

Valves & Cylinders for Cement Packaging Machines



Hafner offers a range of valves and cylinders which can be used for 1:1 replacement in cement packaging machines.

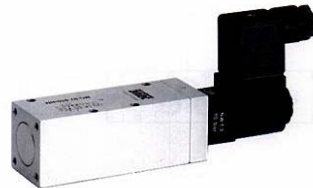
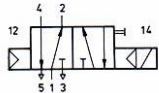
30

YEARS
HAFNER

HAFNER

The following competitor product is widely used in cement packaging machines:
5/2-way single solenoid valve, type MG 07 510-HN (201971758).

5/2-Wegeventil G 1/4 für Anschlußplatte
elektrisch betätigt, mit Luftfeder



Bauart und Funktion

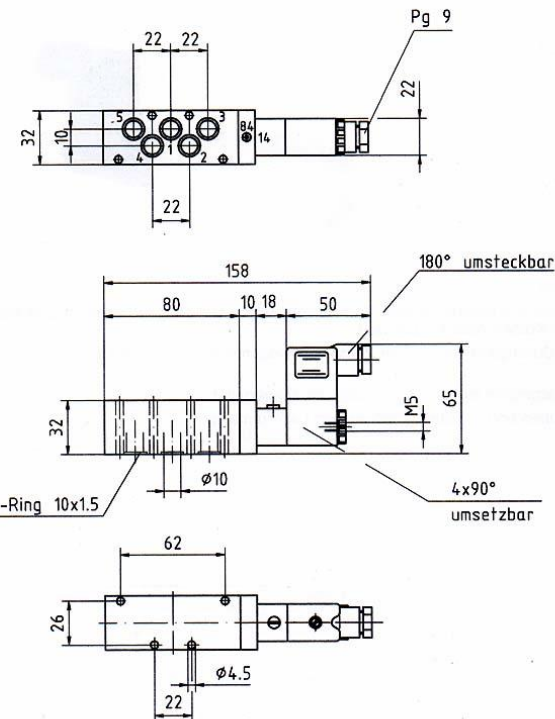
Kolbenschieber-Ventil mit Differenzkolben. Einschalten durch Dauersignal. Beim Ausschalten stellt der Druck den Kolben zurück (Luftfeder).

In Ruhestellung ist Durchgang von 1 nach 2 und von 4 nach 5, in Schaltstellung von 1 nach 4 und von 2 nach 3.

Die Ventile sind serienmäßig mit Handhilfsbetätigung ausgerüstet.
 Befestigungsschrauben und Dichtung gehören zum Lieferumfang.

Bestell-Nr.	MG 07 510-HN
Anschluß	Grundplatte
Nennweite	7 mm
Nenndurchfluß	1200 l/min
Arbeitsdruck	1,5...10 bar
Schaltzeit bei 6 bar	ein 18 ms, aus 24 ms
Temperaturbereich	- 10° C ... + 70° C
Werkstoffe	Gehäuse Al, Innenteile Al, Ms und Stahl rostfrei, Dichtungen Kunststoff und Perbunan
Standardspannungen	Gleichstrom: 24 V Wechselstrom: 24 V, 115 V, 230 V-50/60 Hz
Leistungsaufnahme	Gleichstrom 4,5 W, Wechselstrom 7,0/4,0 VA
Schutzart	IP 65 nach VDE 0470 / EN 60529
Gewicht	0,313 kg

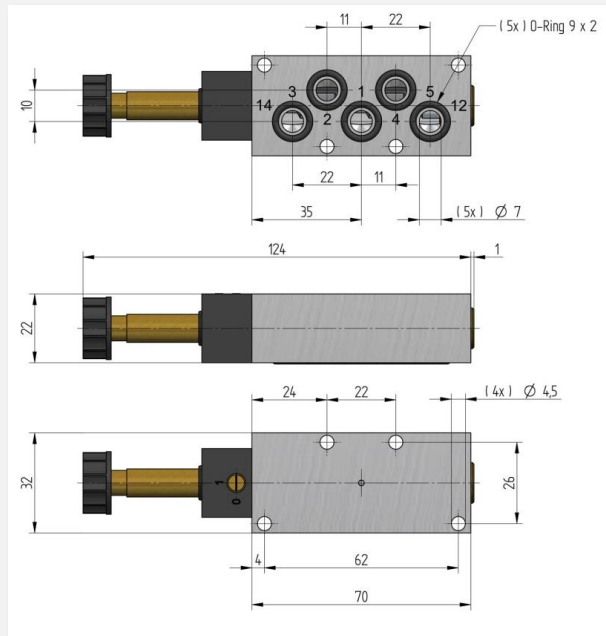
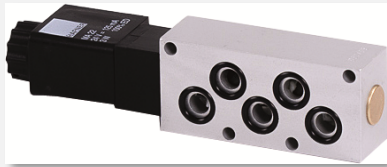
5/2-Wegeventil G 1/4 für Anschlußplatte
elektrisch betätigt, mit Luftfeder



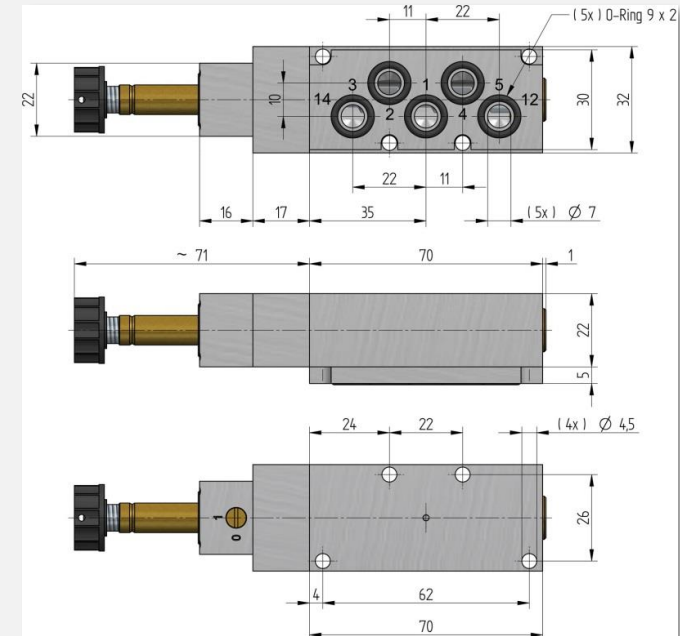
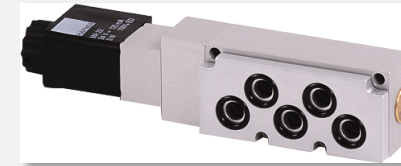
- 1 = Druckanschluß
- 2, 4 = Ausgang
- 3, 5 = Entlüftung

The Hafner type **MH 510 714 B*** can replace the competitor product **MG 07 510-HN** in the existing machinery.

MH 510 714 B
For manifold assembly



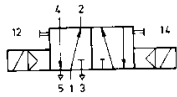
MH 510 714 BT
For valve terminal assembly



In order to make the Hafner valve interchangeable to the competitor product on a valve terminal the series BT includes an additional intermediate plate (ZP 714 BT). Furthermore the valve is extended by an additional head made of aluminium.

The following competitor product is widely used in cement packaging machines: 5/2-way **double** solenoid valve, type **MG 07 520-HN**

5/2-Wegeventil G 1/4 für Anschlußplatte elektrisch betätigt, Impulsventil



Bauart und Funktion

Kolbenschieber-Ventil mit zwei stabilen Stellungen. Umschalten durch wechselseitige Elektroimpulse (Speicherfunktion).

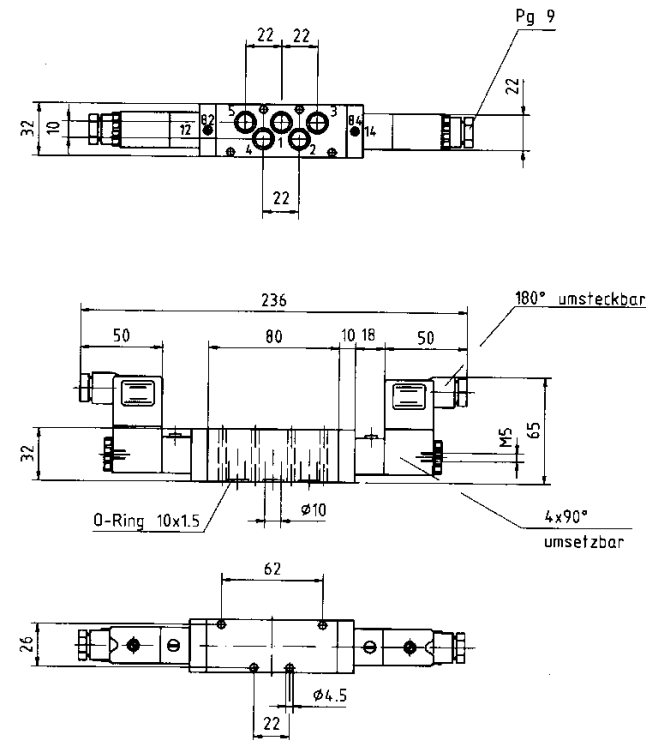
Impuls auf 14 schaltet das Ventil auf Durchgang von 1 nach 4, Ausgang 2 entlüftet nach 3.
Impuls auf 12 schaltet das Ventil auf Durchgang von 1 nach 2, Ausgang 4 entlüftet nach 5.

Die Ventile sind serienmäßig mit Handhilfsbetätigung ausgerüstet.
Befestigungsschrauben und Dichtung gehören zum Lieferumfang.

Bestell-Nr.	MG 07 520-HN
Anschluß	Grundplatte
Nennweite	7 mm
Nenndurchfluß	1200 l/min
Arbeitsdruck	2...10 bar
Schaltzeit bei 6 bar	15 ms
Temperaturbereich	- 10° C ... + 70° C
Werkstoffe	Gehäuse Al, Innenteile Al, Ms und Stahl rostfrei, Dichtungen Kunststoff und Perbunan
Standardspannungen	Gleichstrom: 24 V Wechselstrom: 24 V, 115 V, 230 V-50/60 Hz
Leistungsaufnahme	Gleichstrom 4,5 W, Wechselstrom 7,0/4,0 VA
Schutzart	IP 65 nach VDE 0470/EN 60529
Gewicht	0,415 kg

Katalogblatt 5.225

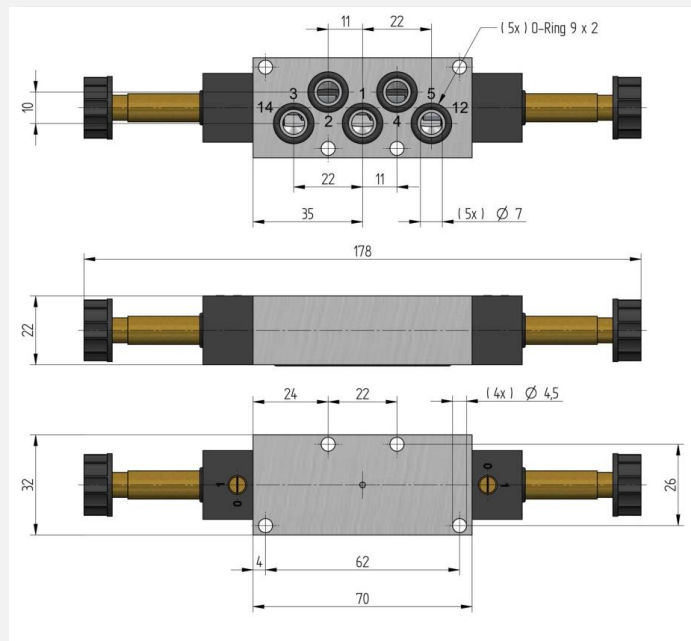
5/2-Wegeventil G 1/4 für Anschlußplatte elektrisch betätigt, Impulsventil



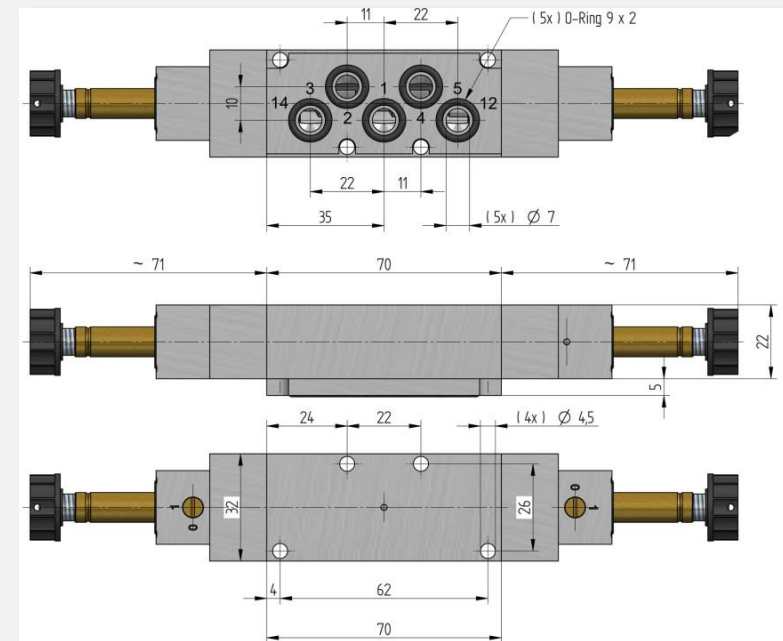
- 1 = Druckanschluß
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- 3, 5 = Entlüftung

The Hafner type **MH 520 714 B*** can replace the **MG 07 520-HN** in the existing machinery.

MH 520 714 B
For manifold assembly



MH 520 714 BT
For valve terminal assembly



In order to make the Hafner valve interchangeable to the competitor product on a valve terminal the series BT includes an additional intermediate plate (ZP 714 BT). Furthermore the valve is extended by an additional head made of aluminium.

5/3-way versions available on request

Technical difference: The competitor product has an exhaust control air recirculation whereas the Hafner valve exhausts through the nut of the operator tube.

Competitor Product



Control air flows out of the air recirculation port

Hafner Product

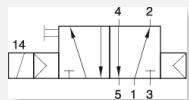


Control air flows out of the operator system

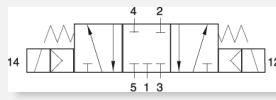
The other technical facts are comparable.

	Competitor Product (catalogue data)	Hafner Product
Nominal diameter	7 mm	7 mm
Air flow	1200 l/min	1250 l/min
Operating pressure	1,5 – 10 bar	2 – 10 bar
Power consumption	4,5 W =	3,0 W =
Coil	22 mm	22 mm
Connector	Industryform type B	Industryform type B

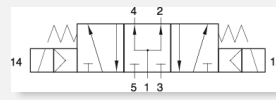
We also offer replacement valves for the older/predecessor type **MC 07 510-HN**.



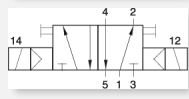
MH 510 704 J



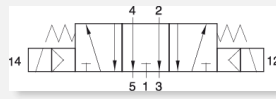
MH 531 704 J



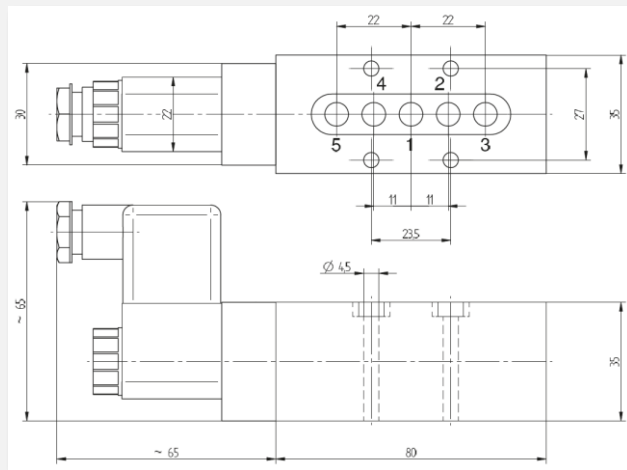
MH 533 704 J



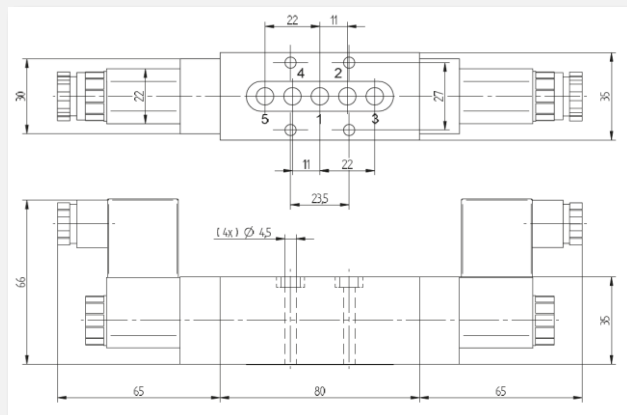
MH 520 704 J



MH 532 704 J



MH 510 704 J



MH 520 704 J/MH 53_704 J



Competitor type

MH 510 704 J 5/2-way solenoid valve actuated by permanent signal and equipped with air spring return.

MH 520 704 J 5/2-way double solenoid valve actuated by impulse. Position is kept until an electrical signal is applied to the opposite side even when not attached to electrical source.

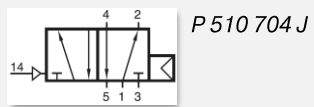
MH 53_704 J 5/3-way solenoid valve with spring return to middle position, actuated by permanent signal.

- type 531 normally closed
- type 532 normally exhausted
- type 533 normally pressurized

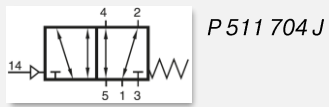
All valves are available with solenoid operators (coil is 30 mm wide, type-number MA 30 ...): 230V/50Hz (5VA), 110V/50Hz (5VA), 24V/50Hz (5VA), 48V= (5W), 24V= (2W), 110V= (6W)

Type	Function	Operating Press.	Weight
MH 510 704 J	5/2-way, spring return	1 - 10 bar	0,55 kg
MH 520 704 J	5/2-way, bistable	1 - 10 bar	0,68 kg
MH 531 704 J	5/3-way, centre closed	3 - 10 bar	0,68 kg
MH 532 704 J	5/3-way, centre exhausted	3 - 10 bar	0,68 kg
MH 533 704 J	5/3-way, centre pressurised	3 - 10 bar	0,68 kg

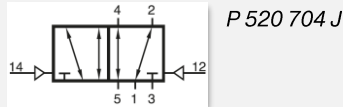
Valves with this interface are also available pneumatically actuated.



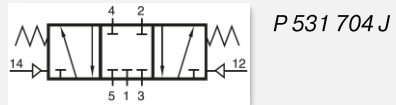
P 510 704 J



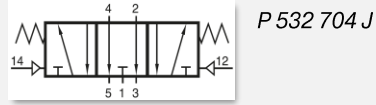
P 511 704 J



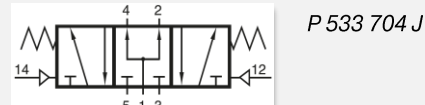
P 520 704 J



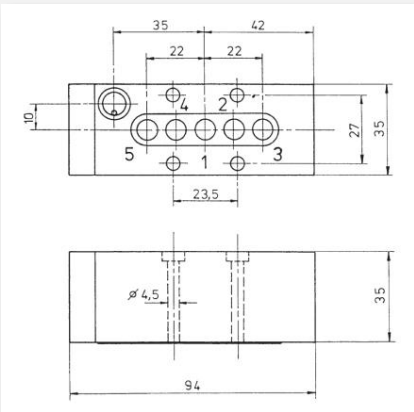
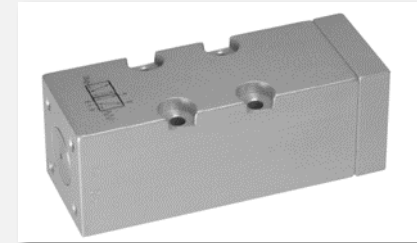
P 531 704 J



P 532 704 J



P 533 704 J



P 51_704 J

P 510 704 J 5/2-way pneumatically actuated valve with air spring return.

P 511 704 J 5/2-way pneumatically actuated valve with mechanical spring return.

P 520 704 J 5/2-way pneumatically actuated valve, bistable.

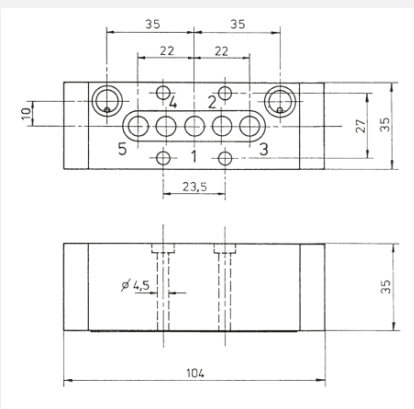
P 53_704 J 5/3-way pneumatically actuated valve with spring return to middle position.

type 531 Center closed

type 532 Center exhausted

type 533 Center pressurised

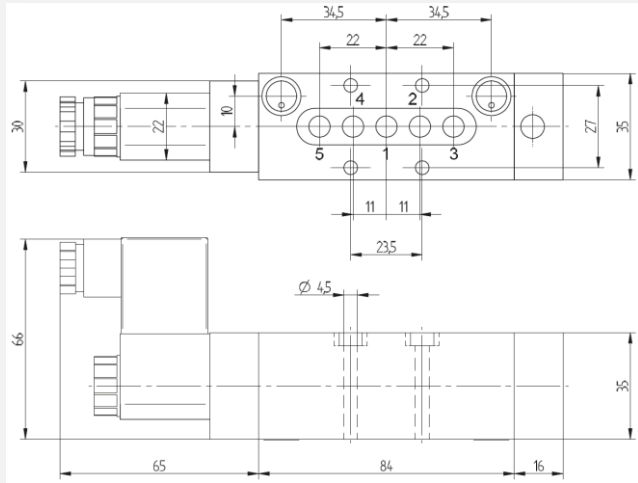
Common characteristics: all ports are in the plate, valves offer $\varnothing 7$ mm orifice size with an air-flow of 1200 l/min.



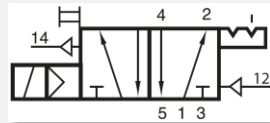
P 520 704 J / P 53_704 J

Type	Function	Working pressure	Weight
P 510 704 J / P 511 704 J	5/2-way, spring return	2 - 10 bar / 2 - 10 bar	0,31 kg
P 520 704 J	5/2-way, bistable	2 - 10 bar	0,34 kg
P 531 704 J	5/3-way, middle position closed	2 - 10 bar	0,34 kg
P 532 704 J	5/3-way, middle position exhausted	2 - 10 bar	0,34 kg
P 533 704 J	5/3-way, middle position pressurised	2 - 10 bar	0,34 kg

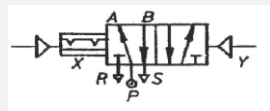
Also non-standard valves are available with the special interface.



SIMPG-5/1



SIMPG-5/1



SIVG 5/1



SIMPG-5/1

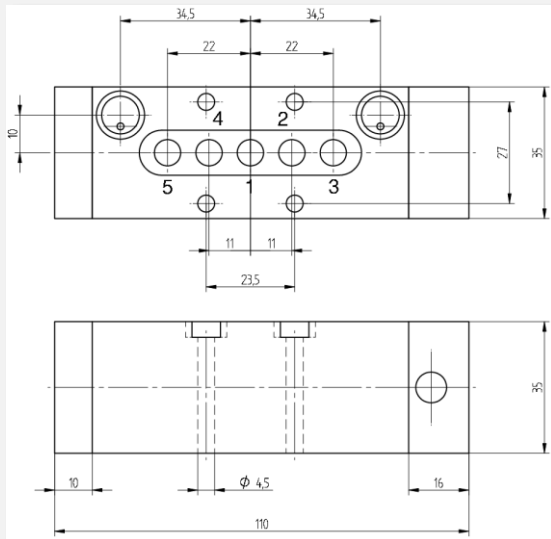
5/2-way bistable valve with detent in both positions. Electric signal at 14 actuates the valve, the spool locks. If the electric signal is taken away, the valve stays in this position.

A pneumatic signal has to be applied to port 12 to change the position again. Pilot port 14 is not an external pilot feed but an additional signal can be taken, when solenoid is actuated.

Valve to be used with 30 mm coils type MA 30.

SIVG-5/1

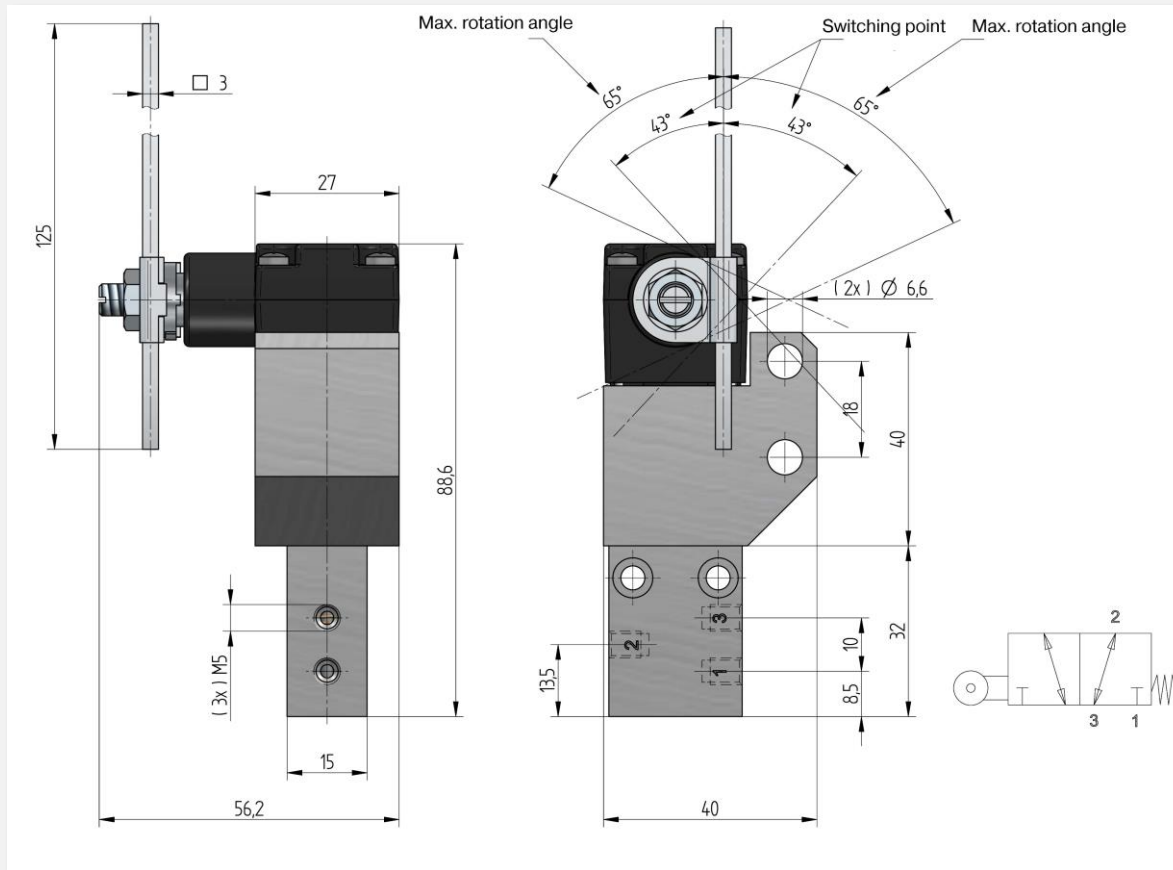
Bistable 5/2-way pneumatically actuated valve with detent in both positions. Actuation through pneumatic signals at X or Y.



SIVG-5/1

Type	Function	Working pressure	Weight
SIVG-5/1	5/2-way, bistable with detent, pneumatically actuated	2 - 10 bar	0,31 kg
SIMPG-5/1	5/2-way, bistable with detent, electrically actuated	2 - 10 bar	0,34 kg

WSVS-001/1: Lever valve to replace type 9.912.0025.01.



Lever actuated valve for left- and right actuation.

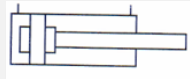
Valve has been available on the under the type numbers WSVS-001/1, I/81259 and 9.912.0025.01.

Technical characteristics:

Pressure range: -0,9 ... 10 bar
Temperature range: -20°C ... +50°C
Air-flow: 125 l/min
Port size: M5

Clamping cylinders of the series SDJ and SEJ as well as the special version SDAS.

SDJ: Double acting clamping cylinder



SEJ: Single-acting clamping cylinder



Port size: G 1/8"

Pressure range: 0,2 to 10 bar

Standard strokes:

SEJ 20-40: 10, 20, 30, 50

SDJ 20: 10, 20, 30, 50, 75, 100

SDJ 30 and 40: 10, 20, 30, 50, 75, 100, 125, 150

Ordering example: SDJ-20/30

Pneumatic cylinders made from aluminum wrought alloy, anodized. Cylinders were part of the KNORR-pneumatic range for several decades.

Available with piston diameter 20 mm, 30 mm and 40 mm.

Advantages:

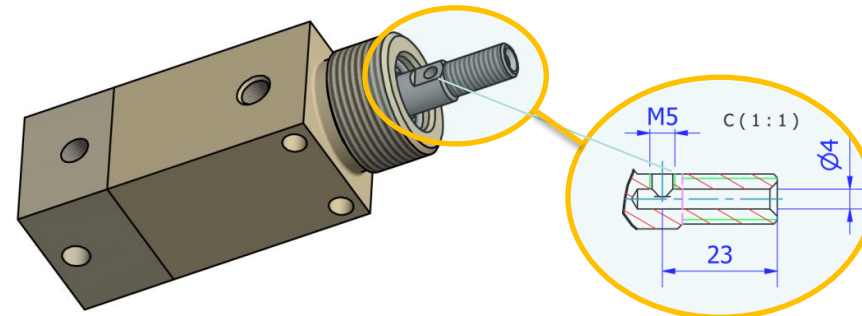
- Very compact design
- Low friction due to the K-ring
- Stainless steel piston rod



Drawings can be found on the next page

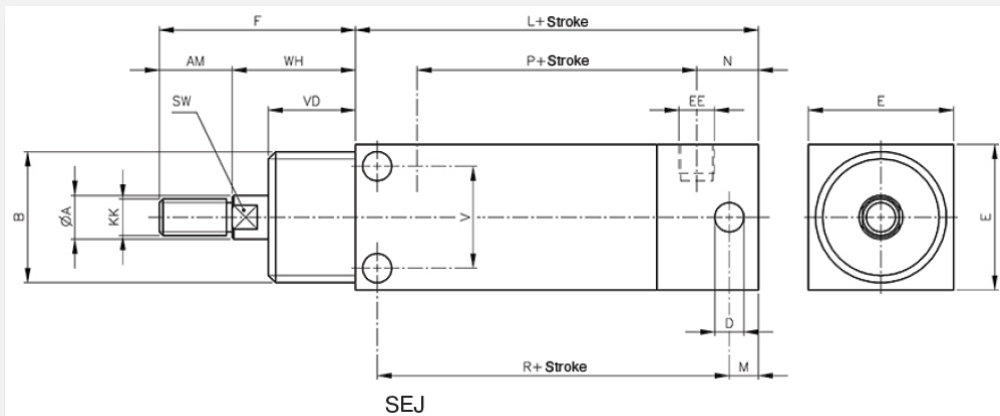
2 different versions available.
Detailed product information available on request.

Blow out cylinder type SDAS 30/ _ _
With special drilling in the piston rod.

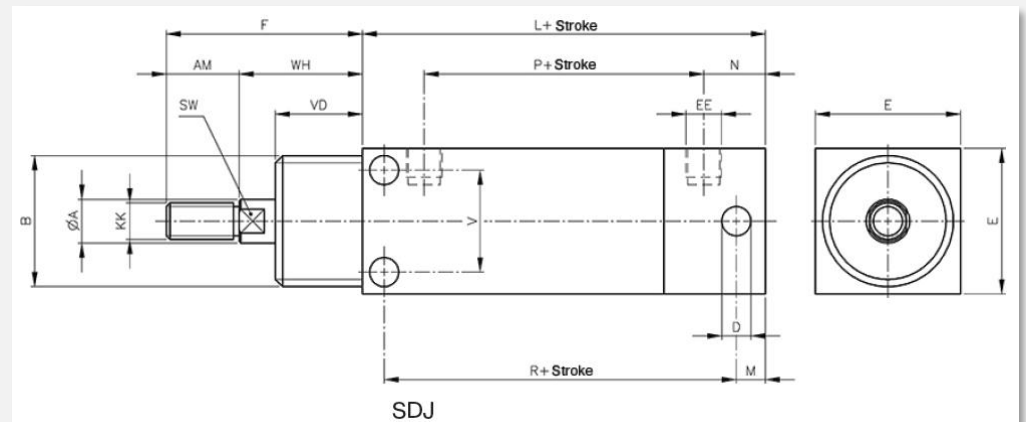


Drawings of clamping cylinder type SDJ and SEJ.

Type SEJ (single-acting)

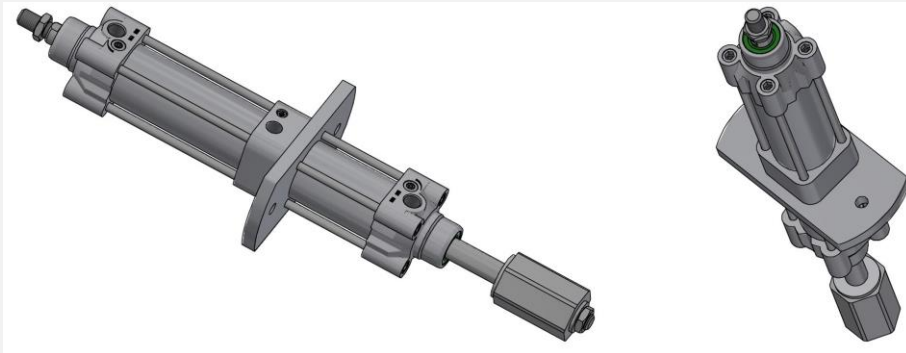


Type SDJ (double-acting)



Ø [mm]	A	B	D	E	F	L	M	N	P	R	V	AM	EE	KK	SW	VD	WH
Ø 20	10	M26x1,5	-	30	40	50	6	15	26	-	-	14	G1/8	M8	9	20	26
Ø 30	12	M36x2	7	40	54	61	8	17	27	47	28	20	G1/8	M10	10	24	34
Ø 40	12	M36x2	7	50	61,5	68,5	10	20,5	30	52	38	20	G1/8	M10	10	30	41,5

For the newer generation of packaging machines: 3-position cylinders according to the ISO 15552 standard to replace e.g. competitor type SPC/120009/*/**.



DIS3PM-40/60/40

Double acting 3-position pneumatic cylinder according to ISO 15552.

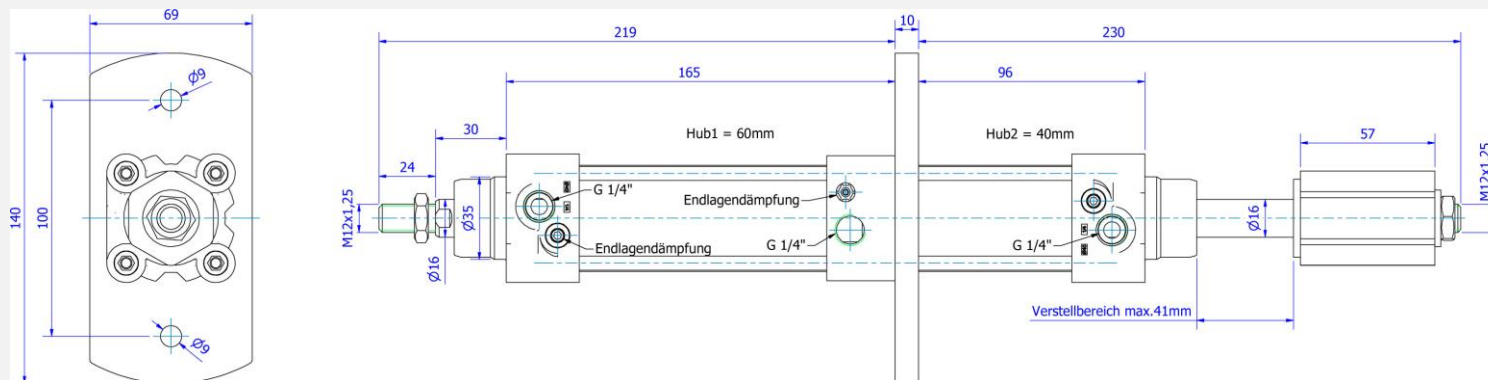
Piston diameter: 40 mm
 Stroke 1: 60 mm - adjustable cushioning on both sides
 Stroke 2: 40 mm
 Stroke adjustment: 40 mm at stroke 1
 Magnetic piston: Yes, at stroke 1

Other parameters:

Medium: Air
 Pressure range: 1 - 10 bar
 Temperature range: -20°C to +80°C
 Filtered air: < 40 µm (unlubricated)

Materials:

Head: Aluminum anodized
 Tube: Aluminum hard-anodized
 Piston rod: C45 hard-chrome plated
 Middle flange: Aluminum anodized
 Seals: NBR / PUR





Status: 06/2021

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