545	SPAN-B2R-G18M-PN-PN-L1	-1 to +1	
FES8035544	SPAN-P10R-G18M-PN-PN-L1	0 to 10	

### PRESSURE SENSOR ACCESSORIES

SAMH-PN-F FRONT PANEL INSTALLATION KIT		3110	PRESSURE SWI			3110
PART NUMBER	TYPE		PART NUMBER	TYPE		
FES8035561	SAMH-PN-F		FES10773	PEV-1/4-B		
			NEBU-M8 CONN M8x1 4-WIRE, ST PART NUMBER	ECTING CABLE RAIGHT SOCKET TYPE	CABLE	3110
SACC-PN-G			FES541342	NEBU-M8G4-K-2.5-LE4	2.5 m	
PROTECTIVE COVE	R	3110	FES541343	NEBU-M8G4-K-5-LE4	5.0 m	
PART NUMBER	ТҮРЕ		M8x1 4-WIRE AN	GLED SOCKET		
FES8035560	SACC-PN-G		FES541344	NEBU-M8W4-K-2.5-LE4	2.5 m	
			FES541345	NEBU-M8W4-K-5-LE4	5.0 m	
SAMH-PU-A MOUNTING BRACKI		3110		•		

PART NUMBER	TYPE	
FES8003354	SAMH-PU-A	

1	PLUG SOCKET W		3110
	PART NUMBER	TYPE	
	FES30935	KMF-1-24DC-2,5-LED	



# **Camozzi Valves**

precise and reliable operation. Valves and solenoids drive pneumatic actuators and compressed air circuits.

Camozzi's components are engineered to deliver the highest possible performance regarding flow rate and power consumption, whether using a direct, mechanical, or pneumatically operated valve.

We offer a wide range of pneumatic valves, solenoid valves, and valve islands, available in various sizes and flow rates, to cater to the specific requirements of any industrial sector.

#### **Available Ranges**

 $\overline{}$ 

- Solenoid valves Series A
  Solenoid/spring valves Series 3 & 4
  Solenoid and pneumatic valves Series 9
- Solenoid and pneumatic valves Series 9
   Solenoids for electro pneumatically operated valves
   Pneumatic valves Series 3 & 4
   Mechanically operated mini valves Series 2
   Mechanically and manually operated valves
   Manually operated valves

- Automatic valves



G94

V 48 DC

CAMOZZI



# **SOLENOID VALVES – SERIES A**

2530

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#### DESCRIPTION

The Series A solenoid valves are of the directly operated type & can be used with dry or lubricated air. They are available in the 2/2 & 3/2-way versions with normally closed or normally open operations.

# Symbol key Fit together O O O See page 397



#### STANDARD SOLENOID VALVES 300 BODY TYPE

			1
PART NUMBER	FUNCTION	PORT SIZE	ORIFICE SIZE
ZA321-0C2	2-Way NC	M5	1.5 mm
ZA321-1C2	2-Way NC	1/8"	1.5 mm
ZA321-1D2	2-Way NC	1/8"	2.0 mm
ZA321-1E2	2-Way NC	1/8"	2.5 mm
ZA322-0C2	2-Way NO	M5	1.8 mm
ZA322-1C2	2-Way NO	1/8"	1.8 mm
ZA331-0C2	3-Way NC	M5	1.5 mm
ZA331-1C2	3-Way NC	1/8"	1.5 mm
ZA332-0C2	3-Way NO	M5	1.5 mm
ZA332-1C2	3-Way NO	1/8"	1.5 mm

# SOLENOID VALVES FOR MANIFOLD ASSEMBLY SINGLE MANIFOLD BODY TYPE

PART NUMBER	FUNCTION	PORT SIZE	ORIFICE SIZE	
ZAA31-0C2	3-Way NC	M5	1.5 mm	
ZAA31-CC2	3-Way NC	ø4 mm	1.5 mm	

# STANDARD SOLENOID VALVE

PART NUMBER	FUNCTION	PORT SIZE	ORIFICE SIZE
ZA431-1C2	3-Way NC	1/8"	1.5 mm



PART NUMBER	FUNCTION	INLET	OUTLET	
ZA331-3C2	3-Way NC	M5	1/8"	

#### SPECIFICATIONS

of Lon IoAnono	
Type of construction	Poppet type
Valve group	2/2, 3/2-way position. Normally Closed (NC) or Normally Open (NO)
Materials	OT58 brass body (nickel plated), other parts: stainless steel, NBR seals
Mounting	M4 screws
Ports	M5, 1/8", cartridge ø4 mm
Operating temperature	0°C to 60°C (with dry air -20°C)
Operating pressure	0.9 to 15 bar
Nominal pressure	6 bar

#### STANDARD SOLENOID VALVE WITH MANUAL OVERRIDE 300 BODY TYPE



300 BODY TYPE				2530
PART NUMBER	FUNCTION	INLET	OUTLET	
ZA331-4C2	3-Way NC	M5	1/8	



# STANDARD SOLENOID VALVE

PART NUMBER	FUNCTION	O-RING	ORIFICE SIZE	
ZA631-AC2	3-Way NC	Rotatable	1.5 mm	



#### STANDARD SOLENOID VALVE 500 BODY TYPE

ZA531-BC2 3-Way NC Eixed 1.5 mm	PART NUMBER	FUNCTION	O-RING	ORIFICE SIZE
	ZA531-BC2	3-Way NC	Fixed	1.5 mm



PART NUMBER	FUNCTION	O-RING	ORIFICE SIZE
ZA131-AC2	3-Way NC	Rotatable	1.5 mm



391



# **SOLENOID / SPRING VALVES – SERIES 3**

2530

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#### DESCRIPTION

The 1/8" Series 3 solenoid valves have been designed as 3/2 & 5/2 ways. The main advantages of these solenoid valves is their small overall dimensions, which make them particularly suitable for small spaces.

#### SPECIFICATIONS

SFLOIDCATIONS	
Type of construction	Spool (pilot operated)
Valve group	3/2 Normally Closed (NC) or Normally Open (NO) 5/2 & 5/3-way port / position
Materials	Aluminium body, stainless steel spool, NBR seals
Mounting	Through holes in valve body
Ports	1/8", 1/4", 1/2"
Operating temperature	0°C to 60°C (with dry air -20°C)
Operating pressure	10 bar maximum
Nominal pressure	6 bar
Minimum pilot pressure	2 bar
Nominal flow	1/8" = 500 NI/min
Class of insulation	Class H
Protection class	IP54 DIN 40050 (IP65 with DIN 43650/PG9 connector)
015 Actuation	Single solenoid, spring return (horizontal solenoids)
016 Actuation	Single solenoid, pneumatic spring return (horizontal solenoids)

SERIES 3 5/2 SOL / SOL EXTERNAL PILO			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z358-E11-02	5/2	1/8"	
5/3 SOL / SOL			
Z368-E11-02	5/3 CC	1/8"	
Z378-E11-02	5/3 CO	1/8"	
Z388-E11-02	5/3 C pressure	1/8"	

SERIES 3 3/2 SOL / SPRINC CAN BE MOUNTI	2530				
PART NUMBER	FUNCTION	PORT SIZE			
Z338L-015-2	3/2 NC	1/8"			
Z348L-015-2	3/2 NO	1/8"			
SERIES 3 3/2 SOL / SOL					
CAN BE MOUNTED ON MANIFOLD 2530					

CAN BE MOUNTE	2530		
PART NUMBER	FUNCTION	PORT SIZE	
Z338L-011-2	3/2	1/8"	

×	

S



5/2

Z358-015-02

	SERIES 3 3/2 SOL / SOL		
I	PART NUMBER	FUNCTION	PORT SIZE

1/8'

Z338-011-02	3/2	1/8"	
5/2 SOL / SOL			
Z358-011-02	5/2	1/8"	
5/3 SOL / SOL			

Z368-011-02	5/3 CC	1/8"	
Z378-011-02	5/3 CO	1/8"	
Z388-011-02	5/3 C pressure	1/8"	

SERIES 3 5/2 SOL / SPRING EXTERNAL PILOT		121. X#22.00	2530
PART NUMBER	FUNCTION	PORT SIZE	
Z358-E15-02	5/2	1/8"	







# **SOLENOID / SPRING VALVES – SERIES 4**



#### DESCRIPTION

The Series 4 solenoid valves are a balanced spool type, and are available with various methods of activation.

# SPECIFICATIONS

SPECIFICATIONS	
Type of construction	Spool (pilot operated)
Valve group	3/2 Normally Closed (NC) or Normally Open (NO) 5/2 & 5/3-way port / position
Materials	Aluminium body, stainless steel spool, NBR seals
Mounting	Through holes in valve body
Ports	1/8", 1/4", 1/2"
Operating temperature	0°C to 60°C (with dry air -20°C)
Operating pressure	10 bar maximum
Nominal pressure	6 bar
Minimum pilot pressure	2 bar
Nominal flow	1/8" = 650 NI/min, 1/4" = 1250 NI/min, 1/2" = 1800 NI/min
Class of insulation	Class H
Protection class	IP54 DIN 40050 (IP65 with DIN 43650/PG9 connector)
015 Actuation	Single solenoid, spring return (horizontal solenoids)
016 Actuation	Single solenoid, pneumatic spring return (horizontal solenoids)

		- rear
<mark>4</mark> / SPRING	x <sup>1</sup>   '	· · ·



SERIES 4 3/2 SOL / SPRING	6		
PART NUMBER	FUNCTION	PORT SIZE	
Z438-015-22	3/2 NC	1/8"	
Z434-015-22	3/2 NC	1/4"	
5/2 SOL / SPRING	)		
Z458-015-22	5/2	1/8"	

Z458-015-22	5/2	1/8"	
Z454-015-22	5/2	1/4"	
Z452-015-50	5/2	1/2"	
Z452-016-50	5/2	1/2"	

SERIES 4	and a state of the	
3/2 SOL / SOL		2530

PART NUMBER	FUNCTION	PORT SIZE	
Z438-011-22	3/2	1/8"	
Z434-011-22	3/2	1/4"	

#### 5/2 SOL / SOL

Z458-011-22	5/2	1/8"	
Z454-011-22	5/2	1/4"	
Z452-011-50	5/2	1/2"	
5/3 SOL / SOL			

Z468-011-22	5/3 CC	1/8"	
Z464-011-22	5/3 CC	1/4"	
Z474-011-22	5/3 CO	1/4"	

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SERIES 4
5/2 SOL / SPRING
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VERTICAL SOLENOID P/



ART NUMBER	FUNCTION	PORT SIZE	
Z454-V15-22	5/2	1/4"	
Z454-V16-22	5/2	1/4"	





PART NUMBER	FUNCTION	PORT SIZE	
Z454-V11-22	5/2	1/4"	

#### Do you also need?

Coils & plugs

Find it on pages 395 - 397, section six



# ISO 5599/1 SOLENOID & PNEUMATIC VALVES - SERIES 9



#### DESCRIPTION

#### ISO 5599/1 STANDARDS

The Series 9 electropneumatically or pneumatically operated valves have been manufactured in sizes 1, 2 & 3, as recommended by ISO Standards. They are constructed to be actuated in different ways:

- Electrical actuation spring return
- Electrical actuation & pneumatic spring return
- Electrical actuation & return

plugs see pages 395 – 397

For coils &

- Pneumatic actuation & spring return
- Pneumatic actuation & differential pneumatic return
   Pneumatic actuation & return
- Pneumatic actuation & return



PART NUMBER	FUNCTION	ISO	
Z951-P15-23	5/2	1	
Z952-P15-23	5/2	2	
Z953-P15-23	5/2	3	

# SOL / SOL

SOL / SPRING

5/2



0/2			
PART NUMBER	FUNCTION	ISO	
Z951-P11-23	5/2	1	
Z952-P11-23	5/2	2	
Z953-P11-23	5/2	3	

## 5/3

Z961-P11-23	5/3 CC	1	
Z971-P11-23	5/3 CO	1	
Z962-P11-23	5/3 CC	2	
Z972-P11-23	5/3 CO	2	
Z963-P11-23	5/3 CC	3	
Z973-P11-23	5/3 CO	3	

# PNEU / SPRING



PART NUMBER	FUNCTION	ISO	
Z951-000-35	5/2	1	
Z952-000-35	5/2	2	
Z953-000-35	5/2	3	

#### **PNEU / DIFF PNEU**

PNEU / PNEU

	5/2		9	9 2530
1	PART NUMBER	FUNCTION	ISO	
	Z951-000-34	5/2	1	
	Z952-000-34	5/2	2	
	7953-000-34	5/2	3	



5/2		۲	2530
PART NUMBER	FUNCTION	ISO	
Z951-000-33	5/2	1	
Z952-000-33	5/2	2	
Z953-000-33	5/2	3	

#### 5/3

Z961-000-33	5/3 CC	1	
Z971-000-33	5/3 CO	1	
Z962-000-33	5/3 CC	2	
Z972-000-33	5/3 CO	2	
Z963-000-33	5/3 CC	3	
Z973-000-33	5/3 CO	3	

SPECIFICATIONS				
	Type of construction	Spool (servo controlled)		
	Valve group	5/2 & 5/3-way port / position Centre Closed (CC) or Centre Open (CO)		
	Materials	Aluminium body, stainless steel spool, NBR seals		
	Mounting	Threaded holes in sub-base		
	Sub-base sizes	1 = 1/4", 2 = 3/8" & 3 = 1/2"		
	Operating temperature	0°C to 60°C (with dry air -20°C)		
	Operating pressure	10 bar maximum		
	Nominal pressure	6 bar		
	Nominal flow	Size 1: 900 NI/min, Size 2: 1610 NI/min Size 3: 3700 NI/min		
	Class of insulation	Class H		
	Protection class	IP54 DIN 40050 (IP65 with DIN 43650/PG9 connector)		

#### SINGLE SUB-BASE WITH SIDE OUTLETS



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PART NUMBER	INLET / EXHAUST	SIZE	
Z901-F1A	1/4"	ISO 1	
Z902-F2A	3/8"	ISO 2	
Z903-F3A	1/2"	ISO 3	

#### SINGLE SUB-BASE WITH REAR OUTLETS

AR OUT	LETS	

PART NUMBER	INLET / EXHAUST	SIZE	
Z901-G1A	1/4"	ISO 1	
Z902-G2A	3/8"	ISO 2	
Z903-G3A	1/2"	ISO 3	

#### MANIFOLD SUB-BASE WITH COMMON EXHAUST & INLET

INLET / EXHAUST	SIZE			
1/4"	ISO 1			
3/8"	ISO 2			
1/2"	ISO 3			
	<b>INLET / EXHAUST</b> 1/4" 3/8"	INLET / EXHAUST         SIZE           1/4"         ISO 1           3/8"         ISO 2		

#### END BLOCK FOR MANIFOLD SUB-BASE



PART NUMBER	INLET / EXHAUST	SIZE	
Z901-H1	1/4"	ISO 1	
Z902-H2	3/8"	ISO 2	
Z903-H3	1/2"	ISO 3	

#### END BLOCK WITH FRONT OUTLET

END BLOCK

P/

FOR MANIFOLD BASES

PART NUMBER	INLET / EXHAUST	SIZE	
Z901-N1	1/4"	ISO 1	
Z902-N2	3/8"	ISO 2	
Z903-N3	1/2"	ISO 3	

# MANIFOLD SUB-BASE WITH COMMON EXHAUST & INLET PART NUMBER 2901-N1A I/4" ISO 1



<b>Z901-HN1</b> 1/4" ISO 1	ART NUMBER	INLET / EXHAUST	SIZE
	Z901-HN1	1/4"	ISO 1





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# SOLENOID MOD. U7... / U7\*EX & MOD. G7...

DESCRIPTION

The dimensions, as well as the power consumption of these solenoids, differ, so that the best possible choice can be made depending on the type of electronic or electromechanical operating system used.

# SPECIFICATIONS

Connections Solenoid material Bipolar plus earth DIN 43650 (vers. B) Mod. U7\*EX marked II 3 GD Eex nA T4 U7\* = PET - G7\* = PA

Mod.	Solenoid Voltage (1)	Power Absorption (1)	Solenoid Voltage (2)	Power Absorption (2)	Solenoid Voltage (3)	Power Absorption (3)
U7H	12 V DC	3.1 W	24 V – 50/60 Hz	3.5 VA		
G7H	12 V DC	3.1 W	24 V – 50/60 Hz	3.5 VA		
U7K	110 V – 50/60 Hz	3.8 VA	125 V – 50/60 Hz	5.5 VA	72 V DC	4.8 W
U7K1	110 V – 50/60 Hz	5.8 VA	125 V – 50/60 Hz	8.3 VA	72 V DC	5.6 W
G7K	110 V – 50/60 Hz	3.8 VA	125 V – 50/60 Hz	5.5 VA	72 V DC	4.8 W
G7K1	110 V – 50/60 Hz	5.8 VA	125 V – 50/60 Hz	8.3 VA	72 V DC	5.6 W
U7J	230 V – 50/60 Hz	3.5 VA	240 V – 50/60 Hz	4 VA		
G7J	230 V - 50/60 Hz	3.5 VA	240 V – 50/60 Hz	4 VA		
U79	48 V DC	3.1 W				
G79	48 V DC	3.1 W				
U710	110 V DC	3.2 W				
G710	110 V DC	3.2 W				
U77	24 V DC	3.1 W	48 V – 50/60 Hz	3.8 VA		
U771	24 V DC	3.1 W	48 V – 50/60 Hz	3.8 VA		
G77	24 V DC	3.1 W	48 V – 50/60 Hz	3.8 VA		
G771	24 V DC	3.1 W	48 V – 50/60 Hz	3.8 VA		
U7F	380 V – 50/60 Hz	7 VA				
U72	12 V DC	5 W				
G72	12 V DC	5 W				
U73	24 V DC	5 W				
G73	24 V DC	5 W				

#### $\bigcirc$ SOLENOIDS STAN 18 MN

TANDARD DIN F 8 MM FORM A	PLUG		-	20	2530
PART NUMBER		VOLTAGE			
ZA8B24	24 V	50/60 Hz	5 VA		
ZA8D110	110 V	50/60 Hz	5 VA		
ZA8E220	220 V	50/60 Hz	5 VA		

DC

24 V

)

E

# SOLENOIDS - PET

ZA8324

STANDARD DIN PLUG 11

MM				2530
PART NUMBER		VOLTAGE		
ZU7H	12 V	DC	3.1 W	
ZU7K	110 V	AC 50/60 Hz	3.8 VA	
ZU7J	240 V	AC 50/60 Hz	4 VA	
ZU79	48 V	DC	3.1 W	
ZU77	48 V	50/60 Hz	3.5 VA	
ZU72	12 V	DC	5 W	
ZU73	24 V	DC	5 W	
ZU74	48 V	DC	5 W	
ZU76	110 V	DC	5 W	

# **SOLENOIDS - NYLON** STANDARD DIN PLUG 11 MM



4 W

PART NUMBER		VOLTAGE	
ZG7H	12 V	DC	3.1 W
ZG7K	110 V	AC 50/60 Hz	3.8 VA
ZG7J	240 V	50/60 Hz	4 VA
ZG72	12 V	DC	5 W
ZG73	24 V	DC	5 W
ZG77	48 V	50/60 Hz	3.5 VA

•	
SOLENOIDS	
LATCHING COIL	l
STANDARD PLUG	



PART NUMBER	VOLTAGE		
ZG9324	24 V	DC	

SOLENOIDS PRE-WIRED EX

F

PLOSION PROOF		KA-SPC-NPC 19938		2530
PART NUMBER		VOLTAGE		
ZH8D110	110 V	50/60 Hz	5 VA	
ZH8E220	220 V	50/60 Hz	5 VA	
ZH8324	24 V	DC	4 W	

Size 10.2 mm



Note: to order the ATEX version, add EX at the end of the code.

Mod. U7K1, G7K1, U771 & G771 are to be used only with solenoid valves Series A, NO in line.



# SOLENOID DIN CONNECTORS



#### DESCRIPTION

The range of Solenoid DIN Connectors, with cable gland entry, offers flexibility & is suitable for a wide variety of applications.

# SPECIFICATIONS

Insulation group	VDE 0110 1/89 – Class C
Materials	Polyamide (glass fibre reinforced) connectors. NBR standard (form A & B) profile gasket. NBR standard (form C) flat gasket. M3 x 32 mm (form A & B), M3 x 28 mm (industrial form C), M2.5 x 28 mm (form C) screws
Voltage	Up to 250 V AC or DC unless otherwise stated
Current	10A (nominal) 16A (max) – Form A & B 6A (nominal) 10A (max) – Form C
Temperature range	-40°C to +90°C
Cable gland size	PG7 cable diameter 4 – 6 mm PG9 cable diameter 6 – 8 mm



#### **INDUSTRIAL FORM B 11 MM PIN SPACING**



	ECTORS	2530
PART NUMBER	DESCRIPTION	
Z121-803	With 300 mm cable	
Z121-806	With 600 mm cable	
Z121-810	With 1000 mm cable	

For use with Series K & Series E valves (size 10.5 mm)



For use with Series A, Series 3 & 4, & ISO valves



PART NUMBER	TYPE (VOLTAGE AC/DC)	CABLE ENTRY	
ZKA132000B9	Black	PG9	
ZKA2000A9	Grev	PG9	

For use with Series 4 valves - 1/2, Series 6 & A80 coils



Six

 $\bigcirc$ FORM A



# SOLENOID DIN CONNECTORS



#### DESCRIPTION

The range of Solenoid DIN moulded cable connectors offers a fast & efficient method of connection, resulting in reduced installation time & cost.

SPECIFICATIONS	
Insulation group	VDE 0110 1/89 – Class C
Materials	TPU connectors. PVC standard cable. Integrated TPU gasket. M3 x 28 mm (form A & B), M3 x 23 mm (industrial form C), M2.5 x 23 mm (form C) screws
Voltage	Up to 250 V AC or DC unless otherwise stated
Current	5A – Form A & B 3A – Form C
Temperature range	-40°C to +90°C
Standard cable: Form A & B Form C	$3 \times 0.75 \mbox{ mm}^2$ conductors PVC H05 VVF $3 \times 0.50 \mbox{ mm}^2$ conductors PVC H03 VVF



ZMA11000530 Cable connector only 3 m ZMA61V54530 Cable connector (24 V LED) 3 m

For use with Series 4 valves - 1/2, Series 6 & A80 coils

FORM B 11 MM PIN SPAC 12 O'CLOCK EAF		3	2530
PART NUMBER	TYPE (LED VOLTAGE AC/DC)	CABLE LENGTH	
ZMB15000530	Cable connector only	3 m	
ZMB65V54530	Cable connector (24 V LED)	3 m	

Cable connector (230 V LED) For use with Series A, Series 3 & 4, & ISO valves

3 m

3 m

Cable connector (115 V LED)

ZMB65V55530

ZMB65V56530





For use with Series A, Series 3 & 4, & ISO valves



For use with Series EN & Series P valves





# **PNEUMATIC VALVES – SERIES 3 & 4**



#### DESCRIPTION

The pneumatically operated Series 3 & Series 4 valves have been designed with three different methods of return. A pneumatic signal, mechanical spring or differential pneumatic return. This is due to the type of design consisting of a balanced spool, which means that it can be used for a wide range of applications.

### SPECIFICATIONS

Type of construction	Spool (servo controlled)
Valve group	3/2, 5/2 & 5/3-way position Centre Closed (CC) or Centre Open (CO)
Materials	Aluminium body, stainless steel spool, NBR seals
Mounting	Through holes in valve body
Ports	1/8", 1/4", 1/2"
Operating temperature	0°C to 60°C (with dry air -20°C)
Operating pressure	10 bar maximum
Nominal pressure	6 bar
Minimum pilot pressure	2.5 bar
Nominal flow	Series 3: 1/8" = 750 NI/min Series 4: 1/8" = 650 NI/min 1/4" = 1250 NI/min, 1/2" = 1900 NI/min
Nominal diameter	1/8" = 5 mm, 1/4" = 7.5 mm, 1/2" = 12 mm





2530

#### PNEUMATIC / SPRING 3/2

PART NUMBER	FUNCTION	PORT SIZE
Z338-035	3/2	1/8"
Z338L-035	3/2	1/8"
Z438-035	3/2	1/8"
Z434-035	3/2	1/4"

#### L - Can be mounted on manifolds

#### 5/2

Z358-035	5/2	1/8"	
Z458-035	5/2	1/8"	
Z454-035	5/2	1/4"	
Z452-035	5/2	1/2"	

# PNEUMATIC / PNEUMATIC 3/2

			2000
PART NUMBER	FUNCTION	PORT SIZE	
Z338-033	3/2	1/8"	
Z338L-033	3/2	1/8"	
Z438-033	3/2	1/8"	
Z434-033	3/2	1/4"	
	L – Can be mounted	on manifolds	
5/2			

Z358-033	5/2	1/8"	
Z458-033	5/2	1/8"	
Z454-033	5/2	1/4"	
Z452-033	5/2	1/2"	
5/3			
Z468-033	5/3 CC	1/8"	
Z464-033	5/3 CC	1/4"	



#### PNEUMATIC / PNEUMATIC DIFFERENTIAL 3/2

Z452-034

		_	2000
PART NUMBER	FUNCTION	PORT SIZE	
Z438-034	3/2	1/8"	
Z434-034	3/2	1/4"	
5/2			
Z458-034	5/2	1/8"	
Z454-034	5/2	1/4"	

1/2"

5/2



Six



PLUNGER

PART NUMBER

Z235-945

Z234-945

3/2

# **MECHANICALLY OPERATED MINI VALVES – SERIES 2**

2530



#### SPECIFICATIONS

	Media	Filtered compressed air without lubricant. If lubricated air is used, it is recommended that ISO VG32 oil is used. Once applied, the lubrication should never be interrupted.
	Materials	Aluminium valve body, NBR seals, OT58 brass poppet & plunger, stainless steel spools

FUNCTION

3/2

3/2

PORT SIZE

M5

4 mm

## SPECIFICATIONS

Operating temperature	0°C to 60°C
Operating pressure	2 to 10 bar
Connections	4 mm, M5
Mounting	Through holes in valve body



#### PANEL MOUNTED PLUNGER

3/2

**ONE WAY TRIP** 

PART NUMBER

Z235-965

Z234-965

3/2

PART NUMBER	FUNCTION	PORT SIZE
Z235-985	3/2	M5
Z234-985	3/2	4 mm



PORT SIZE

M5

4 mm

#### **ROLLER LEVER**

3/2			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z235-955	3/2	M5	
Z234-955	3/2	4 mm	

# **MECHANICALLY OPERATED VALVES – SERIES 1 & 3**

#### SPECIFICATIONS Media Filtered compressed air without lubricant. If lubricated air is used, it is recommended that ISO VG32 oil is used. Once applied, the lubrication should never be

	interrupted.
Materials	Aluminium valve body, NBR seals, OT58 brass poppet & plunger, stainless steel spools

SPECIFICATIONS		
Operating temperature	0°C to 60°C	
Operating pressure	0 to 10 bar	
Connections	1/8", 1/4"	
Mounting	Through holes in valve body	

FUNCTION

3/2

3/2



#### PLUNGER

3/2			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z338-945	3/2	1/8"	
Z138-945	3/2 NC	1/8"	
Z148-945	3/2 NO	1/8"	
Z134-945	3/2	1/4"	

#### 5/2

Z358-945	5/2	1/8"
Z158-945	5/2	1/8"
Z154-945	5/2	1/4"



#### **ROLLER LEVER ONE WAY TRIP** 3/2

5/2			2000		
PART NUMBER	FUNCTION	PORT SIZE			
Z338-965	3/2	1/8"			
Z138-965	3/2	1/8"			
5/2					
Z358-965	5/2	1/8"			

Z358-965	
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Operating pressure	0 to 10 bar
Connections	1/8", 1/4"
Mounting	Through holes in valve body
Z338-5	Z134-955

### **ROLLER LEVER**

3/2			-	2530		
PART NUMBER	FUNCTION	PORT SIZE				
Z338-955	3/2	1/8"				
Z138-955	3/2	1/8"				
Z134-955	3/2	1/4"				
5/2						
Z358-955	5/2	1/8"				

# 3/2

PART NUMBER	FUNCTION	PORT SIZE	
Z338-955	3/2	1/8"	
Z138-955	3/2	1/8"	
Z134-955	3/2	1/4"	
5/2			
Z358-955	5/2	1/8"	

#### Z158-955 5/2 1/8" Z154-955 5/2 1/4"





# **MECHANICALLY OPERATED SENSOR VALVES SERIES 3 & 4**

#### SPECIFICATIONS

of Lon IoAnonto	
Media	Filtered compressed air without lubricant. If lubricated air is used, it is recommended that ISO VG32 oil is used. Once applied, the lubrication should never be interrupted.
Materials	Aluminium valve body, NBR seals, OT58 brass poppet & plunger, stainless steel spools
Valve group	3/2, 5/2-way position. Normally Closed (NC) or Normally Open (NO)
Operating temperature	0°C to 60°C
Connections	1/8", 1/4"
Mounting	By through-holes in valve body

LEVER 3/2			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z338-D159A5	3/2 NC	1/8"	
5/2			
Z358-D159A5	5/2	1/8"	

#### MANUALLY OPERATED VALVES

#### DESCRIPTION

The manually operated, panel mounted valves, dia 22, have been designed to satisfy all the application requirements of the controls industry i.e. low actuating force 6N, short operational stroke & speed / accuracy of signal.

SPECIFICATIONS	
Type of construction	Poppet (closed centres)
Valve group	3/2, 5/3-way position. Normally Closed (NC)
Materials	Aluminium body, OT58 brass plunger, NBR seals
Mounting	Panel
Ports	M5 or cartridge diameter 4
Operating temperature	0°C to 60°C (with dry air -20°C)
Operating pressure	2 to 8 bar
Nominal pressure	6 bar
Nominal flow	60 NI/min
Nominal diameter	2.5 mm



#### PUSH BUTTON

3/2			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z235-895	3/2 NC	M5	
Z234-895	3/2 NC	4 mm tube	



#### **KEY LOCKABLE**

3/2			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z235-904	3/2 NC	M5	
Z234-904	3/2 NC	4 mm tube	



#### SELECTOR SWITCH 3/2 – 2-POSITION

PART NUMBER	FUNCTION	PORT SIZE
Z235-990	3/2 NC	M5
Z234-990	3/2 NC	4 mm tube

SEL	ECTOR SWITCH	
5/3 ·	- 3-POSITION	





2530



2530



#### PALM SWITCH SPRING RETURN 3/2

PART NUMBER	FUNCTION	PORT SIZE
PARTNUMBER		PORTSIZE
Z235-975	3/2 NC	M5
Z234-975	3/2 NC	4 mm tube

VALVE FOR USE
WITH OPERATORS
3/2



PART NUMBER	FUNCTION	PORT SIZE
Z235-000	3/2 NC	M5
Z234-000	3/2 NC	4 mm tube
Z245-000	3/2 NO	M5
Z244-000	3/2 NO	4 mm tube



## PALM SWITCH

LATCHING – TWIST TO RELEASE 3/2

PART NUMBER	FUNCTION	PORT SIZE
Z235-972	3/2 NC	M5
Z234-972	3/2 NC	4 mm tube





#### PALM SWITCH STABLE 3/2

0.2			200
PART NUMBER	FUNCTION	PORT SIZE	
Z234-970	3/2 NC	4 mm tube	

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1



#### DOUBLE BRACKET

PART NUMBER	DESCRIPTION	
Z220-000	Double	



#### JOYSTICK

3/	2	

PART NUMBER	FUNCTION	PORT SIZE
Z235-905	3/2 NC	M5
Z234-905	3/2 NC	4 mm tube





#### DESCRIPTION

The Series 3 manual valves (1/8", 3/2 & 5/2-way) & the Series 4 manual valves (1/4", 3/2, 5/2 & 5/3-way) are available with actuators designed to satisfy different needs. The 3/2-way valves are normally closed when P is the inlet; they can also be normally open when R is the inlet.



### 3/2

PART NUMBER	FUNCTION	PORT SIZE	
Z338-990	3/2 NC	1/8"	
5/2			
Z358-990	5/2	1/8"	

Six



# **PUSH BUTTON**

3/2				2530
PART NUMBER	FUNCTION	PORT SIZE	COLOUR	
Z338-895	3/2 NC	1/8"	Black	
Z338-896	3/2 NC	1/8"	Green	
Z338-897	3/2 NC	1/8"	Red	

#### 5/2

Z358-895	5/2	1/8"	Black	
Z358-896	5/2	1/8"	Green	
Z358-897	5/2	1/8"	Red	



#### PALM SWITCH

3/2					
PART NUMBER	FUNCTION	PORT SIZE	COLOUR		
Z338-975	3/2 NC	1/8"	Black		
Z338-976	3/2 NC	1/8"	Green		
Z338-977	3/2 NC	1/8"	Red		
5/2					
Z358-975	5/2	1/8"	Black		
Z358-976	5/2	1/8"	Green		
Z358-977	5/2	1/8"	Red		

SPECIFICATIONS			
Type of construction	Spool type		
Valve function	3/2, 5/2, 5/3-way position. Normally Closed (NC), Centre Closed (CC) or Centre Open (CO)		
Materials	Aluminium body, stainless steel spool, NBR seals		
Mounting	Through holes in valve body		

Threaded ports	1/8", 1/4"
Operating temperature	0°C to 60°C (with dry air -20°C)
Operating pressure	0 to 10 bar
Nominal pressure	6 bar
Nominal flow	Series 3: 1/8" = 500 NI/min Series 4: 1/8" = 650 NI/min 1/4" = 1250 NI/min
Nominal diameter	1/8" = 5 mm 1/4" = 7.5 mm



2530

#### PUSH / PULL 3/2

5/2			2000
PART NUMBER	FUNCTION	PORT SIZE	
Z338-910	3/2 NC	1/8"	
Z434-910	3/2 NC	1/4"	
5/2			
Z358-910	5/2	1/8"	
7454-910	5/2	1/4"	

0/Z			
Z358-910	5/2	1/8"	
Z454-910	5/2	1/4"	



### **PUSH & SPRING RETURN**

3/2			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z338-915	3/2 NC	1/8"	
Z434-915	3/2 NC	1/4"	
5/2			
Z358-915	5/2	1/8"	
Z454-915	5/2	1/4"	

LEVER

2520

2530

Z474-905

5/3 CO





#### LEVER 3/2

LEVER 3/2

PART NUMBER

Z138-935

Z134-935

5/2			2000
PART NUMBER	FUNCTION	PORT SIZE	
Z138-900	3/2 NC	1/8"	
Z134-900	3/2 NC	1/4"	
5/2			
Z158-900	5/2	1/8"	
Z154-900	5/2	1/4"	

3/2				2530
PART NUMBER	FUNCTION	LEVER/SPRING	PORT SIZE	
Z338-900	3/2 NC	L/L	1/8"	
Z338-905	3/2 NC	L/S	1/8"	
Z434-900	3/2 NC	L/L	1/4"	
Z434-905	3/2 NC	L/S	1/4"	
5/2				
Z358-900	5/2	L/L	1/8"	
Z358-905	5/2	L/S	1/8"	
Z454-900	5/2	L/L	1/4"	
Z454-905	5/2	L/S	1/4"	
5/3				
Z368-900	5/3 CC	L/L/L	1/8"	
Z368-905	5/3 CC	L/S/L	1/8"	
Z378-900	5/3 CO	L/L/L	1/8"	
Z378-905	5/3 CO	L/S/L	1/8"	
Z464-900	5/3 CC	L/L/L	1/4"	
Z464-905	5/3 CC	L/S/L	1/4"	
Z474-900	5/3 CO	L/L/L	1/4"	

L/S/L

1/4"

# FOOT OPERATED PEDAL VALVES

FUNCTION

3/2 NC

3/2 NC

PORT SIZE

1/8"

1/4'

#### DESCRIPTION

The pedals can be supplied in either the pneumatic or electrical foot operated version. The pneumatic type is available with a 5/2 valve & 1/4" front ports, which allow the fittings & silencers to be assembled conveniently on the front face. A 3/2 operation can be obtained by closing an outlet port. The electrical type is available with a single pole changeover contact microswitch & a front wire outlet (PG9). The pedal can be operated as bi-stable or monostable, by switching the selector placed under the small red protection flap.

SPECIFICATIONS – PNEUMATICALLY OPERATED		
Type of construction	Spool type	
Valve function	3/2 & 5/2	
Materials	Valve body AL, stainless steel spool, NBR seals, plastic casing	
Assembly	Valve built into pedal body	
Operating temperature	0°C to 50°C (with dry air -10°C)	
Operating pressure	2.5 to 8 bar	
Rated flow	650 NI/min	
Ports	1/4" gas	



#### PNEUMATICALLY **OPERATED FOOT VALVE**

PART NUMBER	FUNCTION	
Z354925	5/2	

FOOT OPERATED			2530
PART NUMBER	FUNCTION	PORT SIZE	
Z235-925	3/2 NC	M5	
Z234-925	3/2 NC	4 mm tube	



# AUTOMATIC VALVES

2530



## **CIRCUIT SELECTOR**

#### DESCRIPTION

The circuit selector, Mod. SCS-668-06, enables two signals coming alternately from two different points to be channelled towards the same point. The selector is mounted through holes in the body.

# SHUTTLE VALVE ZSCS SERIES PART NUMBER PORT SIZE ZSCS668-06 1/8"

SPECIFICATIONS	
Type of construction	Poppet type
Valve group	Automatic
Materials	AL body, OT58 bush, NBR seals, delrin poppet
Pressure	0.2 to 10 bar
Operating temperature	0°C to 80°C (with dry air -20°C)
Nominal flow	800 NI/min
Fluid	Filtered air: without lubrication. If lubricated air is used, it is recommended that ISO VG32 oil is used. Once applied, the lubrication should never be interrupted

# UNIDIRECTIONAL NON RETURN VALVES

The unidirectional valves in the VNR Series are available with M5, G1/8 & G1/4 ports. These poppet type valves allow operation at low pressures, both when there is a free flow & during retention.

# NO ZVN

DESCRIPTION



N RETURN VA NR SERIES	LVES	2530
ART NUMBER	PORT SIZE	
ZVNR-205-M5	M5	
ZVNR210-1/8	1/8"	

1/4"

SPECIFICATIONS	
Type of construction	Poppet type
Valve group	Automatic
Materials	OT58 body, NBR seals, stainless steel spring
Pressure	M5 = 1 bar, 1/8" = 0.2 bar, 1/4" = 0.2 bar
Operating temperature	0°C to 80°C (with dry air -20°C)
Nominal flow	M5 = 50 NI/min, 1/8" = 600 NI/min, 1/4" = 1400 NI/min
Fluid	Filtered air: without lubrication. If lubricated air is used, it is recommended that ISO VG32 oil is used. Once applied, the lubrication should never be interrupted

# QUICK EXHAUST VALVES

#### DESCRIPTION

ZVNR84307

P/

Quick exhaust valves are commonly used to increase the speed of cylinders or for rapid depressurisation of tanks containing compressed air. The models VSO 425 – M5 & VSO 426 – 04 are specially designed for mounting on solenoid valves & valves incorporating a ø4 cartridge. We recommend mounting a silencer on the outlet.



#### QUICK EXHAUST VALVES **ZVS SERIES**

QUICK EXHAUST VALVES

**ZVSO SERIES** 

PART NUMBER

ZVSO425-M5

PART NUMBER	PORT SIZE
ZVSC588	1/8"
ZVSC544	1/4"
ZVSC522	1/2"

SPECIFICATIO	NS	
Type of construction		Poppet type
Valve group		Automatic
Materials		OT58 (brass) body. NBR seals ZVSO series. Desmopan seals ZVS series
Pressure	ZVS 1/8" ZVS 1/4" ZVS 1/2" ZVSO	0.5 bar 0.3 bar 0.2 bar 1 bar
Operating temp	erature	0°C to 80°C (with dry air -20°C)
Nominal flow	ZVS 1/8" ZVS 1/4" ZVS 1/2" ZVSO	P to A 530 NI/min, A to R 940 NI/min P to A 860 NI/min, A to R 1600 NI/min P to A 4700 NI/min, A to R 6250 NI/min P to A = 50 NI/min, A to R 330 NI/min
Fluid		Filtered air: without lubrication. If lubricated air is used, it is recommended that ISO VG32 oil is used. Once applied the lubrication should never be interrupted





#### DESCRIPTION

These unidirectional flow controllers are equipped with M5, 1/8" & 1/4" ports. They are mainly used for controlling the speed of cylinders & may be mounted on control panels or cylinders, as required. The 1/8" & 1/4" port versions are available with two different types of adjustments too.

#### SPECIFICATIONS

Type of construction	Needle type
Valve group	Uni & bidirectional controller
Materials	Aluminium body, brass needle, NBR seals
Mounting	Through holes in valve body / control panel
Ports	M5, 1/8", 1/4"
Operating temperature	0°C to 80°C (with dry air -20°C)
Nominal pressure	6 bar
Nominal diameter	M5 = 1.5 mm, 1/8" = 2 or 3 mm, 1/4" = 4 or 6 mm
Nominal flow	Ask for details

2530

#### FLOW CONTROL VALVE UNIDIRECTIONAL

DADT WUNDED		
PART NUMBER	PORT SIZE	ORIFICE SIZE
ZRFU-452	M5	1.5 mm
ZRFU-482	1/8"	2.0 mm
ZRFU-483	1/8"	3.0 mm
ZRFU-444	1/4"	4.0 mm
ZRFU-446	1/4"	6.0 mm
ZRFU-429	1/2"	9.0 mm

#### BIDIRECTIONAL

M5	1.5 mm	
1/8"	2.0 mm	
1/8"	3.0 mm	
1/4"	4.0 mm	
1/4"	6.0 mm	
	1/8" 1/4"	1/8" 2.0 mm 1/8" 3.0 mm 1/4" 4.0 mm

# **AUTOMATIC VALVES – BLOCKING**

#### DESCRIPTION

These unidirectional & bidirectional blocking valves enable direct mounting onto cylinders. The internal design of the blocking valves allows a very high flow rate & reliable operation.

### SPECIFICATIONS

Type of construction	Poppet type
Valve group	Uni & bidirectional blocking valve
Materials	OT58 body, NBR seals
Mounting	Male thread
Ports	1/8", 1/4"
Operating temperature	0°C to 80°C (with dry air -20°C)
Operating pressure	VBU = 0.3 to 10 bar VBO = 0 to 10 bar
Nominal pressure	6 bar
Nominal diameter	1/8" = 5.5 mm, 1/4" = 8 mm
Nominal flow	Ask for details



#### **BLOCKING VALVES** UNIDIRECTIONAL

UNIDIRECTIONA		2530
PART NUMBER	PORT SIZE	
ZVBU-1/8 ZVBU-1/4	1/8" 1/4"	
ZVBU-1/4 ZVBU-3/8	3/8"	
BIDIRECTIONAL		
ZVBO-1/8	1/8"	
ZVBO-1/4	1/4"	
ZVBO-3/8	3/8"	





#### SLIDE VALVE

PART NUMBER	PORT SIZE
ZVMS-105	M5
ZVMS-118	1/8"
ZVMS-114	1/4"
ZVMS-138	3/8"
ZVMS-112	1/2"
ZVMS-134	3/4"

Six'



# **CHECK VALVES**

3700

3700



#### FEATURES

- · Suitable for low pressure applications
- Allows compressed air from one side to flow & blocks the inverse flow
- to protect & maintain the vacuum line
- · Easily applied to low pressure piping

#### APPLICATIONS

- · Used where air should flow in only one direction
- · Used where air pressure of the ventilation section should be kept uniformed

TUBE OD

4 mm

6 mm

6 mm

8 mm

8 mm

10 mm

10 mm

12 mm

12 mm

THREAD

1/8" BSPT

1/8" BSPT

1/4" BSPT

1/8" BSPT

1/4" BSPT

3/8" BSPT

1/2" BSPT

3/8" BSPT

1/2" BSPT

· Good for low pressure devices

#### SPECIFICATIONS

**TUBE TO THREAD** 

STRAIGHT

BSPT MALE PART NUMBER

CDCVPC0401

CDCVPC0601

CDCVPC0602

CDCVPC0801

CDCVPC0802

CDCVPC1003

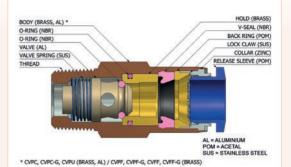
CDCVPC1004

CDCVPC1203

CDCVPC1204

Six

Suitability	Air (no other type of gas or liquid) Do not use in water applications
Working pressure	0 to 150 psi (10.2 bar)
Negative pressure	-29.5 in Hg -750 mm Hg (-750 Torr)
Working temperature	0°C to +60°C (+32°F to +140°F)
Application tube	Polyurethane & nylon



THREAD TO THREAD

SPT FEMALE /	BSPT MALE	MALE THREAD	37(
CDCVPF0101	1/8" BSPT	1/8" BSPT	
CDCVPF0202	1/4" BSPT	1/4" BSPT	
CDCVPF0303	3/8" BSPT	3/8" BSPT	
CDCVPF0404	1/2" BSPT	1/2" BSPT	

#### **BSPP FEMALE / BSPP MAL**

E		3700
HREAD	MALE THREAD	
SPP	1/8" BSPP	

allin

#### STRAIGHT METRIC MALE

PART NUMBER	TUBE OD	THREAD
CDCVPC04M5	4 mm	M5 x 0.8
CDCVPC04M6	4 mm	M6 x 1.0

#### **BSPP MALE**

CDCVPC04G1	4 mm	1/8" BSPP	
CDCVPC06G1	6 mm	1/8" BSPP	
CDCVPC06G2	6 mm	1/4" BSPP	
CDCVPC08G1	8 mm	1/8" BSPP	
CDCVPC08G2	8 mm	1/4" BSPP	
CDCVPC10G3	10 mm	3/8" BSPP	
CDCVPC10G4	10 mm	1/2" BSPP	
CDCVPC12G3	12 mm	3/8" BSPP	
CDCVPC12G4	12 mm	1/2" BSPP	

PART NUMBER	FEMALE THREAD	MALE THREAD	
CDCVPF01G1	1/8" BSPP	1/8" BSPP	
CDCVPF02G2	1/4" BSPP	1/4" BSPP	
CDCVPF03G3	3/8" BSPP	3/8" BSPP	
CDCVPF04G4	1/2" BSPP	1/2" BSPP	

#### STRAIGHT UNIONS **BSPT FEMALE**

PART NUMBER	THREAD
CDCVFF01-01	1/8" BSPT
CDCVFF02-02	1/4" BSPT
CDCVFF03-03	3/8" BSPT
CDCVFF04-04	1/2" BSPT

#### METRIC TUBE TO TUBE



# STRAIGHT UNIONS

PART NUMBER	TUBE OD
CDCVPU04	4 mm
CDCVPU06	6 mm
CDCVPU08	8 mm
CDCVPU10	10 mm
CDCVPU12	12 mm



Fitting material aluminium



# SLIDE & NON-RETURN VALVES

# **AIGNEP**

### **SLIDE & NON-RETURN VALVES**

SPECIFICATIONS	
Temperature range	
MATERIALS	
Body	



-20°C to +80°C (4°F to 176°F)

Nickel plated brass

#### **NON-RETURN VALVE** METRIC FEMALE

B/V6062-M5 M5 8 bar	PART NUMBER THREAD PRESSURE				
		M5			

#### **BSPP FEMALE**

B/V6062-02	1/8" BSPP	8 bar	
B/V6062-04	1/4" BSPP	8 bar	
B/V6062-06	3/8" BSPP	8 bar	
B/V6062-08	1/2" BSPP	8 bar	

BSPP FEMALE			1450
PART NUMBER	THREAD	PRESSURE	
B/V6060-02	1/8" BSPP	10 bar	
B/V6060-04	1/4" BSPP	10 bar	
B/V6060-06	3/8" BSPP	10 bar	
B/V6060-08	1/2" BSPP	10 bar	

# **NON-RETURN VALVE**

SLIDE VALVE



# METRIC MALE / METRIC FEMALE

	1400
PART NUMBER THREAD THREAD PRESSURE	
B/V6063-M5 M5 8 bar	
BSPP MALE / BSPP FEMALE	
B/V6063-02 1/8" BSPP 1/8" BSPP 8 bar	
B/V6063-04 1/4" BSPP 1/4" BSPP 8 bar	
B/V6063-06 3/8" BSPP 3/8" BSPP 8 bar	
B/V6063-08 1/2" BSPP 1/2" BSPP 8 bar	

Heavy duty Quatro Tech valves provide dependable operation & long

life; Quatro Tech valves have only one moveable part, which significantly

Glass fibre reinforced polypropylene

-5°C to +60°C (23°F to 140°F) subject to application

reduces the grinding & discrepancies. Ability to handle a wide range of

Up to 10 bar (145 psi)

# HEAVY DUTY TECHNICAL VALVES

FEATURES

aggressive chemicals.

SPECIFICATIONS Nominal pressure

Temperature range Material

O-ring material

# <sup>c</sup>etefen

# VALVES

#### FEATURES

High pressure resistance. Wide temperature range. Long life reliable product. Low pressure head loss. Lightweight, easy to transport. Environment friendly, non-toxic. Easy & fast installation, very easy to operate.

#### SPECIFICATIONS

Working pressure	10 bar	16 bar	16 bar
Temperature range	-5°C to +60°C	-20°C to +90°C	-20°C to +90°C
MATERIALS	Grey	White	Black
Body	Polypropylene	PVDF	Acetal
O-ring	EPDM	FKM	NBR



FEMALE THREAD

1/4" BSPT

#### **DUAL TECH VALVE** GREY - EPDM O-RING

GRET - EFDIN O	-KING		
PART NUMBER	MALE THREAD	FEMALE THREAD	
TF-23002504043	1/4" BSPT	1/4" BSPT	

MALE THREAD

1/4" BSPT

#### WHITE - FKM O-RING

TF-23002904041 1/4" BSPT 1/4" BSPT



**BLACK – NBR O-RING** 

PART NUMBER

TF-23002404042

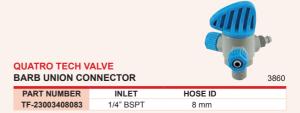


# QUATRO TECH VALVE

**BSPT MALE FIXED CONNECTOR** \_\_\_\_\_ 

EPDM

PARTNUMBER	INLEI	THREAD	
TF-23003403033	1/4" BSPT	1/8" BSPT	
TF-23003404043	1/4" BSPT	1/4" BSPT	



3860

SiX.