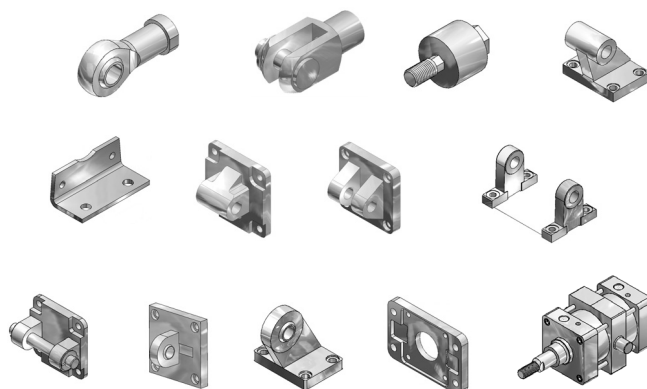


Une gamme complète d'accessoires pour vérins ISO/VDMA



Série C95



Série CP95



Série C85



Série C55



Accessoires de montage

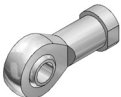
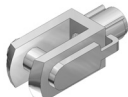
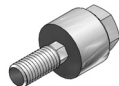
Série C85

Fixations de montage pour vérin ISO C85

Diamètre	Equerre (1pc)			Equerre (2pcs)			Bride		
	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾
8	C85L10A	—	C85L10A-IN(F)	C85L10B	—	—	C85F10	—	C85F10-IN(F)
10	C85L10A	—	C85L10A-IN(F)	C85L10B	—	—	C85F10	—	C85F10-IN(F)
12	C85L16A	—	C85L16A-IN(F)	C85L16B	—	—	C85F16	—	C85F16-IN(F)
16	C85L16A	—	C85L16A-IN(F)	C85L16B	—	—	C85F16	—	C85F16-IN(F)
20	C85L25A	—	C85L25A-IN(F)	C85L25B	—	—	C85F25	—	C85F25-IN(F)
25	C85L25A	—	C85L25A-IN(F)	C85L25B	—	—	C85F25	—	C85F25-IN(F)
									

Diamètre	Tourillon			Articulation		
	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾
8	C85T10	—	—	C85C10	—	C85C10-IN(F)
10	C85T10	—	—	C85C10	—	C85C10-IN(F)
12	C85T16	—	—	C85C16	—	C85C16-IN(F)
16	C85T16	—	—	C85C16	—	C85C16-IN(F)
20	C85T25	—	—	C85C25	—	C85C25-IN(F)
25	C85T25	—	—	C85C25	—	C85C25-IN(F)
						

Accessoires d'extrémité de tige pour vérin ISO C85

Diamètre	Tenon de tige rotulé		Chape de tige		Accouplement de compensation	
	Acier	Inox ⁽¹⁾	Acier	Inox ⁽¹⁾	Acier	Inox ⁽²⁾
8	KJ4D	KI5-DNIRO	GKM4-8	—	JA10-4-070	JS10-4-070
10	KJ4D	KI5-DNIRO	GKM4-8	—	JA10-4-070	JS10-4-070
12	KJ6D	KI6-DNIRO	GKM6-12	GKM6-12-IN(F)	JA15-6-100	—
16	KJ6D	KI6-DNIRO	GKM6-12	GKM6-12-IN(F)	JA15-6-100	—
20	KJ8D	KI8DNRM8x125	GKM8-16	GKM8-16-IN(F)	JA20-8-125	JS20-8-125
25	KJ10D	KI10DNRBCTM10x125	GKM10-20	GKM10-20-IN(F)	JA30-10-125	JS32-10-125
						

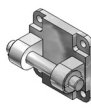
(1) Inox AISI 303

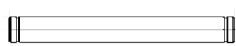
(2) Inox AISI 304

Accessoires de montage

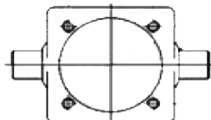
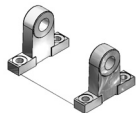
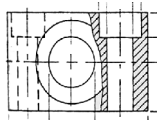
Séries CP95/C95

Fixations de montage pour vérins ISO CP95 et C95

Diamètre	Equerre MS1 (2pcs)			Bride AV MF1 & AR MF2			Tenon arrière MP4			Chape arrière MP2 ⁽³⁾			Chape arrière étroite ⁽³⁾		
	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾
32	L5032	—	L5032-IN(F)	F5032	—	F5032-IN(F)	C5032	C5032(F)	C5032-IN(F)	D5032	D5032(F)	D5032-IN(F)	DS5032	DS5032(F)	DS5032-IN(F)
40	L5040	—	L5040-IN(F)	F5040	—	F5040-IN(F)	C5040	C5040(F)	C5040-IN(F)	D5040	D5040(F)	D5040-IN(F)	DS5040	DS5040(F)	DS5040-IN(F)
50	L5050	—	L5050-IN(F)	F5050	—	F5050-IN(F)	C5050	C5050(F)	C5050-IN(F)	D5050	D5050(F)	D5050-IN(F)	DS5050	DS5050(F)	DS5050-IN(F)
63	L5063	—	L5063-IN(F)	F5063	—	F5063-IN(F)	C5063	C5063(F)	C5063-IN(F)	D5063	D5063(F)	D5063-IN(F)	DS5063	DS5063(F)	DS5063-IN(F)
80	L5080	—	L5080-IN(F)	F5080	—	F5080-IN(F)	C5080	C5080(F)	C5080-IN(F)	D5080	D5080(F)	D5080-IN(F)	DS5080	DS5080(F)	DS5080-IN(F)
100	L5100	—	L5100-IN(F)	F5100	—	F5100-IN(F)	C5100	C5100(F)	C5100-IN(F)	D5100	D5100(F)	D5100-IN(F)	DS5100	DS5100(F)	DS5100-IN(F)
125	L5125	—	—	F5125	—	—	C5125	C5125(F)	—	D5125	D5125(F)	—	DS5125	DS5125(F)	—
															

Diamètre	Tenon arrière rotulé			Tenon arrière d'équerre rotulé			Tenon arrière d'équerre			Axe & circlips de chape Ar MP2			Axe & circlips de chape Ar étroite		
	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾
32	CS5032(F)	—	CS5032-IN(F)	ES5032(F)	—	ES5032-IN(F)	E5032	E5032(F)	E5032-IN(F)	—	—	IN07/32(F)	—	—	IN07/32(F)
40	CS5040(F)	—	CS5040-IN(F)	ES5040(F)	—	ES5040-IN(F)	E5040	E5040(F)	E5040-IN(F)	—	—	IN07/40(F)	—	—	IN07/40(F)
50	CS5050(F)	—	CS5050-IN(F)	ES5050(F)	—	ES5050-IN(F)	E5050	E5050(F)	E5050-IN(F)	—	—	IN07/50(F)	—	—	IN07/50(F)
63	CS5063(F)	—	CS5063-IN(F)	ES5063(F)	—	ES5063-IN(F)	E5063	E5063(F)	E5063-IN(F)	—	—	IN07/63(F)	—	—	IN07/63(F)
80	CS5080(F)	—	CS5080-IN(F)	ES5080(F)	—	ES5080-IN(F)	E5080	E5080(F)	E5080-IN(F)	—	—	IN07/80(F)	—	—	IN07/80(F)
100	CS5100(F)	—	CS5100-IN(F)	ES5100(F)	—	ES5100-IN(F)	E5100	E5100(F)	E5100-IN(F)	—	—	IN07/100(F)	—	—	IN07/100(F)
125	CS5125(F)	—	—	ES5125(F)	—	—	E5125(F)	—	—	—	—	—	—	—	—
															

Fixations de montage pour vérins ISO C95

Diamètre	Tourillon central MT4			Paliers pour tourillon			Paliers pour tourillon MT4		
	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox	Acier	Aluminium	Inox
32	TE5032(F)	—	TE5032-IN(F)	C95-S03	—	—	MTB5032(F)	—	—
40	TE5040(F)	—	TE5040-IN(F)	C95-S04	—	—	MTB5040(F)	—	—
50	TE5050(F)	—	TE5050-IN(F)	C95-S04	—	—	MTB5040(F)	—	—
63	TE5063(F)	—	TE5063-IN(F)	C95-S06	—	—	MTB5063(F)	—	—
80	TE5080(F)	—	TE5080-IN(F)	C95-S06	—	—	MTB5063(F)	—	—
100	TE5100(F)	—	TE5100-IN(F)	C95-S10	—	—	MTB5100(F)	—	—
125	—	—	—	—	—	—	MTB5125(F)	—	—
									

Accessoires d'extrémité de tige pour vérins ISO CP95 et C95

Diamètre	Tenon de tige rotulé		Chape de tige		Accouplement de compensation	
	Acier	Inox ⁽¹⁾	Acier	Inox ⁽¹⁾	Acier	Inox ⁽⁴⁾
32	KJ10D	KI10DNRBCTM10X125	GKM10-20	GKM10-20-IN(F)	JA30-10-125	JS32-10-125
40	KJ12D	KI12DNRBCM12X125	GKM12-24	GKM12-24-IN(F)	JA40-12-125	—
50	KJ16D	KI16DNRBM16X150	GKM16-32	GKM16-32-IN(F)	JA50-16-150	—
63	KJ16D	KI16DNRBM16X150	GKM16-32	GKM16-32-IN(F)	JA50-16-150	—
80	KJ20D	KI20DNRBM20X150	GKM20-40	GKM20-40-IN(F)	JAH50-20-150	—
100	KJ20D	KI20DNRBM20X150	GKM20-40	GKM20-40-IN(F)	JAH50-20-150	—
125	KJ27D	KI30DNRBM27X200	GKM27-54	—	—	—
						

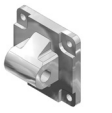
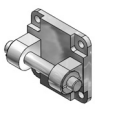
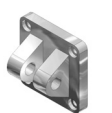
(1) Inox AISI 303 (3) Pour la chape en inox, commander l'axe séparément.

(2) Inox AISI 316 (4) Inox AISI 304

Accessoires de montage

Série C55

Fixations de montage pour vérin compact ISO C55

Diamètre	Equerres	Bride AV MF1 & AR MF2			Tenon arrière MP4			Chape arrière MP2 ⁽³⁾			Chape arrière étroite ⁽³⁾		
	Acier	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾
20	C55-L020	C55-F020	—	—	—	C55-C020	—	—	—	—	—	—	—
25	C55-L025	C55-F025	—	—	—	C55-C025	—	—	—	—	—	—	—
32	C55-L032	F5032	—	F5050-IN(F)	C5032	C5032(F)	C5032-IN(F)	D5032	D5032(F)	D5032-IN(F)	DS5032	DS5032(F)	DS5032-IN(F)
40	C55-L040	F5040	—	F5063-IN(F)	C5040	C5040(F)	C5040-IN(F)	D5040	D5040(F)	D5040-IN(F)	DS5040	DS5040(F)	DS5040-IN(F)
50	C55-L050	F5050	—	F5080-IN(F)	C5050	C5050(F)	C5050-IN(F)	D5050	D5050(F)	D5050-IN(F)	DS5050	DS5050(F)	DS5050-IN(F)
63	C55-L063	F5163	—	F5100-IN(F)	CR063	C5063(F)	C5063-IN(F)	D5063	D5063(F)	D5063-IN(F)	DS5063	DS5063(F)	DS5063-IN(F)
													

Diamètre	Tenon arrière rotulé			Tenon arrière d'équerre rotulé			Tenon arrière d'équerre			Axe & circlips de chape Ar MP2			Axe & circlips de chape Ar étroite		
	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾	Acier	Aluminium	Inox ⁽²⁾
20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
32	CS5032(F)	—	CS5032-IN(F)	ES5032(F)	—	ES5032-IN(F)	E5032	E5032(F)	E5032-IN(F)	—	—	IN07/32(F)	—	—	IN12/32(F)
40	CS5040(F)	—	CS5040-IN(F)	ES5040(F)	—	ES5040-IN(F)	E5040	E5040(F)	E5040-IN(F)	—	—	IN07/40(F)	—	—	IN12/40(F)
50	CS5050(F)	—	CS5050-IN(F)	ES5050(F)	—	ES5050-IN(F)	E5050	E5050(F)	E5050-IN(F)	—	—	IN07/50(F)	—	—	IN12/50(F)
63	CS5063(F)	—	CS5063-IN(F)	ES5063(F)	—	ES5063-IN(F)	E5063	E5063(F)	E5063-IN(F)	—	—	IN07/63(F)	—	—	IN12/63(F)
															

Accessoires d'extrémité de tige pour vérin compact ISO C55

Diamètre	Tenon de tige rotulé		Chape de tige		Accouplement de compensation	
	Acier	Inox ⁽¹⁾	Acier	Inox ⁽¹⁾	Acier	Inox ⁽⁴⁾
20	KJ8D	KI8DNRM8x125	GKM8-16	GKM8-16-IN(F)	JA20-8-125	—
25	KJ8D	KI8DNRM8x125	GKM8-16	GKM8-16-IN(F)	JA20-8-125	—
32	KJ10D	KI10DNRBCTM10x125	GKM10-20	GKM10-20-IN(F)	JA30-10-125	—
40	KJ10D	KI10DNRBCTM10x125	GKM10-20	GKM10-20-IN(F)	JA30-10-125	—
50	KJ12D	KI12DNRBCTM12x125	GKM12-24	GKM12-24-IN(F)	JA40-12-125	JS25-10-125
63	KJ12D	KI12DNRBCTM12x125	GKM12-24	GKM12-24-IN(F)	JA40-12-125	JS25-10-125
						

(1) Inox AISI 303

(2) Inox AISI 316

(3) Pour la chape en inox, commander l'axe séparément.

(4) Inox AISI 304

Solenoid Valve (with M Connector)
Conforming to ISO 15407-1

Series *EVS1-01, 1-02*

(Size 01) (Size 02)



Large capacity

	Flow rate	Cylinder driving size
EVS1-01 (Size: 01)	1000L/min (ANR)	ø100
EVS1-02 (Size: 02)	400L/min (ANR)	ø80

Light weight

Size 01 (3-position): 0.26kg
Size 02 (3-position): 0.18kg

ISO 15407-1 Interface

Size 01 (**EVS1-01**) and Size 02 (**EVS1-02**)
Interface conforms to ISO 15407-1

Accommodates enclosure IP65

Dust/Splashproof type

Series EVS1-01/1-02

How to Order

Valve

EVS1-01-FG-S-3- - - -M0

Size

01	Size 01
02	Size 02

Thread type

Nil	Rc
F	G
T	NPTF

Port size

Symbol	Piping specifications	Size 01	Size 02
Nil	Without sub-plate	○	○
A01	Side-ported 1/8	○	○
A02	Side-ported 1/4	○	—

Sealing type

Nil	Metal seal
R	Rubber seal

Option

Nil	None
Z	Indicator light with surge voltage suppressor

Rated coil voltage

3	24VDC
4	12VDC
9	Voltage other than above (50VDC or less)

Number of solenoids

S	Single
D	Double

Passage symbol

FG	
FHG	
FJG	
FIG	

Sub-plate

VS1-01-A02-

Size

01	Size 01
02	Size 02

Thread type

Nil	Rc
F	G
T	NPTF

Port size

Symbol	Piping specifications	Size 01	Size 02
A01	Side-ported 1/8	○	○
A02	Side-ported 1/4	○	—

Specifications				
Model	Piping specifications			Weight (kg)
	Piping direction	Port size for 1(P), 2(B), 4(A)	Port size for 3(R2), 5(R1)	
VS1-01-A01	Horizontal	1/8		0.14
VS1-01-A02		1/4		
VS1-02-A01	Horizontal	1/8		0.07

Models

Series EVS1-01



Positions			Flow rate characteristics					
			1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
			C	b	Cv	C	b	Cv
2-position	Single	Metal seal	3.10	0.10	0.60	3.40	0.10	0.70
		Rubber seal	3.60	0.28	0.90	4.20	0.20	1.00
	Double	Metal seal	3.10	0.10	0.60	3.40	0.10	0.70
		Rubber seal	3.60	0.28	0.90	4.20	0.20	1.00
3-position	Closed center	Metal seal	3.10	0.10	0.60	3.20	0.10	0.60
		Rubber seal	3.20	0.34	0.80	4.20	0.30	1.00
	Exhaust center	Metal seal	2.70	0.10	0.60	3.30	0.10	0.70
		Rubber seal	3.10	0.26	0.80	4.00	0.25	1.10
	Pressure center	Metal seal	3.20	0.10	0.70	3.20	0.10	0.60
		Rubber seal	4.40	0.25	1.00	3.60	0.25	1.00

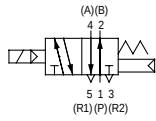
Series EVS1-02



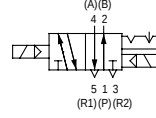
Positions			Flow rate characteristics					
			1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
			C	b	Cv	C	b	Cv
2-position	Single	Metal seal	1.50	0.10	0.30	1.70	0.10	0.30
		Rubber seal	2.20	0.20	0.50	2.20	0.10	0.50
	Double	Metal seal	1.50	0.10	0.30	1.70	0.10	0.30
		Rubber seal	2.20	0.20	0.50	2.20	0.10	0.50
3-position	Closed center	Metal seal	1.50	0.10	0.30	1.60	0.10	0.30
		Rubber seal	2.10	0.20	0.50	2.10	0.10	0.40
	Exhaust center	Metal seal	1.30	0.10	0.20	1.60	0.10	0.20
		Rubber seal	2.00	0.16	0.50	2.10	0.10	0.40
	Pressure center	Metal seal	1.60	0.10	0.20	1.50	0.10	0.20
		Rubber seal	2.20	0.20	0.50	2.10	0.10	0.40

Symbol

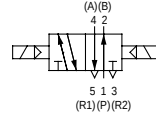
2-position single



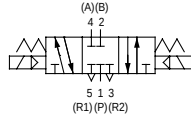
2-position double (metal)



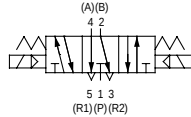
2-position double (rubber)



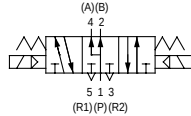
3-position closed center



3-position exhaust center



3-position pressure center



Standard Specifications

Valve specifications	Valve type		Metal seal		Rubber seal	
	Fluid		Air, Inert gas			
	Maximum operating pressure		1.0MPa			
	Minimum operating pressure	Single	0.1MPa		0.15MPa	
		Double	0.1MPa		0.1MPa	
		3-position	0.15MPa		0.2MPa	
	Ambient and fluid temperature		−10° to 60°C Note 1)		−5° to 60°C Note 1)	
	Lubrication		Not required (non-lube type)			
	Manual override		Push type (tool required)			
Impact resistance/Vibration resistance		150, 30m/s ² Note 2)				
Electric specifications	Enclosure		IP65 (Dust/Splashproof type)			
	Rated coil voltage		12VDC, 24VDC			
	Allowable voltage fluctuation		±10% of rated voltage			
	Type of coil insulation		Equivalent to class B			
	Power consumption (Current)	24VDC	1W DC (42mA)			
		12VDC	1W DC (83mA)			

Note 1) Use dry air to prevent condensation at low temperatures.

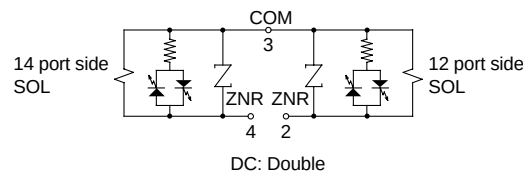
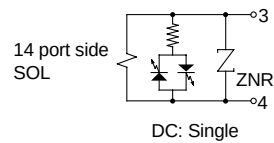
Note 2) **Impact resistance:** No malfunction resulted during an impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

Vibration resistance: No malfunction resulted during an one-sweep test between 8.3 and 2000Hz. The test was performed in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

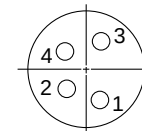
Specific Product Precautions

⚠ Caution

Internal Wiring Specifications

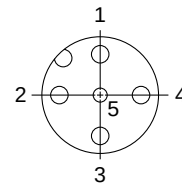


M8 Connector: Wiring specifications (EVS1-02)



- Pin no.
1: Open
2: 12 port side SOL (+)
3: COM (-)
4: 14 port side SOL (+)

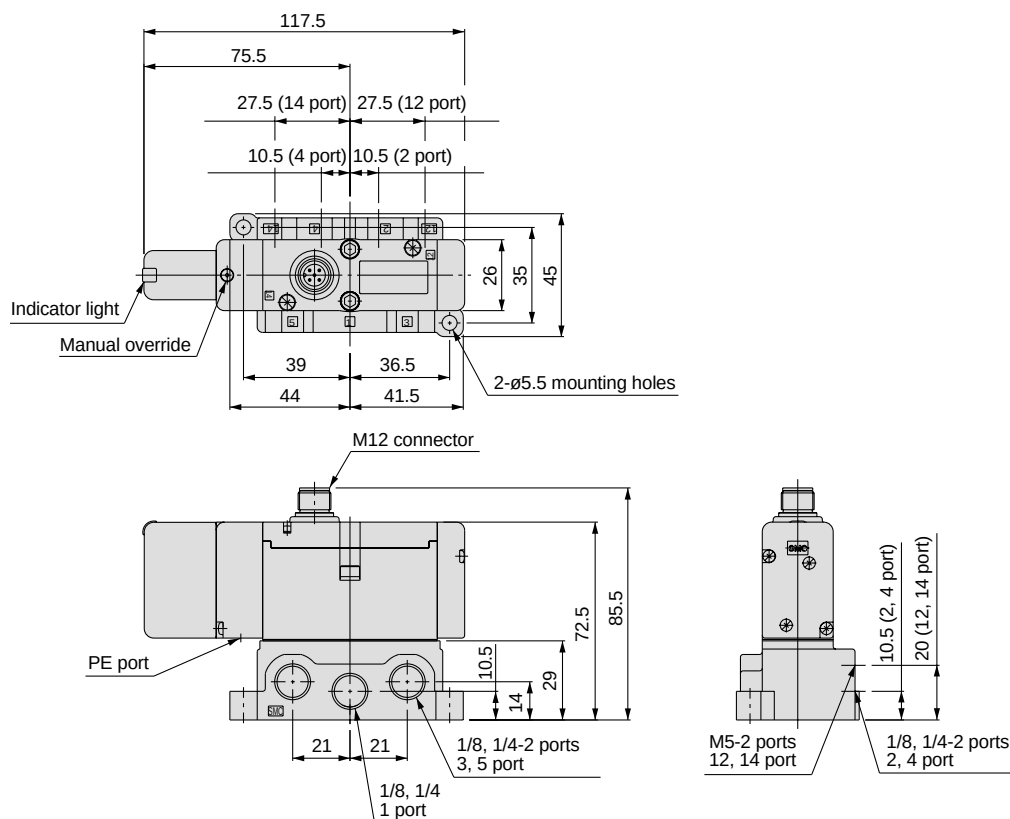
M12 Connector: Wiring specifications (EVS1-01)



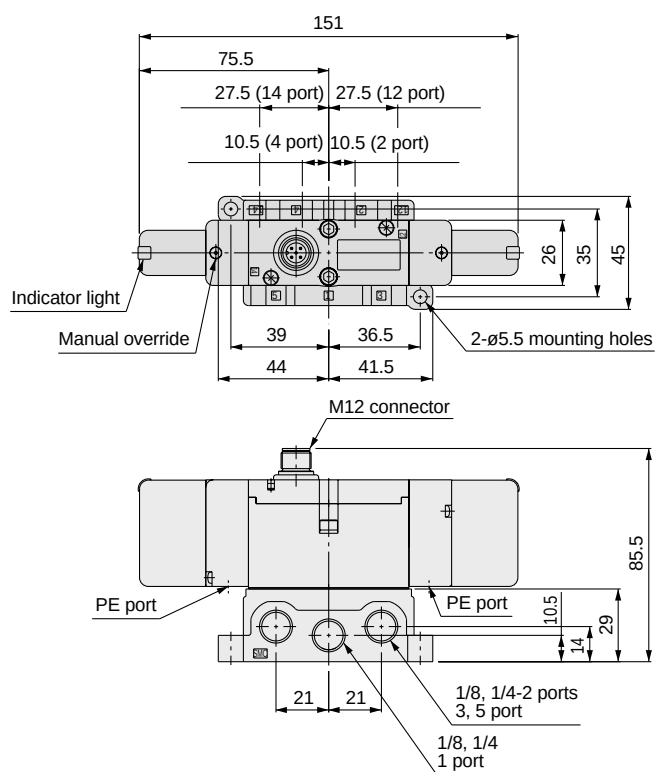
- Pin no.
1: Open
2: 12 port side SOL (+)
3: COM (-)
4: 14 port side SOL (+)
5: Ground

Dimensions

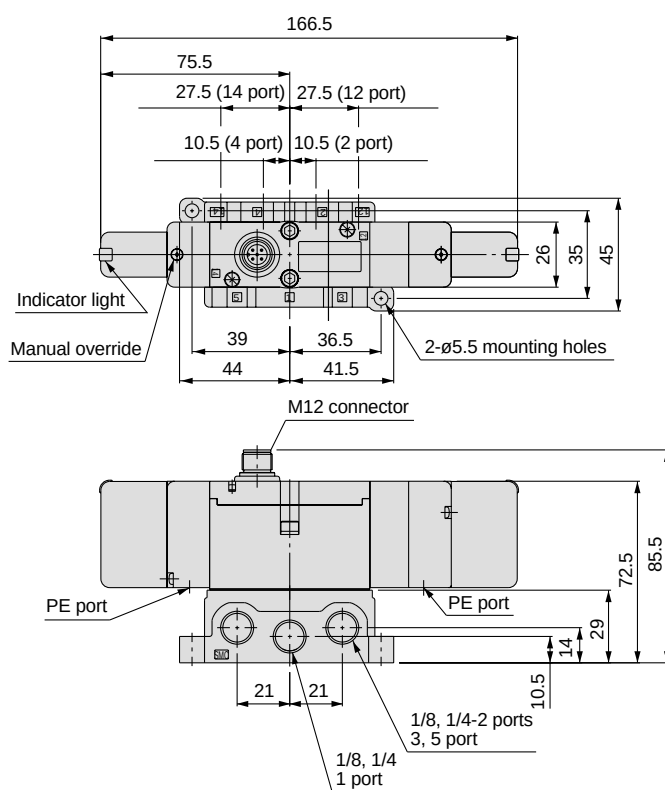
EVS1-01-FG-S-□□M0



EVS1-01-FG-D-□□M0



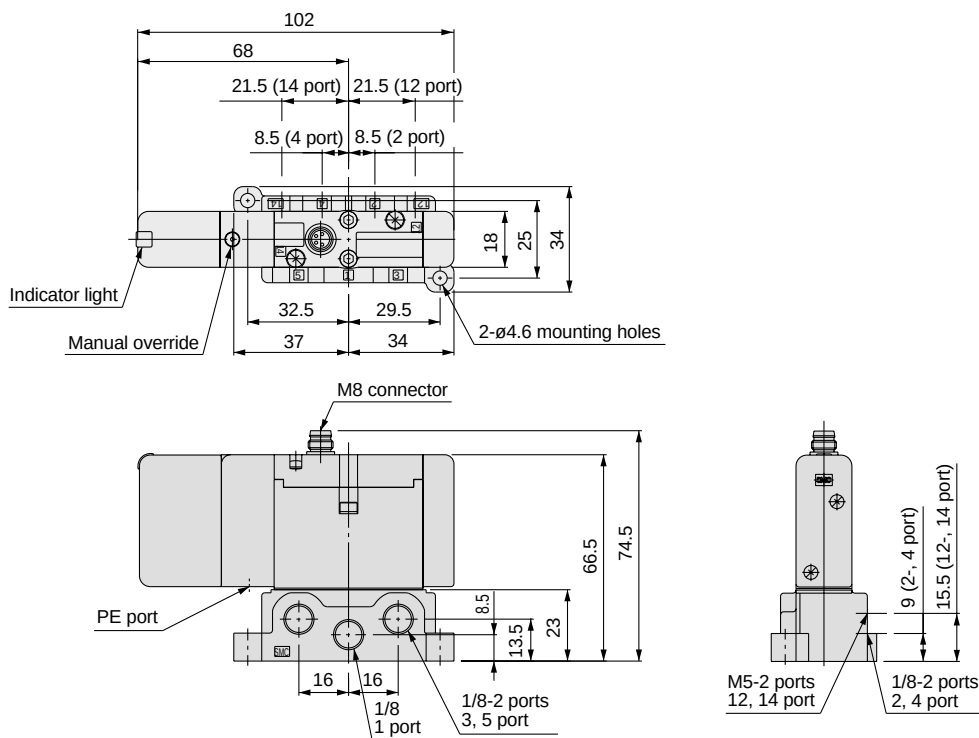
EVS1-01-F^H_JG-D-□□M0



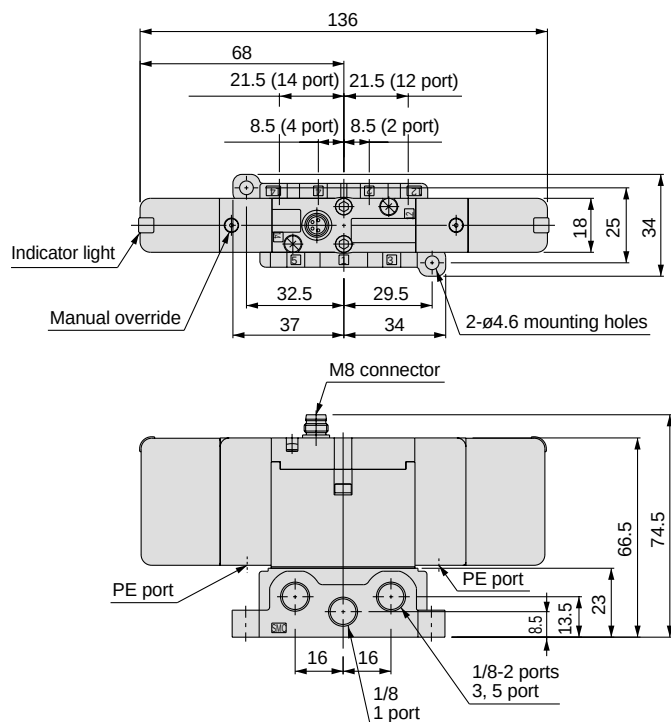
Series EVS1-01/1-02

Dimensions

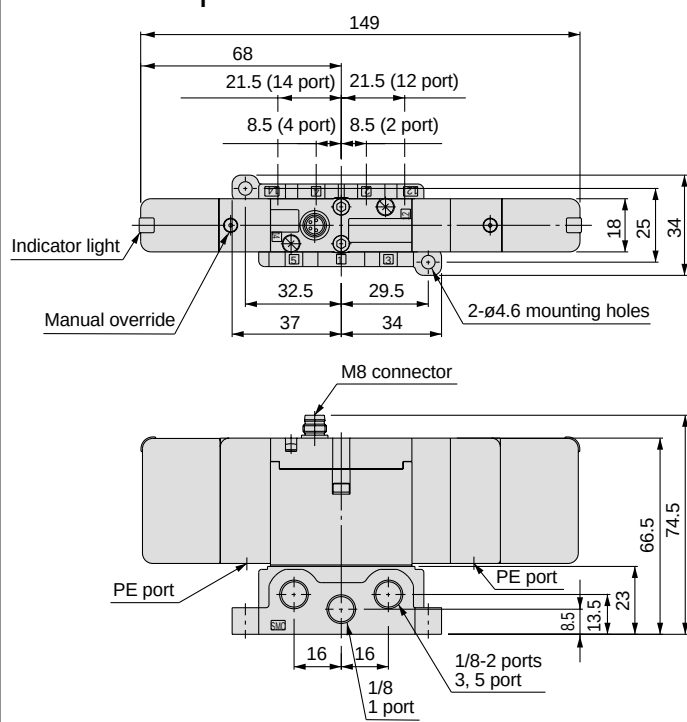
EVS1-02-FG-S-□□M0



EVS1-02-FG-D-□□M0

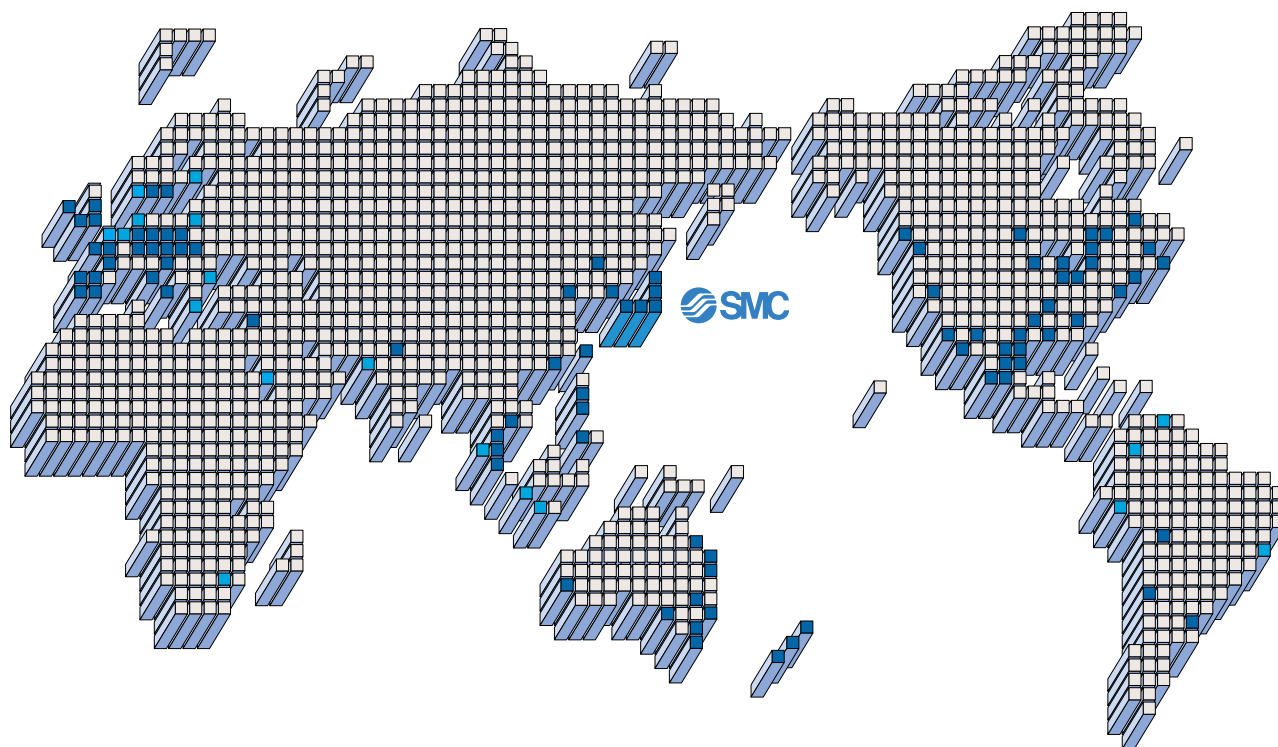


EVS1-02-F^H_IG-D-□□M0





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1st printing October, 2001 D-SMC.L.A. P-80 (D)

This catalog is printed on recycled paper with concern for the global environment.

All specifications in this catalog are subject to change without notice.

Printed in Japan.

Electrodistributeurs (avec connecteur M8 ou M12)
Selon ISO 15407-1

Série *EV***S1-01, 1-02** (Taille 01) (Taille 02)



Grande capacité

	Débit	Taille du vérin
EVS1-01 (Taille: 01)	1000L/min (ANR)	Ø100
EVS1-02 (Taille: 02)	400L/min (ANR)	Ø80

Léger

Taille 01 (5/3): 0,26kg
Taille 02 (5/3): 0,18kg

Interface ISO 15407-1

Taille 01 (**EVS1-01**) et taille 02 (**EVS1-02**)
Interface selon ISO 15407-1

Degré de protection IP65

Résist. aux poussières/projections

Pour passer commande

Distributeur

EVS1-01-FG-S-3- - - -M0-Q

Taille

01	Taille 01
02	Taille 02

Symbole

FG	
FHG	
FJG	
FIG	

Nombre de bobines

S	Monostable
D	Bistable

Tension nominale

3	24Vcc
4	12Vcc
9	Autres tensions (50Vcc maxi)

Type de filetage

- 1)	Rc
F	G
T	NPTF

1) Si le distr. est commandé sans embase

Orifice

Symbole	Caract. de raccordement	Taille 01	Taille 02
-	Sans embase	○	○
A01	Raccord latéral 1/8	○	○
A02	Raccord latéral 1/4	○	—

○: Combinaison possible.
—: Combinaison impossible

Type de joint

-	Tiroir inox
R	Joint élastique

Option

-	Sans
Z	Visualisation avec protection de circuit

Embase

VS1-01-A02- -

Taille

01	Taille 01
02	Taille 02

Orifice

Symbole	Caract. de raccordement	Taille 01	Taille 02
A01	Raccord latéral 1/8	○	○
A02	Raccord latéral 1/4	○	—

○: Combinaison possible.
—: Combinaison impossible

Type de filetage

-	Rc
F	G
T	NPTF

Caractéristiques				
Modèle	Caractéristiques de raccordement			Masse (kg)
	Sens de raccordement	Raccord pour 1(P), 2(B), 4(A)	Raccord pour 3(R2), 5(R1)	
VS1-01-A01	Horizontal	1/8		0.14
VS1-01-A02		1/4		
VS1-02-A01	Horizontal	1/8		0.07

Modèles

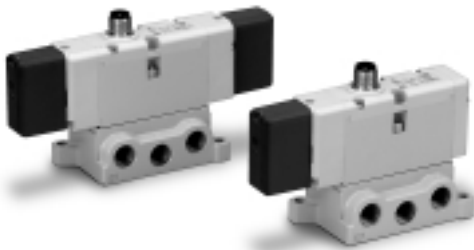


Série EVS1-01

Type de distributeur			Débit nominal en guise de référence(l/min)		Temps de réponse (ms) Note 1)	Masse (Kg) Note 2)
			1→4, 2 (P→A, B)	4, 2→5, 3 (A, B:→EA, EB)		
5/2	Monostable	Tiroir inox	589	687	40	0,21
		Joint élastique	883	982	50	0,21
	Bistable	Tiroir inox	589	687	15	0,24
		Joint élastique	883	982	20	0,24
5/3	Centre fermé	Tiroir inox	589	589	60	0,26
		Joint élastique	785	982	80	0,26
	Centre ouvert	Tiroir inox	589	687	60	0,26
		Joint élastique	785	1080	80	0,26
	Centre sous pression	Tiroir inox	687	589	60	0,26
		Joint élastique	982	982	80	0,26

Note 1) Temps de réponse selon le test de performance dynamique JIS B 8375.

Note 2) La masse ne comprend pas l'embase.



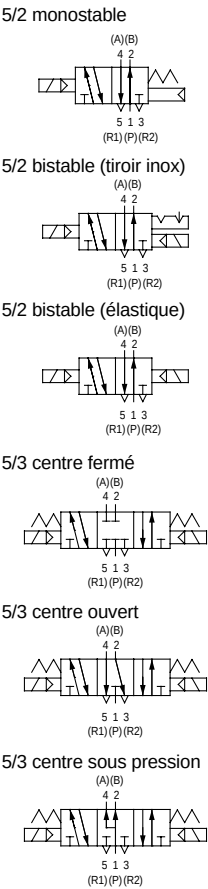
Série EVS1-02

Type de distributeur			Débit nominal en guise de référence(l/min)		Temps de réponse (ms) Note 1)	Masse (Kg) Note 2)
			1→4, 2 (P→A, B)	4, 2→5, 3 (A, B:→EA, EB)		
5/2	Monostable	Tiroir inox	294	294	20	0,14
		Joint élastique	491	491	25	0,14
	Bistable	Tiroir inox	294	294	13	0,16
		Joint élastique	491	491	15	0,16
5/3	Centre fermé	Tiroir inox	294	294	36	0,18
		Joint élastique	491	393	40	0,18
	Centre ouvert	Tiroir inox	196	196	36	0,18
		Joint élastique	491	393	40	0,18
	Centre sous pression	Tiroir inox	196	196	36	0,18
		Joint élastique	491	393	40	0,18

Note 1) Temps de réponse selon le test de performance dynamique JIS B 8375.

Note 2) La masse ne comprend pas l'embase.

Symbole



Caractéristiques standard

Caractéristiques du distributeur	Type de distributeur		Tiroir inox	Joint élastique
	Fluide		Air, gaz neutre	
	Pression d'utilisation maxi		1.0MPa	
	Pression d'utilisation mini	Monostable	0.1MPa	0.15MPa
		Bistable	0.1MPa	0.1MPa
		5/3	0.15MPa	0.2MPa
	Température ambiante et du fluide		-10° à 60°C Note 1)	-5° à 60°C Note 1)
	Lubrification		Non requise (sans lubrification)	
	Commande manuelle		A impulsion (avec outil)	
	Résistance aux impacts/vibrations		150, 30m/s ² Note 2)	
Caractéristiques électriques	Degré de protection		IP65 (Résist. aux poussières/projections)	
	Tension nominale		12Vcc, 24Vcc	
	Variation de tension admissible		±10% de la tension nominale	
	Type d'isolation		Equivalent à la classe B	
	Consommation électrique (Courant)	24Vcc	1W CC (42mA)	
		12Vcc	1W CC (83mA)	

Note 1) Utilisez de l'air sec afin de prévenir la condensation lorsque vous travaillez à basses températures.

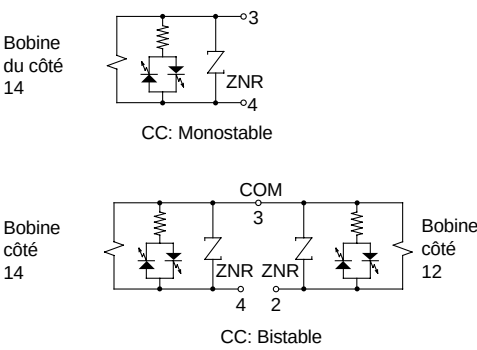
Note 2) **Résistance aux chocs:** Aucun dysfonctionnement suite aux tests de chocs. Test réalisé sur l'axe et l'angle droit du distributeur principal et de l'armature, à l'état activé.

Résistance aux vibrations: Aucun dysfonctionnement lorsque soumis au balayage de 8.3 et 2000Hz. Test réalisé sur l'axe et l'angle droit du distributeur principal et de l'armature, à l'état activé.

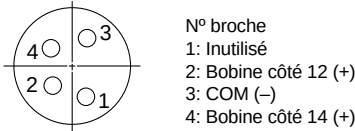
Précautions spécifiques au produit

⚠Précaution

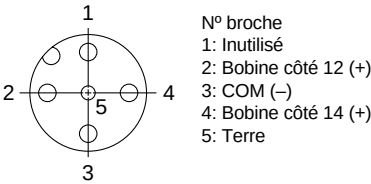
Caractéristiques du câblage interne



Connecteur M8: Caractéristiques du câblage (EVS1-02)

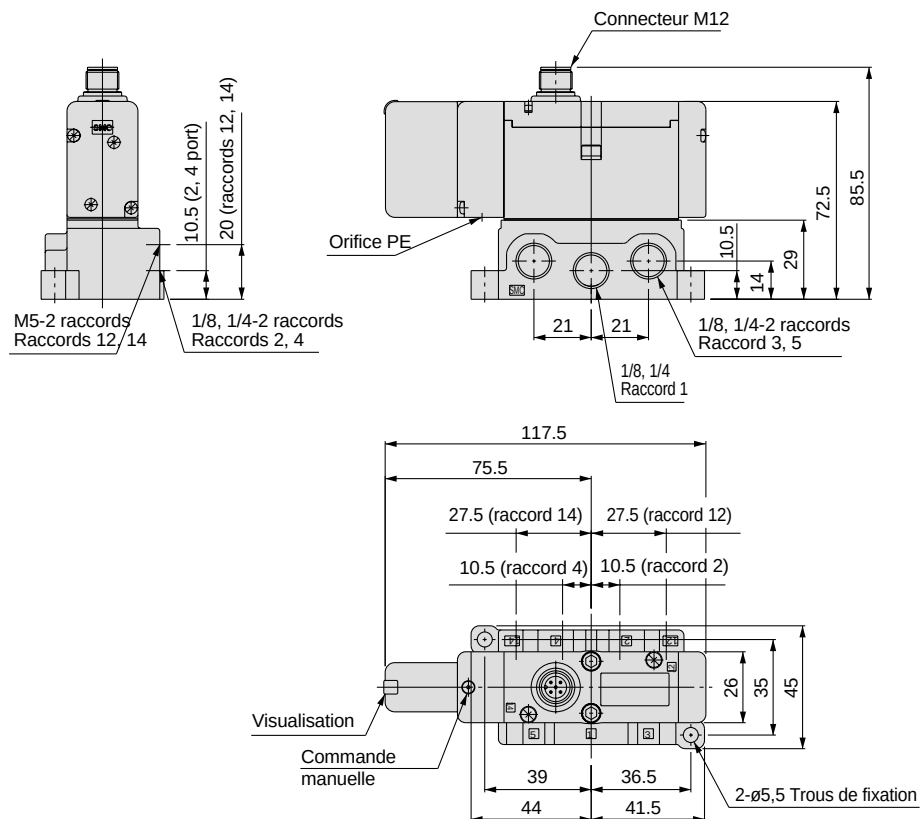


Connecteur M12: Caractéristiques du câblage (EVS1-01)

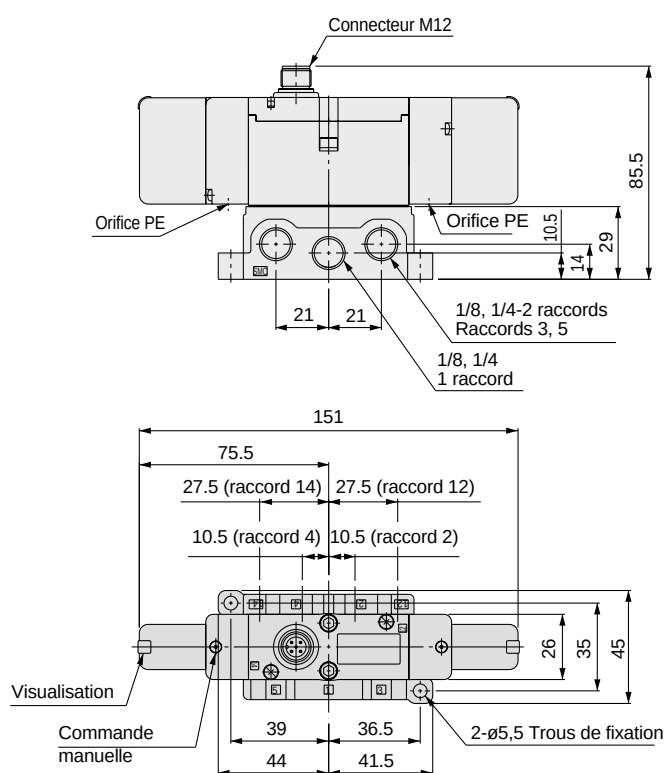


Dimensions

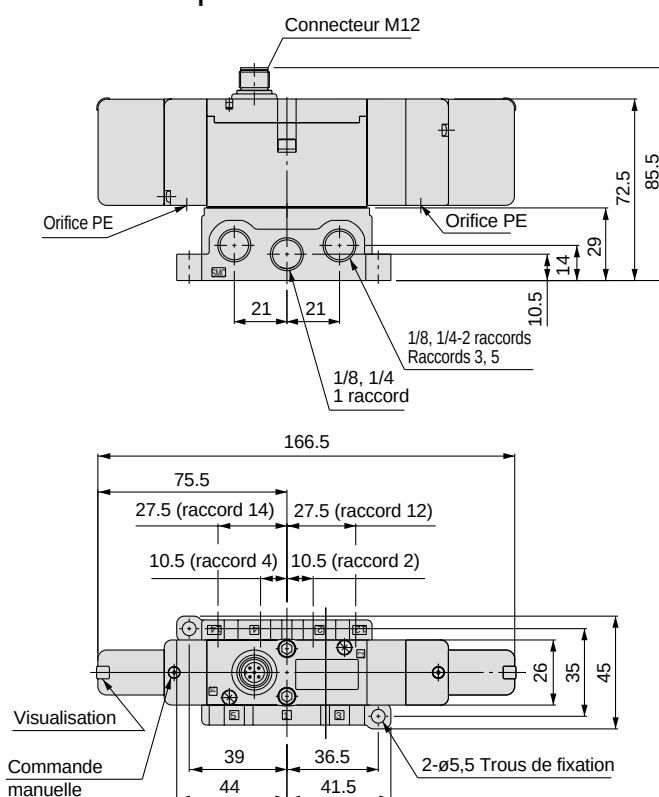
EVS1-01-FG-S-□□M0



EVS1-01-FG-D-□□M0



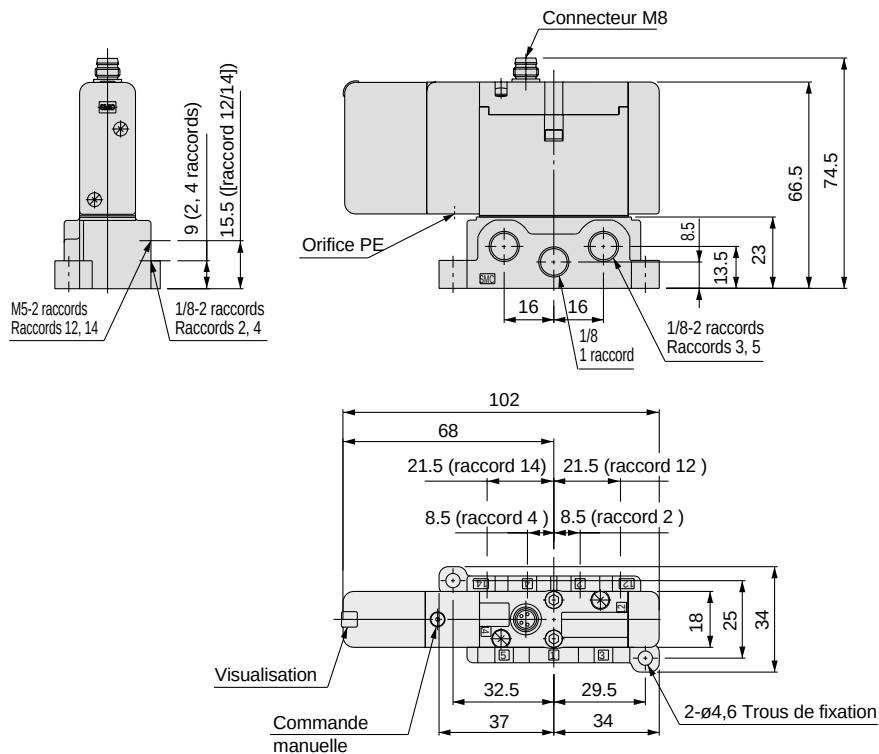
EVS1-01-F^H_IG-D-□□M0



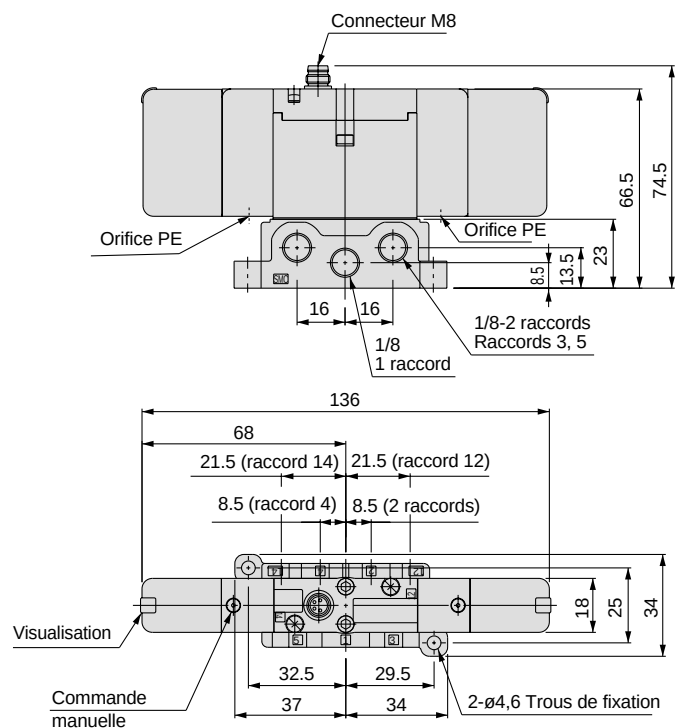
Série EVS1-01/1-02

Dimensions

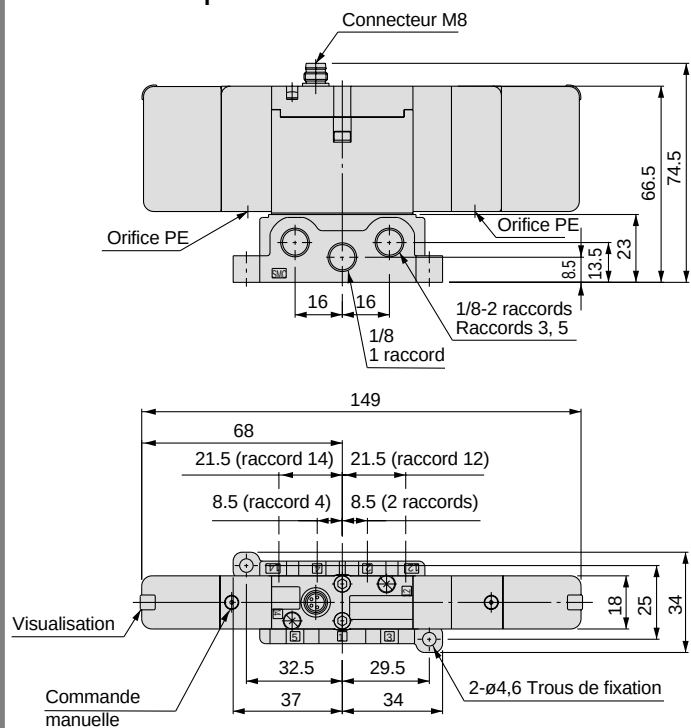
EVS1-02-FG-S-□□M0



EVS1-02-FG-D-□□M0



EVS1-02-F^H_IG-D-□□M0





Consignes de sécurité

Ce manuel d'instruction a été rédigé pour prévenir des situations dangereuses pour les personnels et les équipements. Les précautions énumérées dans ce document sont classées en trois grandes catégories:

"PRÉCAUTIONS D'UTILISATION", "ATTENTION" OU "DANGER".

Afin de respecter les règles de sécurité, reportez-vous aux normes ISO 4414(1) et JIS B 8370(2) ainsi qu'à tous les textes en vigueur à ce jour.

⚠ Précautions d'utilisation: Une erreur de l'opérateur pourrait entraîner des blessures ou endommager le matériel.

⚠ Attention: Une erreur de l'opérateur pourrait entraîner des blessures graves ou mortelles.

⚠ Danger : Dans des cas extrêmes, la possibilité d'une blessure grave ou mortelle doit être prise en compte.

Note 1) ISO 4414

Note 2) JIS B 8370 : Pneumatic System Axiom.

⚠ Attention

1 La compatibilité des équipements pneumatiques est sous la responsabilité de la personne qui a conçu le système pneumatique et qui a défini ses caractéristiques.

Lorsque les produits en question sont utilisés dans certaines conditions, leur compatibilité avec le système considéré doit être basée sur ses caractéristiques après analyses et tests pour être en adéquation avec le cahier des charges.

2 Seules les personnes formées à la pneumatique pourront intervenir sur les équipements et machines utilisant l'air comprimé.

L'air comprimé est très dangereux pour les personnes qui ne sont pas familiarisées à cette énergie. Des opérations telles que le câblage, la manipulation et la maintenance des systèmes pneumatiques ne devront être effectuées que par des personnes formées à la pneumatique.

3 Ne jamais intervenir sur des machines ou composants pneumatiques sans s'être assurés que tous les dispositifs de sécurité ont été mis en place.

- 1.L'inspection et la maintenance des équipements ou machines ne devront être effectuées que si ces équipements ont été mis en "sécurité". Pour cela, placez des vannes ou sectionneurs cadenassables sur les alimentations en énergie.
- 2.Si un équipement ou une machine pneumatique doit être déplacé, s'assurer que celui-ci a été mis en "sécurité", couper l'alimentation en pression et purger tout l'équipement.
- 3.Lors de la remise sous pression, prendre garde aux mouvements des différents actionneurs (des échappements peuvent provoquer des retours de pression).

4 Consultez SMC si un produit doit être utilisé dans l'un des cas suivants:

- 1.Conditions et plages de fonctionnement en dehors de celles données dans les catalogues.
- 2.Utilisation des composants en ambiance nucléaire, matériel embarqué (train, air, navigation, véhicules,...), équipements médicaux, alimentaires, équipements de sécurité, de presse.
- 3.Equipements pouvant avoir des effets néfastes ou dangereux pour l'homme ou les animaux.



Précautions pour EVS1^①

A lire attentivement avant l'utilisation

Reportez-vous au catalogue pour plus de détails.

Conception

⚠ Attention

① Fonctionnement de l'actionneur

Lors de l'utilisation d'un actionneur avec un distributeur, prenez les mesures nécessaires afin d'éviter de blesser le personnel lors du mouvement de l'actionneur.

② Arrêt intermédiaire

Lors de l'utilisation d'un distributeur 5/3 à centre fermé, il est difficile de réaliser un arrêt intermédiaire précis en raison de la compressibilité de l'air. Les distributeurs et les vérins ne sont pas garantis contre les fuites d'air, ce qui pourrait empêcher le maintien du piston en position intermédiaire durant un long laps de temps. Contactez SMC pour connaître les conditions nécessaires pour maintenir un piston en position intermédiaire durant un long laps de temps.

③ Contrepression lors de l'utilisation d'une embase

Lorsque les distributeurs sont utilisés sur une embase, des erreurs peuvent survenir. Lors de l'utilisation d'un distributeur 5/3 à centre ouvert ou d'un vérin à simple effet, prenez les mesures nécessaires pour éviter les erreurs de fonctionnement et utilisez une interface d'échappement individuel.

④ Pression de maintien (y compris le vide)

Le distributeur peut présenter de légères fuites internes et ne convient donc pas pour maintenir une pression déterminée (y compris le vide) dans un réservoir durant une longue période.

⑤ N'utilisez pas ce produit pour les arrêts d'urgence

Le distributeur présenté dans ce catalogue n'est pas prévu pour réaliser des arrêts d'urgence. Pour ce faire, utilisez des dispositifs d'arrêt prévu à cet effet.

⑥ Espace pour l'entretien

Prévoyez suffisamment d'espace pour l'entretien (pour remplacer les distributeurs, etc.)

⑦ Purge de la pression résiduelle

Installez un système pour purger la pression résiduelle lors de l'entretien. En particulier lors de l'utilisation de distributeurs 5/3 à centre fermé ou de distributeurs à clapets, assurez-vous que tout l'air contenu entre le distributeur et le vérin a été purgé.

⑧ Utilisation avec le vide

Lors de l'utilisation d'un distributeur pour le vide, prenez des mesures afin d'éviter l'aspiration de poussières de l'extérieur qui pourraient endommager le distributeur. Utilisez, pour ce faire, des distributeurs pilote ou à commande externe. Contactez SMC lors de l'utilisation de distributeurs à commande interne ou à commande pneumatique.

⑨ Utilisation de distributeurs bistables

Lors de l'utilisation de distributeurs bistables, l'actionneur peut se déplacer de façon inattendue en fonction de la position du distributeur. Prenez des mesures afin de minimiser les dangers lors du mouvement de l'actionneur.

⑩ Aération

Lors de l'utilisation d'un distributeur intégré dans un panneau de commande, etc., aérez-le afin d'éviter l'augmentation de pression ou de température au sein du panneau.

Sélection

⚠ Attention

① Vérifiez les caractéristiques.

Les produits repris dans ce catalogue sont conçus pour être utilisés dans des systèmes à air comprimé (y compris le vide). Respectez les plages de pression et de température. Contactez SMC quant à l'utilisation d'un autre fluide (y compris le vide).

② Longues périodes d'activation

Contactez SMC si vous avez l'intention d'activer le distributeur durant de longues périodes.

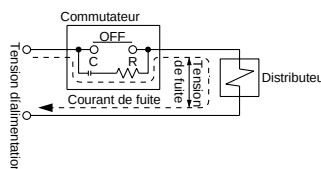
⚠ Précaution

① Activation momentanée

Si vous activez l'électrodistributeur momentanément, activez le distributeur durant 0,1 seconde.

② Fuite de tension

Lors de l'utilisation d'un dispositif C-R (Protection de circuit) pour protéger le distributeur, la fuite de tension peut augmenter étant donné que le courant de fuite traverse le circuit de protection. La fuite de tension résiduelle de la protection doit être comme suit:



Bobine CC VS7

③ Utilisation d'un électrodistributeur avec un SSR

Si la tension de charge mini du SSR est supérieure à celle du distributeur, celui-ci pourrait s'endommager. Faites attention aux caractéristiques du catalogue lors du choix d'un SSR.

④ Protection de circuit

Si un circuit de protection contient des diodes spéciales telles que des diodes Zener ou ZNR, une tension résiduelle proportionnelle aux éléments de protection persiste. Par conséquent, tenez compte de la protection du contrôleur. La tension résiduelle des diodes est d'environ 1V.

⑤ Utilisez le distributeur dans un milieu à basse température

Le distributeur peut être utilisé jusqu'à des températures de -10°C . Prenez les mesures adéquates afin d'éviter le gel des condensats, l'humidité, etc.

⑥ Soufflage d'air

Utilisez un modèle à pilote externe pour les applications de soufflage. Notez que la chute de pression provoquée par le soufflage peut influencer les distributeurs à pilote interne lorsque vous utilisez des pilotes internes et externes sur une même embase. En outre, respectez la plage de pression recommandée lors de l'alimentation par l'orifice de commande, et vérifiez que le distributeur est activé en permanence lors du soufflage avec un distributeur bistable.

⑦ Position de montage

Joint élastique: Voir les caractéristiques de la série.

Tiroir inox: La position de montage quelconque. L'orientation de la bobine n'a pas d'importance. Lors de l'installation d'un modèle bistable ou 5/3, placez le distributeur horizontalement.



Précautions pour le EVS1^②

Veuillez lire ces consignes avant l'utilisation.

Reportez-vous au catalogue pour plus de détails sur la série.

Installation

⚠ Attention

① En cas de fuite ou de dysfonctionnement, arrêtez le distributeur.

Vérifiez les conditions de montage après avoir raccordé l'air et l'électricité. Après l'installation, procédez au test de fuite et de fonctionnement.

② Veuillez lire les consignes de sécurité avant de procéder à l'installation. Gardez les catalogues à portée de main.

③ Etiquettes

Les précautions ou caractéristiques indiquées sur le produit ne doivent pas être effacées, enlevées ou peintes. Les solvants contenus dans les peintures pourraient endommager les pièces en résine.

Raccordement

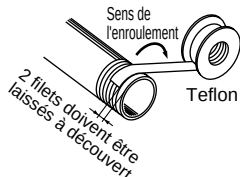
⚠ Précaution

① Avant le raccordement

Veuillez nettoyer les déchets, restes d'huile de coupe, poussières, etc., avant de procéder au raccordement.

② Teflonnage

Lors de l'installation d'un tube ou d'un raccord dans un orifice, assurez-vous que le teflon ne pénètre pas dans l'orifice. Lors du teflonnage, laissez à découvert 1,5 à 2 filets au bout du tube ou du raccord.



③ Modèle à centre fermé et à double clapets croisés

En cas d'utilisation de modèles à centre fermé ou à double clapets croisés, vérifiez le raccordement pour éviter les fuites entre le distributeur et le vérin.

④ Couple de serrage

Pour l'installation des raccords, etc., procédez comme suit.

1) M3, M5

① Serrez les raccords SMC, etc. à la main, puis tournez d'1/4 (M3), d'1/6 (M5) de tour suppl. à l'aide de la clé. (1/4 de tour pour les raccords miniatures.) Lorsque le raccord dispose de 2 joints (coudes et téés universels), serrez d'1/2 tour supplémentaire à l'aide de la clé.

Note) En cas de serrage excessif, les pièces filetées pourraient se rompre ou les joints se déformer. En cas de serrage insuffisant, les pièces filetées pourraient se détacher.

Dans tous les cas, des fuites pourraient se produire.

② Suivez les indications lors de l'utilisation des raccords de SMC.

2) Rc(PT) Pour l'installation des raccords, etc., respectez les couples suivants.

Couple de serrage

Filetage	Couple de serrage admissible Nm
Rc(PT)1/8	7 à 9
Rc(PT)1/4	12 à 14
Rc(PT)3/8	22 à 24
Rc(PT)1/2	28 à 30
Rc(PT)3/4	28 à 30
Rc(PT)1	36 à 38
Rc(PT)1 1/4	40 à 42
Rc(PT)1 1/2	48 à 50
Rc(PT)2	48 à 50

⑤ Raccordement du produit

Lors du raccordement du produit, consultez le manuel d'utilisation pour éviter les erreurs.

Câblage

⚠ Précaution

① Polarité

Lors du branchement de courant continu à un électrodistributeur à visualisation et à circuit de protection, vérifiez les indications de polarité.

Pour les indications de polarité:

Pas de diode pour protéger la polarité:

Si la polarité est inversée lors du branchement, la diode du distributeur, le commutateur au niveau de l'équipement ou l'alimentation peuvent être endommagés.

Avec une diode pour protéger la polarité:

Si la polarité est inversée, le distributeur ne commute pas.

② Tension appliquée

Lorsque le distributeur est alimenté en électricité, vérifiez la tension. Une tension incorrecte peut provoquer des dysfonctionnements ou endommager les bobines.

③ Branchement

Assurez-vous que tous les branchements ont été correctement réalisés.

Lubrification

⚠ Précaution

① Lubrification

[Joint élastique]

① Les distributeurs (sauf ceux indiqués ci-dessous) ont été lubrifiés à vie d'origine et ne nécessitent pas de lubrification supplémentaire.

② Si un lubrifiant est utilisé dans le système, utilisez de l'huile de turbine de Classe 1 (sans additif), ISO VG32. Une fois que le lubrifiant est utilisé dans le système, continuez à lubrifier car le lubrifiant original risque d'être éliminé.

[Tiroir inox]

① Le distributeur a été lubrifié d'origine et ne nécessite pas de lubrification ultérieure.

② Si un lubrifiant est utilisé dans le système, utilisez de l'huile de turbine de Classe 1 (sans additif), ISO VG32.



Précautions pour le EVS1③

Veuillez lire ces consignes avant l'utilisation.

Reportez-vous au catalogue pour plus de détails sur la série.

Source d'alim. pneumatique

⚠ Attention

① Utilisez de l'air propre.

De l'air comprimé fortement chargé en produits chimiques, matières synthétiques (y compris des solvants organiques), en sel, en gaz corrosif, etc., peut entraîner un dysfonctionnement ou endommager le produit.

⚠ Précaution

① Installez un filtre à air.

Installez un filtre à air en amont du distributeur. Le degré de filtration doit être de 5µm maxi.

② Installez un sécheur, un échangeur AIR/AIR, un séparateur d'eau, etc.

L'air comprenant trop de condensat peut entraîner un dysfonctionnement du distributeur et des autres équipements pneumatiques. Installez un sécheur, un échangeur AIR/AIR, un séparateur d'eau, etc.

③ En cas d'excès de carbone, installez un filtre micronique en amont du distributeur.

Reportez-vous au catalogue de SMC "Best Pneumatics Vol.4" pour plus de détails sur la qualité de l'air comprimé.

Milieu de travail

⚠ Attention

① N'utilisez pas le distributeur dans un milieu où il est en contact direct avec des gaz corrosifs, des produits chimiques, de l'eau salée, de l'eau ou de la vapeur.

② Les produits à protection IP65 (selon IEC529) sont protégés contre la poussière et l'eau, cependant, ces produits ne peuvent pas être immergés dans l'eau.

③ Les caractéristiques des produits conformes à IP65 ne sont valables que s'ils sont installés correctement. Par conséquent, lisez les instructions relatives aux différents produits.

④ N'utilisez pas le produit dans un milieu explosif.

⑤ N'utilisez pas le produit dans un milieu soumis à de fortes vibrations ou à des impacts. Vérifiez les caractéristiques de chaque série.

⑥ N'exposez pas le distributeur aux rayons du soleil. Utilisez un carter de protection.

⑦ N'utilisez pas le produit à proximité d'une source de chaleur.

⑧ Si vous utilisez le produit dans un milieu exposé aux éclaboussures d'eau et d'huile, etc., prenez les mesures de protection nécessaires.

⑨ Lorsque l'électrodistributeur est monté dans un panneau de commande ou est utilisé durant un long laps de temps, respectez la température ambiante recommandée.

Entretien

⚠ Attention

① Les procédures d'entretien sont indiquées dans le manuel d'instructions.

Un entretien incorrect peut entraîner des dysfonctionnements ou endommager la machine l'équipement.

② Entretien et alimentation/échappement de l'air comprimé

Lors de l'entretien, vérifiez le démontage des pièces et de l'équipement, etc. Ensuite, mettez le système hors pression et hors tension et purgez tout l'air comprimé du système.

En cas d'utilisation d'un distributeur 5/3 à centre fermé ou d'un modèle à double clapets croisés, purgez la pression résiduelle entre le distributeur et le vérin.

Lors de la remise en marche de la machine, vérifiez d'abord que les distributeurs sont en position de démarrage.

③ Utilisation de temps à autres

Le distributeur doit être mis en marche au moins une fois tous les 30 jours afin d'éviter des dysfonctionnements.

(Faites attention à l'alimentation pneumatique.)

④ Commande manuelle

Note: Lorsque la commande manuelle est enclenchée, l'équipement branché démarre.

⚠ Précaution

① Purge

Enlevez régulièrement les condensats du filtre.

② Lubrification

Une fois que vous lubrifiez le distributeur à joint élastique, continuez à le lubrifier et utilisez de l'huile de turbine de Classe 1 (sans additif), VG32. L'utilisation d'un autre lubrifiant pourrait entraîner un dysfonctionnement. Contactez-nous pour connaître les huiles de turbine de Classe 2 recommandées (avec additifs), VG32.

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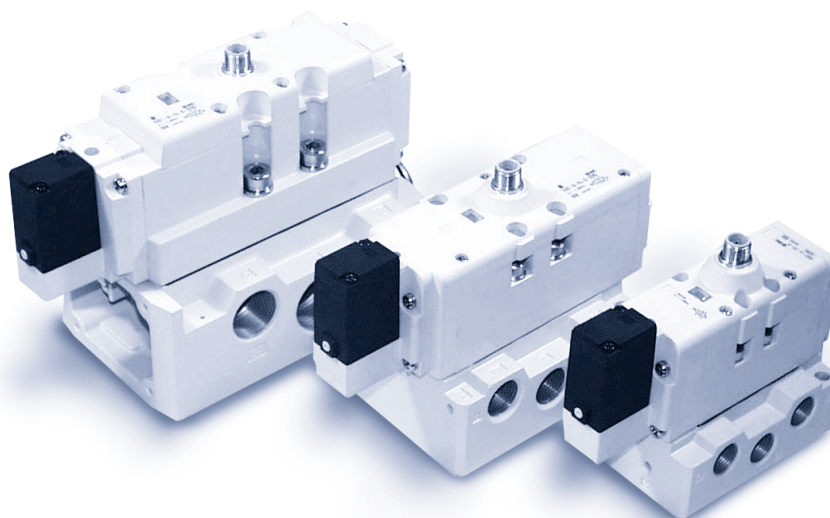
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Get Common with SMC's Series EVS7...

“ISO Valve with M12 Connector”



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PRODUCT OF THE WEEK

ISO Valve with M12 Connectors

The EVS7 series ISO valve has a high flow rate, up to 5.4 Cv, conforms to the ISO mounting standards (5599/1), and now has the industry standard M12 connector in the top cover plate.

Features & Benefits

- Pre-wired M12 connector
- ISO size 1-3
- Large number of interface options
- Metal seal or rubber seal available
- Individual subplate and manifolds available

Specifications

Fluid		Air	
Max. operating pressure range		145 psi	
Proof pressure		217.5 psi	
Ambient and fluid temperature		32 to 140°F	
Lubrication		Not required	
Cv	Metal	<Size 1> 1.5 <Size 3> 5.0	<Size 2> 3.2
	Rubber	<Size 1> 1.7 <Size 3> 5.4	<Size 2> 3.2
Body width		38mm to 50mm	
Response time		15ms to 80ms	
Life		Up to 100 million cycles	
Enclosure		Dust proof	

How To Order

EVS7- 6 FG - S - 3 Z **MO -**

Size **6**

6	Size 1
8	Size 2
10	Size 3

Symbol **FG**

FG	2 position
FHG	3 position closed center
FJG	3 position exhaust center
FIG	3 position pressure center

Solenoid **S**

S	Single
D	Double

Coil voltage **3**

1	100VAC
2	200VAC
3	24VDC
4	12VDC
9	Others

Options **Z**

Nil	Without indicator light
Z	Indicator light with surge suppressor
V	Individual pilot EXH

Type of seal **R**

Nil	Metal
R	Rubber

Type of thread **MO**

Nil	Rc
F	G
T	NPTF

Pin-out options

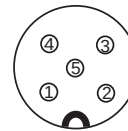
Nil	Standard M12 Micro
X53	Chrysler Powertrain wired M12 Micro
X57	Ford 120VAC Mini (size 2 and 3 only)
X59	Ford Powertrain wired M12 Micro

Port size

		Size 1	Size 2	Size 3
Nil	Valve unit only	•	•	•
A02	Side port 1/4	•		
A03	Side port 3/8	•	•	
A04	Side port 1/2		•	•
A06	Side port 3/4		•	•
A10	Side port 1			•
B02	Bottom port 1/4	•		
B03	Bottom port 3/8	•	•	
B04	Bottom port 1/2		•	•
B06	Bottom port 3/4		•	•

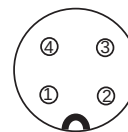
Pin-out Options (Top view, looking at top of valve)

<MO: Standard M12 Micro>



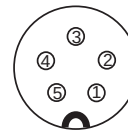
Pin	Connection
1	Not used
2	B(12) Solenoid
3	Common
4	A(14) Solenoid
5	Ground

<X53: Chrysler Powertrain Wired M12 Micro>



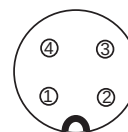
Pin	Connection
1	A(14) Solenoid
2	Ground
3	Common
4	B(12) Solenoid

<X57: Ford 120VAC Mini -size 2 and 3 only>



Pin	Connection
1	A(14) Solenoid
2	A(14) Solenoid
3	Ground
4	B(12) Solenoid
5	B(12) Solenoid

<X59: Ford Powertrain Wired M12 Micro>



Pin	Connection
1	Not used
2	B(12) Solenoid
3	Common
4	A(14) Solenoid

For further information, contact your local SMC branch office . . .

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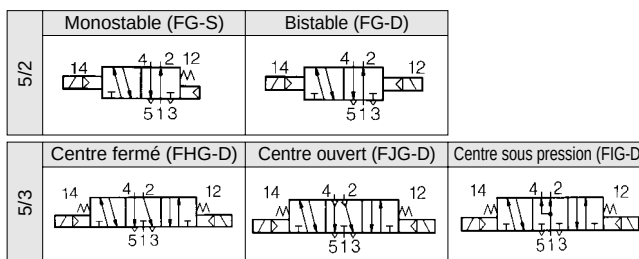
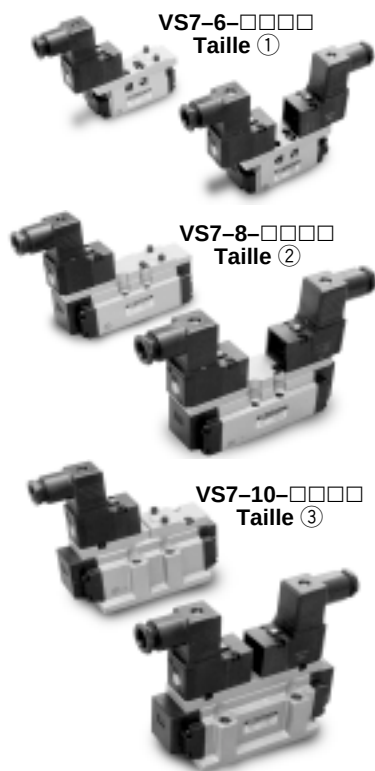
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Electro distributeur selon ISO CNOMO

Tiroir inox sans joint - TAILLES ①②③

Série *EVS7-6•8•10*



Caractéristiques standard

Fluide	Air et gaz neutre	
Pression d'utilisation (MPa)	Monostable	5/2
	Bistable	5/2
		5/3
Température ambiante et du fluide	50°C maxi	
Commande manuelle	A impulsion	
Connexion électrique	Connecteur DIN43650	
Lubrification	Non requise (huile hydraulique classe 1 - ISO VG32 si requise)	
Protection	IP65	
Résistance aux impacts/vibrations	300/50m/s ²	



Note 1) Résistance aux impacts: Aucun dysfonctionnement lors du test de chocs dans l'axe/perpendiculairement à l'axe du distributeur principal et de l'armature, activé et non activé.

Résistance aux vibrations: Aucun dysfonctionnement lorsque soumis au balayage de fréquence de 8.3 et 2000Hz dans l'axe/perpendiculairement à l'axe du distributeur principal et de l'armature, activé et non activé. (Valeur initiale)

Caractéristiques du pilote

Tension nominale (V)	100Vca 50/60Hz, 200Vca 50/60Hz, 24Vcc, 12Vcc	
Consommation électrique	CC (W)	1.8
	CA A l'appel (VA)	5.4
	CA Au maintien (VA)	3.6
Variation de tension admissible (V)	-15% à +10% de la tension nominale	
Isolation	Classe B (130°C) ou équivalent	

- Interface de la bobine conforme à CNOMO.
- Interface de la barrette conforme à ISO.
- Faible consommation électrique: 1.8W par bobine.
- Alimentation du pilote interne ou externe.
- Disponible en 3 tailles: selon ISO taille 1, 2 et 3.
- Grande capacité de débit.
- Réponse rapide et longue durée de vie.

Modèle

Fonction	Modèle	Débit (Nl/min)	Fréquence d'utilisation maxi (Hz)	Temps de réponse (Ms)	Masse (g)
----------	--------	----------------	-----------------------------------	-----------------------	-----------

Taille ①

5/2 (monostable)	VS7-6-FG-S-□-Q	1476	20	25	420
5/2 (bistable)	VS7-6-FG-D-□-Q	1476	20	15	518
5/3 (centre fermé)	VS7-6-FHG-D-□-Q	1378	10	45	546
5/3 (centre ouvert)	VS7-6-FJG-D-□-Q	1476	10	45	546
5/3 (centre sous pression)	VS7-6-FIG-D-□-Q	1080	10	45	546

Taille ②

5/2 (monostable)	VS7-8-FG-S-□-Q	3148	20	25	698
5/2 (bistable)	VS7-8-FG-D-□-Q	3148	20	15	806
5/3 (centre fermé)	VS7-8-FHG-D-□-Q	3148	10	45	850
5/3 (centre ouvert)	VS7-8-FJG-D-□-Q	3148	10	45	850
5/3 (centre sous pression)	VS7-8-FIG-D-□-Q	3148	10	45	850

Taille ③

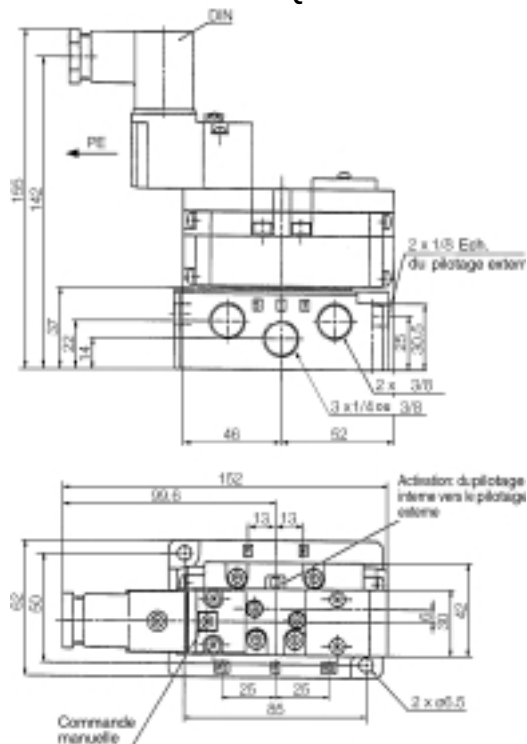
5/2 (monostable)	VS7-10-FG-S-□-Q	4900	20	25	926
5/2 (bistable)	VS7-10-FG-D-□-Q	4900	20	15	1026
5/3 (centre fermé)	VS7-10-FHG-D-□-Q	4690	10	45	1080
5/3 (centre ouvert)	VS7-10-FJG-D-□-Q	4690	10	45	1080
5/3 (centre sous pression)	VS7-10-FIG-D-□-Q	4690	10	45	1080

The diagram illustrates the pin connections for the 513 pin header. The header is divided into four sections: Taille, Configuration, Bobine, and Tension. The connections are as follows:

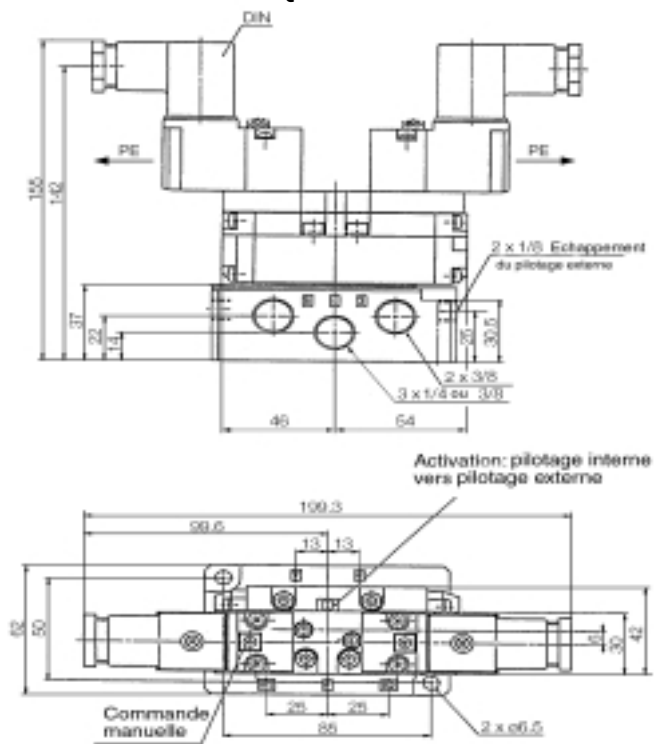
- Taille:** Pins 6, 8, and 10 are connected to ISO 1, ISO 2, and ISO 3 respectively.
- Configuration:** Pins 4 and 2 are connected to FG and FJG. Pins 5 and 13 are connected to FIG and FJG.
- Bobine:** Pins S and D are connected to Monostable and Bistable respectively.
- Tension:** Pins 5, 6, 3, 4, and 9 are connected to 110Vca, 50/60Hz; 220Vca, 50/60Hz; 24Vcc; 12Vcc; and Autres (250V ou moins) respectively.

Dimensions avec embase -Taille ①

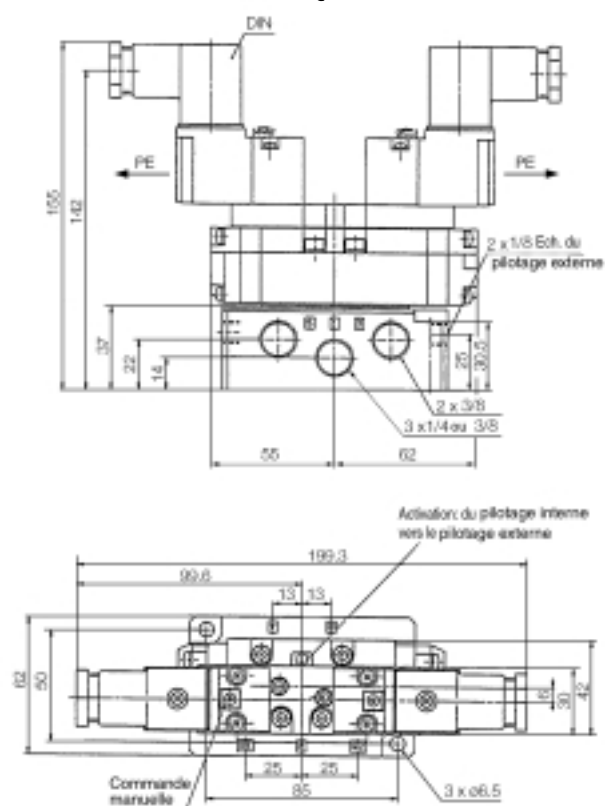
EVS7-6-FG-S-□CV-Q



EVS7-6-FG-D-□CV-Q



EVS7-6-FHG-D-□CV-Q • EVS7-6-FJG-D-□CV-Q • EVS7-6-FIG-D-□CV-Q



Pour commander l'embase - Taille ②



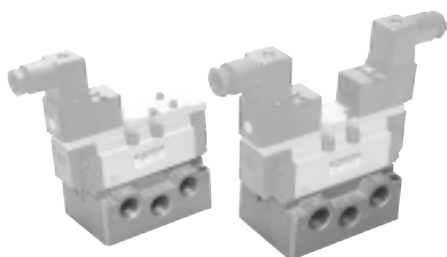
Electrodistributeur compatible	ISO taille 2
Taille de l'embase	ISO taille 2
Raccordement	Raccordement latéral: 3/8 1/2, 3/4
	Raccordement arrière: 3/8 1/2, 3/4
Masse	0.68 (3/8, 1/2) 1.29 (3/4)

Pour commander l'embase

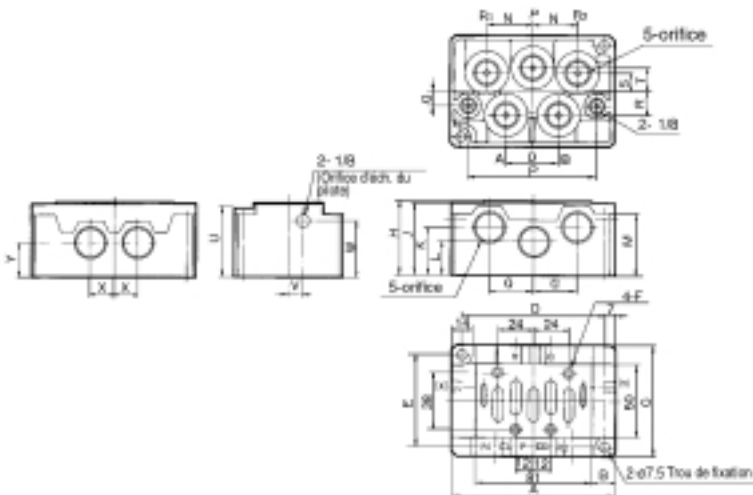
E	VS7-2-	A03	Filetage
			- Rc(PT)
			F G(PF)
			N NPT
			T NPTF

Code	Pays
-	Japon, Asie Australie
E	Europe
N	Amerique du nord

Raccordement et orifices
A03 Latéral 3/8
A04 Latéral 1/2
A06 Latéral 3/4
B03 Arrière 3/8
B04 Arrière 1/2
B06 Arrière 3/4



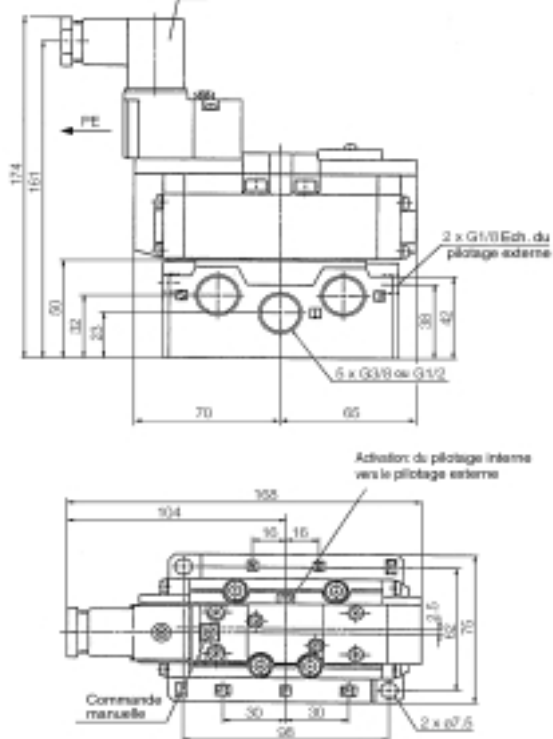
Dimensions



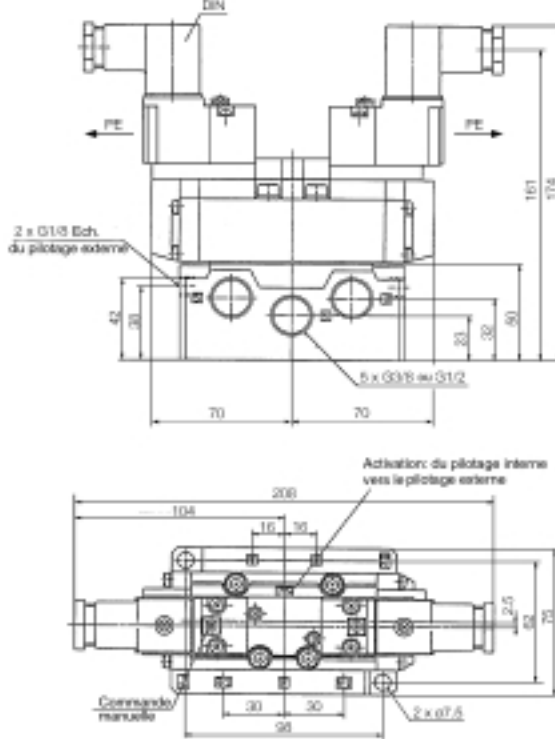
	Raccord.	Orifice	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
EV57-2-A03	Latéral																									
A04																										
EV57-2-B03	Direct																									
B04																										
EV57-2-A06	Latéral																									
EV57-2-B06	Direct																									

Dimensions avec embase - Taille ②

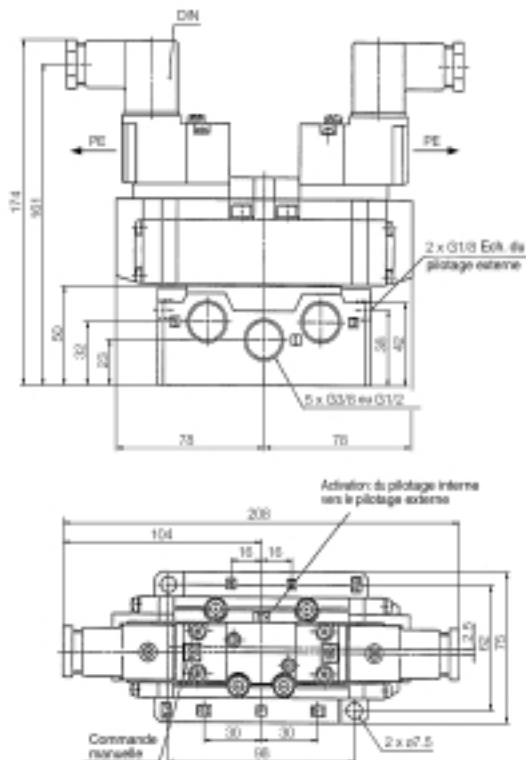
EVS7-8-FG-S-□CV-Q



EVS7-8-FG-D-□CV-Q



EVS7-8-FHG-D-□CV-Q • EVS7-8-FJG-D-□CV-Q • EVS7-8-FIG-D-□CV-Q



Pour commander des embases



Caractéristiques



*) Disponibles pour embases de taille ISO1 et ISO2 et sont identiques à celles des séries sur les distributeurs VS7-6/8 et VQ7-6/8. Pour plus de détails sur les caractéristiques, les options, la commande et les dimensions, reportez-vous aux séries.

Pour commander des embases



*) Disponibles pour embases de taille ISO1 et ISO2 et sont identiques à celles des séries sur les distributeurs VS7-6/8 et VQ7-6/8. Pour plus de détails sur les caractéristiques, les options, la commande et les dimensions, reportez-vous aux séries.

Options



*) Disponibles pour embases de taille ISO1 et ISO2 et sont identiques à celles des séries sur les distributeurs VS7-6/8 et VQ7-6/8. Pour plus de détails sur les caractéristiques, les options, la commande et les dimensions, reportez-vous aux séries.

Dimensions



*) Disponibles pour embases de taille ISO1 et ISO2 et sont identiques à celles des séries sur les distributeurs VS7-6/8 et VQ7-6/8. Pour plus de détails sur les caractéristiques, les options, la commande et les dimensions, reportez-vous aux séries.

Solenoid Valve (with M12 Connector) Conforming to ISO Standard

Series *EVS7-6*, *7-8*, *7-10* (Size 1) (Size 2) (Size 3)



Large capacity

	Flow rate	Cylinder driving size
EVS7-6 (Size 1)	1200L/min (ANR)	ø100
EVS7-8 (Size 2)	3000L/min (ANR)	ø160
EVS7-10 (Size 3)	5500L/min (ANR)	ø200

*Rubber seal, single type

Light weight

Size 1 (3-position): 0.55kg

Size 2 (3-position): 0.80kg

Size 3 (3-position): 1.13kg

Interface conforms to ISO standard

Size 1 (**EVS7-6**), Size 2 (**EVS7-8**), and Size 3 (**EVS7-10**)

Conform to ISO5599/1

Reduced installation space

Up to 7% reduction in square area installation (compared to Series EVS7)
Up to 35% reduction in cubic area installation (for Cnomo)

Accommodates enclosure IP65

Dust/Splashproof type

Wide variety of manifold option

How to Order

Valve

EVS7 — **6** — **FG** — **S** — **3** **M0**

Size ●

6	Size 1
8	Size 2
10	Size 3

- Thread type

Nil	Rc
F	G
T	NPTF

Passage symbol ●

FG	(A)(B) 4 2 5 1 3 (R1)(P1)(R2)
FHG	(A)(B) 4 2 5 1 3 (R1)(P1)(R2)
FJG	(A)(B) 4 2 5 1 3 (R1)(P1)(R2)
FIG	(A)(B) 4 2 5 1 3 (R1)(P1)(R2)
FPG*	(A)(B) 4 2 5 1 3 (R1)(P1)(R2)

*Available for only 7-6 and 7-8

Number of solenoids ●

S	Single
D	Double

Rated coil voltage ●

3	24VDC
4	12VDC
9	Voltage other than above (50VDC or less)

- **Port size**

Symbol	Piping specifications	Size 1	Size 2	Size 3
Nil	Without sub-plate	○	○	○
A02	Side-ported 1/4	○		
A03	Side-ported 3/8	○	○	
A04	Side-ported 1/2		○	○
A06	Side-ported 3/4		○	○
A10	Side-ported 1			○
B02	Bottom-ported 1/4	○		
B03	Bottom-ported 3/8	○	○	
B04	Bottom-ported 1/2		○	○
B06	Bottom-ported 3/4		○	○

- **Sealing type**

Nil	Metal seal
R	Rubber seal

- **Option**

Nil	None
Z	Indicator light with surge voltage suppressor

Sub-plate

VS7-1-A02

Size ●

1	Size 1
2	Size 2
3	Size 3

- Thread type

Nil	Rc
F	G
T	NPTF

Port size ●

Symbol	Piping specifications	Size 1	Size 2	Size 3
A02	Side-ported 1/4	○		
A03	Side-ported 3/8	○	○	
A04	Side-ported 1/2		○	○
A06	Side-ported 3/4		○	○
A10	Side-ported 1			○
B02	Bottom-ported 1/4	○		
B03	Bottom-ported 3/8	○	○	
B04	Bottom-ported 1/2		○	○
B06	Bottom-ported 3/4		○	○

Specifications

Model	Piping specifications			Weight (kg)
	Piping direction	Port size for 1(P), 2(B), 4(A)	Port size for 3(R2), 5(R1)	
VS7-1-A02	Horizontal	1/4	3/8	0.37
VS7-1-A03		3/8		
VS7-1-B02	Bottom	1/4	3/8	
VS7-1-B03		3/8		
VS7-2-A03	Horizontal	3/8		0.68
VS7-2-A04		1/2		
VS7-2-A06		3/4		1.29
VS7-2-B03	Bottom	3/8		0.68
VS7-2-B04		1/2		
VS7-2-B06		3/4		1.29
VS7-3-A04	Horizontal	1/2	3/4	1.50
VS7-3-A06		3/4		
VS7-3-A10		1	3/4	
VS7-3-B04	Bottom	1/2		
VS7-3-B06		3/4		

How to Order

Control unit type

Symbol	Nil	A	AP	M	MP	F	G	C	E
Control component									
Air filter with auto drain		○	○			○			
Air filter with manual drain				○	○		○		
Regulator		○	○	○	○	○	○		
Air release valve		○	○	○	○			○	○
Pressure switch			○		○				
Blanking plate (Air release valve)						○	○		
Blanking plate (Filter, Regulator)								○	
No. of stations for mounting		2	2	2	2	2	2	2	1

2(B), 4(A) port size

02R	1/4 (Right side)
03R	3/8 (Right side)
02L	1/4 (Left side)
03L	3/8 (Left side)
02Y	1/4 (Bottom)
03Y	3/8 (Bottom)
C6R	ø6 One-touch fitting (Right side)
C8R	ø8 One-touch fitting (Right side)
C10R	ø10 One-touch fitting (Right side)
C6L	ø6 One-touch fitting (Left side)
C8L	ø8 One-touch fitting (Left side)
C10L	ø10 One-touch fitting (Left side)
*	Mixed

1(P), 3(R2), 5(R1) port size

02D	1/4 (Down side)
02U	1/4 (Up side)
02B	1/4 (Both sides)
03D	3/8 (Down side)
03U	3/8 (Up side)
03B	3/8 (Both sides)
C12D	ø12 One-touch fitting (Down side)
C12U	ø12 One-touch fitting (Up side)
C12B	ø12 One-touch fitting (Both sides)
*	Mixed

Size

1	Size 1
---	--------

VV71	6	02R			02D			
VV72	6	03R			04D			

Size

2	Size 2
---	--------

Stations

1	1 station
⋮	⋮
10	10 stations

2(B), 4(A) port size

03R	3/8 (Right side)
04R	1/2 (Right side)
03L	3/8 (Left side)
04L	1/2 (Left side)
03Y	3/8 (Bottom)
04Y	1/2 (Bottom)
*	Mixed

Thread type

Nil	Rc
F	G
T	NPTF

Air release valve

Nil	None
E	With air release valve

Rated coil voltage for air release valve

Nil	None
3	24VDC
4	12VDC
9	Voltage other than above (50VDC or less)

Silencer box

Nil	None
SB	With silencer box

Thread type

Nil	Rc
F	G
T	NPTF

1(P), 3(R2), 5(R1) port size

04D	1/2 (Down side)
04U	1/2 (Up side)
04B	1/2 (Both sides)
06D	3/4 (Down side)
06U	3/4 (Up side)
06B	3/4 (Both sides)

Series EVS7-□

Models

Series EVS7-6



Positions			Bore Size	Flow rate characteristics					
				1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
				C	b	Cv	C	b	Cv
2-position	Single	Metal seal	1/4	4.1	0.10	0.9	5.2	0.07	1.1
		Rubber seal		5.0	0.13	1.1	6.0	0.11	1.4
	Double	Metal seal		4.1	0.10	0.9	5.2	0.07	1.1
		Rubber seal		5.0	0.13	1.1	6.0	0.11	1.4
3-position	Closed center	Metal seal		4.1	0.10	0.9	5.2	0.10	1.1
		Rubber seal		5.0	0.13	1.1	5.6	0.20	1.3
	Exhaust center	Metal seal		4.1	0.10	0.9	5.2	0.10	1.1
		Rubber seal		4.8	0.16	1.1	6.0	0.17	1.4
	Pressure center	Metal seal		4.1	0.10	0.9	5.2	0.08	1.1
		Rubber seal		5.6	0.15	1.2	5.9	0.08	1.3
	Perfect type	Metal seal		1.4	—	—	3.1	—	—
		Rubber seal		1.4	—	—	3.1	—	—

Series EVS7-8



Positions			Bore Size	Flow rate characteristics					
				1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
				C	b	Cv	C	b	Cv
2-position	Single	Metal seal	3/8	10	0.18	2.4	12	0.24	3.0
		Rubber seal		12	0.24	3.0	13	0.27	3.3
	Double	Metal seal		10	0.18	2.4	12	0.24	3.0
		Rubber seal		12	0.24	3.0	13	0.27	3.3
3-position	Closed center	Metal seal		10	0.28	2.4	10	0.24	2.4
		Rubber seal		11	0.25	2.8	11	0.27	2.8
	Exhaust center	Metal seal		10	0.16	2.4	10	0.20	2.4
		Rubber seal		11	0.26	2.8	13	0.27	3.3
	Pressure center	Metal seal		10	0.26	2.4	11	0.25	2.8
		Rubber seal		13	0.27	3.3	12	0.29	3.0
	Perfect type	Metal seal		7.2	—	—	7.0	—	—
		Rubber seal		7.2	—	—	7.0	—	—

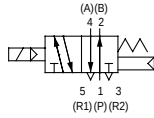
Series EVS7-10



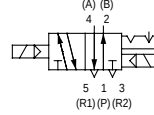
Positions			Bore Size	Flow rate characteristics					
				1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
				C	b	Cv	C	b	Cv
2-position	Single	Metal seal	1/2	13	0.10	3.0	18	0.10	4.0
		Rubber seal		16	0.20	4.0	18	0.20	4.4
	Double	Metal seal		13	0.10	3.0	18	0.10	4.0
		Rubber seal		16	0.20	4.0	18	0.20	4.4
3-position	Closed center	Metal seal		13	0.10	3.0	18	0.10	4.0
		Rubber seal		15	0.20	3.5	15	0.20	3.7
	Exhaust center	Metal seal		13	0.10	3.0	18	0.10	4.0
		Rubber seal		16	0.20	4.0	16	0.20	4.0
	Pressure center	Metal seal		13	0.10	3.0	18	0.10	4.0
		Rubber seal		15	0.20	3.8	19	0.10	4.4

Symbol

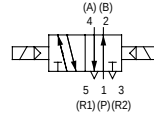
2-position single



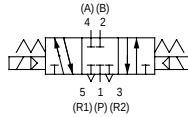
2-position double (metal)



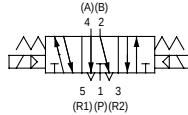
2-position double (rubber)



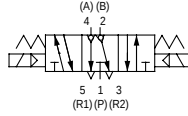
3-position closed center



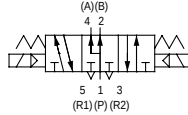
3-position exhaust center



3-position perfect



3-position pressure center



Standard Specifications

Valve specifications	Valve type		Metal seal	Rubber seal
	Fluid		Air, Inert gas	
	Maximum operating pressure		1.0MPa	
	Minimum operating pressure	Single	0.1MPa	0.1MPa
		Double	0.1MPa	0.1MPa
		3-position	0.1MPa	0.1MPa: Size 1 0.15MPa: Size 2, 3
	Ambient and fluid temperature		-10° to 60°C Note1)	-5° to 60°C Note1)
	Lubrication		None	
	Manual override		Push type (tool required)	
	Impact resistance/ Vibration resistance		150/50m/s ² Note2)	
Electric specifications	Enclosure		IP65 (Dust/Splashproof type)	
	Rated coil voltage		12VDC, 24VDC	
	Allowable voltage fluctuation		-15 to +10% of rated voltage	
	Type of coil insulation		Equivalent to class B	
	Power consumption	24VDC	1.8W DC (75mA)	
		12VDC	1.8W DC (150mA)	

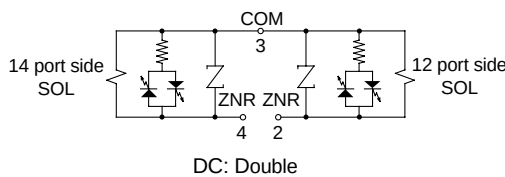
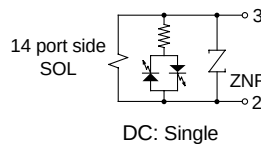
Note 1) Use dry air to prevent condensation at low temperatures.

Note 2) **Impact resistance:** No malfunction resulted during on the impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

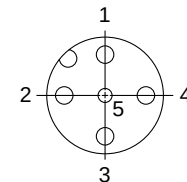
Vibration resistance: No malfunction resulted during a one-sweep test between 8.3 and 2000Hz. The test was performed in the axial and right angle directions of the main valve and armature for both energized and de-energized conditions.

Specific Product Precautions

⚠ Caution Internal Wiring Specifications



M12 connector: Wiring specifications

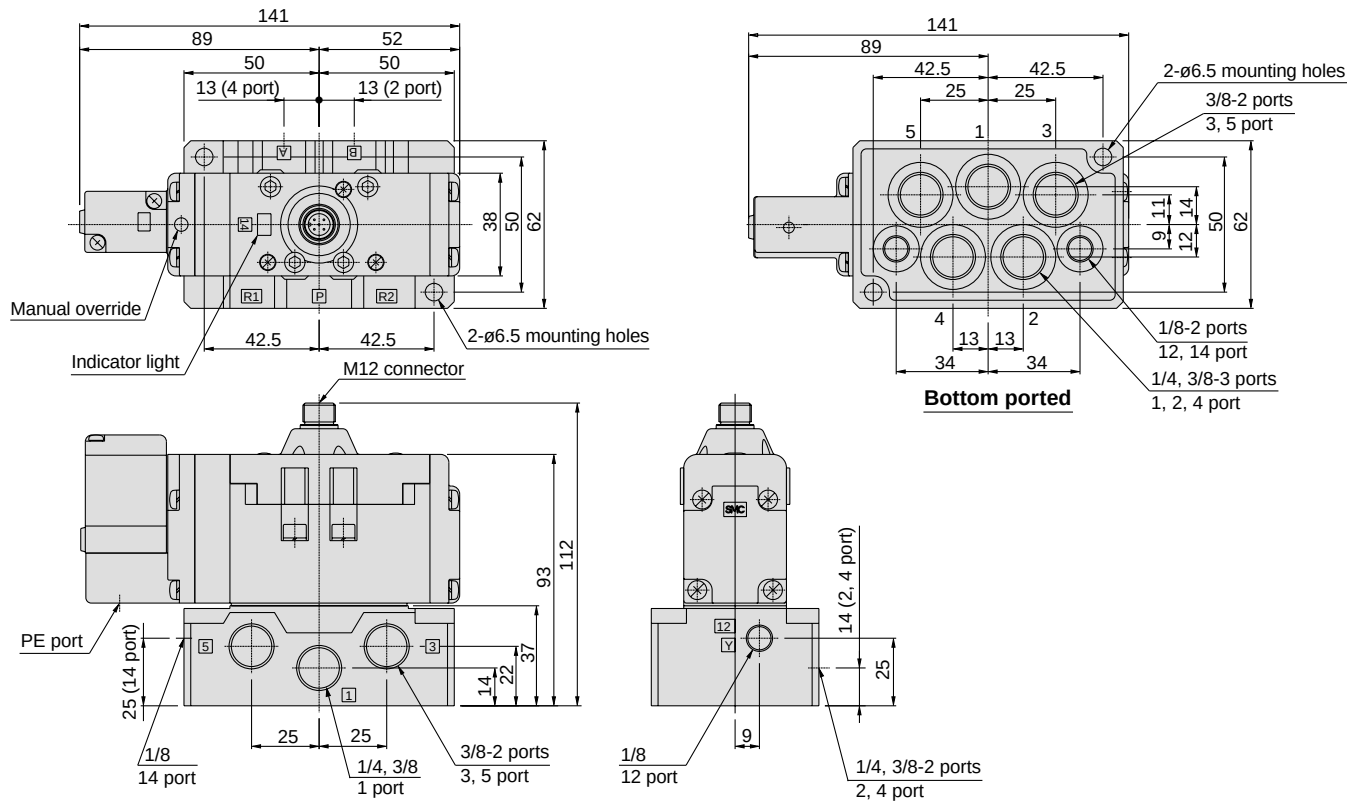


- Pin no.
1: Open
2: 12 port side SOL (+)
3: COM (-)
4: 14 port side SOL (+)
5: Ground

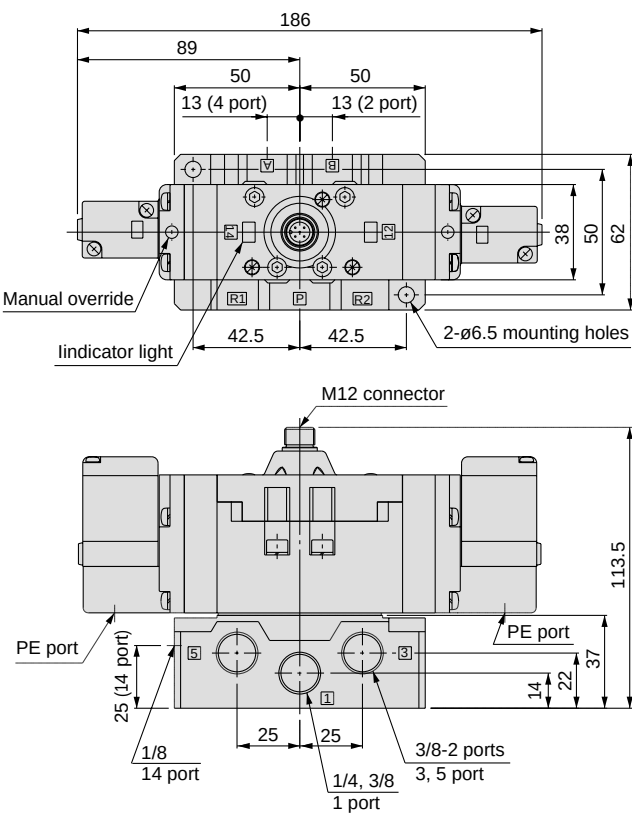
Series EVS7-□

Dimensions

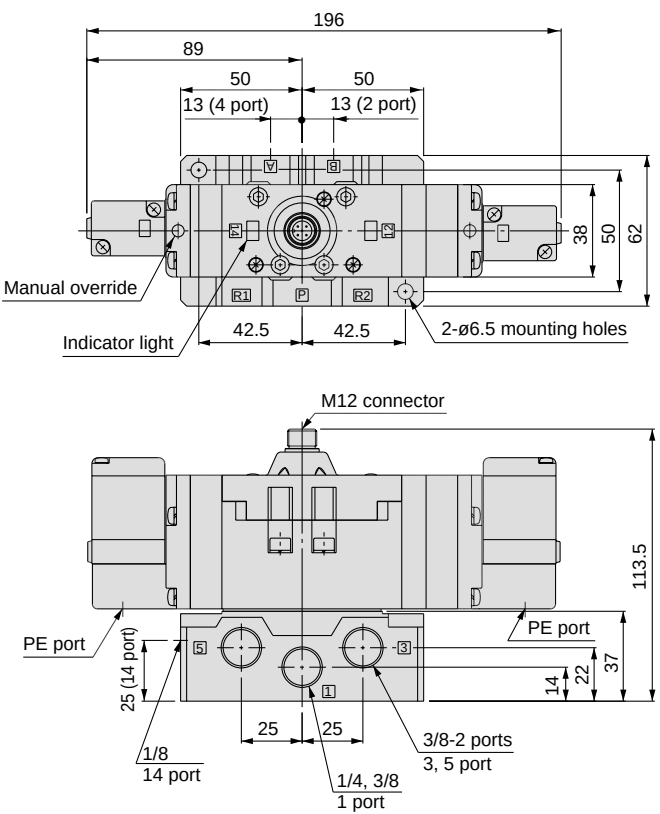
EVS7-6-FG-S-□□M0



EVS7-6-FG-D-□□M0

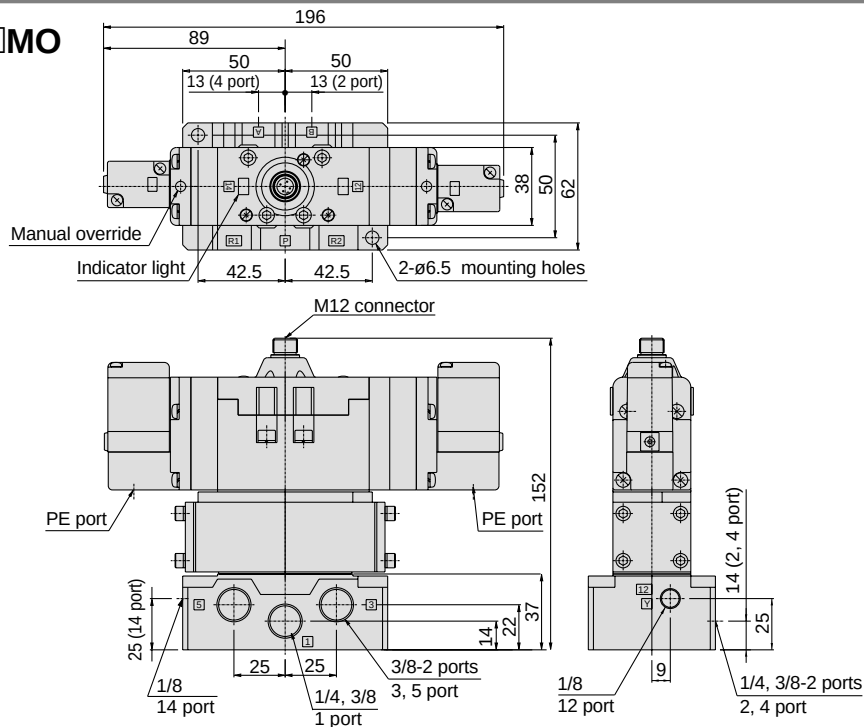


EVS7-6-F^H_JG-D-□□M0

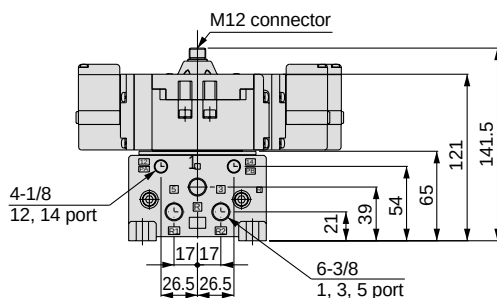
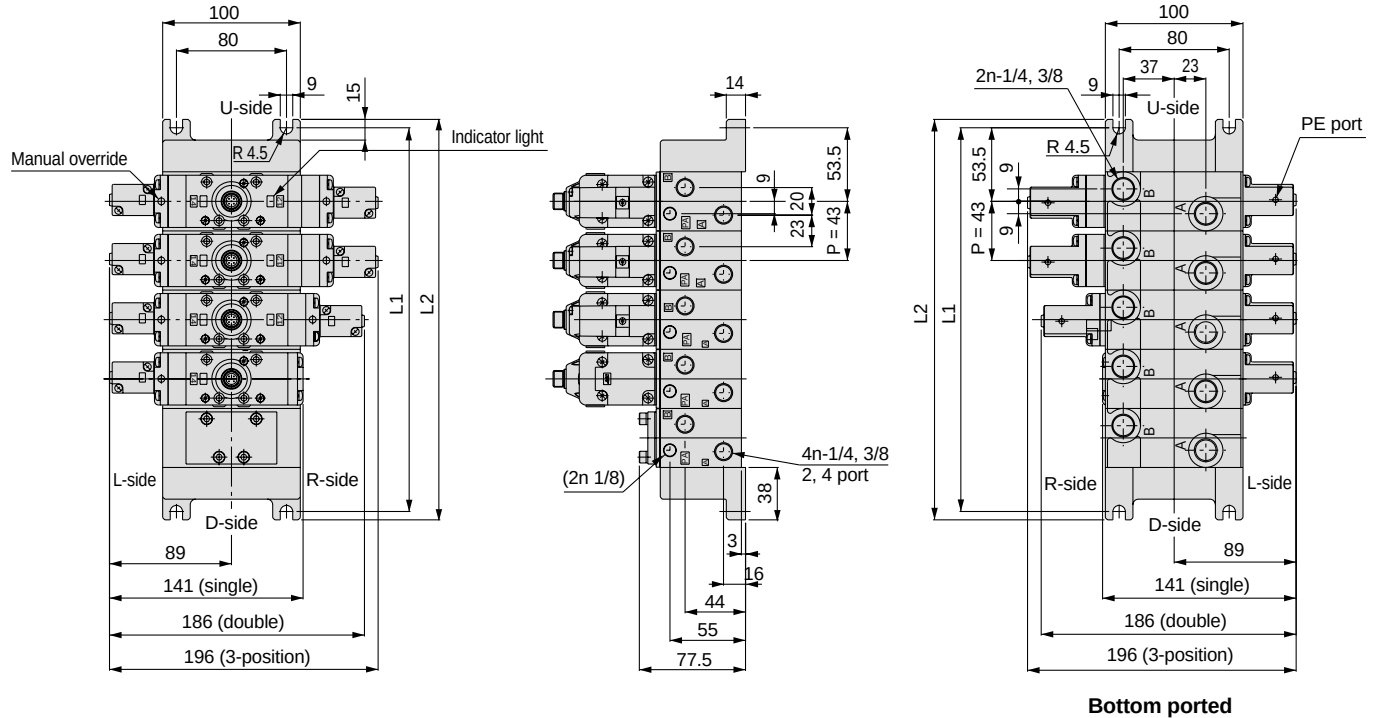


Dimensions

EVS7-6-FPG-D-□□MO



VV71□-□-□□□ (M Connector type)



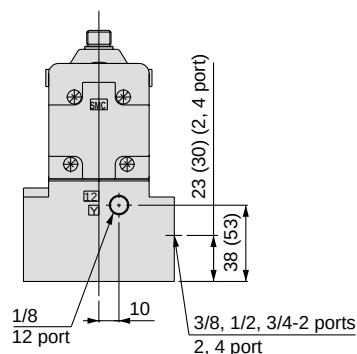
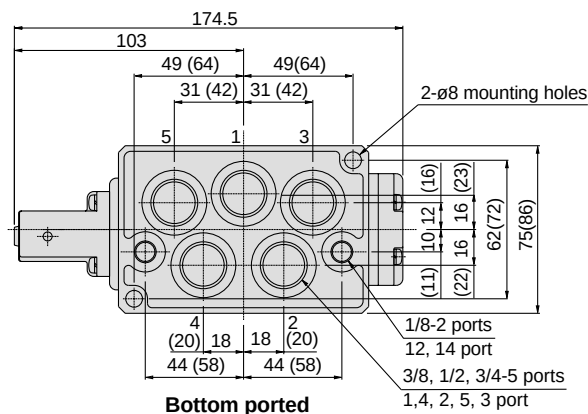
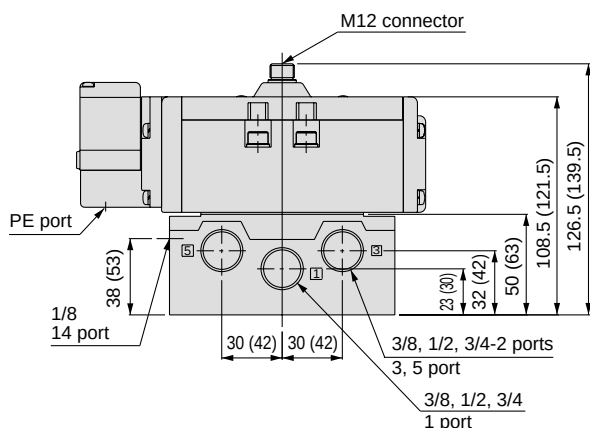
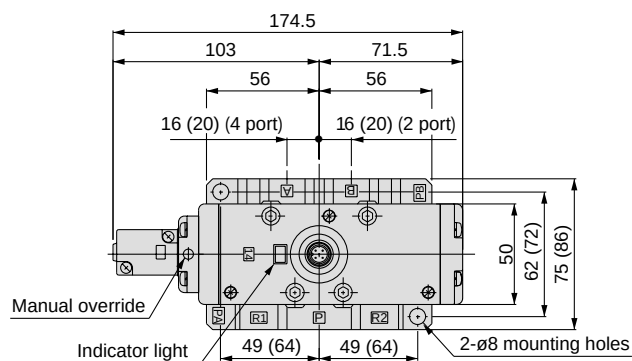
L: Dimensions

L	n: Stations										Formula
	1	2	3	4	5	6	7	8	9	10	
L1	107	150	193	236	279	322	365	408	451	494	L1 = 43n + 64
L2	119	162	205	248	291	334	377	420	463	506	L2 = 43n + 76

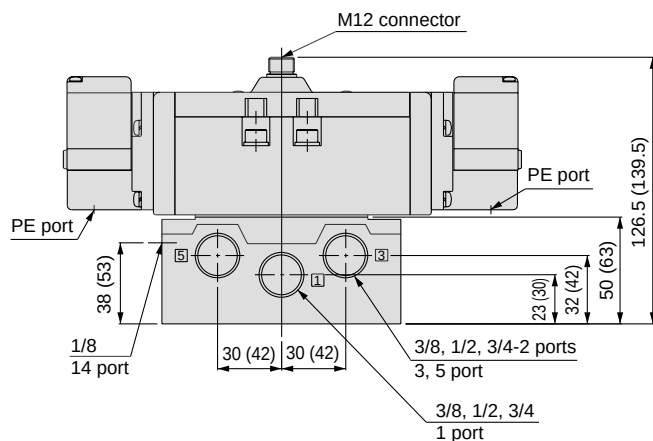
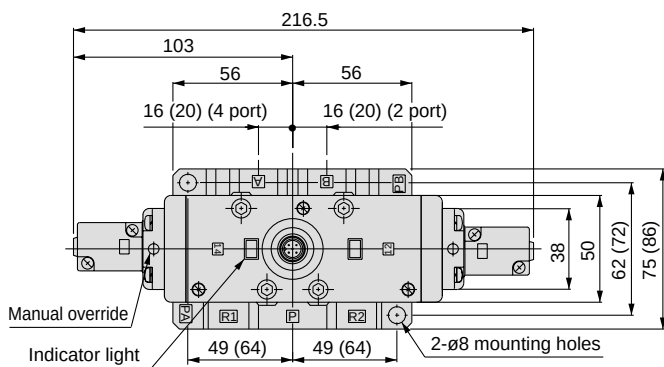
Series EVS7-□

Dimensions

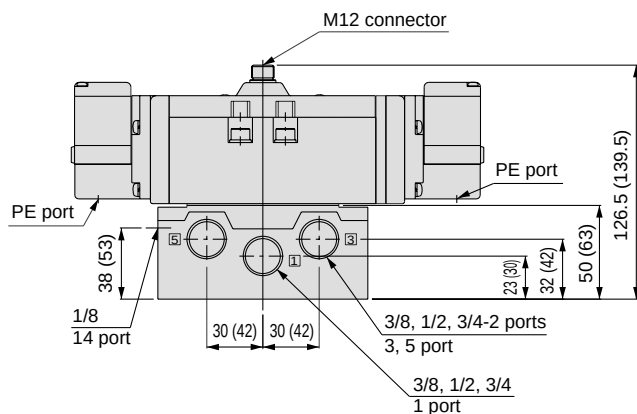
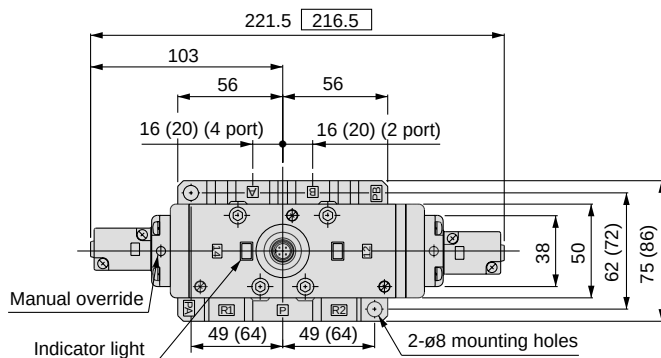
EVS7-8-FG-S-□□M0



EVS7-8-FG-D-□□M0



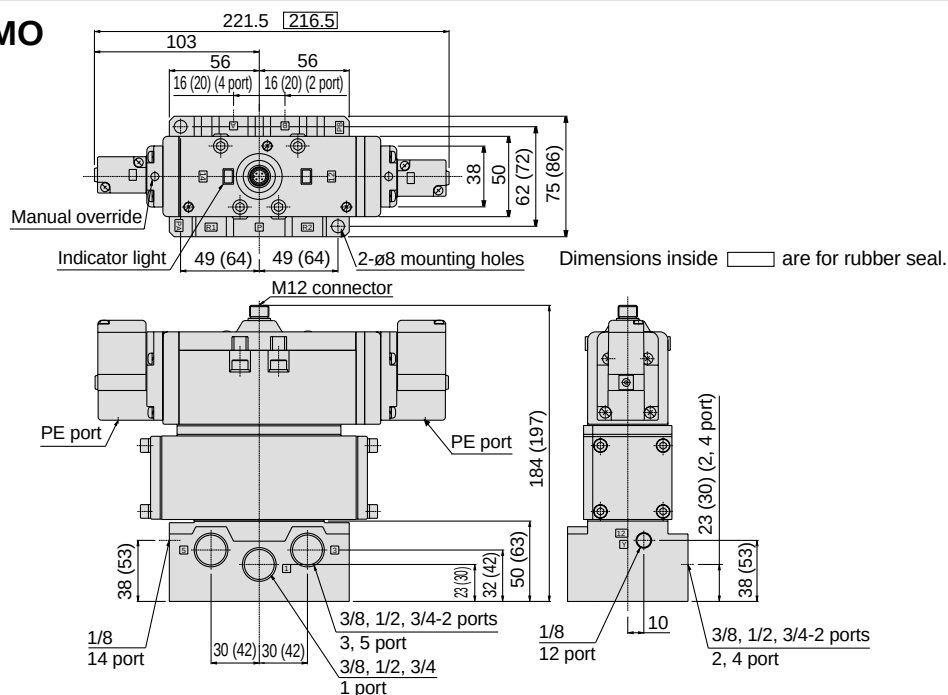
EVS7-8-F^H_IG-D-□□M0



Dimension inside [] is for rubber seal.
Dimensions inside () are for Sub-plate.

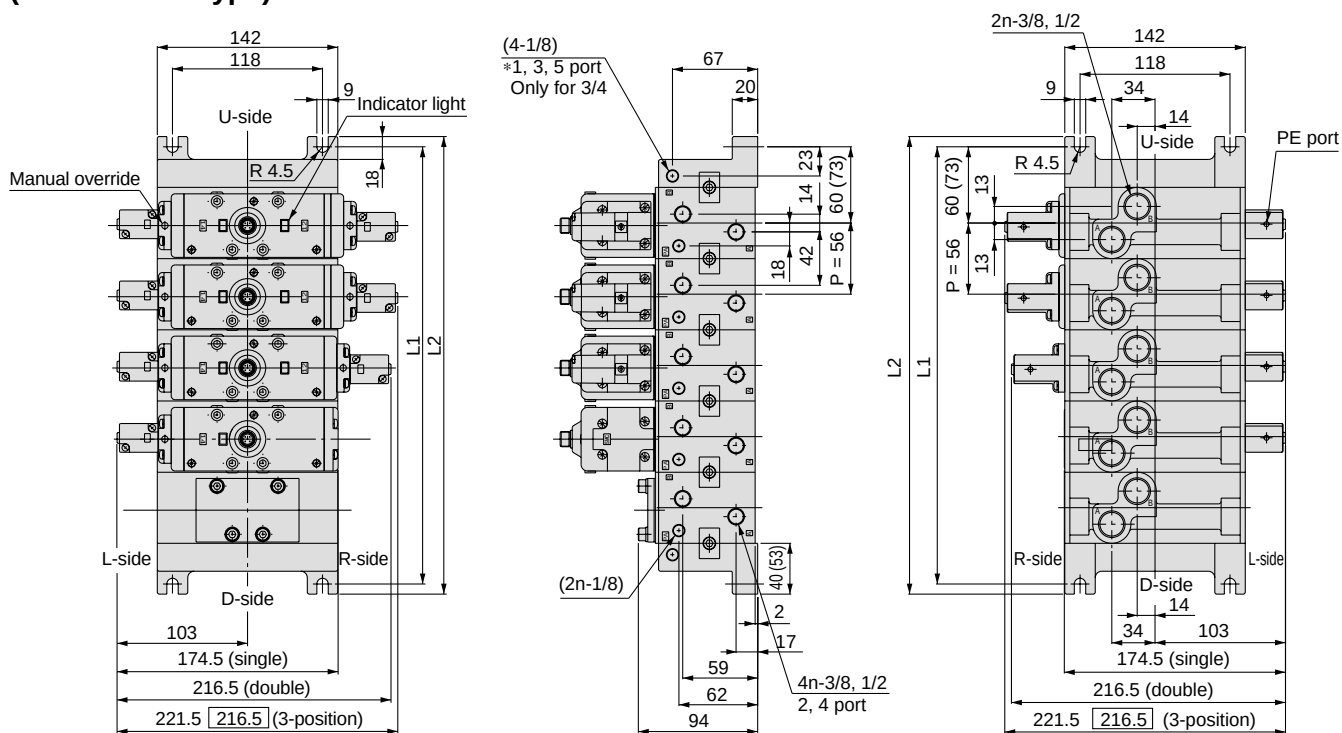
Dimensions

EVS7-8-FPG-D- MO



VV72 - -

(M connector type)



Bottom ported

L: Dimensions

n: Stations

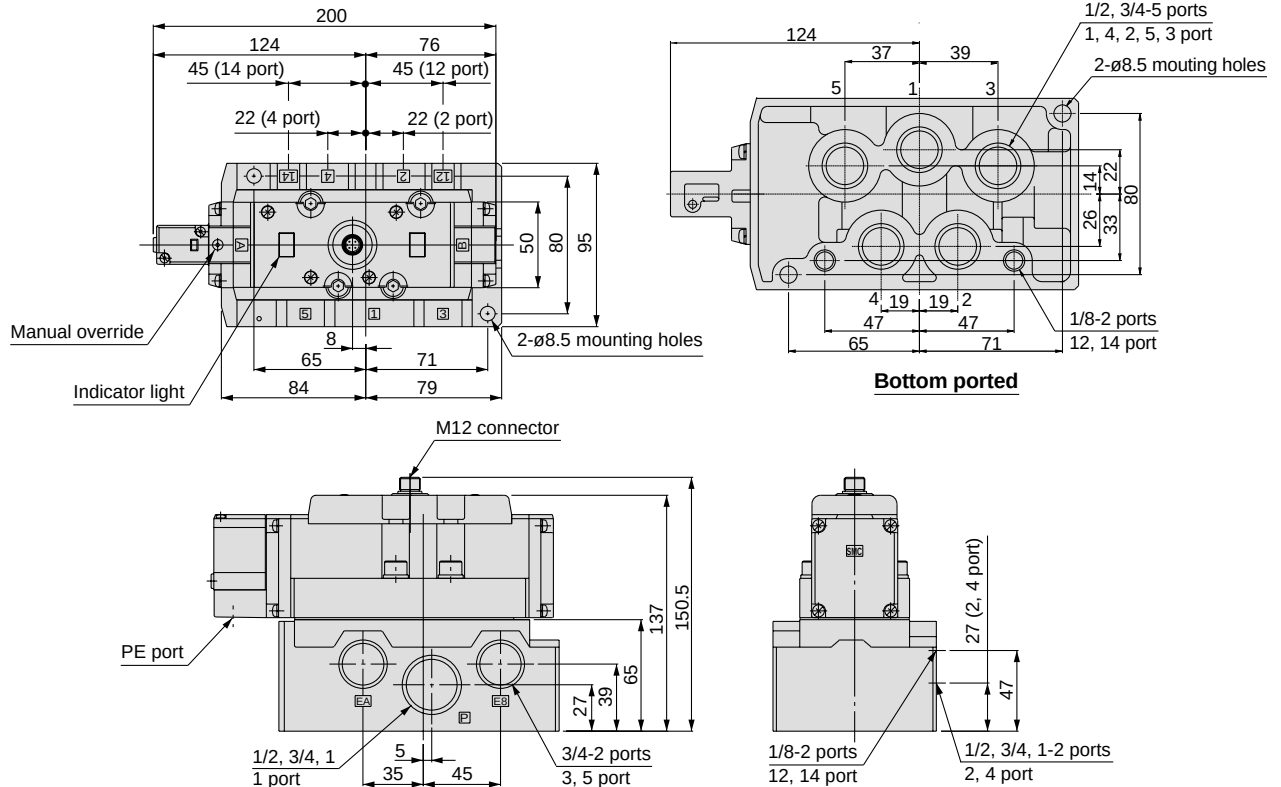
P, R1, R2 port	n	1	2	3	4	5	6	7	8	9	10	Formulas
Rc 1/2	L1	120	176	232	288	344	400	456	512	568	624	L1 = 56n + 64 L2 = 56n + 80
	L2	136	192	248	304	360	416	472	528	584	640	
Rc 3/4	L1	146	202	258	314	370	426	482	538	594	650	L1 = 56n + 90 L2 = 56n + 106
	L2	162	218	274	330	386	442	498	554	610	666	

Dimensions inside () are for Rc 3/4.
Dimensions inside are for rubber seal.

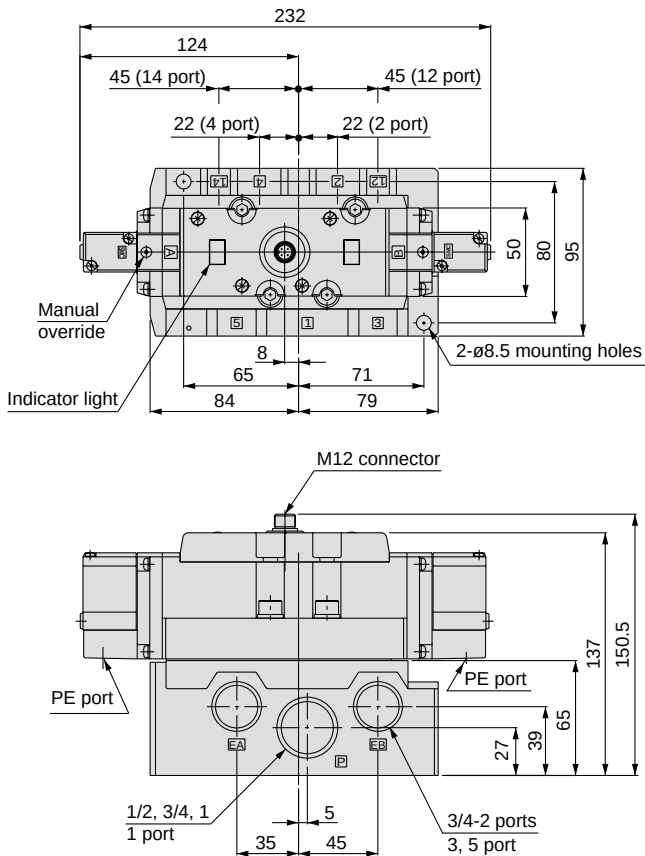
Series EVS7-□

Dimensions

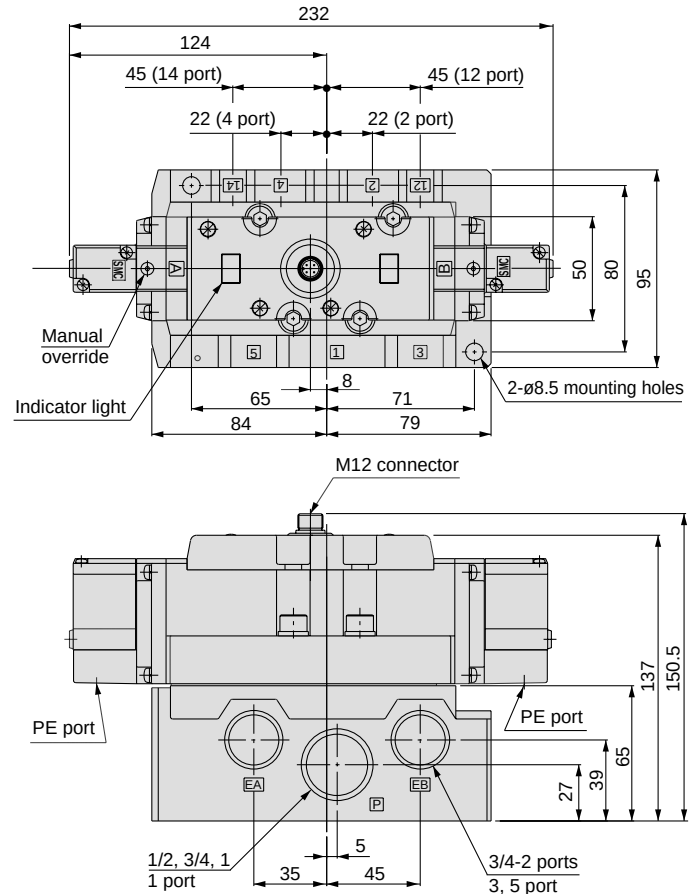
EVS7-10-FG-S-□□M0



EVS7-10-FG-D-□□M0

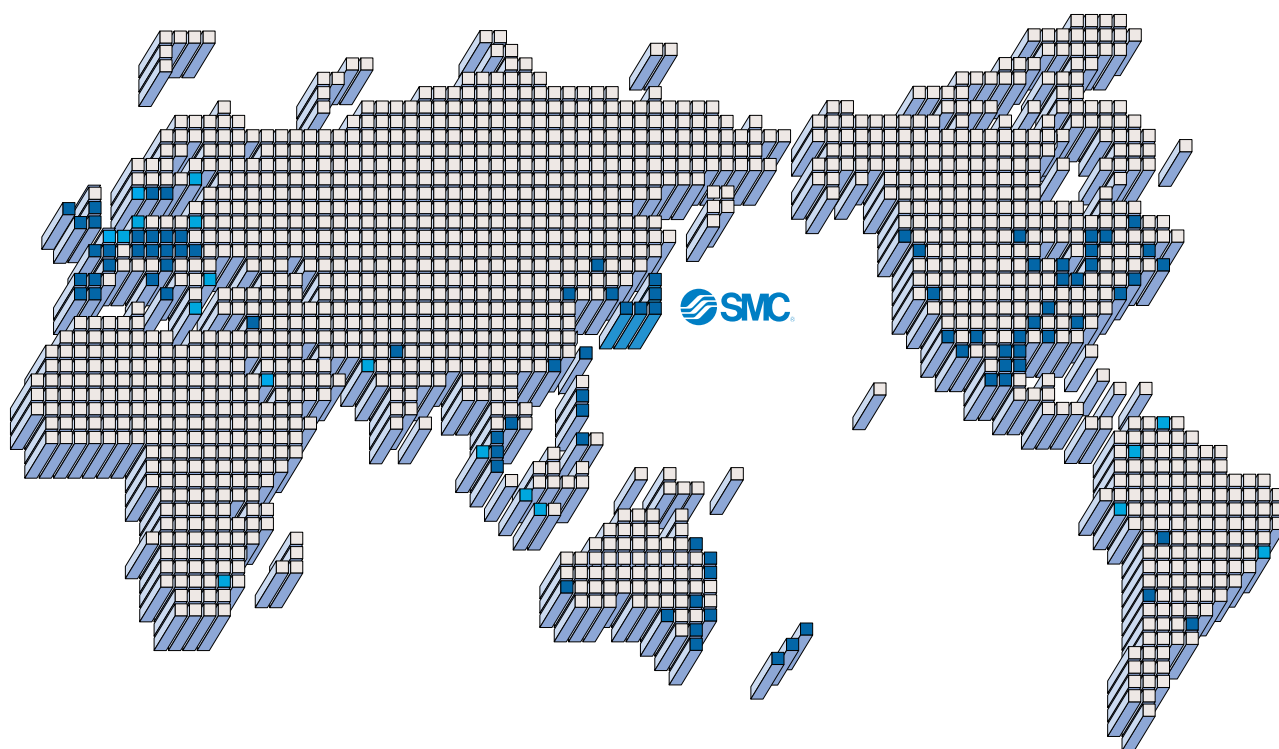


EVS7-10-F^H_IG-D-□□M0





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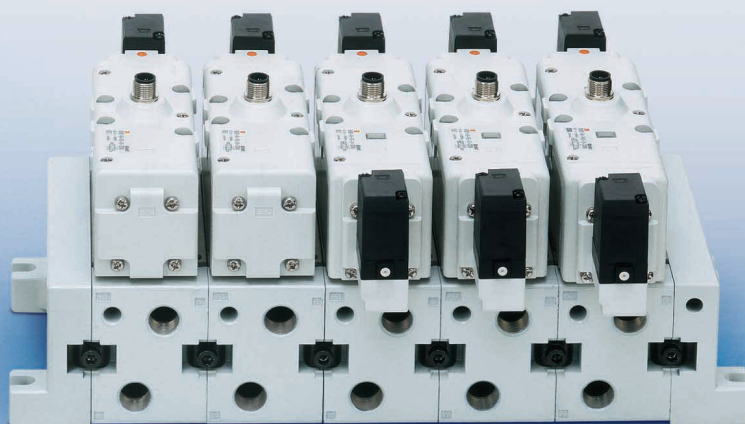
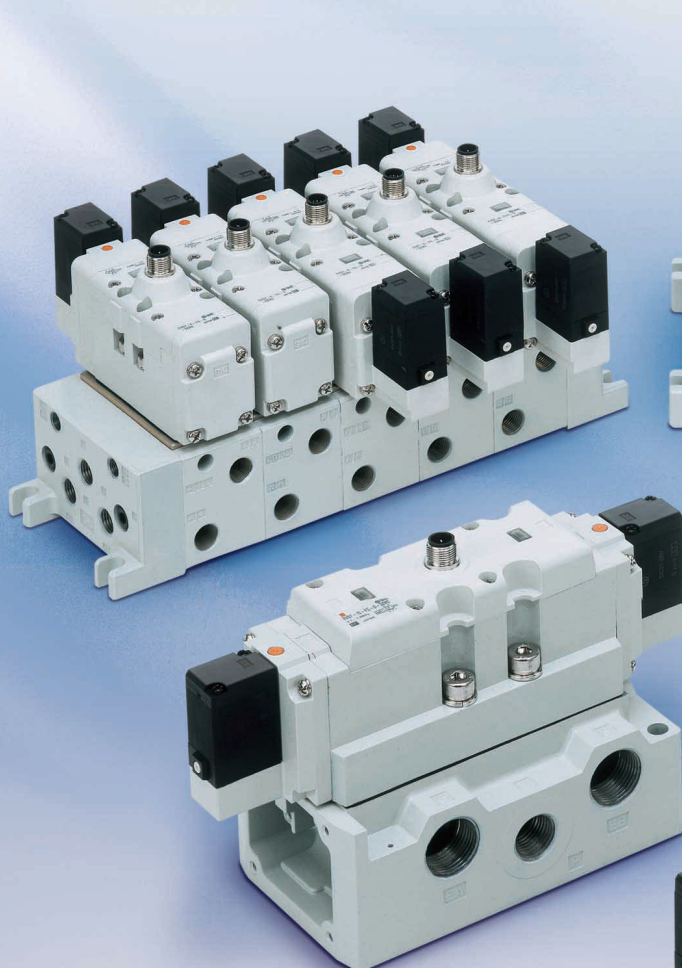
URL <http://www.smcworld.com>

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Electrodistributeur (avec connecteur M12)
Conforme à la norme ISO

Série EVS7-6, 7-8, 7-10

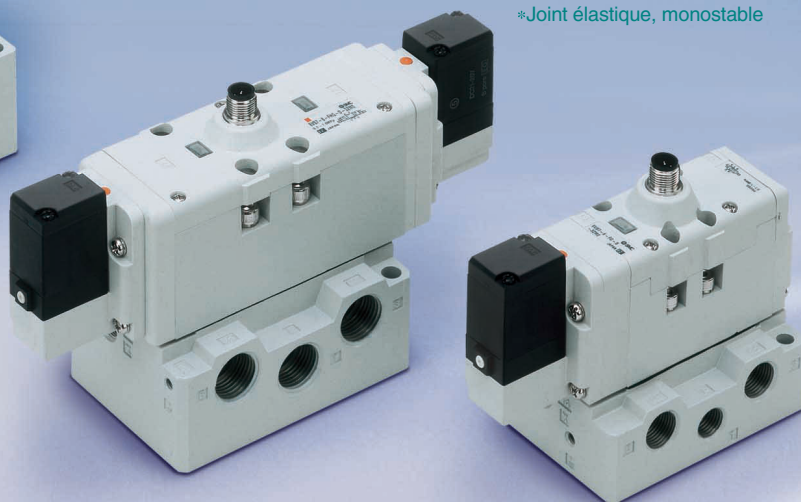
(Taille 1) (Taille 2) (Taille 3)



Grande capacité

	Débit	Taille des vérins
EVS7-6 (Taille 1)	1200L/min (ANR)	ø100
EVS7-8 (Taille 2)	3000L/min (ANR)	ø160
EVS7-10 (Taille 3)	5500L/min (ANR)	ø200

*Joint élastique, monostable



Léger

Taille 1 (5/3): 0.55kg

Taille 2 (5/3): 0.80kg

Taille 3 (5/3): 1.13kg

Conforme à la norme ISO

Taille 1 (EVS7-6), Taille 2 (EVS7-8), et Taille 3 (EVS7-10)

Conforme à la norme ISO 5599/1

Degré de protection IP65

Poussières et éclaboussures

Encombrement réduit

Jusqu'à 7% de réduction de la section (comparé à la série EVS7 Cnomo)

Jusqu'à 35% de réduction du volume

Grande variété d'options d'embases

Pour passer commande

Distributeur

EVS7 — **6** — **FG** — **S** — **3** **M0** — **Q**

Taille	
6	Taille 1
8	Taille 2
10	Taille 3

Taille ●

- **Type de filetage**

Nil	Rc
F	G
T	NPTF

Symbole ●

FG	(A)(B) 4 2 5 1 3 (R1)(P)(R2)
FHG	(A)(B) 4 2 5 1 3 (R1)(P)(R2)
FJG	(A)(B) 4 2 5 1 3 (R1)(P)(R2)
FIG	(A)(B) 4 2 5 1 3 (R1)(P)(R2)
FPG*	(A)(B) 4 2 5 1 3 (R1)(P)(R2)

*Valable seulement pour 7-6 et 7-8

Nombre de bobines

S	Monostable
D	Bistable

Tension ●

3	24Vcc
4	12Vcc
9	Autres tensions (50Vcc Maxi)

- **Orifice**

Symbole	Caract. de racc.	Taille 1	Taille 2	Taille 3
Nil	Sans embase	○	○	○
A02	Raccord latéral 1/4	○		
A03	Raccord latéral 3/8	○	○	
A04	Raccord latéral 1/2		○	○
A06	Raccord latéral 3/4		○	○
A10	Raccord latéral 1			○
B02	Racc. inférieur 1/4	○		
B03	Racc. inférieur 3/8	○	○	
B04	Racc. inférieur 1/2		○	○
B06	Racc. inférieur 3/4		○	○

- **Type de joint**

Nil	Tiroir inox
R	Joint élastique

- **Option**

Nil	Rien
Z	Visualisation avec protection de circuit

Embase

VS7-1-A02

Taille	
1	Taille 1
2	Taille 2
3	Taille 3

Taille ●

● Type de filetage

Nil	Rc
F	G
T	NPTF

Orifice ●

Symbole	Piping specifications	Taille 1	Taille 2	Taille 3
A02	Raccord latéral 1/4	○		
A03	Raccord latéral 3/8	○	○	
A04	Raccord latéral 1/2		○	○
A06	Raccord latéral 3/4		○	○
A10	Raccord latéral 1			○
B02	Racc. inférieur 1/4	○		
B03	Racc. inférieur 3/8	○	○	
B04	Racc. inférieur 1/2		○	○
B06	Racc. inférieur 3/4		○	○

Caractéristiques

Modèle	Caractéristiques de raccordement			Poids (kg)
	Sens de racc.	Raccord pour 1(P), 2(B), 4(A)	Raccord pour 3(R2), 5(R1)	
VS7-1-A02	Horizontal	1/4	3/8	0.37
VS7-1-A03		3/8		
VS7-1-B02	Dessous	1/4	3/8	
VS7-1-B03		3/8		
VS7-2-A03	Horizontal	3/8		0.68
VS7-2-A04		1/2		
VS7-2-A06		3/4		1.29
VS7-2-B03	Dessous	3/8		0.68
VS7-2-B04		1/2		
VS7-2-B06		3/4		1.29
VS7-3-A04	Horizontal	1/2	3/4	1.50
VS7-3-A06		3/4		
VS7-3-A10		1	3/4	
VS7-3-B04	Dessous	1/2		
VS7-3-B06		3/4		

Pour passer commande

Type d'unité de commande

Symbole	Nil	A	AP	M	MP	F	G	C	E
Composant de commande									
Filtre avec purge auto		○	○			○			
Filtre avec purge manuelle				○	○		○		
Régulateur		○	○	○	○	○	○		
Valve de décharge		○	○	○	○			○	○
Pressostat			○		○				
Plaque d'obturation (valve de décharge)						○	○		
Plaque d'obturation (Filtre, Régulateur)								○	
Nbre de stations pour montage		2	2	2	2	2	2	2	1

Raccordement 2(B), 4(A)

02R	1/4 (Côté droit)
03R	3/8 (Côté droit)
02L	1/4 (Côté gauche)
03L	3/8 (Côté gauche)
02Y	1/4 (Dessous)
03Y	3/8 (Dessous)
C6R	ø6 Racc. instant. (Côté droit)
C8R	ø8 Racc. instant. (Côté droit)
C10R	ø10 Racc. instant. (Côté droit)
C6L	ø6 Racc. instant. (Côté gauche)
C8L	ø8 Racc. instant. (Côté gauche)
C10L	ø10 Racc. instant. (Côté gauche)
*	Combiné

Raccordement 1(P), 3(R2), 5(R1)

02D	1/4 (Côté D)
02U	1/4 (Côté U)
02B	1/4 (Côté U et D)
03D	3/8 (Côté D)
03U	3/8 (Côté U)
03B	3/8 (Côté U et D)
C12D	ø12 Racc. instantané (Côté D)
C12U	ø12 Racc. instantané (Côté U)
C12B	ø12 Racc. instantané (Côté U et D)
*	Combiné

Embase

VV71 6 02R 02D — Q

VV72 6 03R 04D — Q

Taille 2 Taille 2

Stations

1	1 station
⋮	⋮
10	10 stations

Raccordement 2(B), 4(A)

03R	3/8 (Côté droit)
04R	1/2 (Côté droit)
03L	3/8 (Côté gauche)
04L	1/2 (Côté gauche)
03Y	3/8 (Dessous)
04Y	1/2 (Dessous)
*	Combiné

Type de filetage

Nil	Rc
F	G
T	NPTF

Valve de décharge

Nil	Rien
E	Avec valve de décharge

Tension nominale pour la valve de décharge

Nil	Rien
3	24Vcc
4	12Vcc
9	Autres tensions (50Vcc maxi)

Silencieux

Nil	Sans
SB	Avec silencieux

Type de filetage

Nil	Rc
F	G
T	NPTF

Raccordement 1(P), 3(R2), 5(R1)

04D	1/2 (Côté D)
04U	1/2 (Côté U)
04B	1/2 (Côté U et D)
06D	3/4 (Côté D)
06U	3/4 (Côté U)
06B	3/4 (Côté U et D)

Modèles

Série EVS7-6



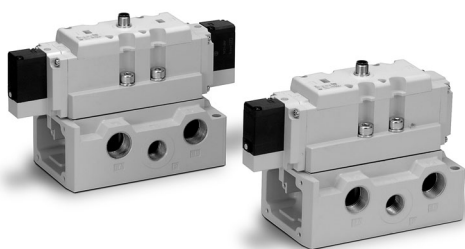
Type de distributeurs			Racc.	Débit nominal					
				1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
				C	b	Cv	C	b	Cv
5/2	Monostable	Tiroir inox	1/4	4.1	0.10	0.9	5.2	0.07	1.1
		Joint élast.		5.0	0.13	1.1	6.0	0.11	1.4
	Bistable	Tiroir inox		4.1	0.10	0.9	5.2	0.07	1.1
		Joint élast.		5.0	0.13	1.1	6.0	0.11	1.4
5/3	Centre fermé	Tiroir inox		4.1	0.10	0.9	5.2	0.10	1.1
		Joint élast.		5.0	0.13	1.1	5.6	0.20	1.3
	Centre ouvert	Tiroir inox		4.1	0.10	0.9	5.2	0.10	1.1
		Joint élast.		4.8	0.16	1.1	6.0	0.17	1.4
	Centre sous pression	Tiroir inox		4.1	0.10	0.9	5.2	0.08	1.1
		Joint élast.		5.6	0.15	1.2	5.9	0.08	1.3
	Double clapet piloté	Tiroir inox		1.4	—	—	3.1	—	—
		Joint élast.		1.4	—	—	3.1	—	—

Série EVS7-8



Type de distributeurs			Racc.	Débit nominal					
				1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
				C	b	Cv	C	b	Cv
5/2	Monostable	Tiroir inox	3/8	10	0.18	2.4	12	0.24	3.0
		Joint élast.		12	0.24	3.0	13	0.27	3.3
	Bistable	Tiroir inox		10	0.18	2.4	12	0.24	3.0
		Joint élast.		12	0.24	3.0	13	0.27	3.3
5/3	Centre fermé	Tiroir inox		10	0.28	2.4	10	0.24	2.4
		Joint élast.		11	0.25	2.8	11	0.27	2.8
	Centre ouvert	Tiroir inox		10	0.16	2.4	10	0.20	2.4
		Joint élast.		11	0.26	2.8	13	0.27	3.3
	Centre sous pression	Tiroir inox		10	0.26	2.4	11	0.25	2.8
		Joint élast.		13	0.27	3.3	12	0.29	3.0
	Double clapet piloté	Tiroir inox		7.2	—	—	7.0	—	—
		Joint élast.		7.2	—	—	7.0	—	—

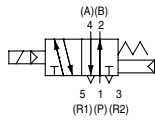
Série EVS7-10



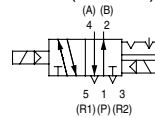
Type de distributeurs			Racc.	Débit nominal					
				1→4, 2 (P→A, B)			4, 2→5, 3 (A, B→EA, EB)		
				C	b	Cv	C	b	Cv
5/2	Monostable	Tiroir inox	1/2	13	0.10	3.0	18	0.10	4.0
		Joint élast.		16	0.20	4.0	18	0.20	4.4
	Bistable	Tiroir inox		13	0.10	3.0	18	0.10	4.0
		Joint élast.		16	0.20	4.0	18	0.20	4.4
5/3	Centre fermé	Tiroir inox		13	0.10	3.0	18	0.10	4.0
		Joint élast.		15	0.20	3.5	15	0.20	3.7
	Centre ouvert	Tiroir inox		13	0.10	3.0	18	0.10	4.0
		Joint élast.		16	0.20	4.0	16	0.20	4.0
	Centre sous pression	Tiroir inox		13	0.10	3.0	18	0.10	4.0
		Joint élast.		15	0.20	3.8	19	0.10	4.4

Symbole

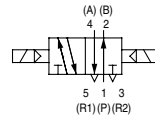
5/2 monostable



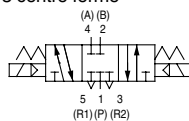
5/2 bistable (tiroir inox)



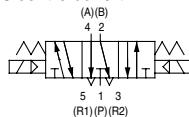
5/2 bistable (joint élastique)



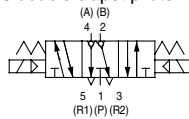
5/3 centre fermé



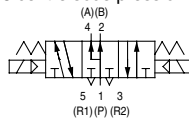
5/3 centre ouvert



5/3 double clapet piloté



5/3 centre sous pression



Caractéristiques standards

Caractéristiques du distributeur	Type de distributeur	Tiroir inox	Joint élastique
	Fluide	Air, gaz neutre	
	Pression d'utilisation maxi	1.0MPa	
	Pression d'utilisation mini.	Monostable	0.1MPa
		Bistable	0.1MPa
		5/3	0.1MPa: Size 1 0.15MPa: Size 2, 3
	Tempér. ambiante et du fluide	-10° to 60°C Note1)	-5° to 60°C Note1)
	Lubrification	Non requise (sans lubrification)	
	Commande manuelle	A impulsion (avec outil)	
	Résistance aux impacts/vibrations	150/50m/s ² Note2)	
Caractéristiques électriques	Degré de protection	IP65 (Résistant aux poussières/projections)	
	Tension nominale	12Vcc, 24Vcc	
	Variation de tension admissible	-15 to +10% de la tension nominale	
	Type d'isolation	Equivalent à la classe B	
	Consom. élect. (courant)	24Vcc	1.8W DC (75mA)
		12Vcc	1.8W DC (150mA)

Note 1) Utilisez de l'air sec afin de prévenir la condensation lorsque vous travaillez à basses températures.

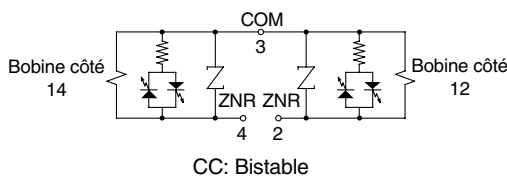
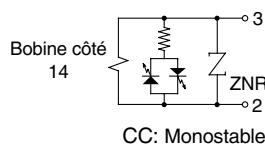
Note 2) **Résistance aux chocs:** Aucun dysfonctionnement suite aux tests de chocs. Test réalisé axialement et perpendiculairement sur le distributeur principal et l'armature, à l'état activé.

Résistance aux vibrations : Aucun dysfonctionnement lorsque soumis au balayage de 8.3 et 2000Hz.. Test réalisé axialement et perpendiculairement sur le distributeur principal et l'armature, à l'état activé.

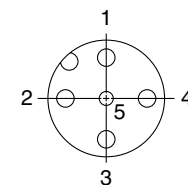
Précautions spécifiques au produit

⚠ Précaution

Caractéristiques du câblage interne

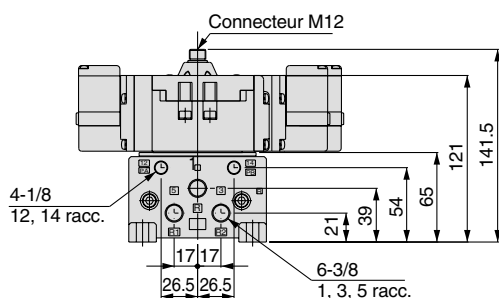
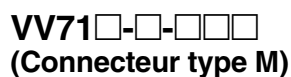


Connecteur M12: câblage



- N° broche.
1: Inutilisé
2: Bobine côté 12 (+)
3: COM (-)
4: Bobine côté 14 (+)
5: Terre

EVS7-6-FPG-D-□□MO-Q

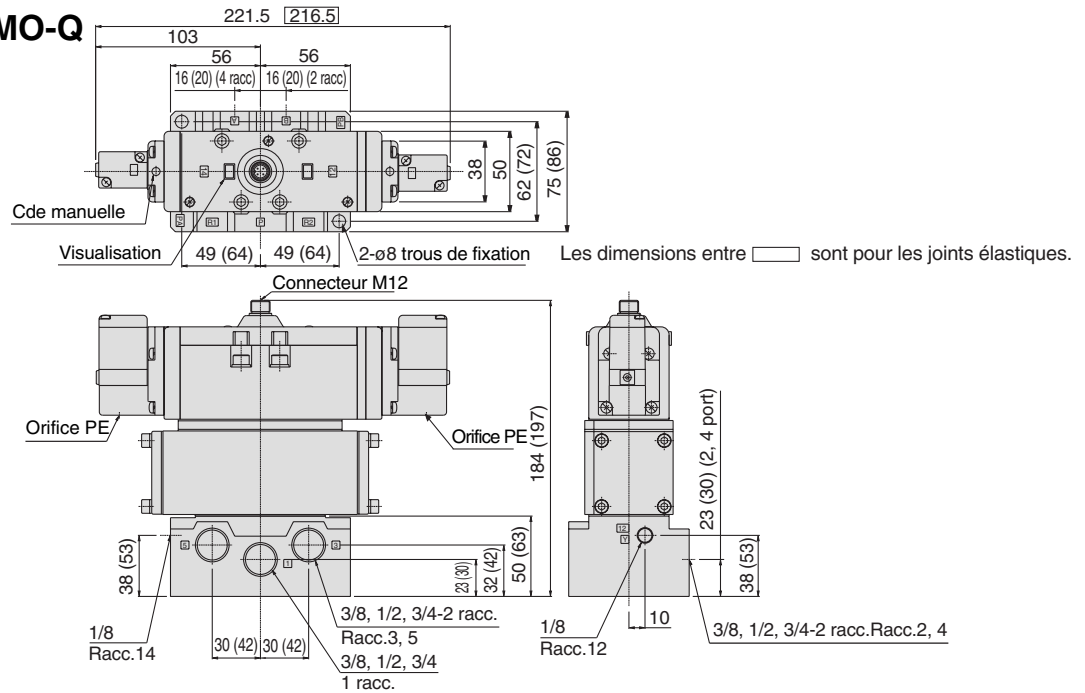


n: Stations

$L \backslash n$	1	2	3	4	5	6	7	8	9	10	Formula
L1	107	150	193	236	279	322	365	408	451	494	$L1 = 43n + 64$
L2	119	162	205	248	291	334	377	420	463	506	$L2 = 43n + 76$

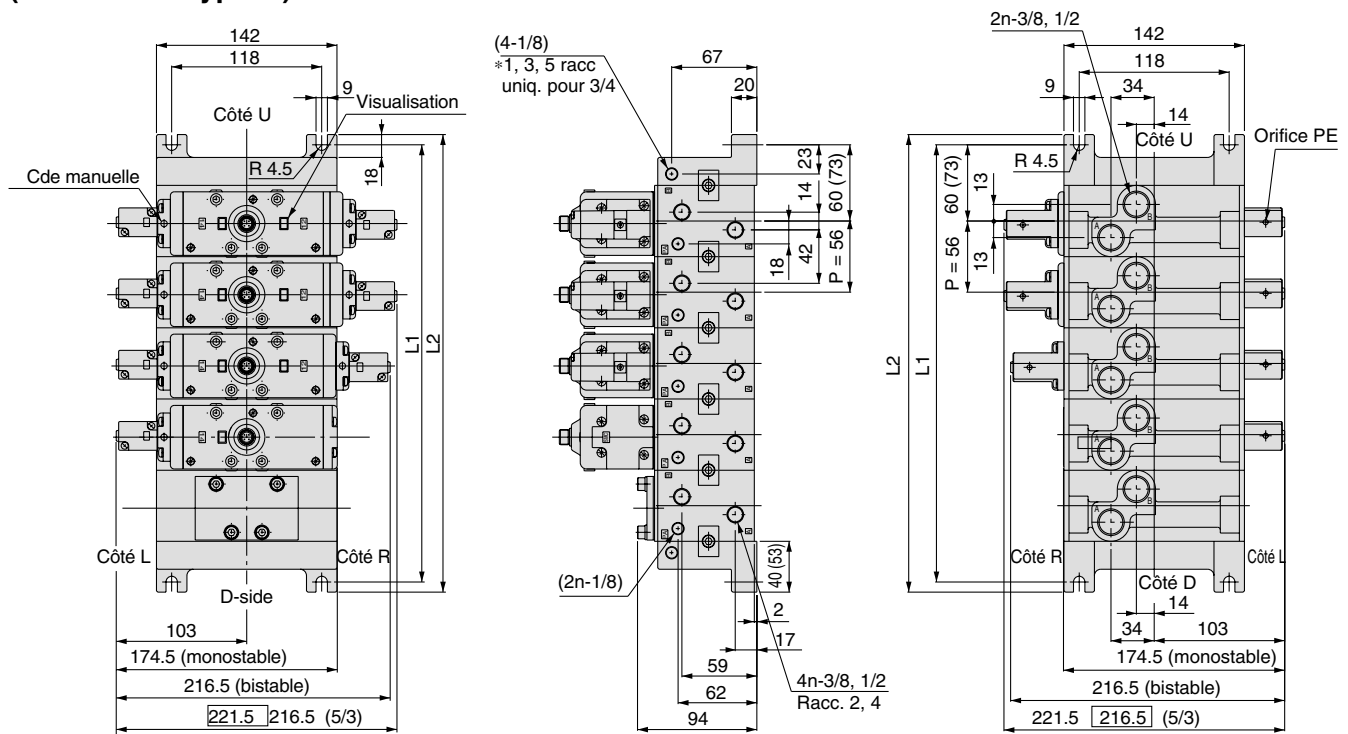
Dimensions

EVS7-8-FPG-D-☐☐MO-Q



VV72☐☐☐☐

(Connecteur type M)



Dessous

L: Dimensions

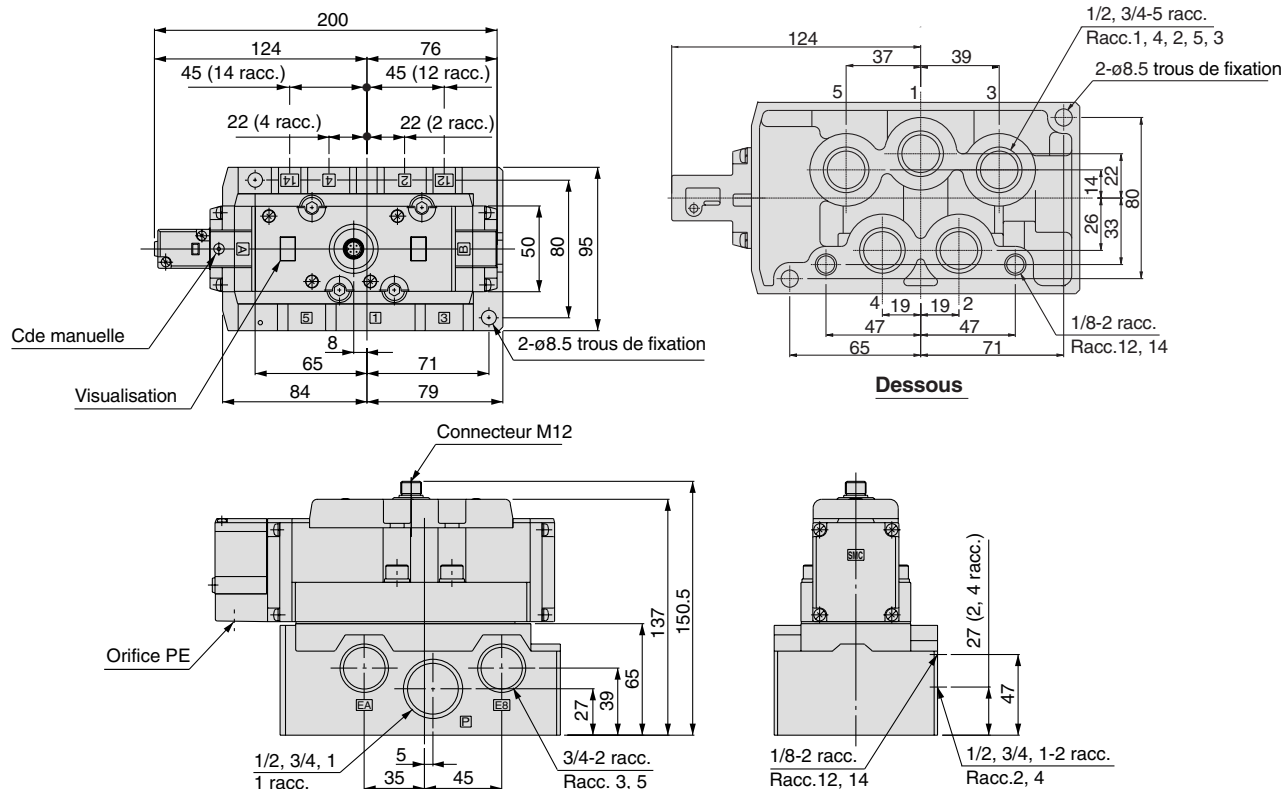
n: Stations

P, R1, R2 Orifices	n	1	2	3	4	5	6	7	8	9	10	Formule
Rc 1/2	L1	120	176	232	288	344	400	456	512	568	624	L1 = 56n + 64
	L2	136	192	248	304	360	416	472	528	584	640	L2 = 56n + 80
Rc 3/4	L1	146	202	258	314	370	426	482	538	594	650	L1 = 56n + 90
	L2	162	218	274	330	386	442	498	554	610	666	L2 = 56n + 106

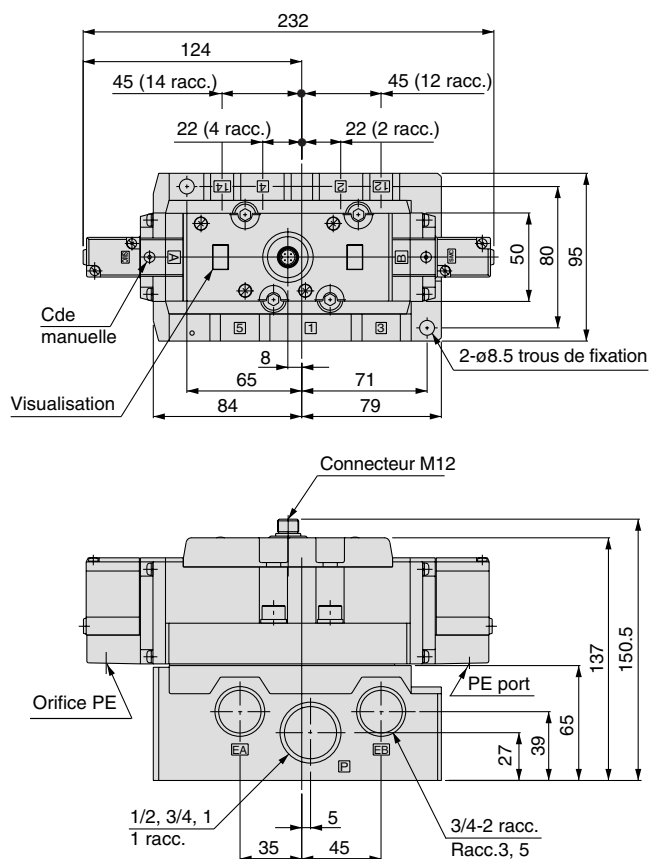
Les dimensions entre () sont pour le raccord en Rc 3/4.
Les dimensions entre ☐ sont pour les joints élastiques.

Dimensions

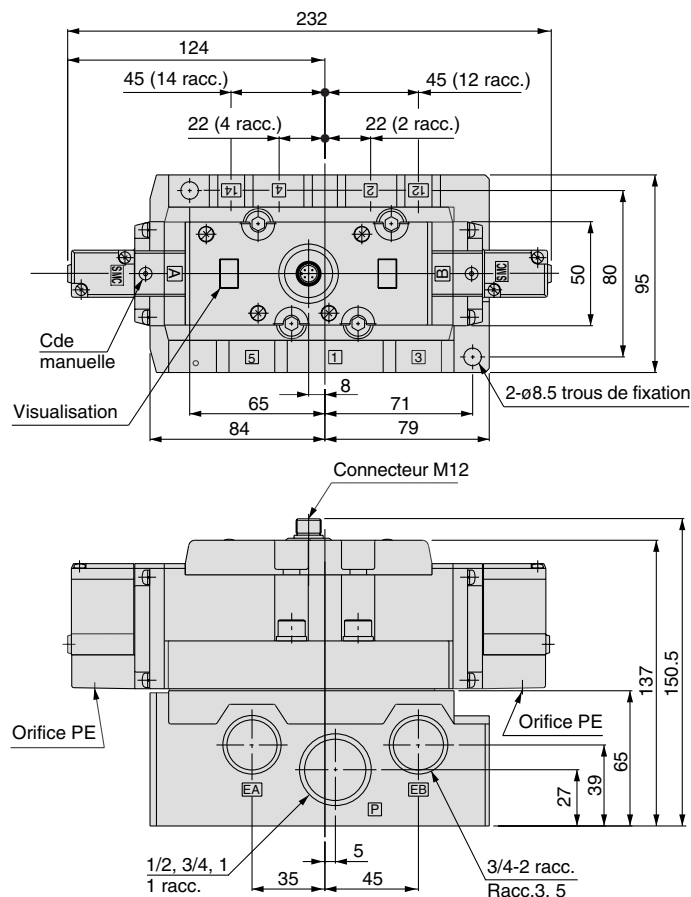
EVS7-10-FG-S-□□M0-Q



EVS7-10-FG-D-□□M0-Q

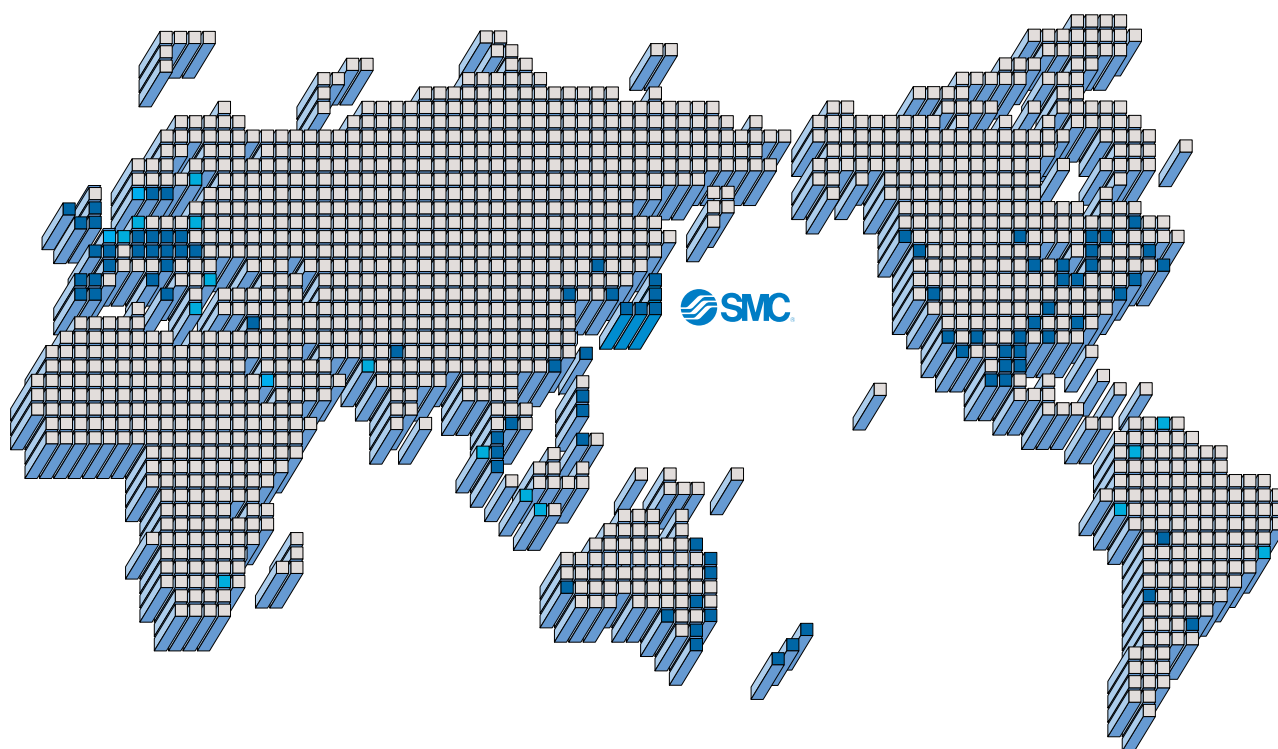


EVS7-10-F^H_JG-D-□□M0-Q





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Fiche technique

Séries EVS7-6/8/10



**Distributeurs ISO M12 (5 broches CNOMO)
conforme à la norme ISO 5599-1**



Durée de vie :
100 millions de cycles

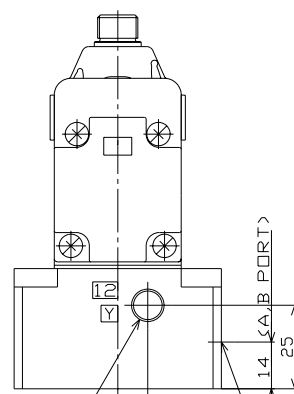
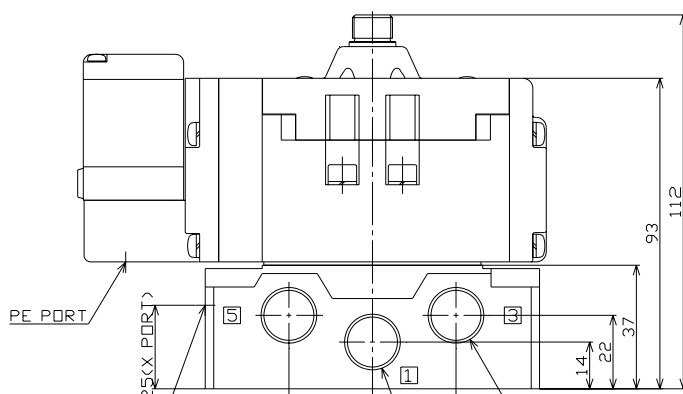
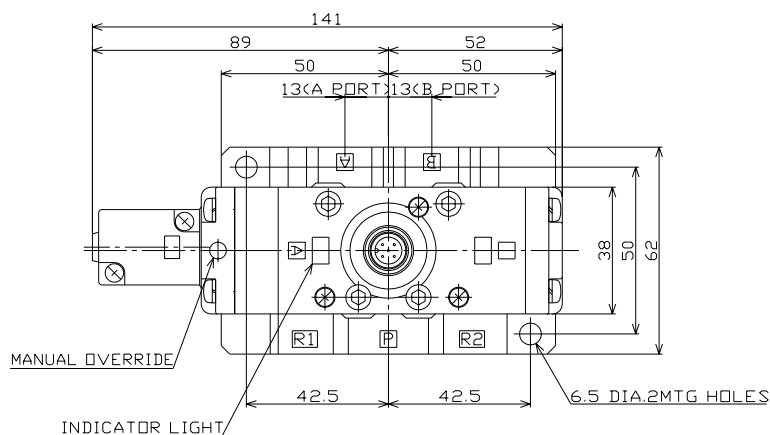
Technologie :
✓ **Métal/Métal**
✓ **Joint**
élastiques Pilot.
Int. ou
ext. Alimentation
: 24VCC
Consommation : 1,8 W
Visu : LED Vertes

Protection :
type TRANSIL

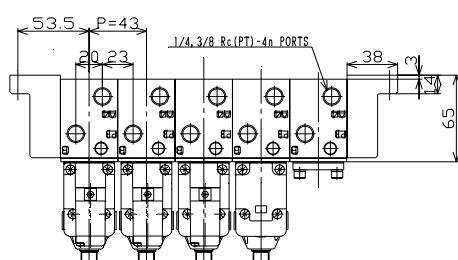
Metal/Metal : EVS7-*-F*G*-3ZMO-X51(Pilot. int.) EVS7-*-F*G*-3ZMO-X54(Pilot. ext.)		Joint élastiques : EVS7-*-F*G*-3ZRMO-X51(Pilot. int.) EVS7-*-F*G*-3ZRMO-X54(Pilot. ext.)	
Débit : Taille 1 (EVS7-6) : Cv1.5(1300l/min) Taille 2 (EVS7-8) : Cv3.2(2800l/min) Taille 3 (EVS7-10) : Cv5.0(4400l/min)		Taille 1 (EVS7-6) : Cv1.7(1500l/min) Taille 2 (EVS7-8) : Cv3.2(2800l/min) Taille 3 (EVS7-10) : Cv5.4(4800l/min)	
Temps de réponses : Taille 1 (EVS7-6) : 25ms Taille 2 (EVS7-8) : 40ms Taille 3 (EVS7-10) : 50ms		Taille 1 (EVS7-6) : 30ms Taille 2 (EVS7-8) : 50ms Taille 3 (EVS7-10) : 80ms	
Ref. Monostable	Ref. Bistable	Ref. Centre Ouvert	
ISO1 : (0,43Kg) EVS7- 6 FG-S-3ZRMO-X51	ISO1 : (0,53Kg) EVS7- 6 FG-D-3ZRMO-X51	ISO1 : (0,55Kg) EVS7- 6 FJG-D-3ZRMO-X51	
ISO2 : (0,67Kg) EVS7- 8 FG-S-3ZRMO-X51	ISO2 : (0,77Kg) EVS7- 8 FG-D-3ZRMO-X51	ISO2 : (0,80Kg) EVS7- 8 FJG-D-3ZRMO-X51	
ISO3 : (1,00Kg) EVS7- 10 FG-S-3ZRMO-X51	ISO3 : (1,12Kg) EVS7- 10 FG-D-3ZRMO-X51	ISO3 : (1,13Kg) EVS7- 10 FJG-D-3ZRMO-X51	

Fiche technique

Series EVS7-6



G-2PORT
RT



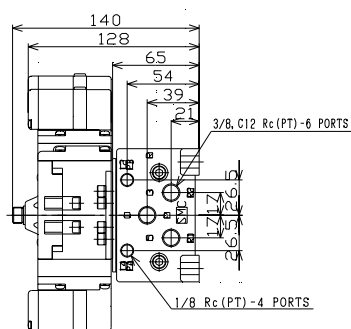
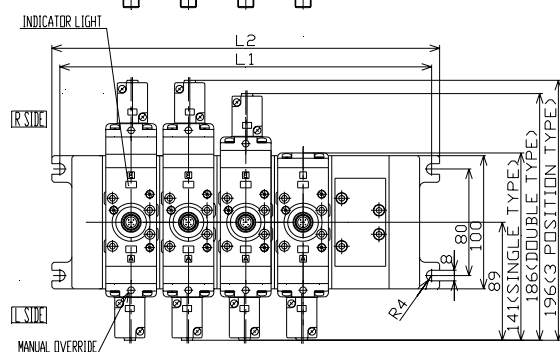
n-STATION

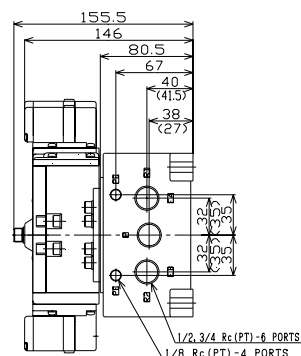
$$L1 = 43n + 64$$

$$L2 = 43n + 76 \quad n: \text{NUMBER OF STATIONS (10 STATIONS MAX)}$$

DIMENSIONS

	1	2	3	4	5	6	7	8	9	10
L1	107	150	193	236	279	322	365	408	451	494
L2	119	162	205	248	291	334	377	420	463	506







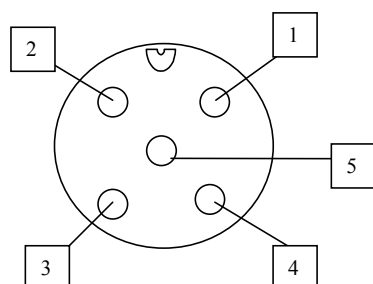
Fiche technique

Series EVS7-6/8/10



Connecteur M12 conforme à la norme E03-62-520-N

Connecteur M12 (MALE)

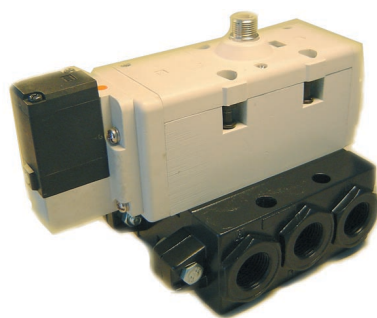


- 1: Non câblé
- 2: **B coté 12**
- 3: commun (-)
- 4: **A coté 14**
- 5: Protection

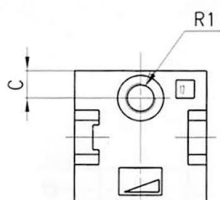
EMBASES ISO VDMA

(Tailles 1, 2 et 3)

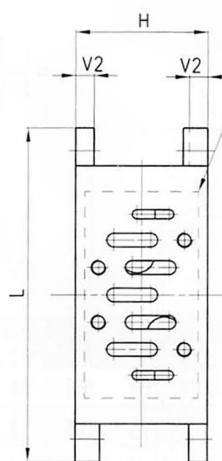
Embases VDMA 24345 à plan de pose ISO 5599/1



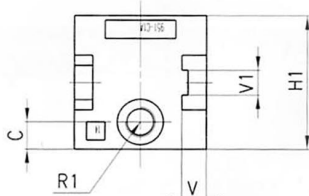
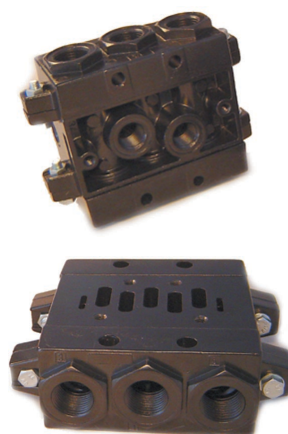
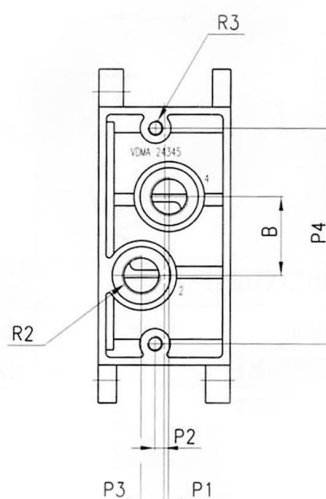
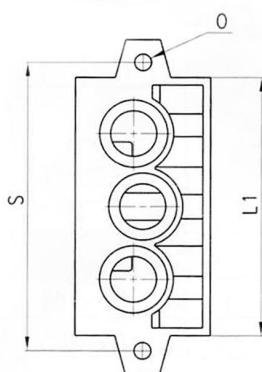
Taille	Désignation	Raccord	Référence
ISO 1	Embase associable	1/4"	EAXT502-1-VD
	Jeu de 2 plaques d'extrémités	3/8"	EAXT502-2RL-VD
	Plaque d'obturation		AXT502-9A
	Bouchon sur P ou R		EAXT502-14-VD
ISO 2	Embase associable	3/8"	EAXT512-1-VD
	Jeu de 2 plaques d'extrémités	1/2"	EAXT512-2RL-VD
	Plaque d'obturation		AXT512-9A
	Bouchon sur P ou R		EAXT512-14-VD
ISO 3	Embase associable	1/2"	EAXT522-1-VD
	Jeu de 2 plaques d'extrémités	1	EAXT522-2RL-VD



Embase associable

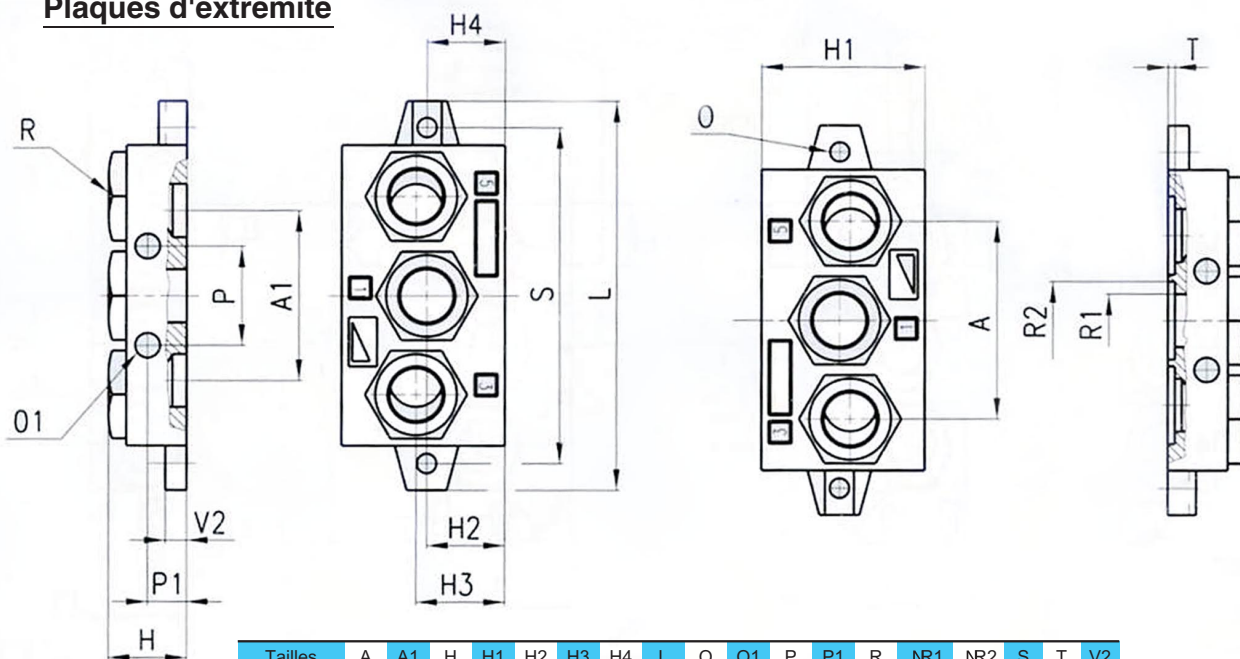


Plan de pose DIN ISO 5599/1



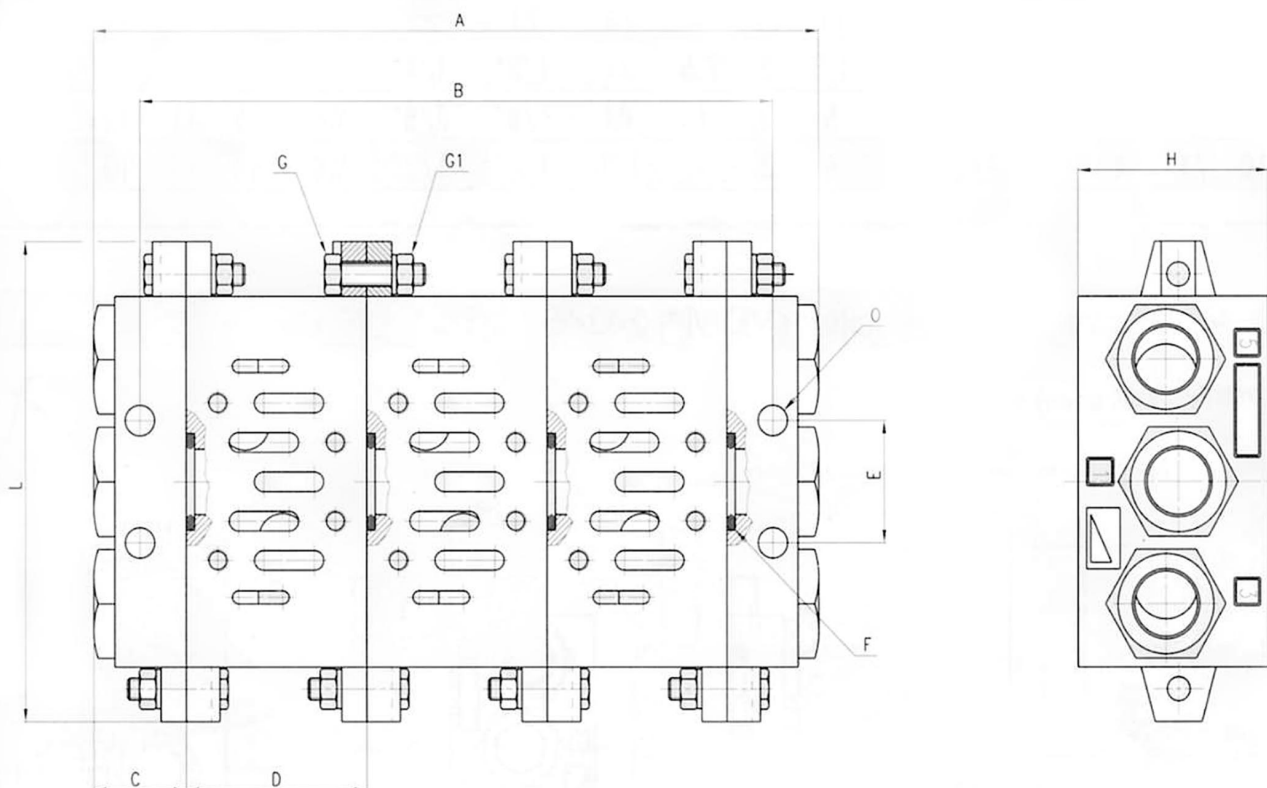
Tailles	B	C	H	H1	L	L1	O	P1	P2	P3	P4	R1	R2	R3	S	V	V1	V2
1	26	8.5	43	44	110	85	5.5	1.5	3	7.5	71	1/8"	1/4"	M5	95	8	8	6
2	30	9	56	45	135	100	6.5	5	3	6	86	1/8"	3/8"	M6	115	11	11	8
3	38	10	71	54	190	140	9	6	3	8	130	1/8"	1/2"	M8	168	13	13	8

Plaques d'extrémité



Tailles	A	A1	H	H1	H2	H3	H4	L	O	O1	P	P1	R	NR1	NR2	S	T	V2
1	56	48	22	46	22	25	22	110	5.5	7	28	11	3/8"	15	22.1	95	2	6
2	68	63	26	47	23	25	24	135	6.5	9	35	13	1/2"	18.5	28.7	115	2	8
3	104	94	30	56	22	25	25	190	9	12	52	15	1"	28	38	168	2.7	8

Montage



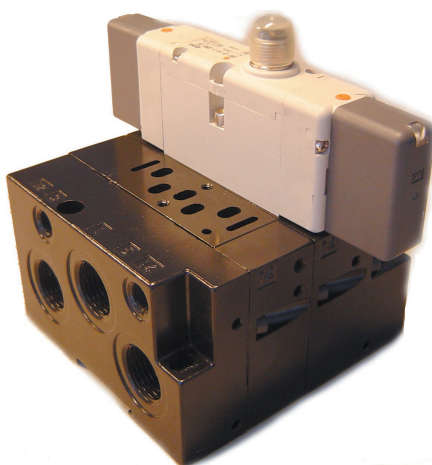
Tailles	A	B	C	D	E	OR F	UNI 5739 G	UNI 5588 G1	H	L	O
1	nD+2C	n°D+C	22	43	28	3068	M5x20	M5	46	110	7
2	nD+2C	n°D+C	26	56	35	3093	M6x25	M6	47	130	9
3	nD+2C	n°D+C	30	71	52	4125	M8x25	M8	56	190	12

Note : n est le nombre de stations.

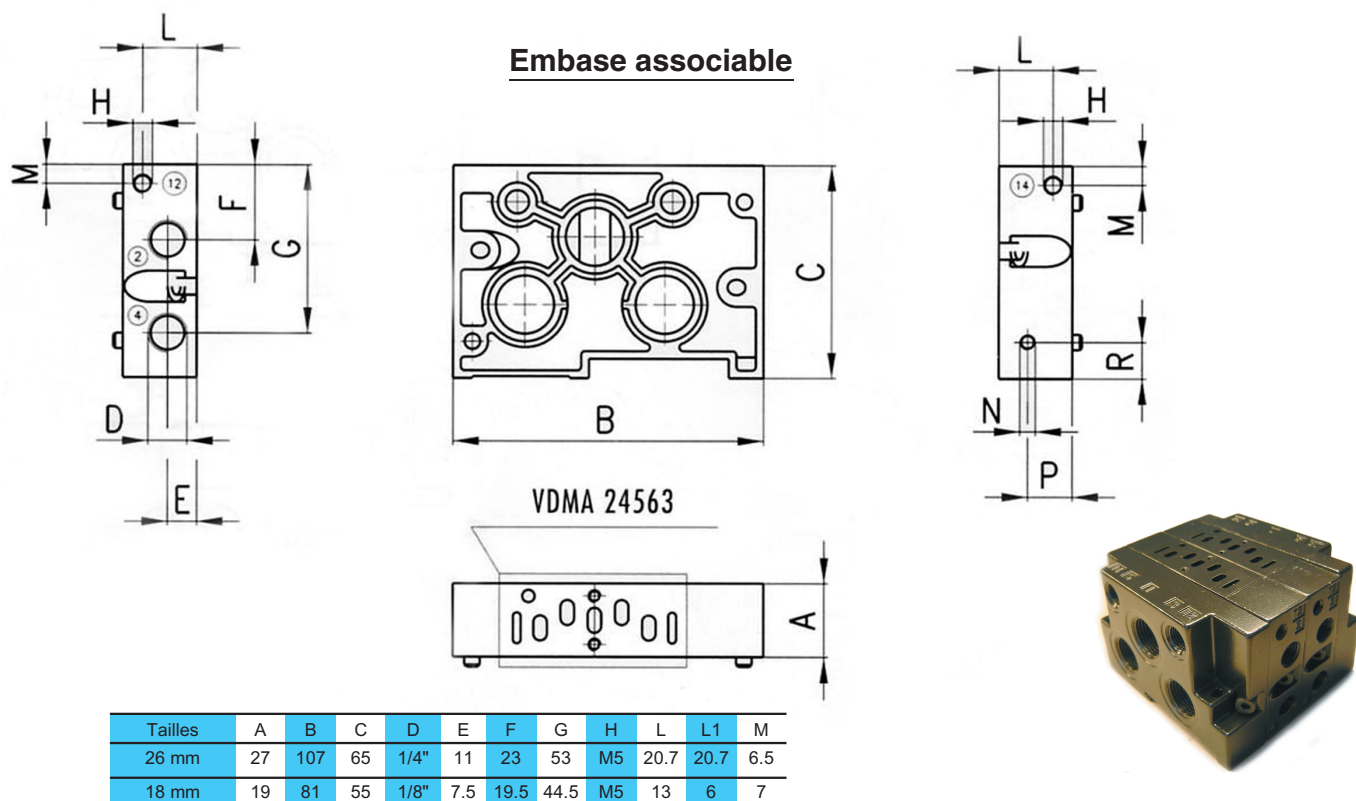
EMBASES ASSOCIABLES VDMA

(Tailles 01 et 02)

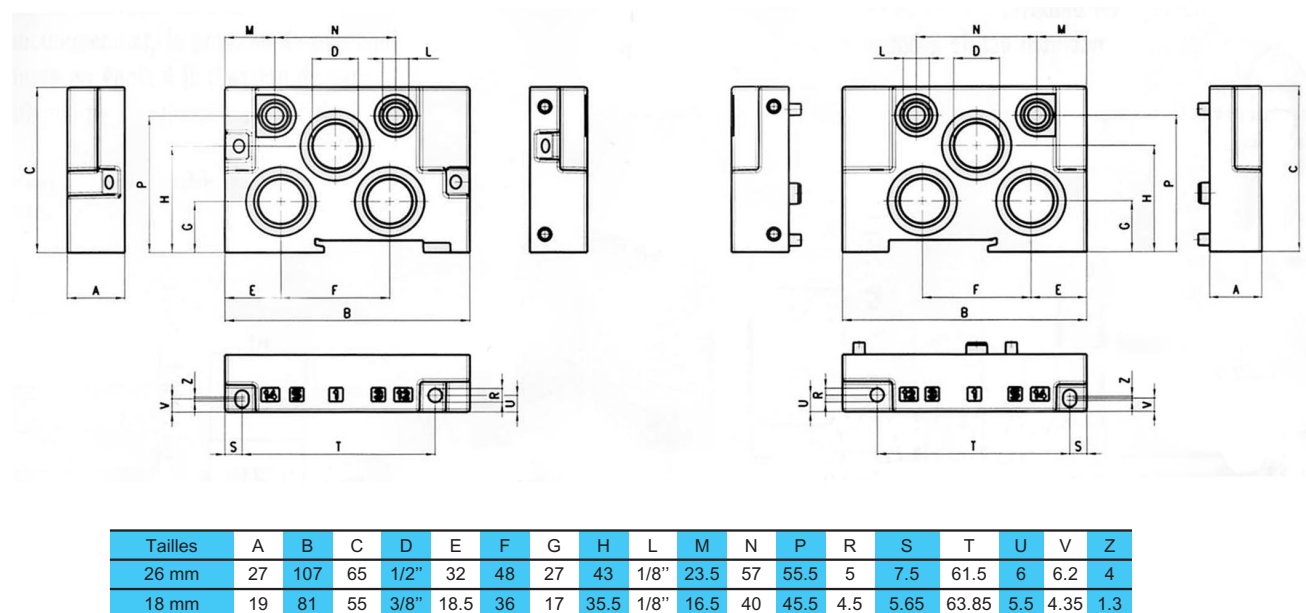
Plan de pose ISO 15407-1, tailles 26 et 18 mm
VDMA 24563, tailles 01 et 02 mm



Taille	Désignation	Raccord	Référence
VDMA 01 (26 mm)	Embase associable latérale, pilotage externe	1/4"	EAXT412-1-R-VD
	Embase associable latérale, pilotage interne	1/4"	EAXT412-1-VD
	Jeu de 2 plaques d'extrémités	1/2"	EAXT412-2RL-VD
	Plaque d'obturation		AXT412-9A-VD
	Bouchon sur P ou R		EAXT412-14-VD
VDMA 02 (18 mm)	Embase associable latérale, pilotage externe	1/8"	EAXT422-1-R-VD
	Embase associable latérale, pilotage interne	1/8"	EAXT422-1-VD
	Jeu de 2 plaques d'extrémités	3/8"	EAXT422-2RL-VD
	Plaque d'obturation		AXT422-9A-VD
	Bouchon sur P ou R		EAXT422-14-VD



Plaques d'extrémité

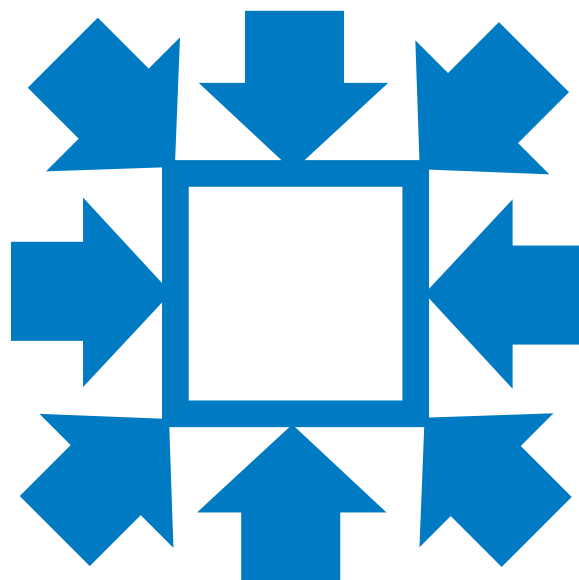


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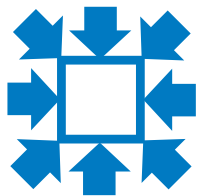
<http://www.smc-france.fr>

Problèmes
d'encombrement
ou de poids?



Alternatives SMC
aux vérins ISO/VDMA





Problèmes d'encombrement?

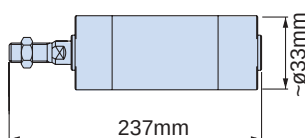
Alternatives ISO/VDMA de SMC



Vérin
[ISO 6432,
CETOP RP52P]

Série C85

Exemple:
ø25;
Course: 100mm
~ø33mm

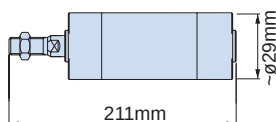


Une des alternatives
plus compactes
de SMC.

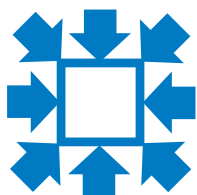
Exemple :

CG1BN25-100

~ø29mm



- 44%^{*)}

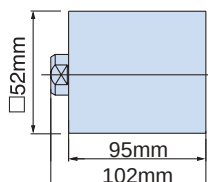


Vérin compact
[ISO 21287]

Série C55

Exemple:
ø40;
Course: 50mm

□52mm

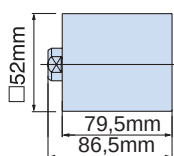


Une des alternatives
plus compactes
de SMC.

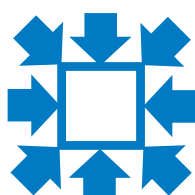
Exemple :

CQ2B40-50

□52mm



- 16%^{*)}

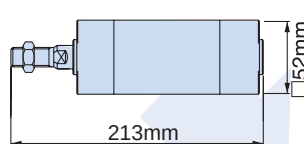


Vérin
[ISO 6431,
VDMA24562,
CETOP RP43P]

Série C95

Exemple:
ø40;
Course: 50mm

~□52mm

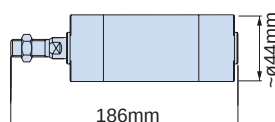


Une des alternatives
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de SMC.

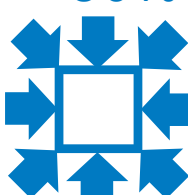
Exemple :

CG1BA40-50

~ø44mm



- 50%^{*)}



^{*)} Ces calculs indiquent le gain de volume totale.



Vérin
[ISO 6432,
CETOP RP52P]

Série C85

Exemple:
ø25;
Course: 100mm
~652g



Vérin compact
[ISO 21287]

Série C55

Exemple:
ø40;
Course: 50mm
~533g



Vérin
[ISO 6431,
VDMA24562,
CETOP RP43P]

Série C95

Exemple:
ø40;
Course: 50mm
~1 000g



Une des alternatives
plus légères
de SMC.

Exemple:

CG1BN25-100

~440g

– 32%



Une des alternatives
plus légères
de SMC.

Exemple:

CQ2B40-50

~413g

– 22%



Une des alternatives
plus légères
de SMC.

Exemple:

CG1BA40-50

~562g

– 44%

Problèmes de gamme?

Alternatives ISO/VDMA de SMC



Une gamme **complète de systèmes à commande pneumatique**

De nos jours, les besoins des clients sont en pleine transition, de la standardisation à la diversification. En tant que fournisseur général de composants pneumatiques, SMC offre les produits idéaux à de multiples applications et des systèmes complets.

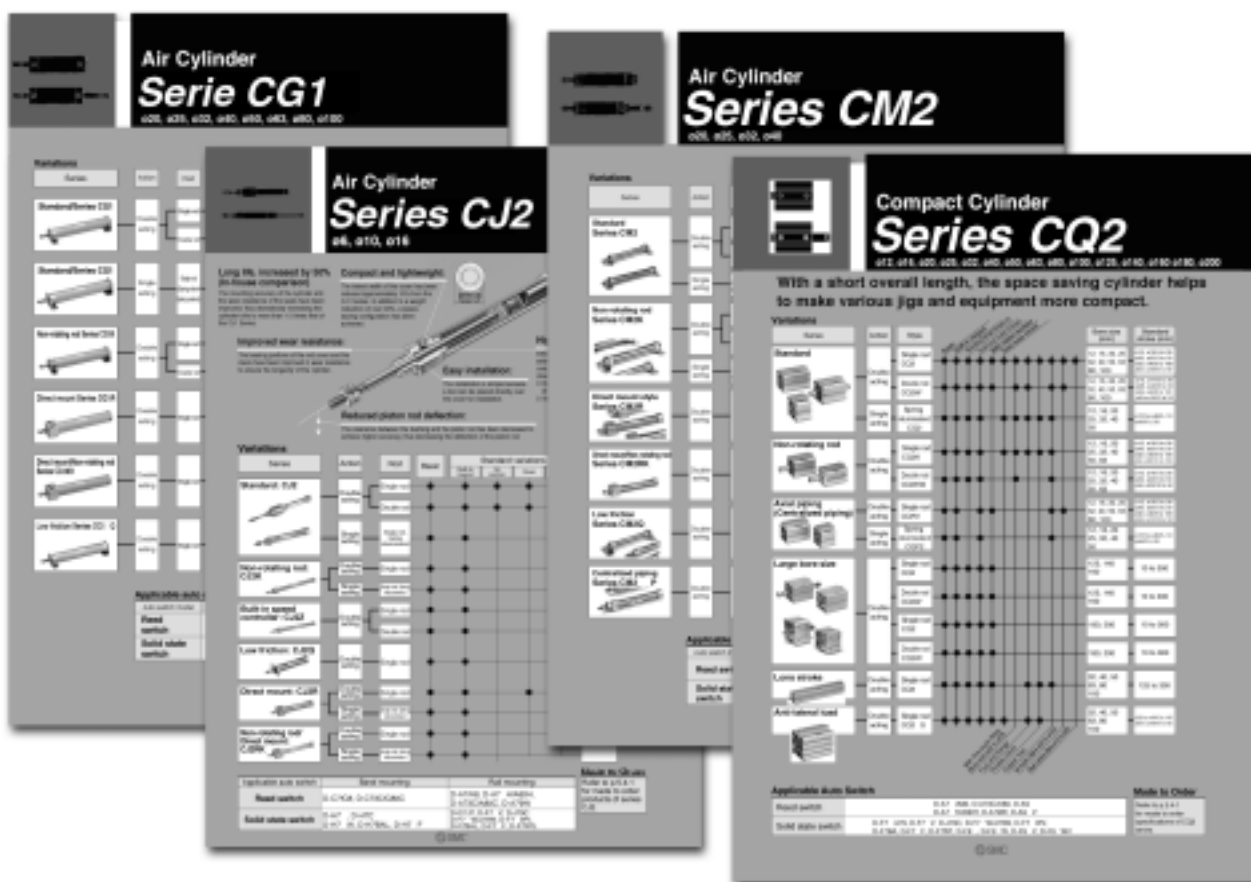
Par conséquent, un vaste éventail de modèles pneumatiques est offert pour chaque composant de système. Environ 10.000 **modèles de base** sont offerts avec plus de 540.000 **versions**. Cette gamme complète de produits permet aux systèmes pneumatiques de SMC de satisfaire les exigences les plus diverses.

Les produits de SMC ne sont pas limités aux composants à commande pneumatique conventionnels et **touchent de nouveaux marchés** en relation avec la **pneumatique**. Les produits de SMC sont développés afin de satisfaire des exigences uniques et nous nous engageons à développer des produits pour de nouveaux marchés afin de satisfaire la totalité de nos clients.



10.000 modèles de base et 540.000 versions.

Une large gamme de modèles pour correspondre à diverses applications.



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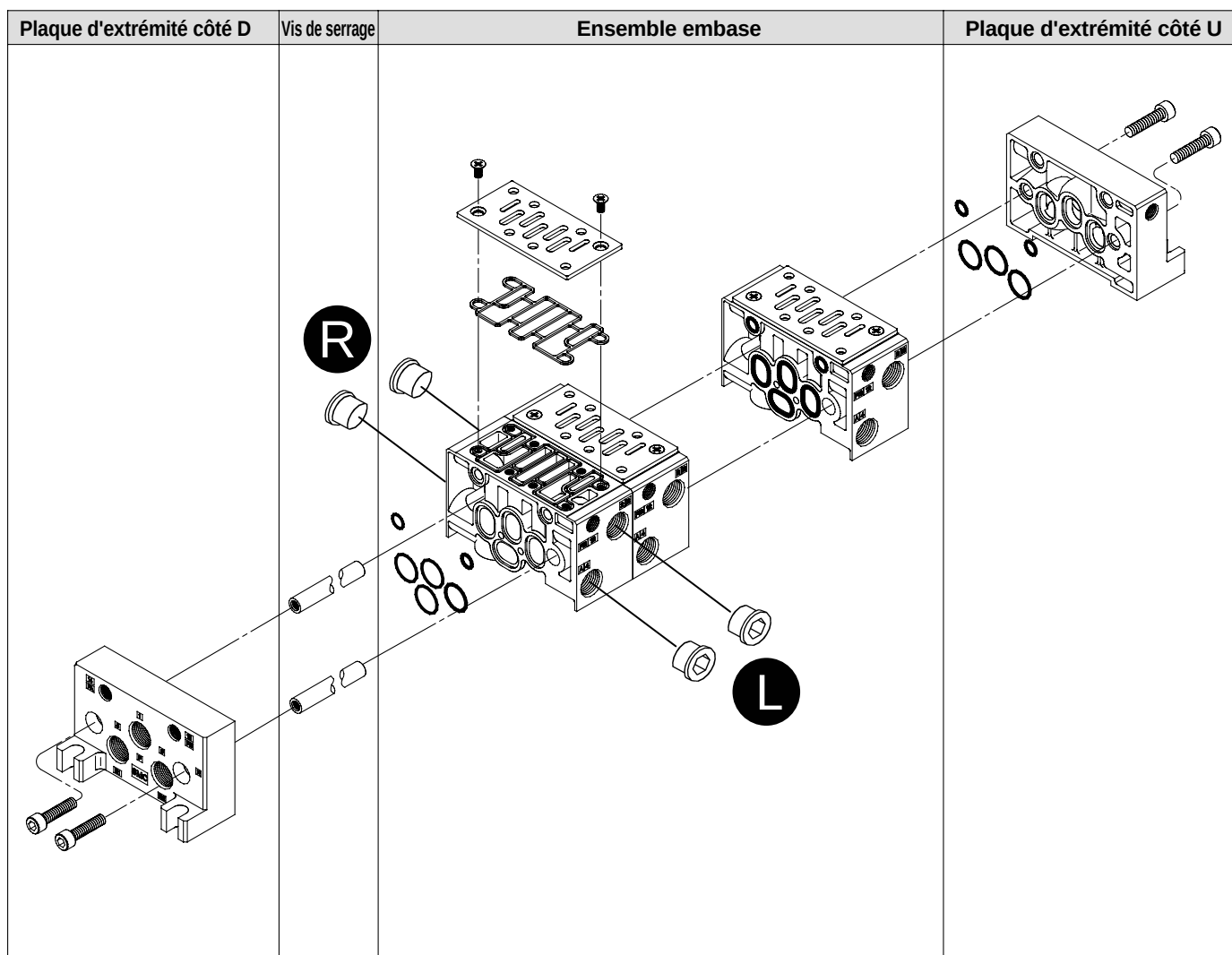
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Produit et imprimé par SMC European Marketing Centre 04/05

Ces spécifications pourront être modifiées sans préavis ni aucune obligation de la part du fabricant.

Vue éclatée de l'embase



<Plaque d'extrémité>

E AXT502 – **A** –

Position de la
plaque d'extrémité

L	Côté L
R	Côté R

• Code du pays

Code	Pays
-	Japon, Asie Australie
E	Europe
N	Amérique du Nord

• Raccord P, R

02	1/4
03	3/8
C12	Raccords instantanés ø12

<Référence de la vis de serrage>

AXT502 – 34 –

Nombre de stations

2	Pour 2 stations
3	Pour 3 stations
...	...
10	Pour 10 stations

Note) Vis incluses en fonction
du nombre de stations.

<Ensemble embase>

E AXT502 – 1A –

Câblage

A	Latéral
B	Direct

• Position de l'orifice du vérin

L	Côté L
R	Côté R

• Code du pays

Code	Pays
-	Japon, Asie Australie
E	Europe
N	Amérique du Nord

• Raccords du vérin

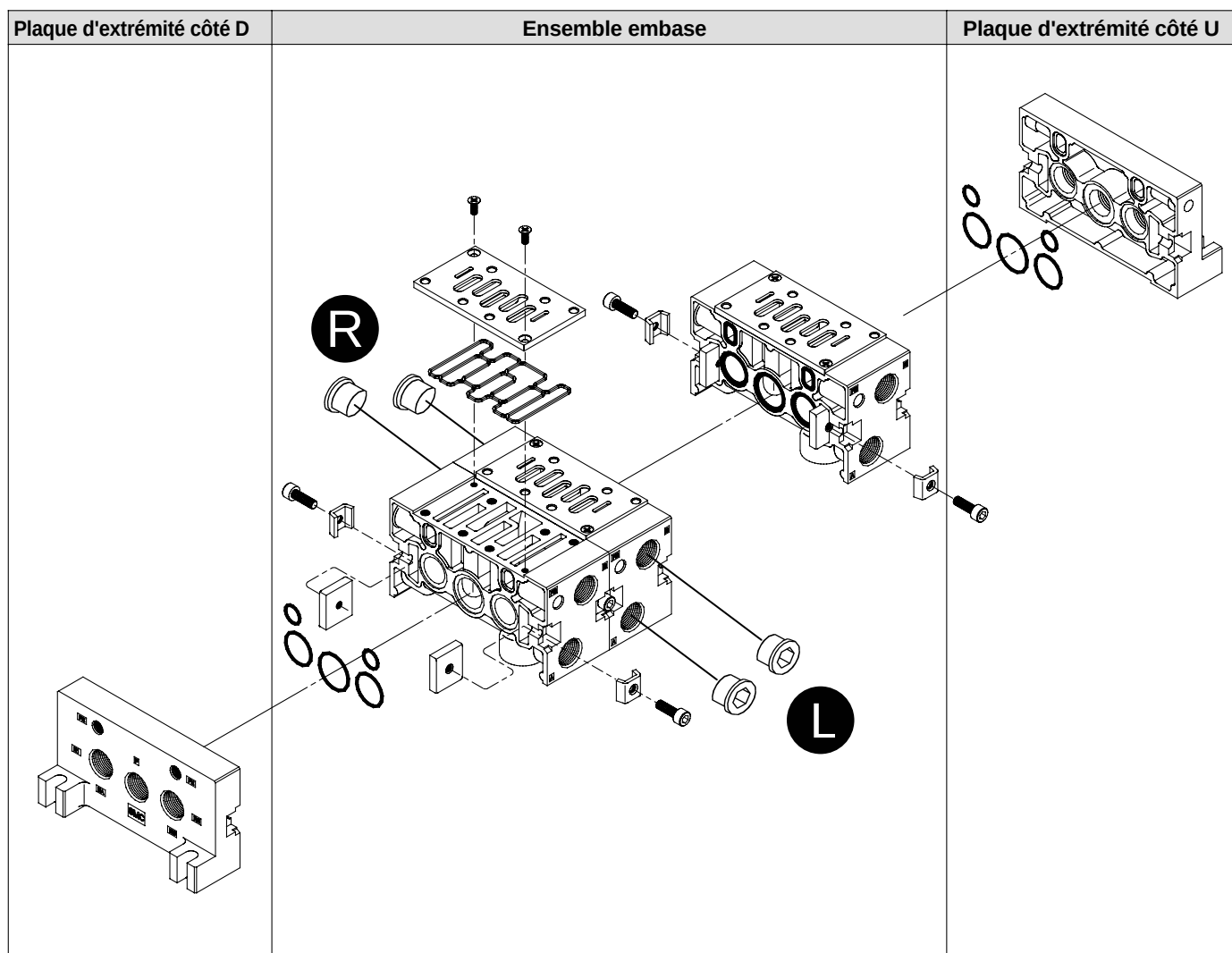
02	1/4
03	3/8
C6 Note 1)	Raccords instantanés ø6
C8 Note 1)	Raccords instantanés ø8
C10 Note 1)	Raccords instantanés ø10

Note 1) Montage latéral uniquement

* L'embase inclut des vis de serrage pour l'ajout d'une seule station.

<Pièces de rechange de l'embase>

Référence	Désignation	Qté.	Matière
AXT502-19	Joint torique	4	NBR
AXT502-20	Joint torique	2	NBR
AXT502-22-2	Plaque	1	SPCC
AXT502-31	Joint	1	NBR
M4 X 8	Vis	2	SWRH3

Vue éclatée de l'embase

<Plaque d'extrémité>
E AXT512 – A –

 Position de la
plaque d'extrémité

L	Côté L
R	Côté R

Code du pays

Code	Pays
-	Japon, Asie Australie
E	Europe
N	Amérique du Nord

Raccords P, R

04	1/2
06	3/4
C12	Raccords instantanés ø12

<Ensemble embase>
E AXT512 – 1A –

Câblage

A	Latéral
B	Direct

 Position de
l'orifice du vérin

L	Côté L
R	Côté R

Code du pays

Code	Pays
-	Japon, Asie Australie
E	Europe
N	Amérique du Nord

Orifice du vérin

03	3/8
04	1/2

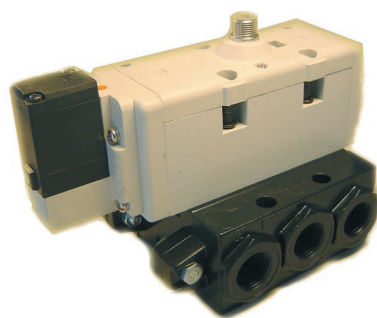
<Pièces de rechange de l'embase>

Référence	Désignation	Qté.	Matière
AXT512-13	Joint torique	2	NBR
AS568-022	Joint torique	1	NBR
AS568-020	Joint torique	2	NBR
AXT512-5	Joint	1	NBR
AXT512-4	Plaque	1	SPCC
M4X10	Vis	2	SWRH3
AXT512-6-1	Raccord A	2	
AXT512-6-4	Raccord B	2	
AXT512-6-3	Vis CHC	2	

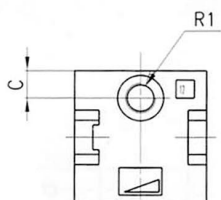
EMBASES ISO VDMA

(Tailles 1, 2 et 3)

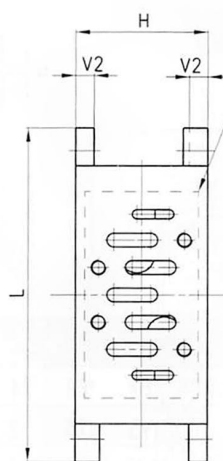
Embases VDMA 24345 à plan de pose ISO 5599/1



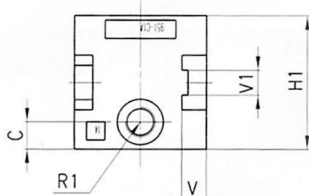
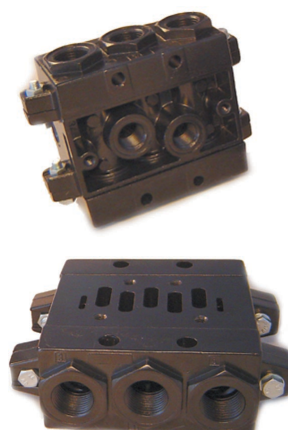
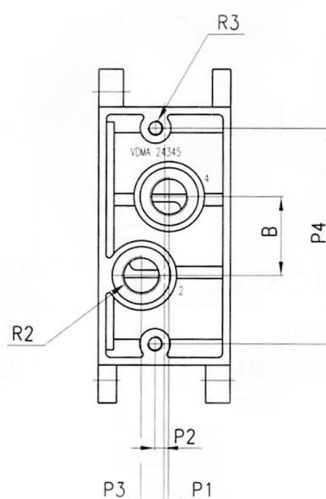
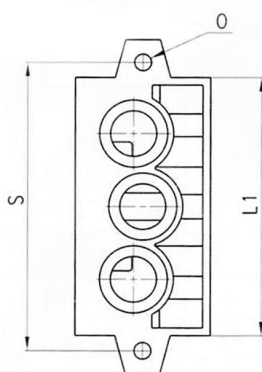
Taille	Désignation	Raccord	Référence
ISO 1	Embase associable	1/4"	EAXT502-1-VD
	Jeu de 2 plaques d'extrémités	3/8"	EAXT502-2RL-VD
	Plaque d'obturation		AXT502-9A
	Bouchon sur P ou R		EAXT502-14-VD
ISO 2	Embase associable	3/8"	EAXT512-1-VD
	Jeu de 2 plaques d'extrémités	1/2"	EAXT512-2RL-VD
	Plaque d'obturation		AXT512-9A
	Bouchon sur P ou R		EAXT512-14-VD
ISO 3	Embase associable	1/2"	EAXT522-1-VD
	Jeu de 2 plaques d'extrémités	1	EAXT522-2RL-VD



Embase associable

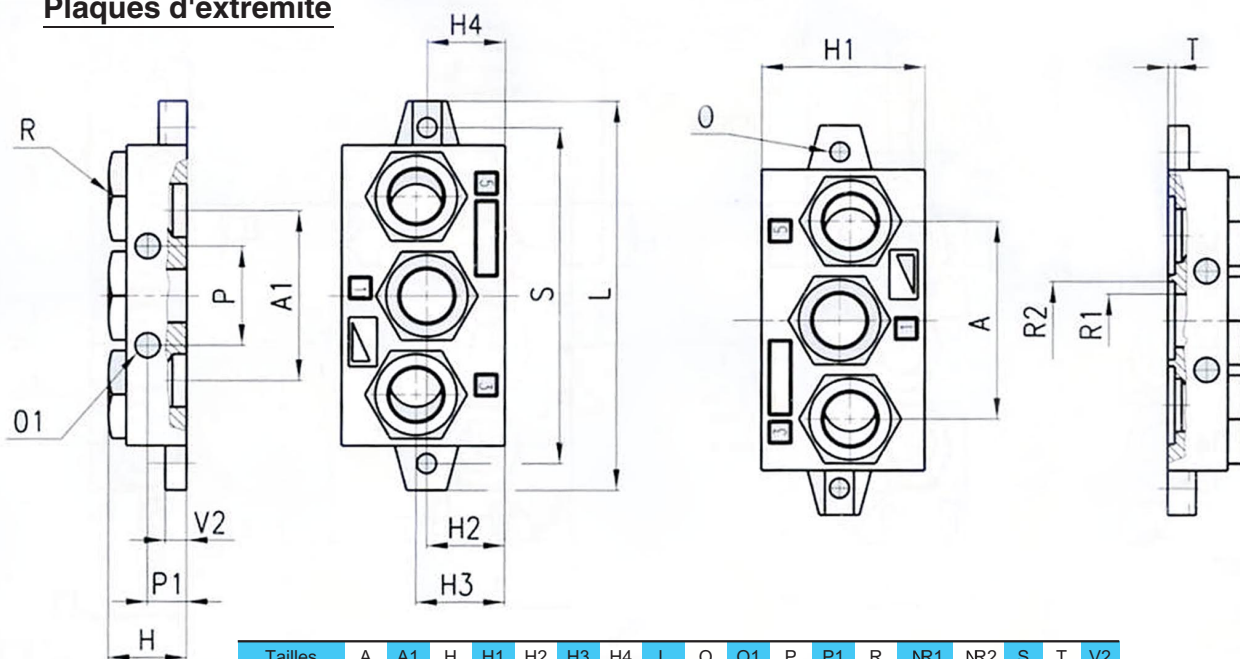


Plan de pose DIN ISO 5599/1



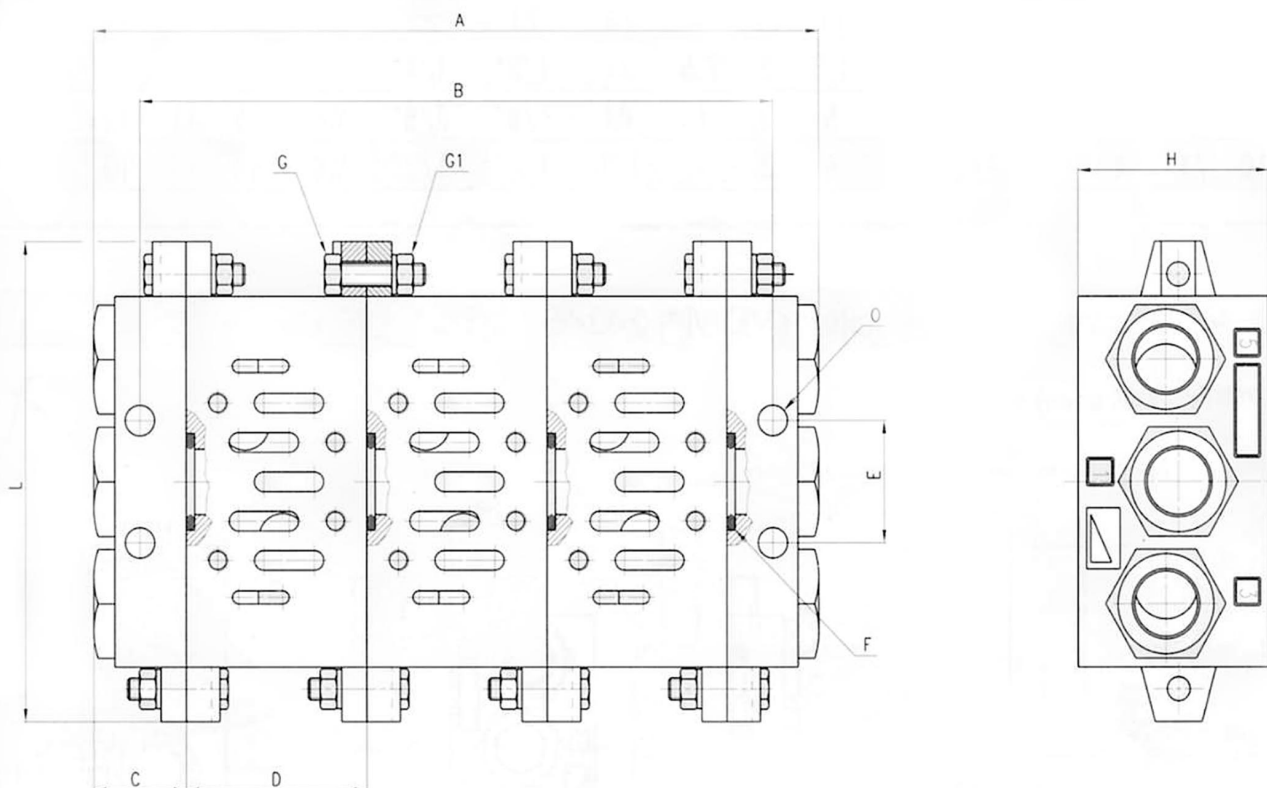
Tailles	B	C	H	H1	L	L1	O	P1	P2	P3	P4	R1	R2	R3	S	V	V1	V2
1	26	8.5	43	44	110	85	5.5	1.5	3	7.5	71	1/8"	1/4"	M5	95	8	8	6
2	30	9	56	45	135	100	6.5	5	3	6	86	1/8"	3/8"	M6	115	11	11	8
3	38	10	71	54	190	140	9	6	3	8	130	1/8"	1/2"	M8	168	13	13	8

Plaques d'extrémité



Tailles	A	A1	H	H1	H2	H3	H4	L	O	O1	P	P1	R	NR1	NR2	S	T	V2
1	56	48	22	46	22	25	22	110	5.5	7	28	11	3/8"	15	22.1	95	2	6
2	68	63	26	47	23	25	24	135	6.5	9	35	13	1/2"	18.5	28.7	115	2	8
3	104	94	30	56	22	25	25	190	9	12	52	15	1"	28	38	168	2.7	8

Montage



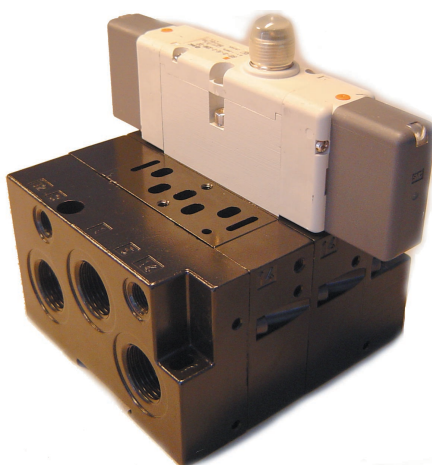
Tailles	A	B	C	D	E	OR F	UNI 5739 G	UNI 5588 G1	H	L	O
1	nD+2C	n°D+C	22	43	28	3068	M5x20	M5	46	110	7
2	nD+2C	n°D+C	26	56	35	3093	M6x25	M6	47	130	9
3	nD+2C	n°D+C	30	71	52	4125	M8x25	M8	56	190	12

Note : n est le nombre de stations.

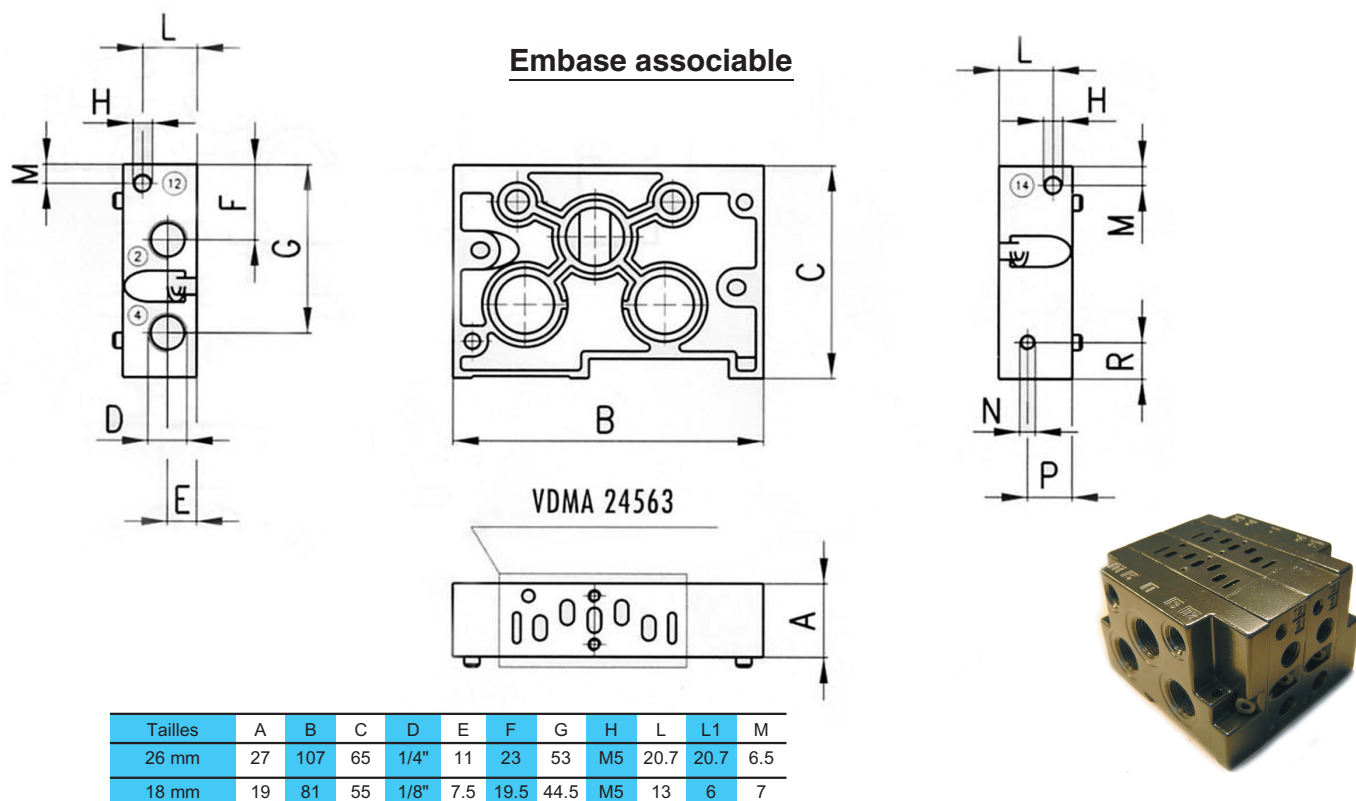
EMBASES ASSOCIABLES VDMA

(Tailles 01 et 02)

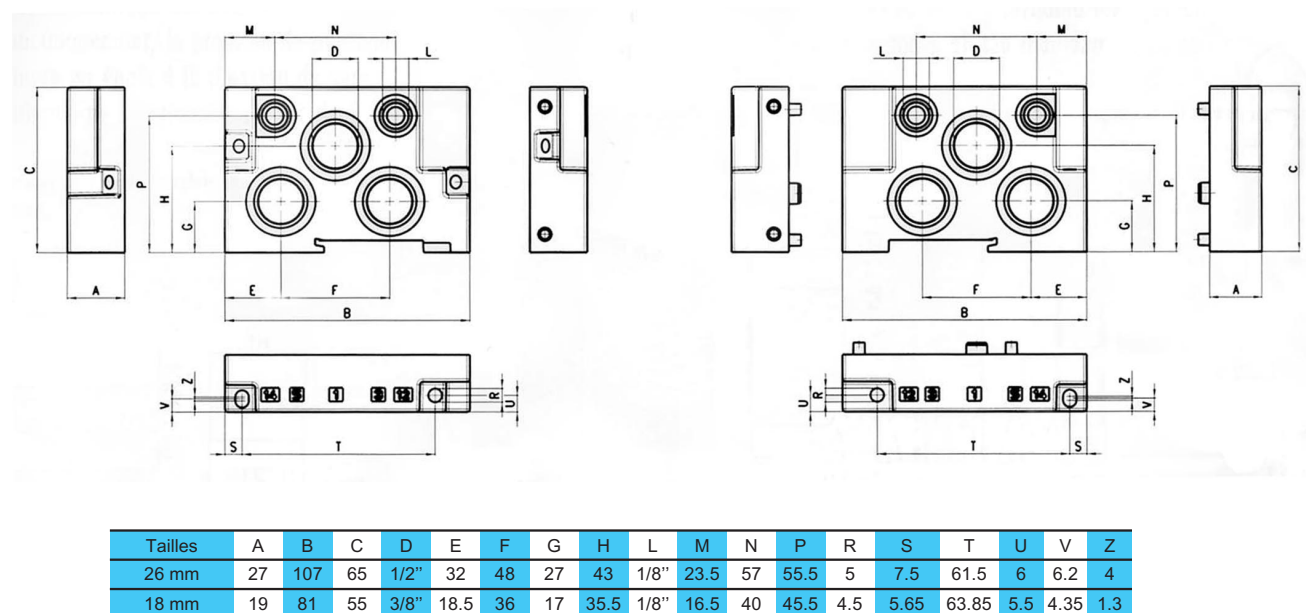
Plan de pose ISO 15407-1, tailles 26 et 18 mm
VDMA 24563, tailles 01 et 02 mm



Taille	Désignation	Raccord	Référence
VDMA 01 (26 mm)	Embase associable latérale, pilotage externe	1/4"	EAXT412-1-R-VD
	Embase associable latérale, pilotage interne	1/4"	EAXT412-1-VD
	Jeu de 2 plaques d'extrémités	1/2"	EAXT412-2RL-VD
	Plaque d'obturation		AXT412-9A-VD
	Bouchon sur P ou R		EAXT412-14-VD
VDMA 02 (18 mm)	Embase associable latérale, pilotage externe	1/8"	EAXT422-1-R-VD
	Embase associable latérale, pilotage interne	1/8"	EAXT422-1-VD
	Jeu de 2 plaques d'extrémités	3/8"	EAXT422-2RL-VD
	Plaque d'obturation		AXT422-9A-VD
	Bouchon sur P ou R		EAXT422-14-VD



Plaques d'extrémité



SMC Pneumatique S.A.

1, boulevard de Strasbourg
 Parc Gustave Eiffel
 Bussy-Saint-Georges
77607 Marne-La-Vallée Cedex 3
 Tél. : 01 64 76 10 00
 Fax : 01 64 76 10 10

<http://www.smc-france.fr>

Vérins ISO/VDMA



Une gamme complète
de produits et d'accessoires



Série C95



Série CP95



Série C85



Série C55



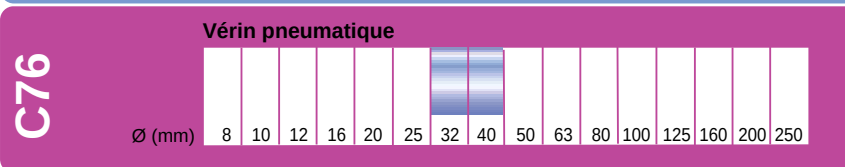
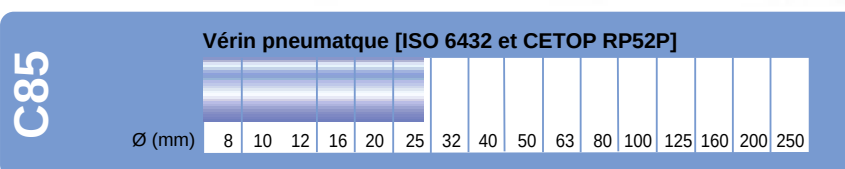
Vérins ISO/VDMA

Une gamme complète de produits et d'accessoires

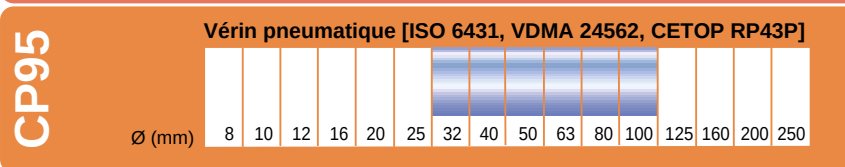
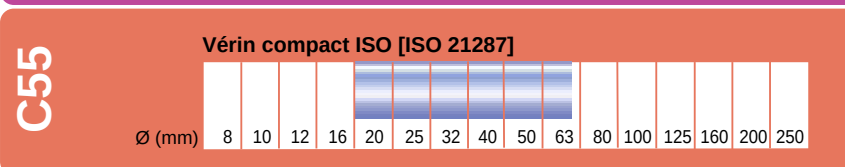
Nouveau Vérin compact ISO C55 (ISO 21287)

C95 grand diamètre jusqu'à 250 mm

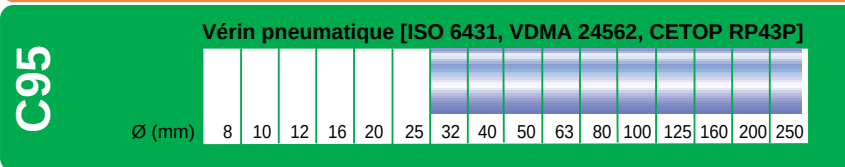
Gamme complète d'accessoires de montage et d'extrémités de tige



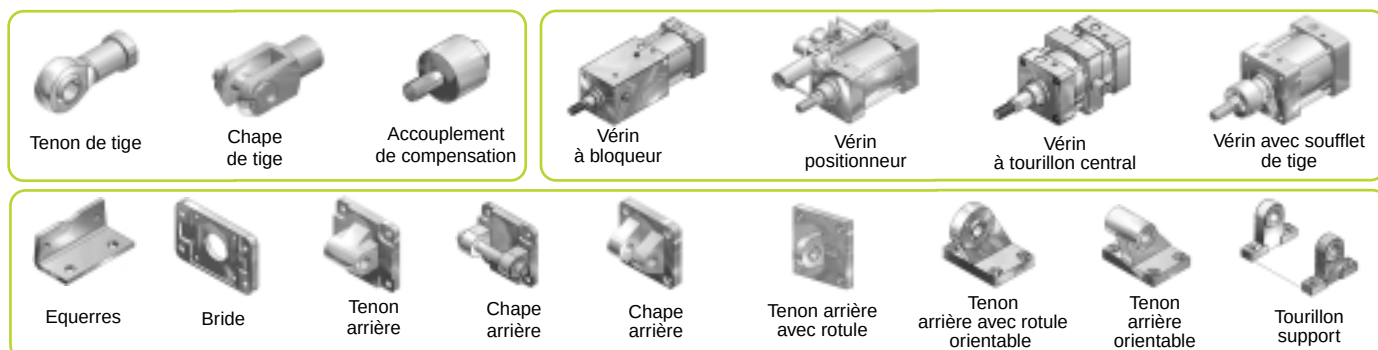
Nouveau
Vérin compact ISO
[ISO 21287]



Nouveau
Grands
diamètres jusqu'à
Ø250 mm



Gamme complète d'accessoires de montage et d'extrémités de tige



Série C55•C85•C76•CP95•C95

Support technique avec notre NOUVEAU configurateur de vérin ISO, options de personnalisation de vérin ISO incluses.

Pour offrir une flexibilité de produit maximale, tous nos vérins ISO/VDMA peuvent être commandés avec extrémités de tige personnalisées, proposant ainsi jusqu'à 30 variantes différentes.



Support technique de données CAD 3D disponible sur cd et sur internet.

Afin de vous assister lors de votre procédure de conception, tous nos vérins ISO/VDMA sont également disponibles en format CAD 3D, le programme CAD le plus populaire, sur CD ou sur notre page Internet européenne – www.smceu.com.



Support technique sous forme de documentation technique imprimée.

Afin d'offrir une documentation technique imprimée pleinement compréhensible, notre gamme complète de vérins ISO/VDMA et accessoires sont répertoriés dans nos catalogues de vérins ISO/VDMA. Pour en obtenir une copie, contactez simplement votre bureau SMC le plus proche.



Excellents prix et livraison rapide!

Tous les vérins standards ISO/VDMA sont disponibles dans notre centre logistique européen et, dans beaucoup de cas même, chez nos revendeurs locaux à travers l'Europe. Grâce à cette politique de stock, nous pouvons offrir une livraison rapide, avec des options de livraison en 24 heures.



Guide rapide de références

Série C85



Vérin pneumatique [ISO 6432 et CETOP RP52P]

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250
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Caractéristiques¹⁾

Type	Double effet
Fluide	Air
Pression d'utilisation maxi	1,0 MPa
Pression d'utilisation mini	0,05 MPa
Température d'utilisation	Sans détecteur : de - 20 à 70 °C (sans gel) Avec détecteur : de - 10 à 60 °C (sans gel)
Vitesse de déplacement	de 50 à 1500 mm/s
Amortissement	Amortissement élastique, amortissement pneumatique
Taille du raccord	(ø8, ø10, ø12, ø16) : M5; (ø20, ø25) : G1/8

1) Reportez-vous également aux caractéristiques détaillées du catalogue C85.

Pour passer commande¹⁾

1) Pour plus de détails sur les variations de vérin, reportez-vous au catalogue C85.

Variations de course standard du C85 avec amortissement élastique applicables pour détecteur magnétique¹⁾

Course standard ²⁾ (mm)	Diamètre du vérin (mm)					
	8	10	12	16	20	25
10	CD85N8-10-B	CD85N10-10-B	CD85N12-10-B	CD85N16-10-B	CD85N20-10-B	CD85N25-10-B
25	CD85N8-25-B	CD85N10-25-B	CD85N12-25-B	CD85N16-25-B	CD85N20-25-B	CD85N25-25-B
40	CD85N8-40-B	CD85N10-40-B	CD85N12-40-B	CD85N16-40-B	CD85N20-40-B	CD85N25-40-B
50	CD85N8-50-B	CD85N10-50-B	CD85N12-50-B	CD85N16-50-B	CD85N20-50-B	CD85N25-50-B
80	CD85N8-80-B	CD85N10-80-B	CD85N12-80-B	CD85N16-80-B	CD85N20-80-B	CD85N25-80-B
100	CD85N8-100-B	CD85N10-100-B	CD85N12-100-B	CD85N16-100-B	CD85N20-100-B	CD85N25-100-B
125	—	—	CD85N12-125-B	CD85N16-125-B	CD85N20-125-B	CD85N25-125-B
160	—	—	CD85N12-160-B	CD85N16-160-B	CD85N20-160-B	CD85N25-160-B
200	—	—	CD85N12-200-B	CD85N16-200-B	CD85N20-200-B	CD85N25-200-B
250	—	—	—	CD85N16-250-B	CD85N20-250-B	CD85N25-250-B
300	—	—	—	CD85N16-300-B	CD85N20-300-B	CD85N25-300-B

1) Service de livraison rapide, en 24 heures (sur demande).

2) Courses intermédiaires également disponibles pour demande de service de livraison rapide (48 hrs). Pour des courses supérieures, reportez-vous au catalogue C85.

Variations de course standard du C85 avec amortissement pneumatique applicables pour détecteur magnétique¹⁾

Course standard ²⁾ (mm)	Diamètre du vérin (mm)				
	10	12	16	20	25
10	CD85N10-10C-B	CD85N12-10C-B	CD85N16-10C-B	CD85N20-10C-B	CD85N25-10C-B
25	CD85N10-25C-B	CD85N12-25C-B	CD85N16-25C-B	CD85N20-25C-B	CD85N25-25C-B
40	CD85N10-40C-B	CD85N12-40C-B	CD85N16-40C-B	CD85N20-40C-B	CD85N25-40C-B
50	CD85N10-50C-B	CD85N12-50C-B	CD85N16-50C-B	CD85N20-50C-B	CD85N25-50C-B
80	CD85N10-80C-B	CD85N12-80C-B	CD85N10-80C-B	CD85N20-80C-B	CD85N25-80C-B
100	CD85N10-100C-B	CD85N12-100C-B	CD85N16-100C-B	CD85N20-100C-B	CD85N25-100C-B
125	—	CD85N12-125C-B	CD85N16-125C-B	CD85N20-125C-B	CD85N25-125C-B
160	—	CD85N12-160C-B	CD85N16-160C-B	CD85N20-160C-B	CD85N25-160C-B
200	—	CD85N12-200C-B	CD85N16-200C-B	CD85N20-200C-B	CD85N25-200C-B
250	—	—	CD85N16-250C-B	CD85N20-250C-B	CD85N25-250C-B
300	—	—	CD85N16-300C-B	CD85N20-300C-B	CD85N25-300C-B

1) Service de livraison rapide, en 24 heures (sur demande).

2) Courses intermédiaires également disponibles pour demande de service de livraison rapide (48 hrs). Pour des courses supérieures, reportez-vous au catalogue C85.

Détecteurs



Détecteur pour C85 (24Vcc)¹⁾

Pour passer commande	Désignation ²⁾
D-M9PL	Détecteur statique (PNP) avec 3m de câble, LED
D-M9PSAPC	Détecteur statique (PNP) avec connecteur M8 (à 3 broches), LED
D-M9PSBPC	Détecteur statique (PNP) avec connecteur M8 (à 4 broches), LED
D-M9PSDPC	Détecteur statique (PNP) avec connecteur M12, LED
D-C73L	Détecteur Reed avec 3m de câble, LED.

1) Pour plus de détails sur les variations de détecteur, reportez-vous au catalogue C85.

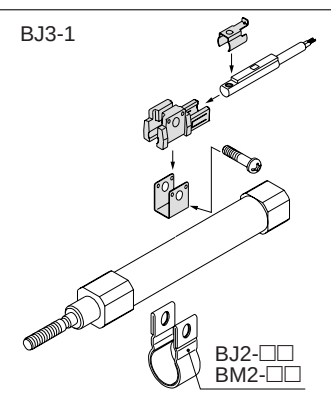
2) Reportez-vous également aux caractéristiques détaillées du catalogue C85.

Fixation de montage du détecteur pour C85

Pour passer commande	Diamètres de vérin compatibles
BJ3-1	de ø8 à ø25

Collier de montage du détecteur pour C85

Pour passer commande	Diamètres de vérin compatibles
BJ2-008	ø8
BJ2-010	ø10
BJ2-012	ø12
BJ2-016	ø16
BM2-020	ø20
BM2-025	ø25



Accessoires de montage

Fixation de montage pour C85

Alésage (mm)	Equerre (1 pc.)	Equerre (2 pc.)	Bride	Tourillon	Articulation
8	C85L10A	C85L10B	C85F10	C85T10	C85C10
10	C85L10A	C85L10B	C85F10	C85T10	C85C10
12	C85L16A	C85L16B	C85F16	C85T16	C85C16
16	C85L16A	C85L16B	C85F16	C85T16	C85C16
20	C85L25A	C85L25B	C85F25	C85T25	C85C25
25	C85L25A	C85L25B	C85F25	C85T25	C85C25

Accessoires d'extrémité de tige pour C85

Alésage (mm)	Tenon de tige	Chape de tige	Accouplement de compensation
8	KJ4D	GKM4-8	JA10-4-070
10	KJ4D	GKM4-8	JA10-4-070
12	KJ6D	GKM6-10	JA15-6-100
16	KJ6D	GKM6-10	JA15-6-100
20	KJ8D	GKM8-16	JA20-8-125
25	KJ10D	GKM10-20	JA30-10-125

Guide rapide de références

Série C76



Vérin pneumatique

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250
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Caractéristiques¹⁾

Type	Double effet
Fluide	Air
Pression d'utilisation maxi	1,0 MPa
Pression d'utilisation mini	0,05 MPa
Température d'utilisation	Sans détecteur : de - 20 à 80 °C (sans gel) Avec détecteur : de - 10 à 60 °C (sans gel)
Vitesse de déplacement	de 50 à 1500 mm/s
Amortissement	Amortissement élastique
Taille du raccord	(ø32) : G1/8; (ø40) : G1/4

1) Reportez-vous également aux caractéristiques détaillées du catalogue C76.

Pour passer commande¹⁾

1) Pour plus de détails sur les variations de vérin, reportez-vous au catalogue C76

Variations de course standard du C76 avec amortissement élastique applicables pour détecteur magnétique¹⁾

Course standard ²⁾ (mm)	Diamètre du vérin (mm)	
	32	40
10	CD76E32-10-B	CD76E40-10-B
25	CD76E32-25-B	CD76E40-25-B
40	CD76E32-40-B	CD76E40-40-B
50	CD76E32-50-B	CD76E40-50-B
80	CD76E32-80-B	CD76E40-80-B
100	CD76E32-100-B	CD76E40-100-B
125	CD76E32-125-B	CD76E40-125-B
160	CD76E32-160-B	CD76E40-160-B
200	CD76E32-200-B	CD76E40-200-B
250	CD76E32-250-B	CD76E40-250-B
300	CD76E32-300-B	CD76E40-300-B

1) Service de livraison rapide, en 24 heures (sur demande).

2) Courses intermédiaires également disponibles pour demande de service de livraison rapide (48 hrs). Pour des courses supérieures, reportez-vous au catalogue C76.

Détecteurs



Détecteur pour C76 (24Vcc)¹⁾

Pour passer commande	Désignation ²⁾
D-M9PL	Détecteur statique (PNP) avec 3m de câble, LED.
D-M9PSAPC	Détecteur statique (PNP) avec connecteur M8 (à 3 broches), LED.
D-M9PSBPC	Détecteur statique (PNP) avec connecteur M8 (à 4 broches), LED.
D-M9PSDPC	Détecteur statique (PNP) avec connecteur M12, LED.
D-C73L	Détecteur Reed avec 3m de câble, LED.

1) Pour plus de détails sur les variations de détecteur, reportez-vous au catalogue C76.

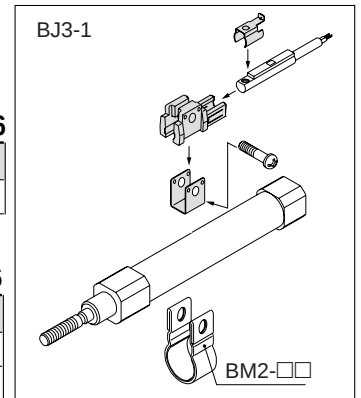
2) Reportez-vous également aux caractéristiques détaillées du catalogue C76.

Fixation de montage du détecteur pour C76

Pour passer commande	Diamètres de vérin compatibles
BJ3-1	ø32, ø40

Collier de montage du détecteur pour C76

Pour passer commande	Diamètres de vérin compatibles
BM2-032	ø32
BM2-040	ø40



Accessoires de montage

Fixation de montage pour C76

Alésage (mm)	Equerre (1 pc.)	Bride, Equerre (2 pc.)	Tourillon	Articulation
32	C76F32A	C76F32B	C76T32	C76C32
40	C76F40A	C76F40B	C76T40	C76C40
				

Accessoires d'extrémité de tige pour C76

Alésage (mm)	Tenon de tige	Chape de tige	Accouplement de compensation
32	KJ10DA	GKM10-20A	JA25-10-150
40	KJ12DA	GKM12-24A	JA40-12-175
			

Guide rapide de références

Série CP95



Vérin pneumatique [ISO 6431, VDMA 24562, CETOP RP43P]

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250
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Caractéristiques ¹⁾

Type	Double effet
Fluide	Air
Pression d'utilisation maxi	1,0 MPa
Pression d'utilisation mini	0,05 MPa
Température d'utilisation	Sans détecteur : de - 10 à 70 °C (sans gel) Avec détecteur : de - 10 à 60 °C (sans gel)
Vitesse de déplacement	de 50 à 1000 mm/s
Amortissement	Amortissement pneumatique (aux deux extrémités)
Taille du raccord	(ø32) : G1/8; (ø40, ø50) : G1/4; (ø63, ø80) : G3/8; (ø100) : G1/2

1) Reportez-vous également aux caractéristiques détaillées du catalogue CP95.

Pour passer commande ¹⁾

1) Pour des variations de vérin supplémentaires, reportez-vous au catalogue CP95.

Variations de course standard pour CP95 applicables pour détecteur magnétique ¹⁾

Course standard ²⁾ (mm)	Diamètre du vérin (mm)					
	32	40	50	63	80	100
25	CP95SDB32-25	CP95SDB40-25	CP95SDB50-25	CP95SDB63-25	CP95SDB80-25	CP95SDB100-25
50	CP95SDB32-50	CP95SDB40-50	CP95SDB50-50	CP95SDB63-50	CP95SDB80-50	CP95SDB100-50
80	CP95SDB32-80	CP95SDB40-80	CP95SDB50-80	CP95SDB63-80	CP95SDB80-80	CP95SDB100-80
100	CP95SDB32-100	CP95SDB40-100	CP95SDB50-100	CP95SDB63-100	CP95SDB80-100	CP95SDB100-100
125	CP95SDB32-125	CP95SDB40-125	CP95SDB50-125	CP95SDB63-125	CP95SDB80-125	CP95SDB100-125
160	CP95SDB32-160	CP95SDB40-160	CP95SDB50-160	CP95SDB63-160	CP95SDB80-160	CP95SDB100-160
200	CP95SDB32-200	CP95SDB40-200	CP95SDB50-200	CP95SDB63-200	CP95SDB80-200	CP95SDB100-200
250	CP95SDB32-250	CP95SDB40-250	CP95SDB50-250	CP95SDB63-250	CP95SDB80-250	CP95SDB100-250
320	CP95SDB32-320	CP95SDB40-320	CP95SDB50-320	CP95SDB63-320	CP95SDB80-320	CP95SDB100-320
400	CP95SDB32-400	CP95SDB40-400	CP95SDB50-400	CP95SDB63-400	CP95SDB80-400	CP95SDB100-400
500	CP95SDB32-500	CP95SDB40-500	CP95SDB50-500	CP95SDB63-500	CP95SDB80-500	CP95SDB100-500
600	—	—	CP95SDB50-600	CP95SDB63-600	CP95SDB80-600	CP95SDB100-600

1) Service de livraison rapide, en 24 heures (sur demande).

2) Courses intermédiaires également disponibles pour demande de service de livraison rapide (48 hrs). Pour des courses supérieures, veuillez vous reporter au catalogue CP95.

Détecteurs



Détecteur pour CP95 (24Vcc)¹⁾

Pour passer commande	Désignation ²⁾
D-M9PL	Détecteur statique (PNP) avec 3m de câble, LED
D-M9PSAPC	Détecteur statique (PNP) avec connecteur M8 (à 3 broches), LED
D-M9PSBPC	Détecteur statique (PNP) avec connecteur M8 (à 4 broches), LED
D-M9PSDPC	Détecteur statique (PNP) avec connecteur M12, LED
D-Z73L	Détecteur Reed avec 3m de câble, LED.

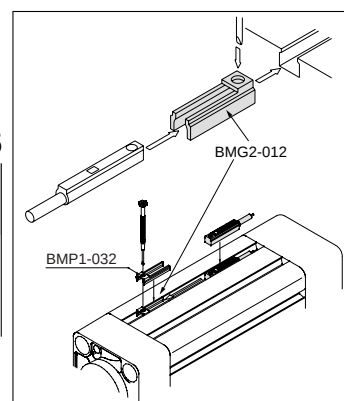
1) Pour plus de détails sur les variations de détecteur, reportez-vous au catalogue CP95.

2) Reportez-vous également aux caractéristiques détaillées du catalogue CP95.

Fixation de montage du détecteur pour CP95

Pour passer commande	Détecteurs compatibles	Diamètres de vérin compatibles
BMP1-032 BMG2-012	D-M9□	de ø32 à ø100
BMP1-032	D-Z73□	

Note : Pour le montage de détecteur D-M9□, BMP1-032 et MG2-012 sont tous deux nécessaires.



Accessoires de montage

Fixation de montage pour CP95

Alésage (mm)	Equerre (2 pc.)	Bride	Tenon arrière	Chape arrière	Chape arrière (pour accessoire ES)	Tenon arrière orientable arrière avec rotule	Charnière orientable arrière avec rotule	charnière orientable arrière
32	L5032	F5032	C5032	D5032	DS5032	CS5032	ES5032	E5032
40	L5040	F5040	C5040	D5040	DS5040	CS5040	ES5040	E5040
50	L5050	F5050	C5050	D5050	DS5050	CS5050	ES5050	E5050
63	L5063	F5063	C5063	D5063	DS5063	CS5063	ES5063	E5063
80	L5080	F5080	C5080	D5080	DS5080	CS5080	ES5080	E5080
100	L5100	F5100	C5100	D5100	DS5100	CS5100	ES5100	E5100

Accessoires d'extrémité de tige pour CP95

Alésage (mm)	Tenon de tige (ISO 8139)	Chape de tige (ISO 8140)	Accouplement de compensation
32	KJ10D	GKM10-20	JA30-10-125
40	KJ12D	GKM12-24	JA40-12-125
50	KJ16D	GKM16-32	JA50-16-150
63	KJ16D	GKM16-32	JA50-16-150
80	KJ20D	GKM20-40	JAH50-20-150
100	KJ20D	GKM20-40	JAH50-20-150

Guide rapide de références

Série C95



Vérin pneumatique [ISO 6431, VDMA 24562, CETOP RP43P]

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250
--------	---	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----

Caractéristiques¹⁾

Type	Double effet
Fluide	Air
Pression d'utilisation maxi	1,0 MPa
Pression d'utilisation mini	0,05 MPa
Température d'utilisation	Sans détecteur : de - 10 à 70 °C (sans gel) Avec détecteur : de - 10 à 60 °C (sans gel)
Vitesse de déplacement	de 50 à 1000 mm/s
Amortissement	Amortissement pneumatique (aux deux extrémités)
Taille du raccord	(ø32) : G1/8; (ø40, ø50) : G1/4; (ø63, ø80) : G3/8; (ø100) : G1/2

1) Reportez-vous également aux caractéristiques détaillées du catalogue C95.

Pour passer commande¹⁾

1) Pour plus de détails sur les variations de vérin, reportez-vous au catalogue C95.

Variations de course standard du C95 applicables pour détecteur magnétique¹⁾ (diamètre compatible de ø32 à ø100)²⁾

Course standard ³⁾ (mm)	Diamètres du vérin (mm)					
	32	40	50	63	80	100
25	C95SDB32-25	C95SDB40-25	C95SDB50-25	C95SDB63-25	C95SDB80-25	C95SDB100-25
50	C95SDB32-50	C95SDB40-50	C95SDB50-50	C95SDB63-50	C95SDB80-50	C95SDB100-50
80	C95SDB32-80	C95SDB40-80	C95SDB50-80	C95SDB63-80	C95SDB80-80	C95SDB100-80
100	C95SDB32-100	C95SDB40-100	C95SDB50-100	C95SDB63-100	C95SDB80-100	C95SDB100-100
125	C95SDB32-125	C95SDB40-125	C95SDB50-125	C95SDB63-125	C95SDB80-125	C95SDB100-125
160	C95SDB32-160	C95SDB40-160	C95SDB50-160	C95SDB63-160	C95SDB80-160	C95SDB100-160
200	C95SDB32-200	C95SDB40-200	C95SDB50-200	C95SDB63-200	C95SDB80-200	C95SDB100-200
250	C95SDB32-250	C95SDB40-250	C95SDB50-250	C95SDB63-250	C95SDB80-250	C95SDB100-250
320	C95SDB32-320	C95SDB40-320	C95SDB50-320	C95SDB63-320	C95SDB80-320	C95SDB100-320
400	C95SDB32-400	C95SDB40-400	C95SDB50-400	C95SDB63-400	C95SDB80-400	C95SDB100-400
500	C95SDB32-500	C95SDB40-500	C95SDB50-500	C95SDB63-500	C95SDB80-500	C95SDB100-500
600	—	—	C95SDB50-600	C95SDB63-600	C95SDB80-600	C95SDB100-600

1) Service de livraison rapide, en 24 heures (sur demande).

2) Pour des diamètres de ø125, ø160, ø200, ø250mm, reportez-vous au catalogue C95.

3) Courses intermédiaires également disponibles pour demande de service de livraison rapide (48 hrs). Pour des courses supérieures, reportez-vous au catalogue C95.

Détecteurs



Détecteur pour C95 (24Vcc)¹⁾

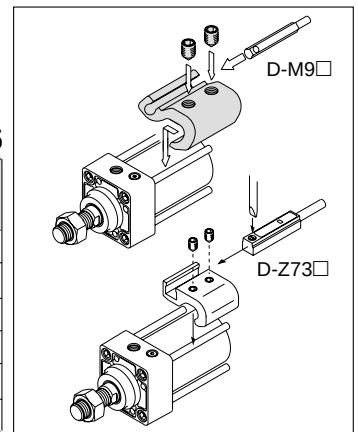
Pour passer commande	Désignation 2)
D-M9PL	Détecteur statique (PNP) avec 3m de câble, LED
D-M9PSAPC	Détecteur statique (PNP) avec connecteur M8 (à 3 broches), LED
D-M9PSBPC	Détecteur statique (PNP) avec connecteur M8 (à 4 broches), LED
D-M9PSDPC	Détecteur statique (PNP) avec connecteur M12, LED
D-Z73L	Détecteur Reed avec 3m de câble, LED.

1) Pour plus de détails sur les variations de détecteur, reportez-vous au catalogue C95.

2) Reportez-vous également aux caractéristiques détaillées du catalogue C95.

Fixation de montage du détecteur pour C95

Pour passer commande	Détecteurs compatibles	Diamètres de vérin compatibles
BMB5-032	D-M9□	ø32, ø40
BA7-040		ø50, ø63
BA7-063		ø80, ø100
BMB4-032	D-Z73□	ø32, ø40
BMB4-050		ø50, ø63
BA4-063		ø80, ø100



Accessoires de montage

Fixation de montage pour C95

Alésage (mm)	Equerre (2 pc.)	Bride	Tenon arrière	Chape arrière	Chape arrière (pour accessoire ES)	Tenon arrière avec rotule	Charnière orientable arrière avec rotule	charnière orientable arrière	Tourillon pivotant
32	L5032	F5032	C5032	D5032	DS5032	CS5032	ES5032	E5032	C95-S03
40	L5040	F5040	C5040	D5040	DS5040	CS5040	ES5040	E5040	C95-S04
50	L5050	F5050	C5050	D5050	DS5050	CS5050	ES5050	E5050	C95-S04
63	L5063	F5063	C5063	D5063	DS5063	CS5063	ES5063	E5063	C95-S06
80	L5080	F5080	C5080	D5080	DS5080	CS5080	ES5080	E5080	C95-S06
100	L5100	F5100	C5100	D5100	DS5100	CS5100	ES5100	E5100	C95-S10

Accessoires d'extrémité de tige pour C95

Alésage (mm)	Tenon de tige (ISO 8139)	Chape de tige (ISO 8140)	Accouplement de compensation
32	KJ10D	GKM10-20	JA30-10-125
40	KJ12D	GKM12-24	JA40-12-125
50	KJ16D	GKM16-32	JA50-16-150
63	KJ16D	GKM16-32	JA50-16-150
80	KJ20D	GKM20-40	JAH50-20-150
100	KJ20D	GKM20-40	JAH50-20-150



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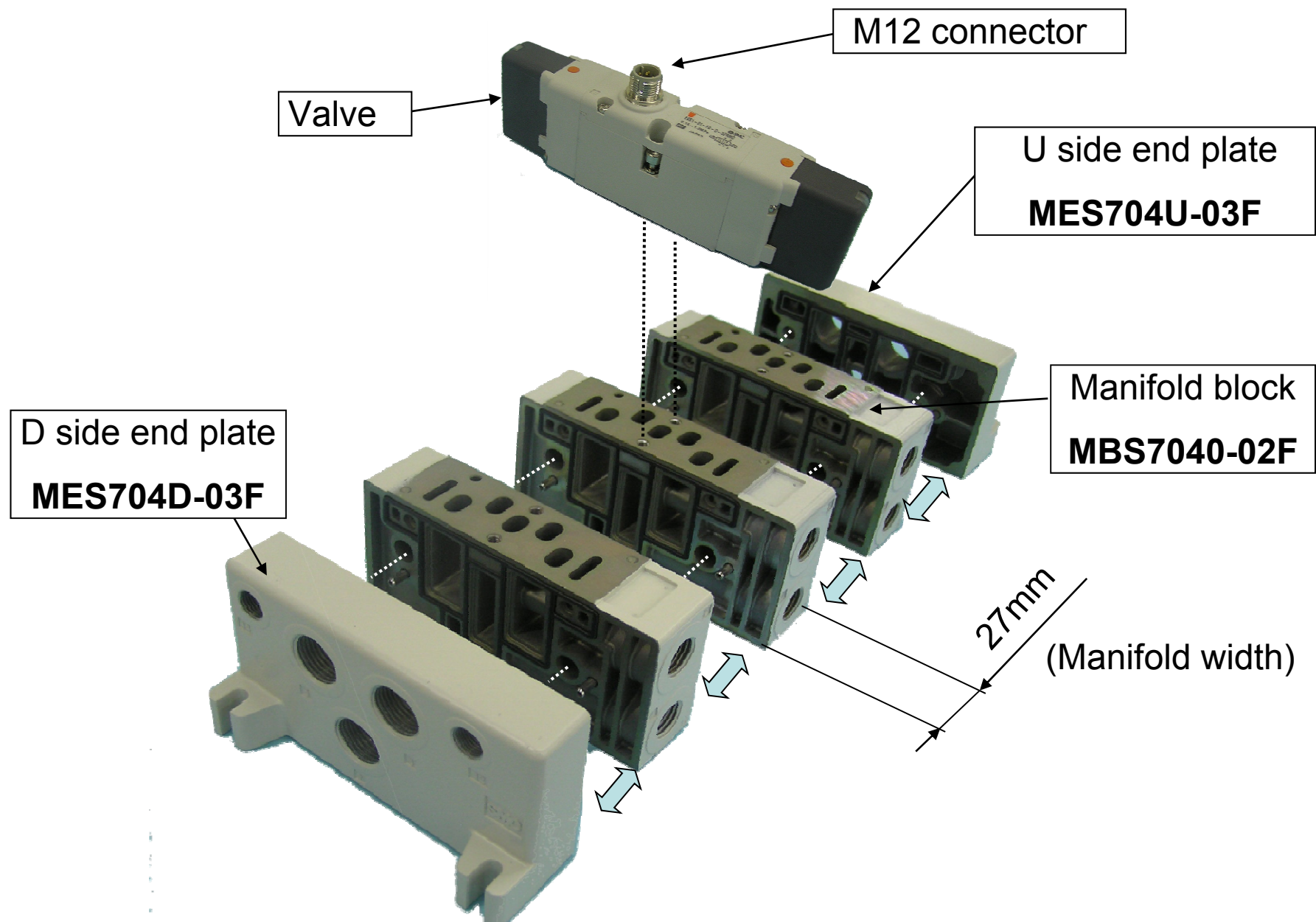


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<http://www.smcworld.com>



Numbering System

MBS7040-02*-*

● Tie Rod

Nil : With Tie Rod

1 : Without Tie Rod

● THREAD TYPE

Nil : Rc(PT)

N : NPT

T : NPTF

F : G Thread

(According to ISO 1179-1)

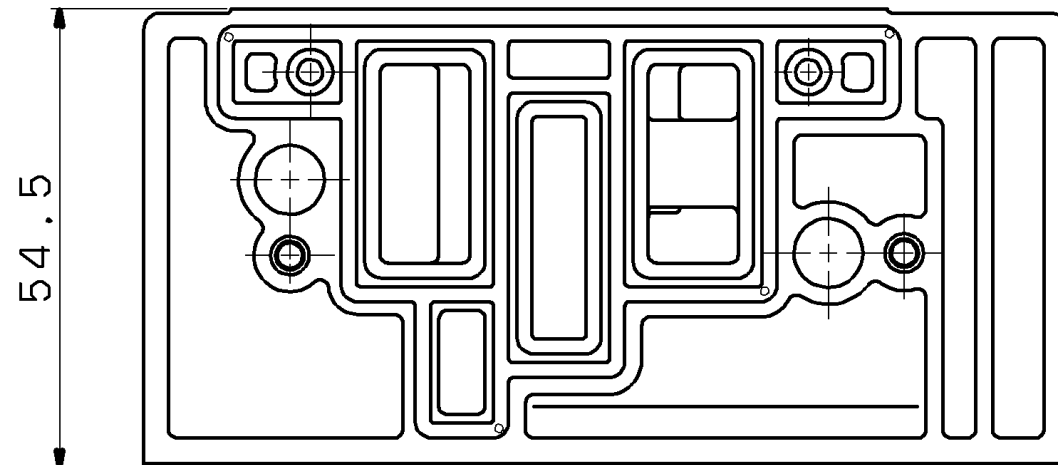
● 2,4 PORT SIZE

02 : 1/4" Thread

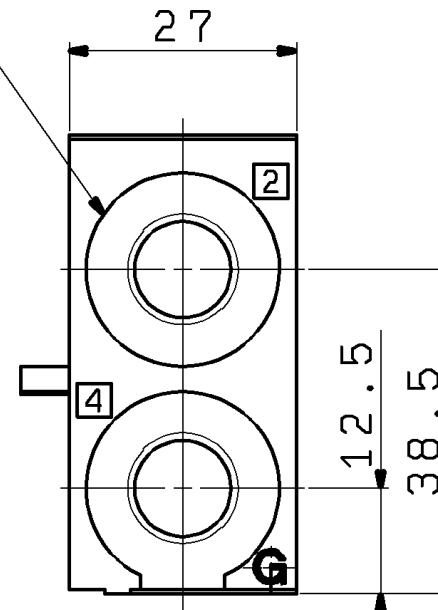
03 : 3/8" Thread

110.2

2X1,4",3/8" Thread
2,4 PORT



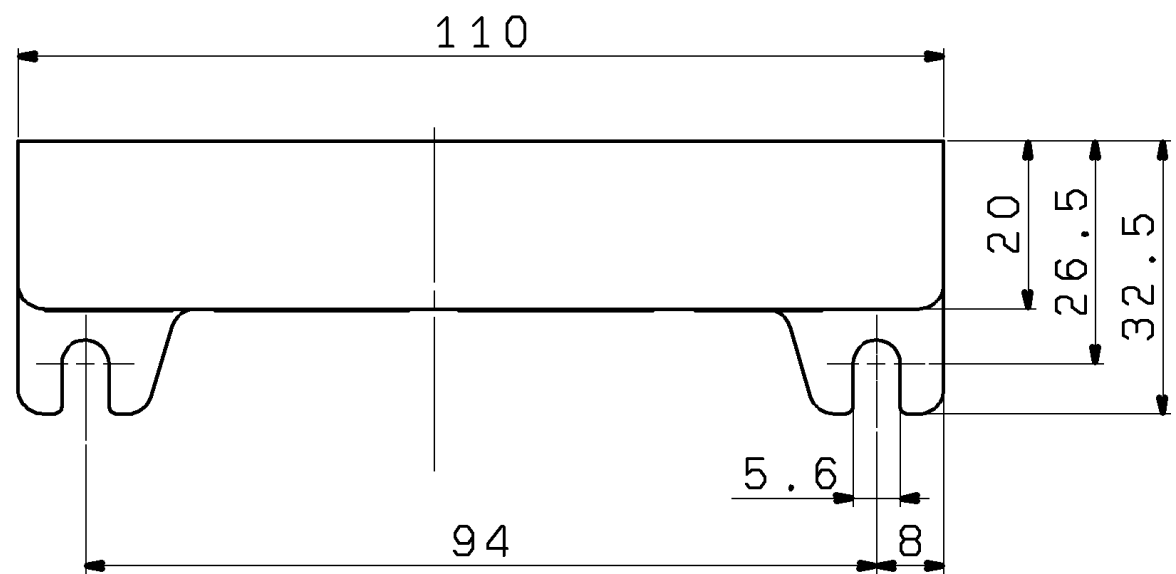
54.5



Accessory

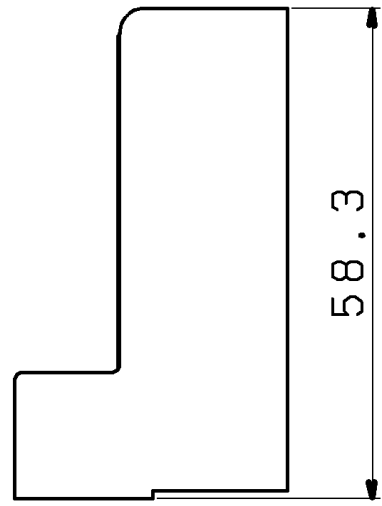
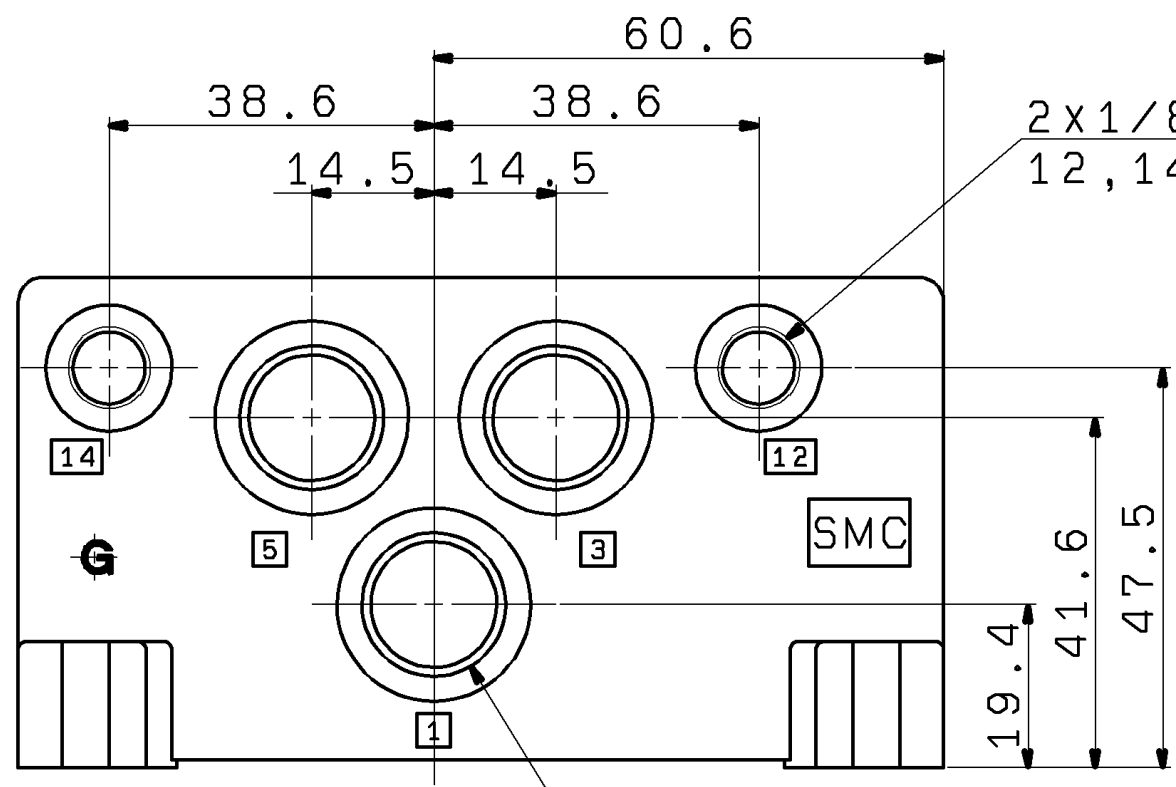
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ITEM	PART NO	PART NAME	MATERIAL	QTY	REMARKS
△					FINISH
△					PAINT
△					PACKING
REV	QTY	DESCRIPTION	DATE	PREPARED	REV NO
TOLERANCES JIS B 0405		GRADE	DRAWN		
RANGE (mm)	f	m	c	DATE	SCALE
0.5≤D≤3	0.05	0.1	0.2	DESIGNED	Free
3<D≤6	0.05	0.1	0.3	DATE	2007-04-03
6<D≤30	0.1	0.2	0.5	CHECKED	T.Mori
30<D≤120	0.15	0.3	0.8	DATE	2007-04-04
120<D≤400	0.2	0.5	1.2	APPROVED	Y.Fukano
400<D≤1000	0.3	0.8	2	DATE	2007-04-05
1000<D≤2000	0.5	1.2	3		
DWG NAME			MANIFOLD BLOCK ASSEMBLY		
DWG NO			REVISION		
(C) MBS7040-0203*-*					



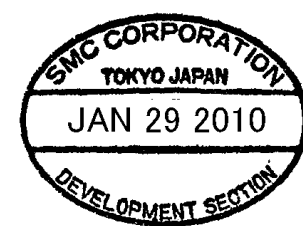


Numbering System
MES704D-03*

- THREAD TYPE
Nil : Rc(PT)
N : NPT
T : NPTF
F : G Thread
(According to ISO 1179-1)
- 1,3,5PORT SIZE
03 : 3/8" Thread



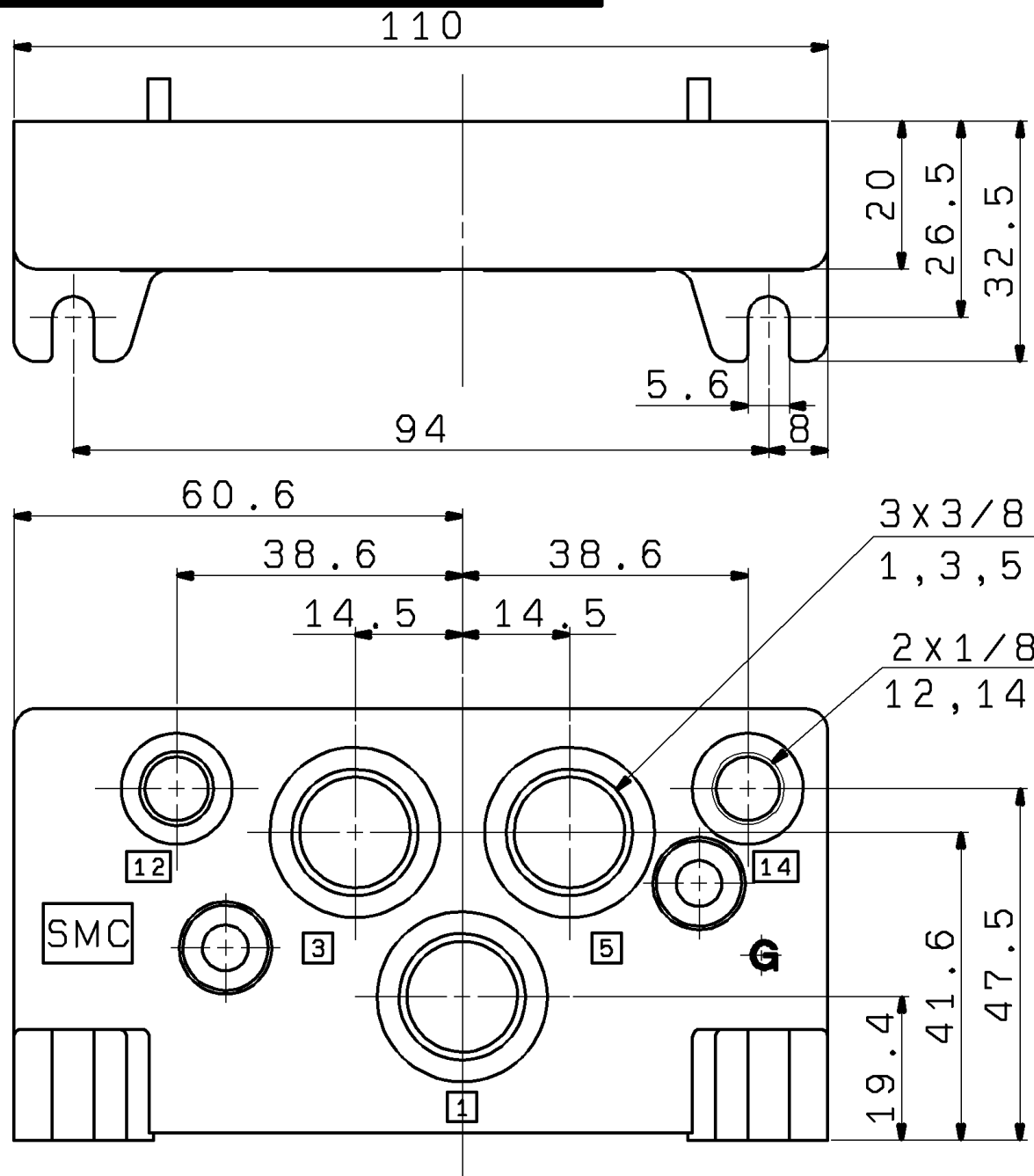
3x3/8" Thread
1,3,5 PORT



				FINISH		
				PAINT		
				PACKING		
REV	QTY	DESCRIPTION	DATE PREPARED	REV NO	MATERIAL	MODEL
TOLERANCES JIS B 0405				SCALE		
GRADE				Free		
RANGE (mm)	f	m	c	DRAWN		
0.5 ≤ D ≤ 3	±	±	±	DATE		
3 < D ≤ 6	0.05	0.1	0.2	DESIGNED	K.Hatano	DWG NAME
6 < D ≤ 30	0.05	0.1	0.3	DATE	2007-04-03	D SIDE END PLATE ASSEMBLY
30 < D ≤ 120	0.1	0.2	0.5	CHECKED	T.Mori	DWG NO
120 < D ≤ 400	0.15	0.3	0.8	DATE	2007-04-04	
400 < D ≤ 1000	0.2	0.5	1.2	APPROVED	Y.Fukano	REVISION
1000 < D ≤ 2000	0.3	0.8	2	DATE	2007-04-05	
				© MES704D-03*		

Numbering System

MES704U-03*



● THREAD TYPE
Nil : Rc (PT)
N : NPT
T : NPTF
F : G Thread
(According to ISO 1179-1)

● 1,3,5PORT SIZE
03 : 3/8" Thread

3x3/8" Thread
1,3,5 PORT
2x1/8" Thread
12,14 PORT

Accessory

1	AXT632-32-1	Socket Head Cap Screw	SCM435	2	M6X22
ITEM	PART NO	PART NAME	MATERIAL	QTY	REMARKS

					FINISH		
					PAINT		
					PACKING		

TOLERANCES JIS B 0405		GRADE		DRAWN DATE		SCALE Free	MATERIAL SIZE	THIRD ANGLE	
RANGE (mm)	f ±	m ±	c ±						
0.5≤D≤3	0.05	0.1	0.2	DESIGNED	K.Hatano	DWG NAME U SIDE END PLATE ASSEMBLY			
3<D≤6	0.05	0.1	0.3	DATE	2007-04-04				
6<D≤30	0.1	0.2	0.5	CHECKED	T.Mori	DWG NO			
30<D≤120	0.15	0.3	0.8	DATE	2007-04-04				
120<D≤400	0.2	0.5	1.2	APPROVED	Y.Fukano	© MES704U-03*			
400<D≤1000	0.3	0.8	2	DATE	2007-04-05				
1000<D≤2000	0.5	1.2	3			REVISION			
									



Vérins ISO/VDMA

Une gamme complète de produits et accessoires



Nouveau Vérin compact ISO C55 (ISO 21287)

C95 grand diamètre jusqu'à 250 mm

Gamme complète d'accessoires de montage et d'extrémités de tige



C85

Vérin pneumatique [ISO 6432 et CETOP RP52P]

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250	

C76

Vérin pneumatique

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250	

C55

Vérin compact ISO [ISO 21287]

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250	

CP95

Vérin pneumatique [ISO 6431, VDMA 24562, CETOP RP43P]

Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250	

C95

Vérin pneumatique [ISO 6431, VDMA 24562, CETOP RP43P]

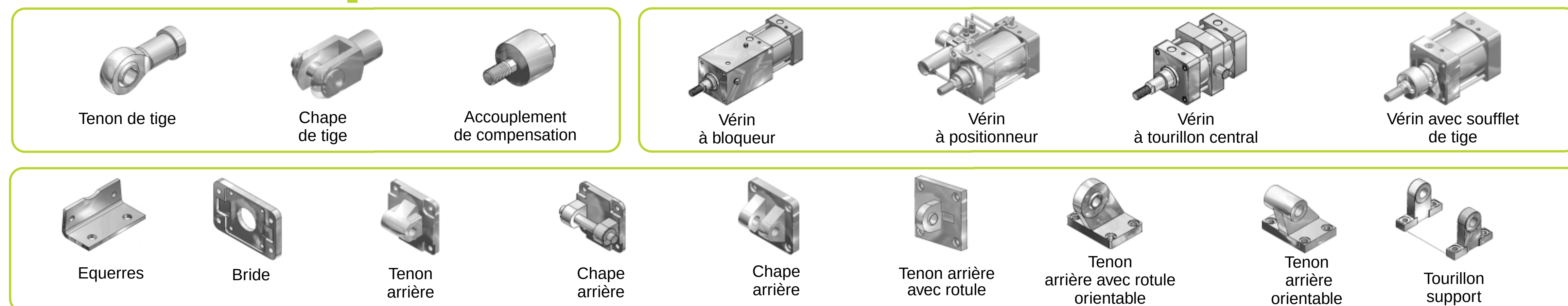
Ø (mm)	8	10	12	16	20	25	32	40	50	63	80	100	125	160	200	250	



Nouveau
Vérin compact ISO
[ISO 21287]

Nouveau
Grands
diamètres jusqu'à
ø250 mm

Gamme complète d'accessoires de montage et d'extrémités de tige



Support technique avec notre NOUVEAU configurateur de vérin ISO, options de personnalisation de vérin ISO incluses.

Pour offrir une flexibilité de produit maximale, tous nos vérins ISO/VDMA peuvent être commandés avec extrémités de tige personnalisées, proposant ainsi jusqu'à 30 variantes différentes.



Support technique de données CAD 3D disponible sur cd et sur internet.

Afin de vous assister lors de votre procédure de conception, tous nos vérins ISO/VDMA sont également disponibles en format CAD 3D, le programme CAD le plus populaire, sur CD ou sur notre page Internet européenne – www.smceu.com.



Support technique sous forme de documentation technique imprimée.

Afin d'offrir une documentation technique imprimée pleinement compréhensible, notre gamme complète de vérins ISO/VDMA et accessoires sont répertoriés dans nos catalogues de vérins ISO/VDMA. Pour en obtenir une copie, contactez simplement votre bureau SMC le plus proche.



Excellents prix et livraison rapide!

Tous les vérins standards ISO/VDMA sont disponibles dans notre centre logistique européen et, dans beaucoup de cas même, chez nos revendeurs locaux à travers l'Europe. Grâce à cette politique de stock, nous pouvons offrir une livraison rapide, avec des options de livraison en 24 heures.



Si vous n'utilisez pas les vérins SMC ISO/VDMA actuellement et que vous avez des doutes sur l'équivalence de nos modèles, contactez simplement votre représentant SMC qui sera enchanté de vous donner "l'équivalence" des numéros de nos modèles.

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European Marketing Centre
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SMC CORPORATION
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www.smcworld.com

ISO Standard Solenoid Valve
Series VQ7-6/7-8
(Size 1) (Size 2)



Conforms to ISO Standard 5599/I

Series VQ7-6, (Size 1)

Large flow capacity

Ideal for driving cylinders up to
ø100 (VQ7-6, Size 1)
ø160 (VQ7-8, Size 2)
Cv factor VQ7-6: 1.7
VQ7-8: 3.2

Conforms to ISO standard 5599/I

Interfaces conform to ISO standard
Size 1 (VQ7-6) and Size 2 (VQ7-8).

High speed response and long life

IP65 enclosure is dust tight and splash proof

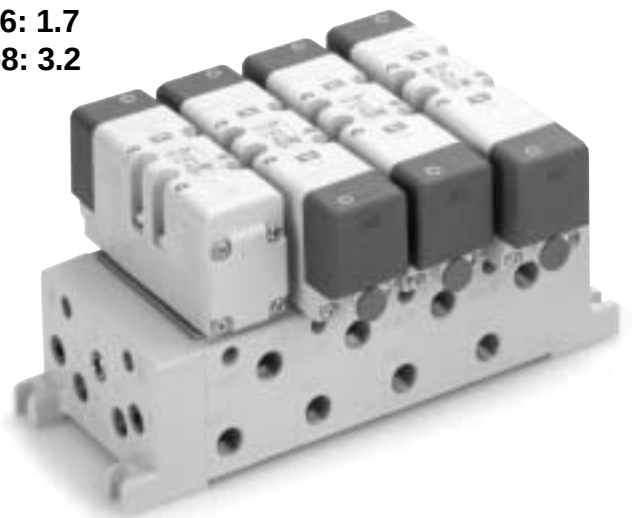
A wide variety of manifold options

Manifolds can be configured with a wide range of interface
options to meet a variety of application requirements.

- Interface regulator
- Double check spacer
- Double check spacer with residual pressure release valve
- Individual supply spacer
- Supply spacer with residual pressure release valve
- Individual exhaust spacer

- Blocking plate
- Adapter plate with release valve
- Reverse pressure spacer
- R1, R2 individual exhaust spacer
- Throttle valve spacer
- Locking cylinder adapter plate
- Main exhaust back pressure check plate

- Control unit
- Silencer box



Adopted color tone contributes to brighter factory environments

VQ7-8

(Size 2)

Lighter weight

Size 1 (3 position) 0.48kg 24% less
 Size 2 (3 position) 0.75kg 15% less
 (Compared to previous series)

Space saving profile

Installation space 13% reduction
 Installation volume ... 10% reduction
 (Compared to previous series)

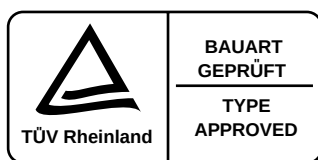
Choice of metal or rubber seal increases compatibility with various operating and environmental conditions.

Cylinder Speed Chart

Model	Cv factor Metal seal (Rubber seal)	Cylinder speed mm/s	Cylinder bore size mm							
			40	50	63	80	100	125	140	160
VQ7-6	1.5 (1.7)	150								
		300								
		450								
		600								
		750								
VQ7-8	3.2 (3.2)	150								
		300								
		450								
		600								
		750								

Pressure 0.5MPa, Load factor 50%

Note) Use as a guide for selection, as cylinder speeds will vary depending on the piping equipment.



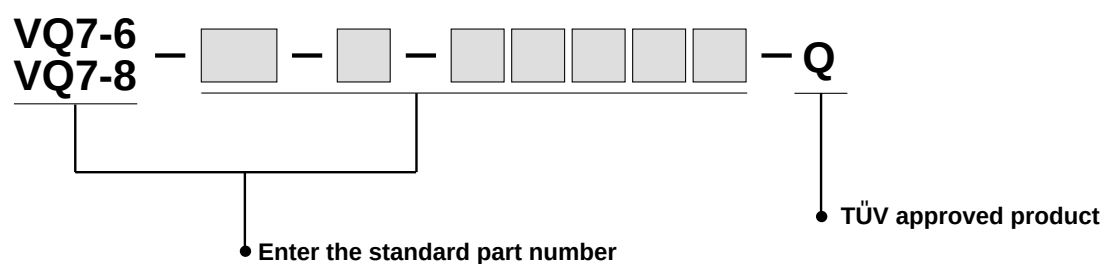
TÜV Approved Product

(Conforms to standards necessary to satisfy EC directives.)

The VQ7-6/7-8 series has received approval from TÜV Rheinland, an EC Notified Body (EC authorization No. 0197), for conformity to DIN VDE0580: 1994 Standards.

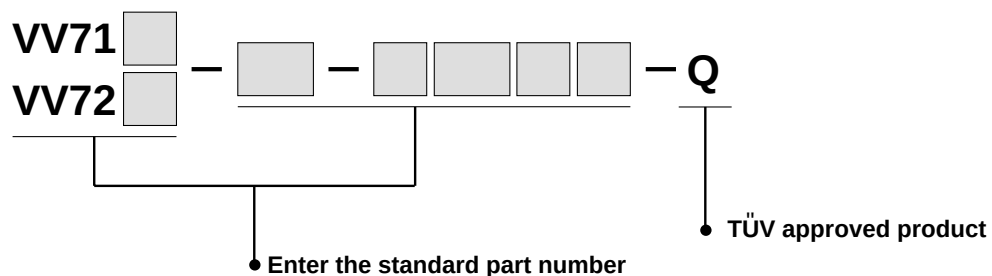
When ordering TÜV approved products, add "- Q" at the end of the standard part number.

Example of how to order a valve



Note) Voltage is 50VDC or less.

Example of how to order a manifold



Contact SMC for details, as there are limitations on voltage specifications and electrical entry, etc.

For TÜV approved manifold options also add "- Q" at the end of the standard part number.

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Series VQ7-6

ISO Standard Solenoid Valve

Size 1/Single Unit

How to Order Valves

VQ7-6 — **FG** — **S** — **3** — — — —

Passage symbol

FG	
YZ*	
FHG	
FJG	
FPG	
FIG	

* Optional

Connector

Nil	DIN terminal block (with connector)
O	DIN terminal block (without connector)
SC	Prewired connector

Sub plate port size

Nil	Without sub plate
A02	Side port Rc1/4 *
A03	Side port Rc3/8
B02	Bottom port Rc1/4 *
B03	Bottom port Rc3/8

* Port R is Rc3/8

Seal type

Nil	Metal seal
R	Rubber seal

Options *

Nil	None
N	Indicator light
Z	Indicator light with surge voltage suppressor
V	Individual pilot exhaust

* When 2 or more symbols are applicable, show them in alphabetical order.

Coil rating

1	100VAC
2	200VAC
3	24VDC
4	12VDC
9*	Other voltage

* Contact SMC regarding other voltages.

Number of solenoids

S	Single
D	Double

How to Order Sub Plates

VS7-1-A02

Port size

A02	Side port Rc1/4 *
A03	Side port Rc3/8
B02	Bottom port Rc1/4 *
B03	Bottom port Rc3/8

* Ports 3 (R2) and 5 (R1) are Rc3/8

Specifications

Type	Piping specifications			Weight kg
	Piping location	1 (P), 2 (B), 4 (A) port size	3 (R2), 5 (R1) port size	
VS7-1-A02	Side	Rc1/4	Rc3/8	0.37
VS7-1-A03		Rc3/8		
VS7-1-B02	Bottom	Rc1/4	Rc3/8	
VS7-1-B03		Rc3/8		

Models



Series	Positions		Model		Note 1) Effective area mm ² (Cv factor)	Note 2) Response time ms	Note 3) Weight kg
VQ7-6	2 position	Single	Metal seal	VQ7-6-FG-S-□	27.0 (1.5)	20 or less	0.40
			Rubber seal	VQ7-6-FG-S-□R	31.0 (1.7)	25 or less	
		Double	Metal seal	VQ7-6-FG-D-□	27.0 (1.5)	12 or less	0.45
			Rubber seal	VQ7-6-FG-D-□R	31.0 (1.7)	15 or less	
	3 position	Closed center	Metal seal	VQ7-6-FHG-D-□	25.5 (1.4)	40 or less	0.48
			Rubber seal	VQ7-6-FHG-D-□R	27.0 (1.5)	45 or less	
		Exhaust center	Metal seal	VQ7-6-FJG-D-□	27.0 (1.5)	40 or less	0.48
			Rubber seal	VQ7-6-FJG-D-□R	31.0 (1.7)	45 or less	
		Double check	Metal seal	VQ7-6-FPG-D-□	20.0 (1.1)	50 or less	0.84
			Rubber seal	VQ7-6-FPG-D-□R	20.0 (1.1)	50 or less	
		Pressure center	Metal seal	VQ7-6-FIG-D-□	27.0 (1.5)	40 or less	0.48
			Rubber seal	VQ7-6-FIG-D-□R	31.0 (1.7)	45 or less	

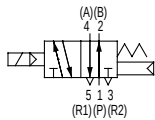
Note 1) Port size Rc1/4: Value when mounted on sub plate.

Note 2) Based on JIS B 8375-1981 (Value for supply pressure of 0.5MPa, with light/surge voltage suppressor, when using clean air.) Response time values will change depending on pressure and air quality.
The value when ON for the double type.

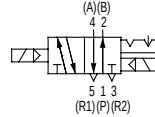
Note 3) The weight without sub plate. (Sub plate: 0.37kg)

Symbols

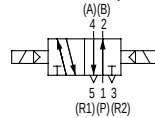
2 position single



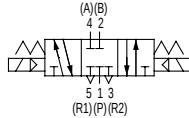
2 position double (metal)



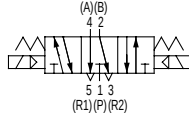
2 position double (rubber)



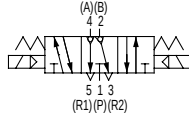
3 position closed Center



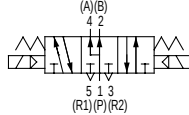
3 position exhaust center



3 position double check



3 position pressure center



Standard Specifications

Valve specifications	Valve construction		Metal seal	Rubber seal
	Fluid		Air/Inert gas	
	Maximum operating pressure		1.0MPa	
	Minimum operating pressure	Single	0.15MPa	0.20MPa
		Double	0.15MPa	0.15MPa
		3 position	0.15MPa	0.20MPa
	Ambient and fluid temperature		-10 to 60°C Note 1)	-5 to 60°C Note 1)
	Lubrication		Not required	
	Manual operation		Push type (tool required)	
	Impact/Vibration resistance		150/30 m/s ² Note 2)	
	Enclosure		IP65 (splash proof/jet proof)	
Electrical specifications	Rated coil voltage		12VDC, 24VDC, 100VAC, 110VAC, 200VAC, 220VAC (50/60Hz)	
	Allowable voltage fluctuation		±10% of rated voltage	
	Coil insulation type		Class B equivalent	
	Power consumption (current)	24VDC	DC1W (42mA)	
		12VDC	DC1W (83mA)	
		100VAC	Inrush 1.2VA (12mA), Holding 1.2VA (12mA)	
		110VAC	Inrush 1.3VA (11.7mA), Holding 1.3VA (11.7mA)	
		200VAC	Inrush 2.4VA (12mA), Holding 2.4VA (12mA)	
		220VAC	Inrush 2.6VA (11.7mA), Holding 2.6VA (11.7mA)	

Note 1) For low temperature, use dry air with no condensation.

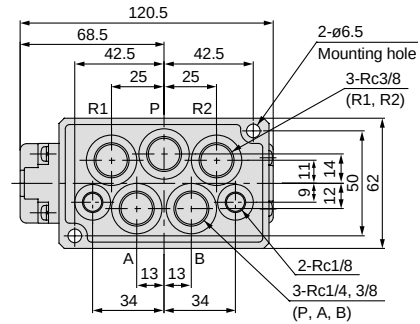
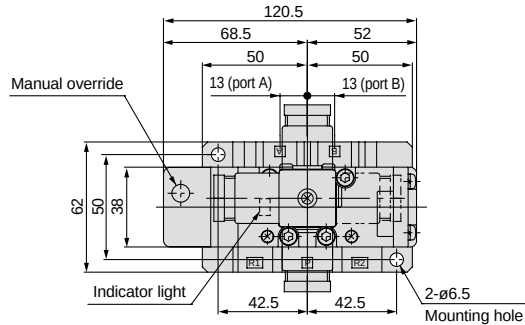
Note 2) Impact resistance: No malfunction when tested with a drop tester in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (initial value)

Vibration resistance: No malfunction when tested with one sweep of 8.3 to 2000Hz in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (initial value)

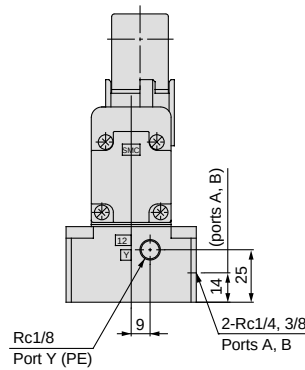
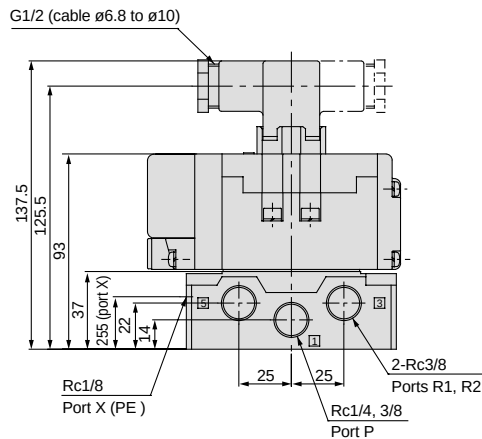
Series VQ7-6

DIN Connector Type

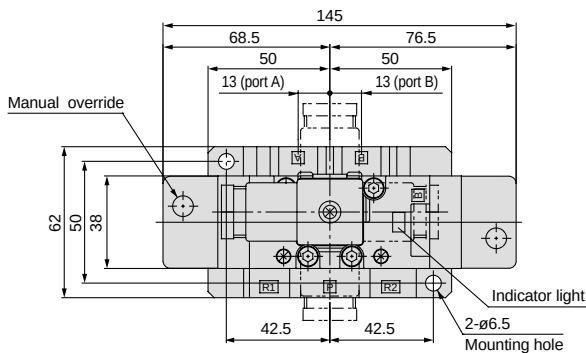
2 position/Single : VQ7-6-FG-S
Single (reverse pressure): VQ7-6-YZ-S



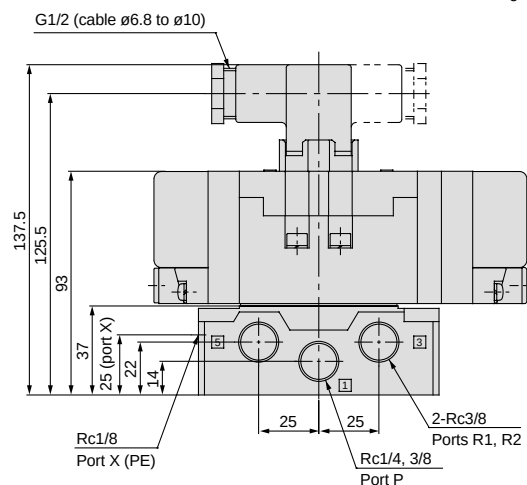
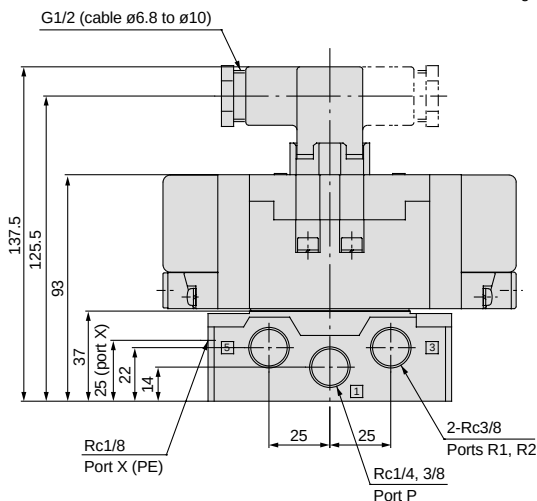
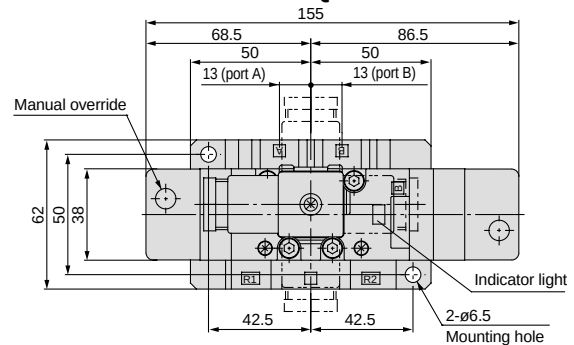
Bottom port drawing



2 position/Double : VQ7-6-FG-D
Double (reverse pressure): VQ7-6-YZ-D

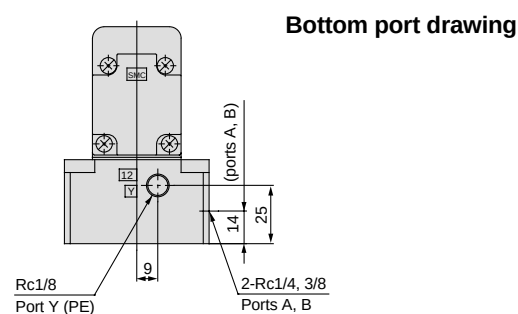
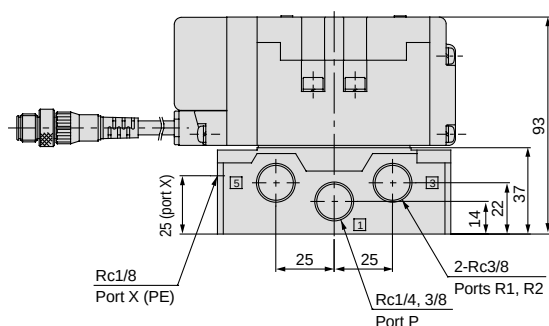
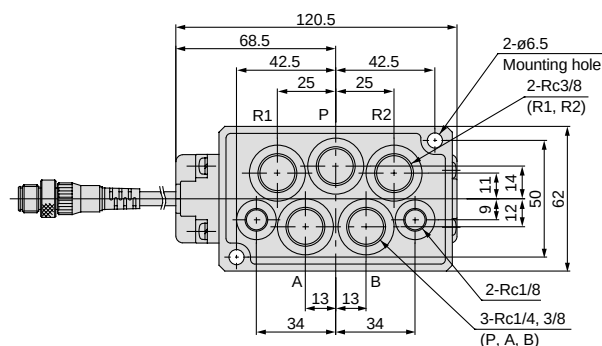
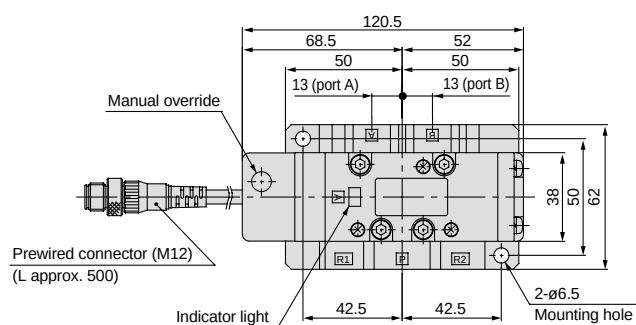


3 position/Closed center : VQ7-6-FHG-D
Exhaust center : VQ7-6-FJG-D
Pressure center : VQ7-6-FIG-D

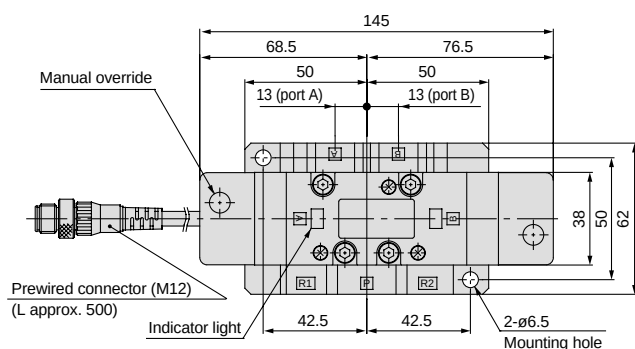


Prewired Connector Type

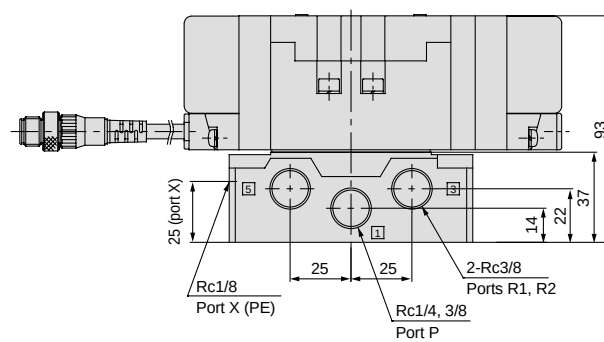
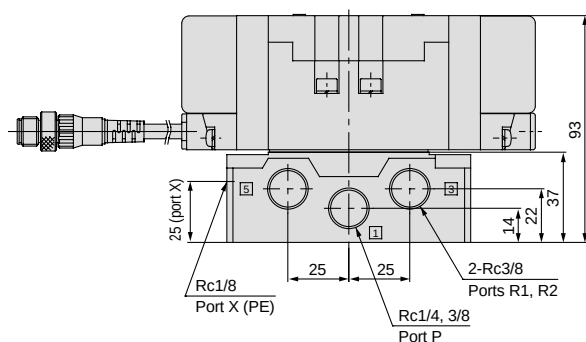
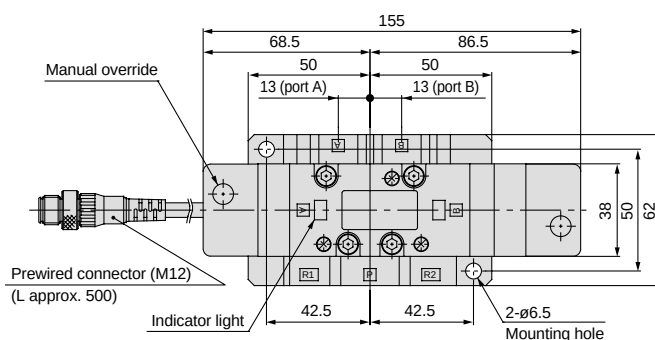
2 position/Single : VQ7-6-FG-S□□□□SC
Single (reverse pressure): VQ7-6-YZ-S□□□□SC



2 position/Double : VQ7-6-FG-D-□□□□□SC
Double (reverse pressure): VQ7-6-YZ-D-□□□□□SC



3 position/Closed center : VQ7-6-FHG-D-□□□□□SC
Exhaust center : VQ7-6-FJG-D-□□□□□SC
Pressure center : VQ7-6-FIG-D-□□□□□SC

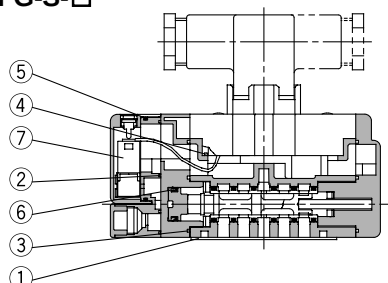


Series VQ7-6 Construction

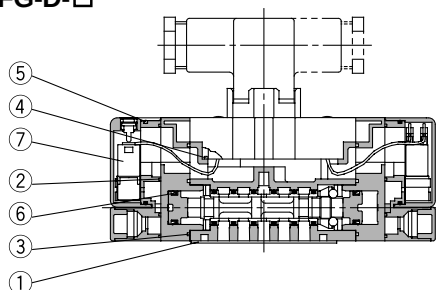
DIN Connector Type

Metal seal type

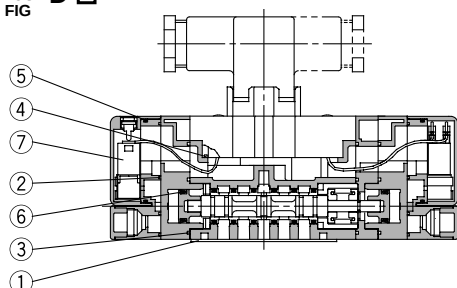
VQ7-6-FG-S-□



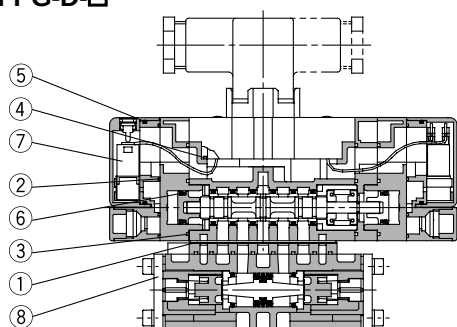
VQ7-6-FG-D-□



VQ7-6-^{FHG} FJG -D-□ FIG

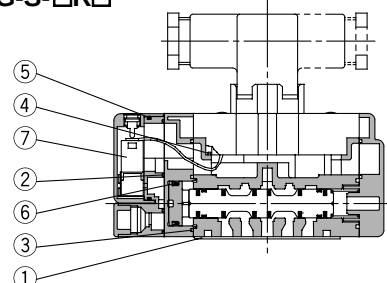


VQ7-6-FPG-D-□

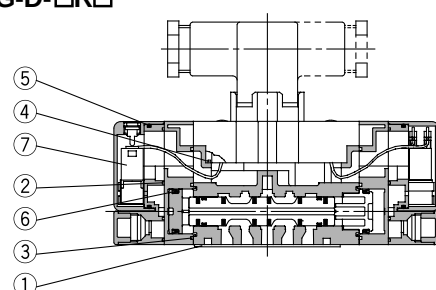


Rubber seal type

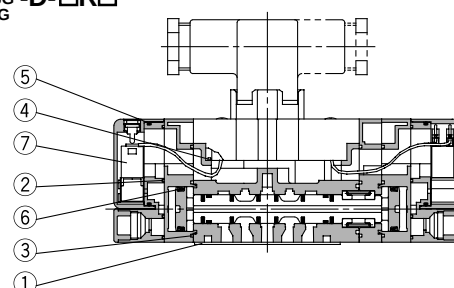
VQ7-6-FG-S-□R□



VQ7-6-FG-D-□R□



VQ7-6-^{FHG} FJG -D-□R□ FIG



Valve replacement parts

No.	Description	Material	VQ7-6-FG-S-□	VQ7-6-FG-D-□	VQ7-6- ^{FHG} FJG -D-□ FIG	VQ7-6-FPG-D-□	VQ7-6-FG-S-□R□	VQ7-6-FG-D-□R□	VQ7-6- ^{FHG} FJG -D-□R□ FIG
1	Gasket	NBR				AXT500-13			
2	Gasket A	NBR				VQ7060-13-2			
3	Gasket B	NBR				VQ7060-13-1			
4	Gasket C	NBR				VQ7060-13-3			
5	O-ring	NBR				37 x 1.6			
6	Mini Y seal	NBR		MYN-11				MYN-16	
7	Pilot valve assembly					VQZ110Q-□			
8	Double check spacer			—		VV71-FPG		—	

Series VQ7-6 Manifold Series VV71

How to order Manifolds

VV71 6 - 02R - 02D

Stations

1	1 station
⋮	⋮
10	10 stations

Note) When equipped with control unit, 1 or 2 stations are used for mounting.

2(B), 4(A) port piping connection

02R	Rc1/4 (right side)
03R	Rc3/8 (right side)
02L	Rc1/4 (left side)
03L	Rc3/8 (left side)
02Y	Rc1/4 (bottom)
03Y	Rc3/8 (bottom)
C6R	One-touch fitting ø6 (right side)
C8R	One-touch fitting ø8 (right side)
C10R	One-touch fitting ø10 (right side)
C6L	One-touch fitting ø6 (left side)
C8L	One-touch fitting ø8 (left side)
C10L	One-touch fitting ø10 (left side)
*	Mixed

Note) When ports are mixed, indicate piping specifications using the instructions and manifold specification sheet on pages 33 and 34.

Silencer box

Nil	Without
SB	With

Note) The silencer box mounting position corresponds to piping connection at ports 3 (R2) and 5 (R1).

Air release valve coil rating

Nil	None
1	100VAC 50Hz/60Hz
2	200VAC 50Hz/60Hz
3	24VDC
4	12VDC
9	Other

1 (P), 3 (R2), 5 (R1) port piping connection

02D	Rc1/4 (bottom)
02U	Rc1/4 (top)
02B	Rc1/4 (both sides)
03D	Rc3/8 (bottom)
03U	Rc3/8 (top)
03B	Rc3/8 (both sides)
C12D	One-touch fitting ø12 (bottom)
C12U	One-touch fitting ø12 (top)
C12B	One-touch fitting ø12 (both sides)
*	Mixed

Note) When ports are mixed, indicate piping specifications using the instructions and manifold specification sheet on pages 33 and 34.

Control unit type (see pages 13 and 14 for details)

Symbol	Nil	A	AP	M	MP	F	G	C	E
Control equipment									
Air filter with auto drain		○	○			○			
Air filter with manual drain				○	○		○		
Regulator		○	○	○	○	○	○		
Air release valve		○	○	○	○			○	○
Pressure switch			○		○				
Blank plate (air release valve)						○	○		
Blank plate (filter, regulator)								○	
Number of manifold blocks required for mounting (stations)		2	2	2	2	2	2	2	1

Manifold Specifications

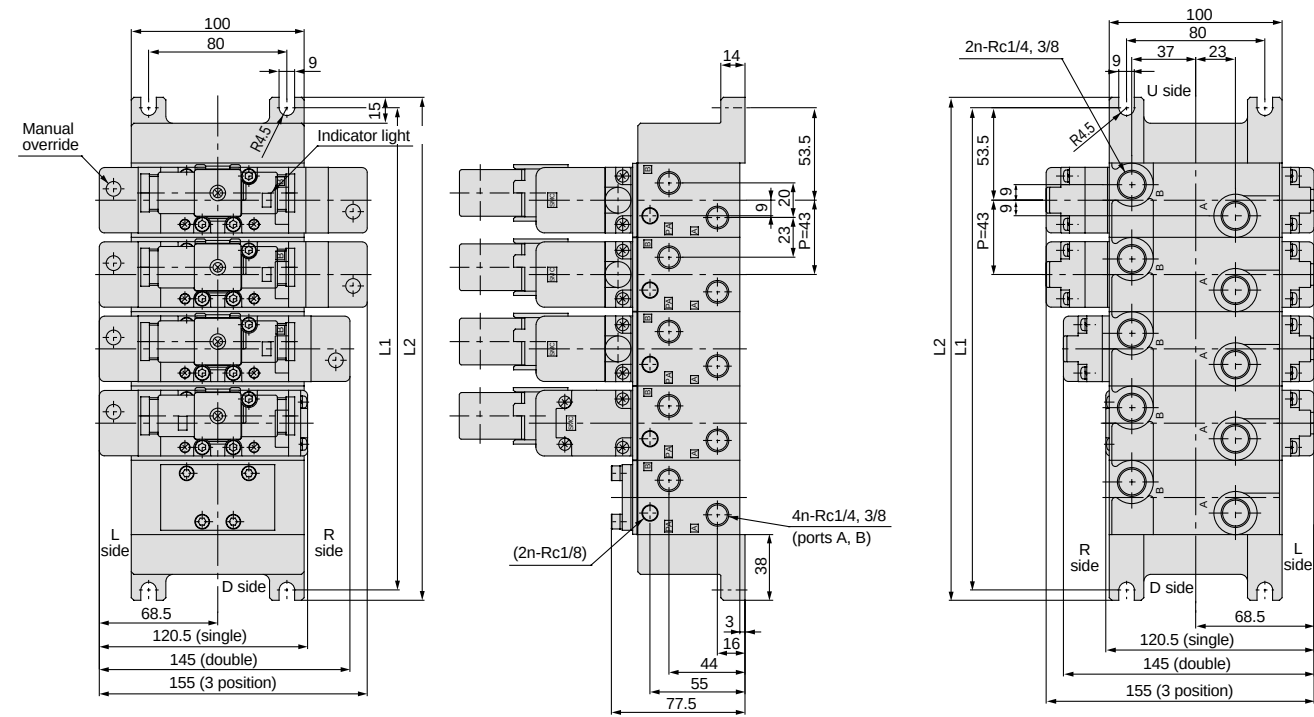
Manifold block size	Applicable solenoid valve	Piping specifications			Stations	Weight kg
		Ports 2 (B), 4 (A)		1 (P), 3 (R2)		
		Piping direction	Size	5 (R1) port size		
ISO size 1	VQ7-6 ISO size 1 series	Right, Left	Rc1/4 Rc3/8 C6 (for ø6) C8 (for ø8) C10 (for ø10)	Rc1/4 Rc3/8 C12 (for ø12)	Note) 10 stations max.	0.43n + 0.49 (n: Stations)
		Bottom	Rc1/4 Rc3/8			

Note) When equipped with control unit, 1 or 2 stations are used for mounting.

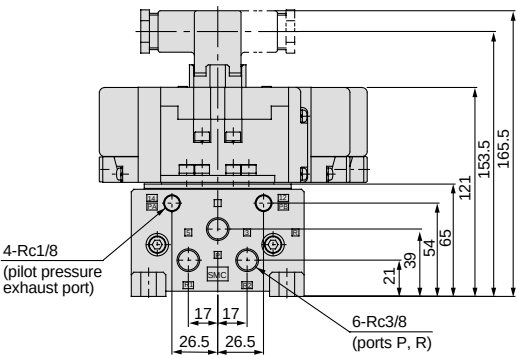
Series VQ7-6

DIN Connector Type

VV71□-□-□□□



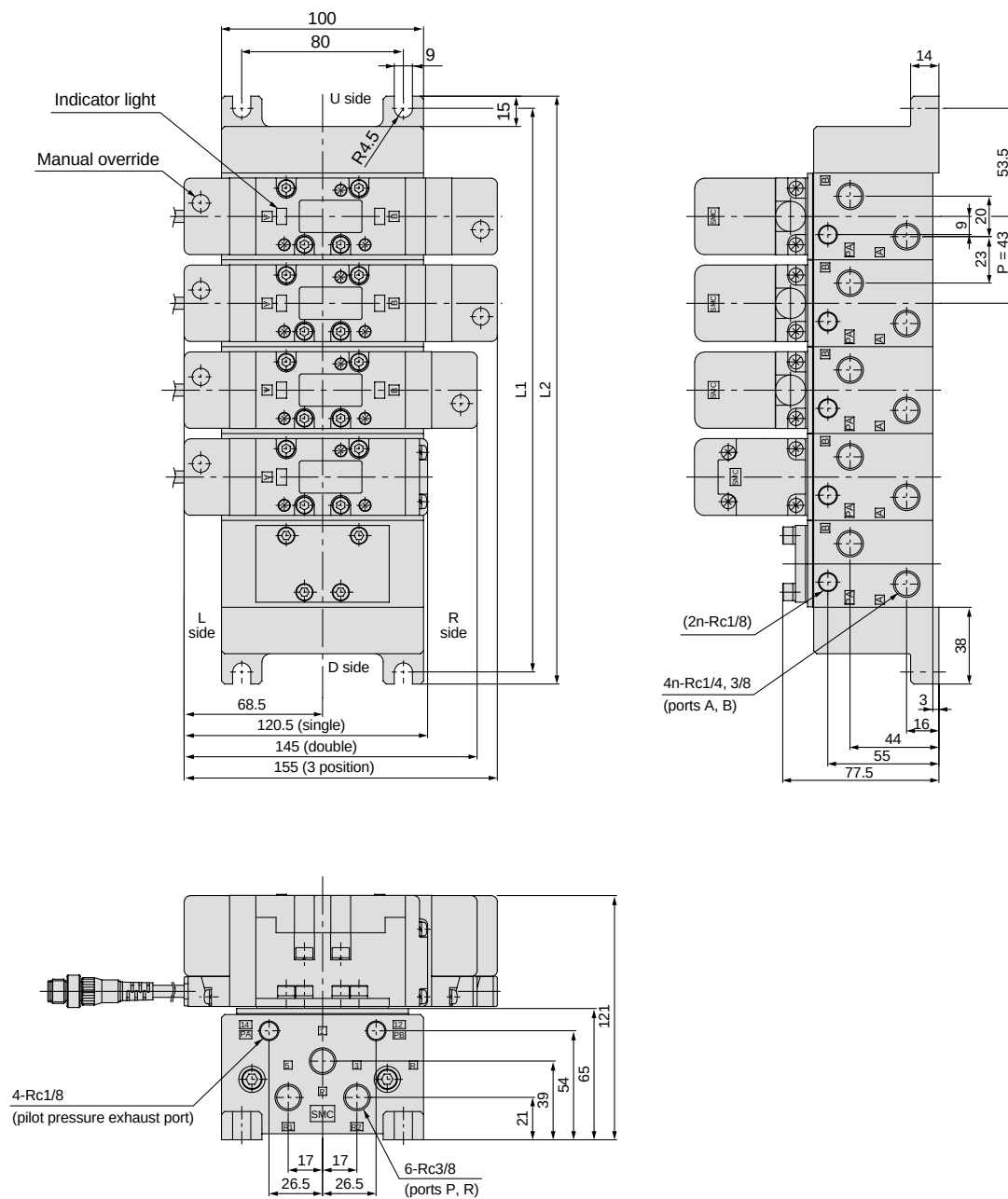
Bottom port drawing



L: Dimensions											n: Stations	
	1	2	3	4	5	6	7	8	9	10	Formula	
L1	107	150	193	236	279	322	365	408	451	494	L1 = 43n + 64	
L2	119	162	205	248	291	334	377	420	463	506	L2 = 43n + 76	

Prewired Connector Type

VV71□-□-□□□



L: Dimensions											n: Stations	
	1	2	3	4	5	6	7	8	9	10	Formula	
L1	107	150	193	236	279	322	365	408	451	494	$L1 = 43n + 64$	
L2	119	162	205	248	291	334	377	420	463	506	$L2 = 43n + 76$	

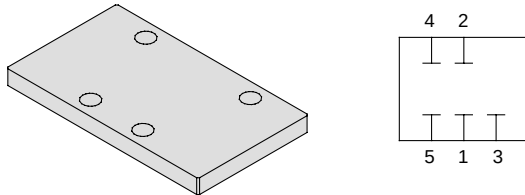
Series VQ7-6

Optional Manifold Parts

Blank plate assembly

AXT502-9A

This is used by mounting it on a manifold block when a valve is removed for maintenance or when it is planned to install an additional valve in the future, etc.

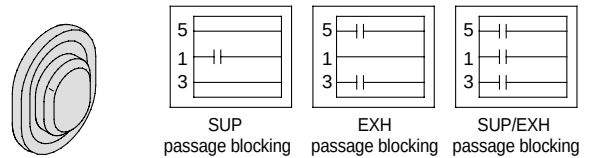


Blocking plate (for SUP/EXH passages)

AXT502-14

When two or more different high pressures are supplied to one manifold, blocking plates are installed between stations having different pressures.

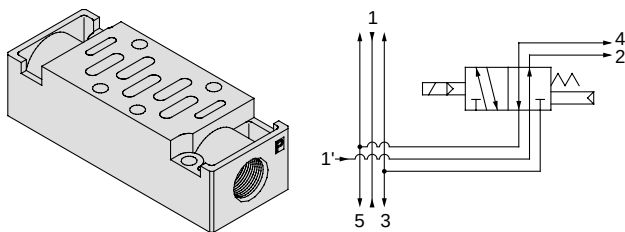
Also, in cases such as when valve exhaust effects other stations in a circuit, blocking plates are used for exhaust at stations where the exhaust is to be separated.



Individual SUP spacer

VV71-P-⁰²₀₃ C10

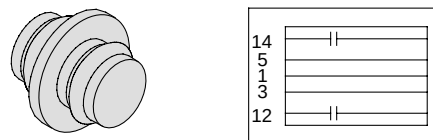
By mounting individual supply spacers on a manifold block, supply ports can be provided individually for each valve.



Blocking plate (for pilot EXH passage)

AZ503-53A

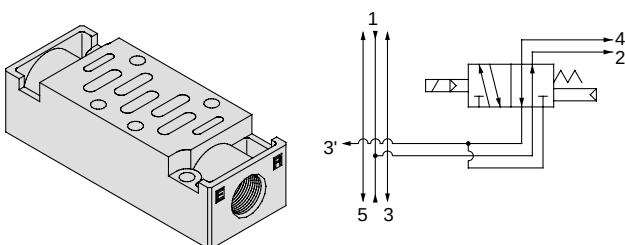
When a valve's pilot valve exhaust effects other valves in a circuit, blocking plates are used between stations where the pilot exhaust passages are to be separated.



Individual EXH spacer

VV71-R-⁰²₀₃ C12

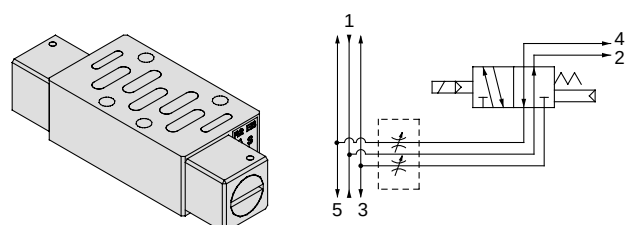
By mounting individual exhaust spacers on a manifold block, exhaust ports can be provided individually for each valve. (3, 5 common exhaust type)



Throttle valve spacer

AXT503-23A

By mounting a throttle valve spacer on a manifold block, a cylinder's speed can be controlled by throttling the exhaust.

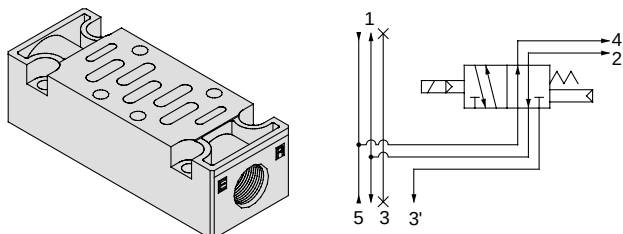


Reverse pressure spacer

AXT502-21A-1

With reverse pressure control manifold specifications, when pressure is changed individually on one side (ex. high speed cylinder return), pressure can be supplied individually to the R2 side by mounting a reverse pressure spacer.

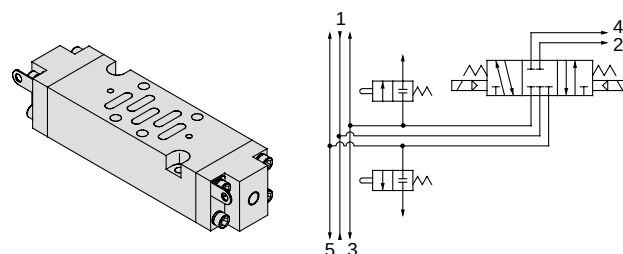
{port 3 (R2) is individual and 5 (R1) is common}



Residual pressure release valve spacer

VV71-R-AB

This is used by mounting on a manifold block in order to exhaust the residual pressure trapped inside of a cylinder, etc., during an intermediate stop with a 3 position closed center or perfect type valve. Residual pressure at ports A and B is exhausted individually to the outside by manual operation.

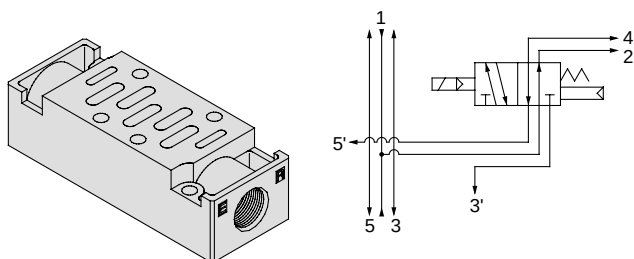


R1, R2 individual EXH spacer

VV71-R2-03

By mounting an individual exhaust spacer on a manifold block individual exhaust is possible from both R1 and R2.

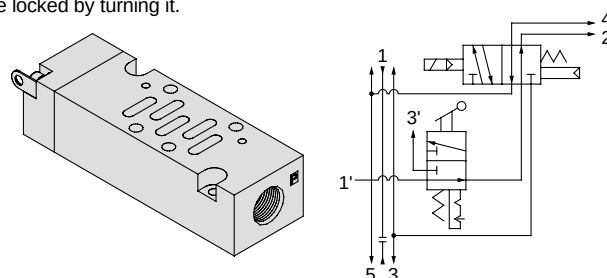
{3 (R2) and 5 (R1) are individual ports}



Individual SUP spacer with residual pressure release valve

VV71-PR-⁰²₀₃

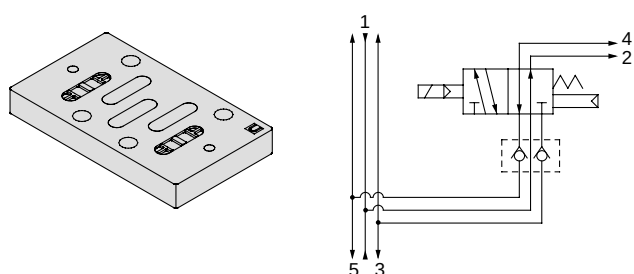
This is used by mounting on a manifold block in order to stop the primary side supply pressure in an individual supply spacer, while at the same time exhausting the residual pressure on the secondary side. Stopping the supply and exhausting the residual pressure are performed by pressing the manual override, which can be locked by turning it.



Main EXH back pressure check plate

AXT503-37A

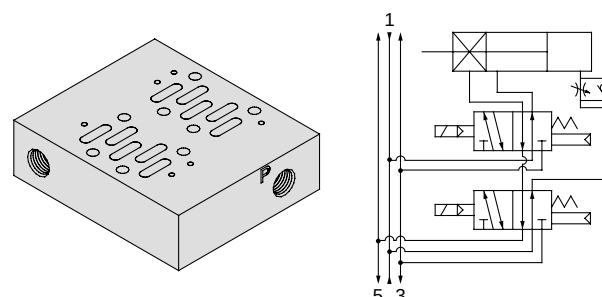
In cases where back pressure effects actuator operation due to simultaneous operation of manifold valves, etc., this effect can be eliminated by installing a plate between the manifold block and the valve from which back pressure is to be prevented.



Adapter plate for locking cylinder

AXT502-26A

When using a locking cylinder with 2 valves for control, this spacer can be used by mounting on a manifold block. It consists of a circuit equipped with a function to prevent lurching during release.



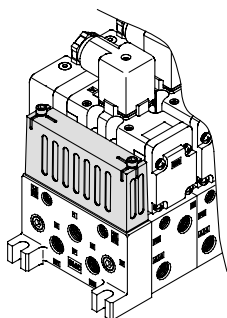
Series VQ7-6

Optional Manifold Parts

Silencer box

VV71-□□□-□□-SB

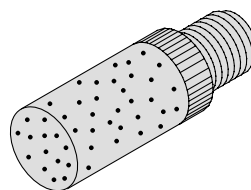
This can be provided as a unit on the end plate to reduce manifold exhaust noise and piping labor.



Pilot EXH silencer

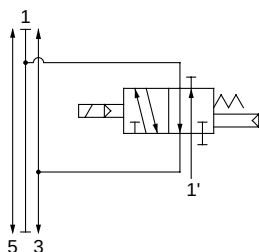
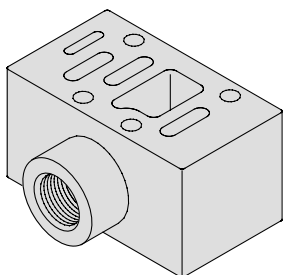
AN110-01

This is used by mounting on the pilot exhaust port in order to reduce manifold and single type pilot exhaust noise, and to prevent the entry of dust.



Release valve spacer

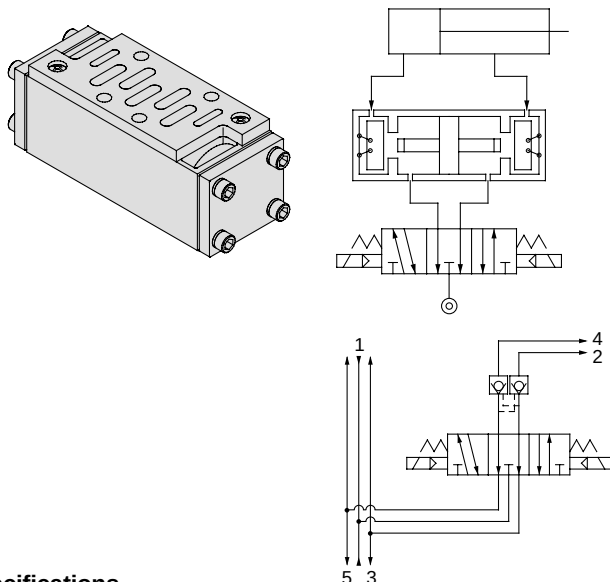
AXT502-17A



Double check spacer

VV71-FPG

By combining a 3 position exhaust center valve with a double check spacer, an intermediate stopping position of a cylinder can be held for an extended period. It can also be used for drop prevention at the cylinder stroke end when releasing residual supply pressure, by combination with a 2 position single or double valve.



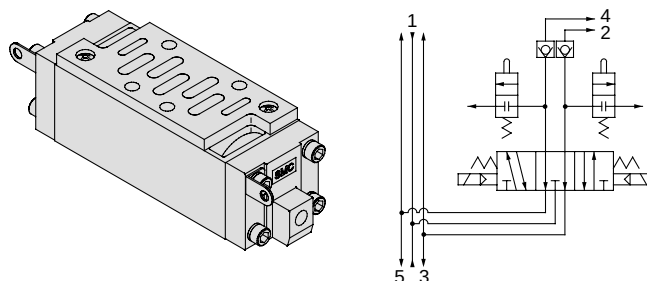
Specifications

Double check spacer part no.		VV71-FPG		
Applicable solenoid or air operated valve		Series VQ7-6		
Leakage cm ³ /min (ANR)	One solenoid energized (One pilot pressurized)	P	R1	130
			R2	
	Both solenoids unenergized (Both pilots unpressurized)	P	R1	130
			R2	
		B	R1	0
		A	R2	

Double check spacer with residual pressure release valve

VV71-FPGR

This is a double check spacer equipped with a residual pressure release function, to release residual pressure inside a cylinder during maintenance or adjustment, etc.



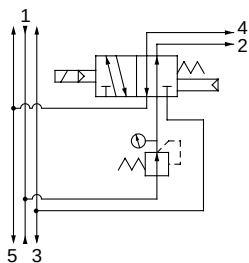
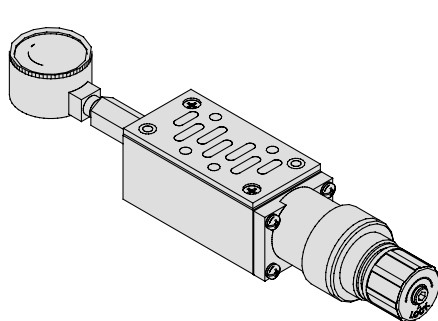
⚠ Handling precautions

- Since extended cylinder stops are not possible if there are leaks from piping between the valve and cylinder or from fittings, etc., check for leakage using a neutral liquid detergent.
- Since One-touch fittings allow for some air leakage, threaded piping is recommended in cases of extended intermediate cylinder stops.
- This spacer cannot be combined with a 3 position closed center valve.
- Set the load weight so that the cylinder side pressure is less than two times the supply side pressure.
- When using the residual pressure release function, confirm the action of actuators, etc., and operate after providing for safety measures.

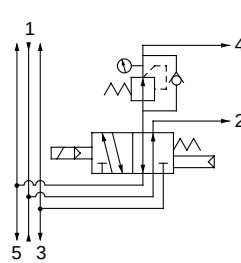
Interface regulator

ARB250-00-^P_A_B

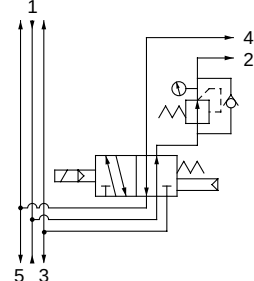
By mounting an interface regulator on a manifold block, it is possible to regulate each valve.



P reduced pressure



A reduced pressure



B reduced pressure

Part No.

P reduced pressure	ARB250-00-P
A reduced pressure	ARB250-00-A
B reduced pressure	ARB250-00-B

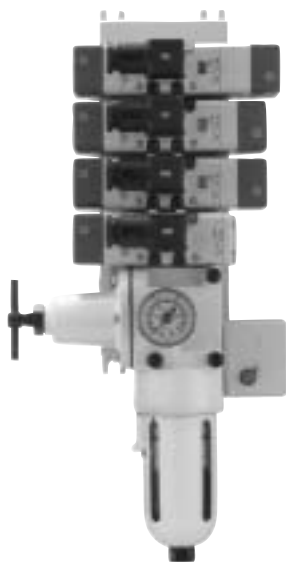
⚠ Handling precautions

- When combining a pressure center valve and interface regulator with reduced pressure at ports A and B, use model ARB210-^A_B.
- When combining a reverse pressure valve and interface regulator, use model ARB210-^A_B. Further, it cannot be used with reduced pressure at port P.
- When combining a double check valve and interface regulator, use a manifold or sub plate as a base, and assemble by stacking in the order of double check spacer, interface regulator and valve.
- When combining a closed center valve and interface regulator with reduced pressure at ports A and B, it cannot be used for intermediate cylinder stops because of air leakage from the regulator's relief port.

Series VQ7-6

Control Units

Control equipment (filters, regulators, pressure switches, air release valves) has been made into standardized units which can be mounted on manifolds without any modifications.



Control unit specifications

Air filter (with auto drain/with manual drain)	
Filtration degree	5μm
Regulator	
Set pressure (downstream pressure)	0.05 to 0.85MPa
Pressure switch	
Pressure adjustment range	0.1 to 0.7MPa
Contact	1ab
Rated current	(induction load) 125VAC 15A, 250VAC 15A
Air release valve (single only)	
Operating pressure range	0.15 to 1.0MPa

Options

Blank plate	AXT502-9A (for manifold)
	AXT502-18A (for release valve adapter plate)
	MP2 (for control equipment/filter regulator)
	MP3 (for pressure switch)
Release valve adapter plate	AXT502-17A
Control equipment	VAW-A (adapter plate, filter with auto drain cock, regulator)
	VAW-M (adapter plate, filter with manual drain cock, regulator)
Pressure switch	IS3100-X230

Control unit types

Ordering symbol Control equipment	Nil	A	AP	M	MP	F	G	C	E
Air filter with auto drain		○	○			○			
Air filter with manual drain				○	○		○		
Regulator		○	○	○	○	○	○		
Air release valve		○	○	○	○			○	○
Pressure switch			○		○				
Blank plate (air release valve)						○	○		
Blank plate (filter, regulator)								○	
Number of manifold blocks required for mounting (stations)		2	2	2	2	2	2	2	1

Use of control units

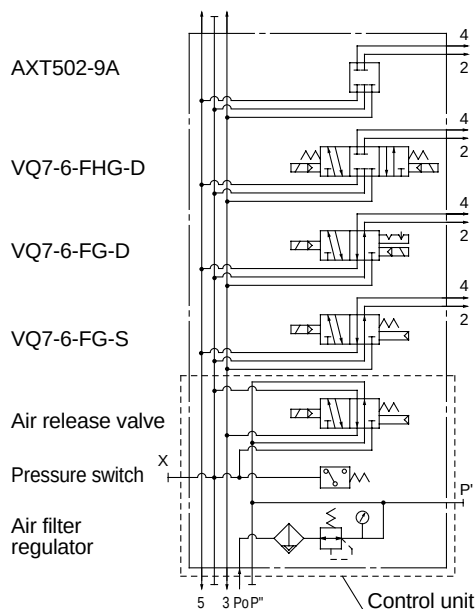
<Construction and piping>

- 1) The supply pressure (Po) passes through the regulator with filter ① and is adjusted to the prescribed pressure. Next, it goes through the release valve ② (downstream residual pressure switching function used as normally ON) and is supplied to the manifold base side (P).
- 2) When the release valve ② is OFF, the supply pressure from port Po is blocked, and the air which was being supplied to the manifold side port P passes through the release valve ② and is discharged from port R1.
- 3) The pressure switch is piped into the downstream side of the release valve ②. (It operates when the release valve ② is energized.) Also, since there is an internal voltage drop of 4V, it may not be possible to confirm the OFF and ON states with a tester, etc.

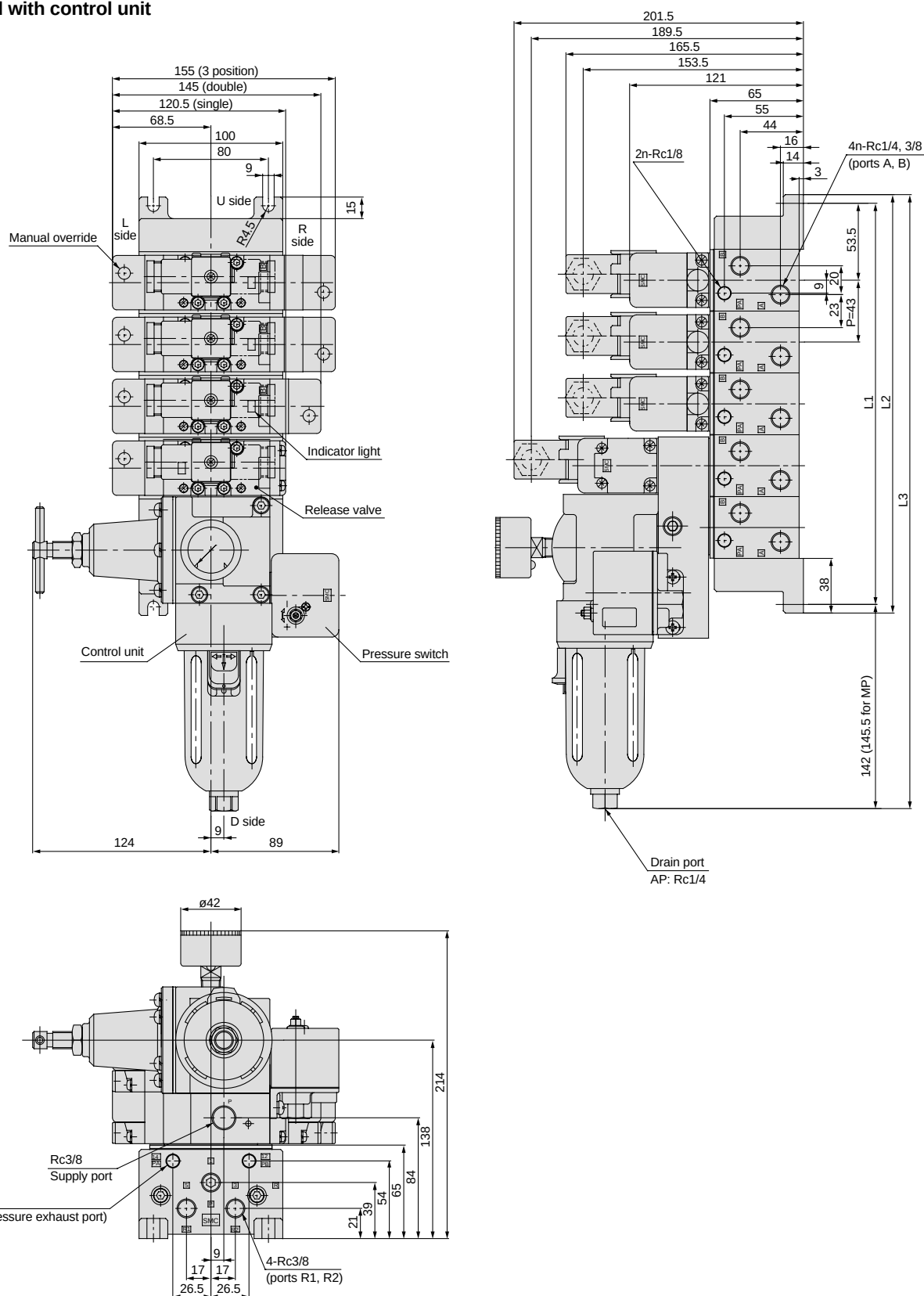
⚠ Caution

- In the case of air filters with auto drain or manual drain, mount so that the air filter is at the bottom.

Manifold specification example



Manifold with control unit



L: Dimensions											n: Stations
	1	2	3	4	5	6	7	8	9	10	Formula
L1	107	150	193	236	279	322	365	408	451	494	$L1 = 43n + 64$
L2	119	162	205	248	291	334	377	420	463	506	$L2 = 43n + 76$
L3	255	298	341	384	427	470	513	556	599	642	$L3 = 43n + 212$ (215.5)
	(258.5)	(301.5)	(344.5)	(387.5)	(430.5)	(473.5)	(516.5)	(559.5)	(602.5)	(645.5)	

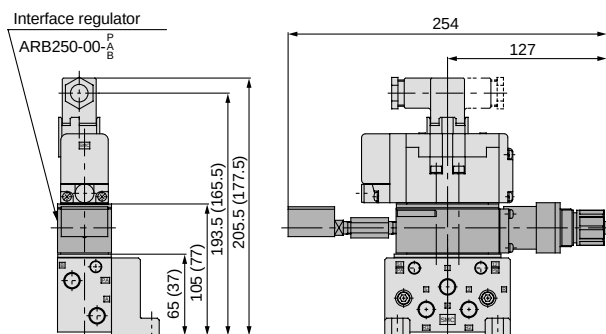
L3 dimensions inside () are for MP

Series VQ7-6

Manifold Options

Interface regulator

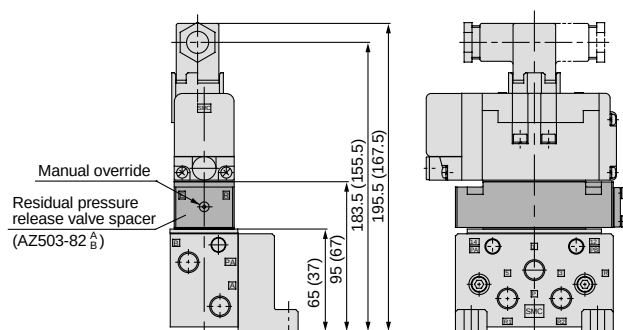
ARB250-00-^P_A
_B



Dimensions inside () are for sub plate

Residual pressure release valve spacer

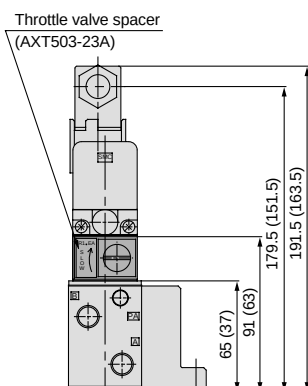
AZ503-82^A
_B



Dimensions inside () are for sub plate

Throttle valve spacer

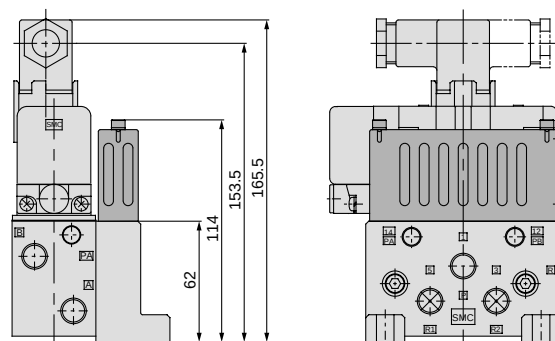
AXT503-23A



Dimensions inside () are for sub plate

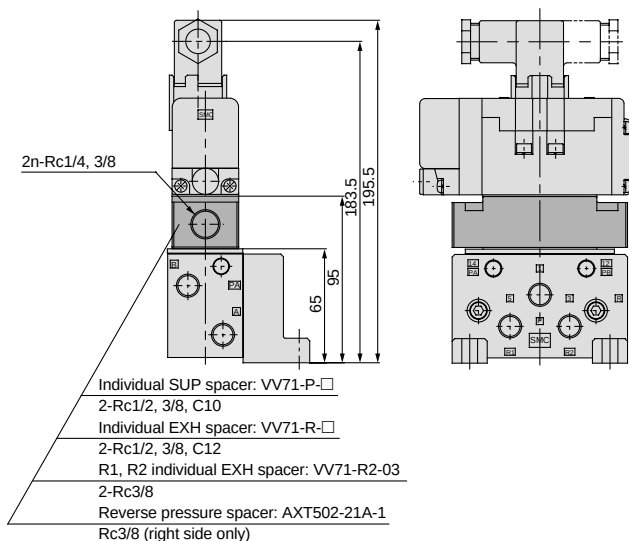
Silencer box

AXT503-60A



Individual SUP spacer
Individual EXH spacer
R1, R2 individual EXH spacer
Reverse pressure spacer

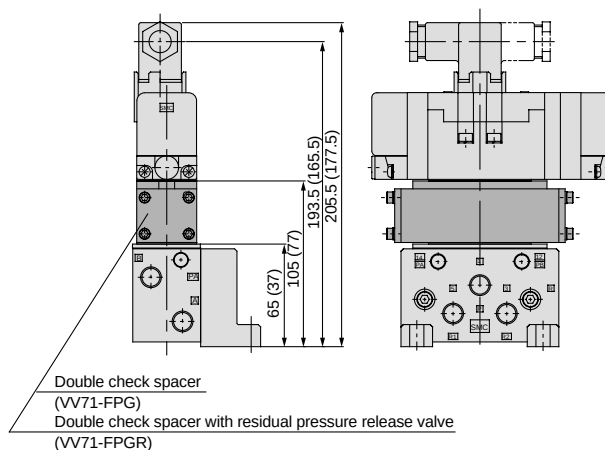
VV71-P-□
VV71-R-□
VV71-R2-03
AXT502-21A-1



Double check spacer

VV71-FPG

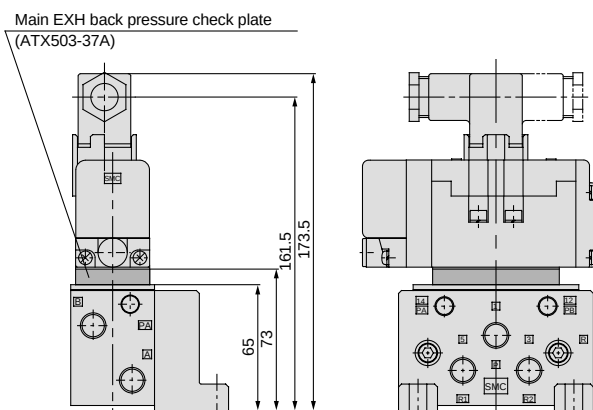
Double check spacer
with residual pressure release valve VV71-FPGR



Dimensions inside () are for sub plate

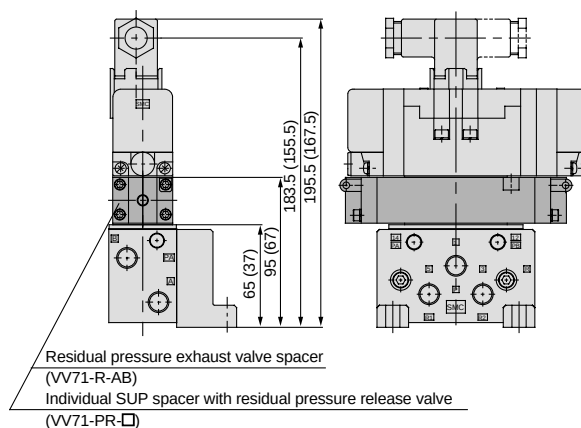
Main EXH back pressure check plate

AXT503-37A



Residual pressure release valve spacer VV71-R-AB

Individual SUP spacer
with residual pressure release valve VV71-PR-□



Dimensions inside () are for sub plate

Series VQ7-8

ISO Standard Solenoid Valve

Size 2/Single Unit

How to Order Valves

VQ7-8-FG-S-3

Passage symbol

FG	
* YZ	
FHG	
FJG	
FPG	
FIG	

* Optional

Number of solenoids

S	Single
D	Double

Connector

Nil	DIN terminal block (with connector)
O	DIN terminal block (without connector)
SC	Prewired connector

Sub plate port size

Nil	Without sub plate
A03	Side port Rc3/8
A04	Side port Rc1/2
A06	Side port Rc3/4
B03	Bottom port Rc3/8
B04	Bottom port Rc1/2
B06	Bottom port Rc3/4

Seal type

Nil	Metal seal
R	Rubber seal

Options *

Nil	None
N	Indicator light
Z	Indicator light with surge voltage suppressor
V	Individual pilot exhaust

* When two or more symbols are applicable, indicate in alphabetical order.

Coil rating

1	100VAC
2	200VAC
3	24VDC
4	12VDC
9 *	Other voltage

* Contact SMC regarding other voltages.

How to Order Sub Plates

VS7-2-A03

Port size

A03	Side port Rc3/8
A04	Side port Rc1/2
A06	Side port Rc3/4
B03	Bottom port Rc3/8
B04	Bottom port Rc1/2
B06	Bottom port Rc3/4

Specifications

Model	Piping specifications		Weight kg
	Piping direction	Port size	
VS7-2-A03	Side	Rc3/8	0.68
VS7-2-A04		Rc1/2	
VS7-2-A06		Rc3/4	
VS7-2-B03	Bottom	Rc3/8	0.68
VS7-2-B04		Rc1/2	
VS7-2-B06		Rc3/4	

Models



Series	Number of positions		Models		Note 1) Effective area mm ² (Cv factor)	Note 2) Response time ms	Note 3) Weight kg
VQ7-8	2 position	Single	Metal seal	VQ7-8-FG-S-□	58.0 (3.2)	40 or less	0.64
			Rubber seal	VQ7-8-FG-S-□R	58.0 (3.2)	45 or less	
		Double	Metal seal	VQ7-8-FG-D-□	58.0 (3.2)	15 or less	0.70
			Rubber seal	VQ7-8-FG-D-□R	58.0 (3.2)	20 or less	
	3 position	Closed center	Metal seal	VQ7-8-FHG-D-□	50.4 (2.8)	45 or less	0.75
			Rubber seal	VQ7-8-FHG-D-□R	50.4 (2.8)	50 or less	
		Exhaust center	Metal seal	VQ7-8-FJG-D-□	54.0 (3.0)	45 or less	0.75
			Rubber seal	VQ7-8-FJG-D-□R	58.0 (3.2)	50 or less	
		Double check	Metal seal	VQ7-8-FPG-D-□	40.0 (2.2)	60 or less	1.98
			Rubber seal	VQ7-8-FPG-D-□R	40.0 (2.2)	60 or less	
		Pressure center	Metal seal	VQ7-8-FIG-D-□	54.0 (3.0)	45 or less	0.75
			Rubber seal	VQ7-8-FIG-D-□R	58.0 (3.2)	50 or less	

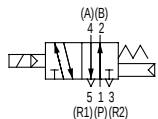
Note 1) Port size Rc3/8: Value when mounted on sub plate

Note 2) Based on JIS B 8375-1981 (Value for supply pressure of 0.5MPa, with light and surge voltage suppressor and using clean air.) Response time values will change depending on the pressure and air quality. Value when ON for double type.

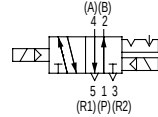
Note 3) Weight without sub plate (Sub plate: Rc3/8, 1/2: 0.68kg, Rc3/4: 1.29kg)

Symbols

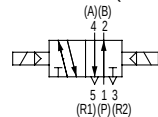
2 position single



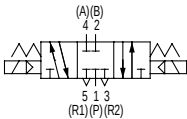
2 position double (metal)



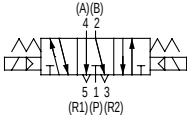
2 position double (rubber)



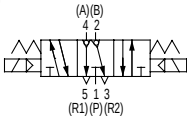
3 position closed center



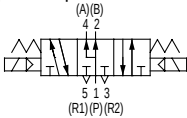
3 position exhaust center



3 position double check



3 position pressure center



Standard Specifications

Valve specifications	Valve structure		Metal seal	Rubber seal
	Fluid		Air, Inert gas	
	Maximum operating pressure		1.0MPa	
	Minimum operating pressure	Single	0.15MPa	0.20MPa
		Double	0.15MPa	0.15MPa
		3 position	0.15MPa	0.20MPa
	Ambient and fluid temperature		− 10 to 60° Note 1)	− 5 to 60° Note 1)
	Lubrication		Not required	
	Manual operation		Push type (tool required)	
	Impact/Vibration resistance		150/30 m/s ² Note 2)	
Electrical specifications	Enclosure		IP65 (splash proof, jet proof)	
	Rated coil voltage		12VDC, 24VDC, 100VAC, 110VAC, 200VAC, 220VAC (50/60Hz)	
	Allowable voltage fluctuation		±10% of rated voltage	
	Coil insulation type		Class B equivalent	
	Power consumption (current)	24VDC	DC1W (42mA)	
		12VDC	DC1W (83mA)	
		100VAC	Start-up 1.2VA (12mA), Holding 1.2VA (12mA)	
		110VAC	Start-up 1.3VA (11.7mA), Holding 1.3VA (11.7mA)	
		200VAC	Start-up 2.4VA (12mA), Holding 2.4VA (12mA)	
		220VAC	Start-up 2.6VA (11.7mA), Holding 2.6VA (11.7mA)	

Note 1) For low temperature, use dry air with no condensation.

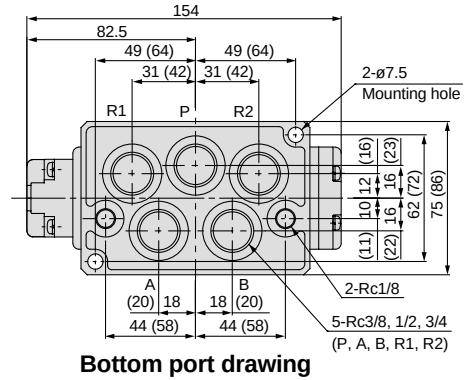
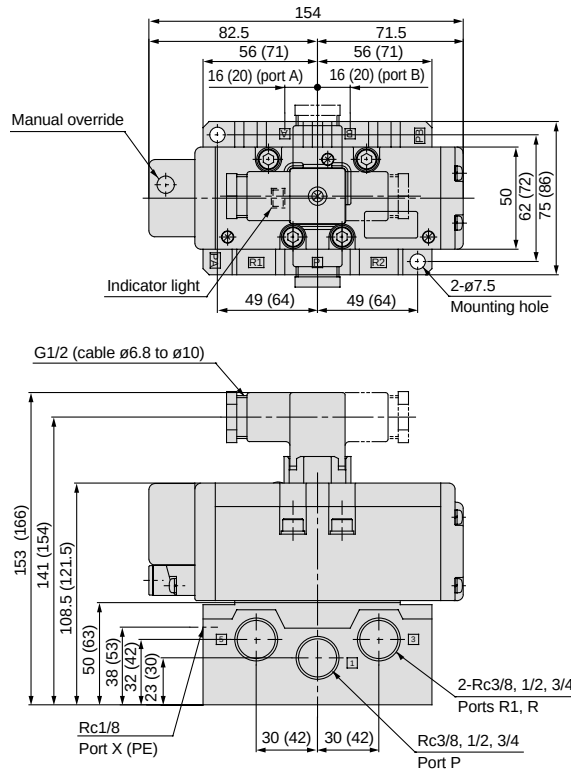
Note 2) Impact resistance: No malfunction when tested with a drop tester in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (initial value)

Vibration resistance: No malfunction when tested with one sweep of 8.3 to 2000Hz in the axial direction and at a right angle to the main valve and armature, one time each in both energized and deenergized states. (initial value)

Series VQ7-8

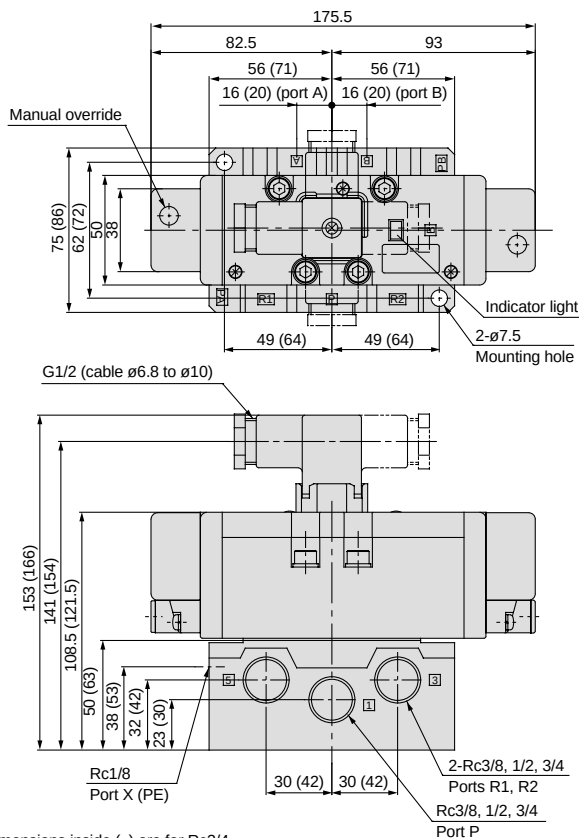
DIN Connector Type

2 position/Single : VQ7-8-FG-S
Single (reverse pressure) : VQ7-8-YZ-S



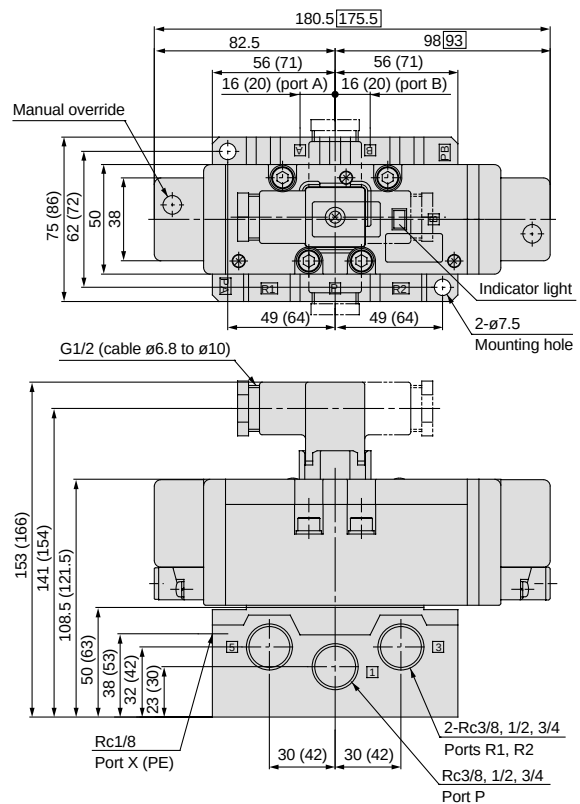
Dimensions inside () are for Rc(PT) 3/4

2 position/Double : VQ7-8-FG-D
Double (reverse pressure): VQ7-8-YZ-D



Dimensions inside () are for Rc3/4

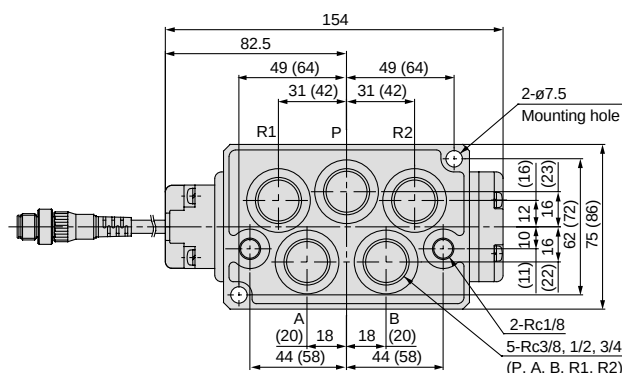
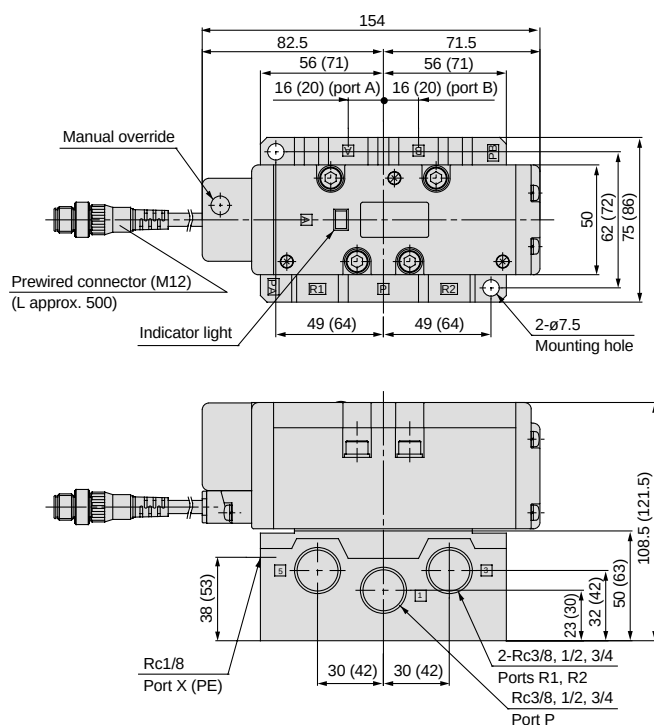
3 position/Closed center : VQ7-8-FHG-D
Exhaust center : VQ7-8-FJG-D
Pressure center : VQ7-8-FIG-D



Dimensions inside () are for Rc3/4
Dimensions inside □ are for rubber seals

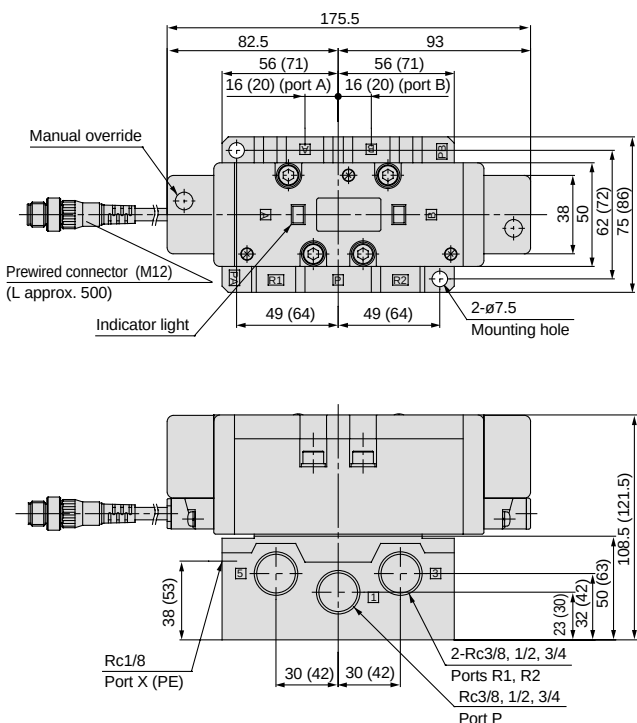
Prewired Connector Type

2 position/Single : VQ7-8-FG-S-□□□□SC
Single (reverse pressure): VQ7-8-YZ-S-□□□□SC



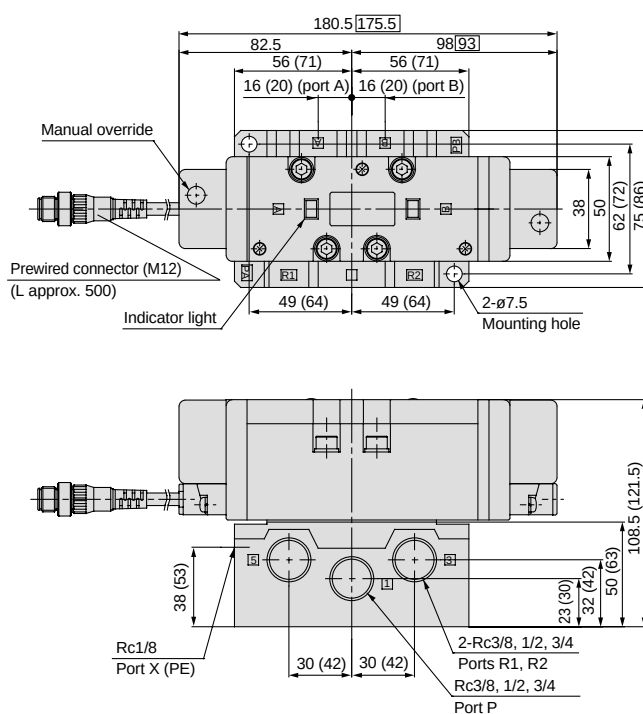
Dimensions inside () are for Rc3/4

2 position/Single : VQ7-8-FG-D-□□□□SC
Single (reverse pressure): VQ7-8-YZ-D-□□□□SC



Dimensions inside () are for Rc3/4

3 position/Closed center : VQ7-8-FHG-D-□□□□SC
Exhaust center : VQ7-8-FJG-D-□□□□SC
Pressure center: VQ7-8-FIG-D-□□□□SC



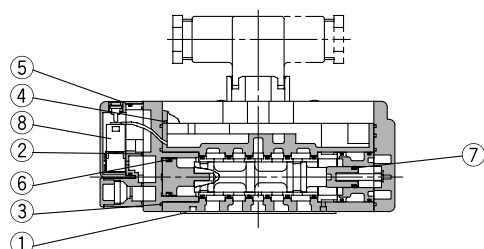
Dimensions inside () are for Rc3/4
Dimensions inside □ are for rubber seals

Series VQ7-8 Construction

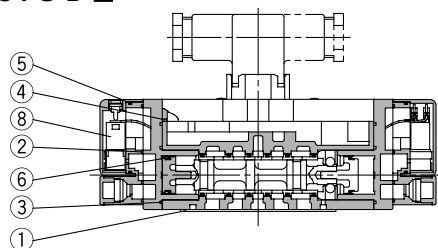
DIN Connector Type

Metal seal type

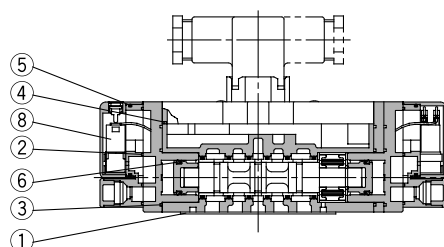
VQ7-8-FG-S-□



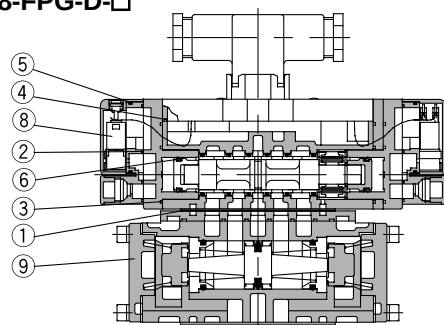
VQ7-8-FG-D-□



VQ7-8-^{FHG}
FJG -D-□
FIG

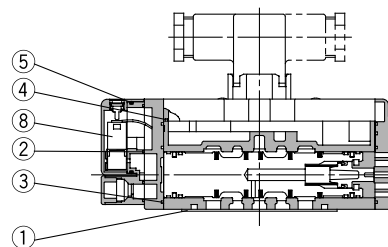


VQ7-8-FPG-D-□

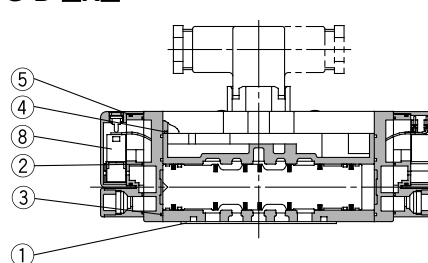


Rubber seal type

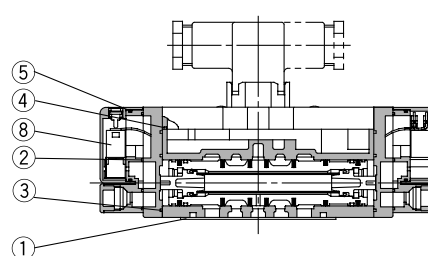
VQ7-8-FG-S-□R□



VQ7-8-FG-D-□R□



VQ7-8-^{FHG}
FJG -D-□R□
FIG

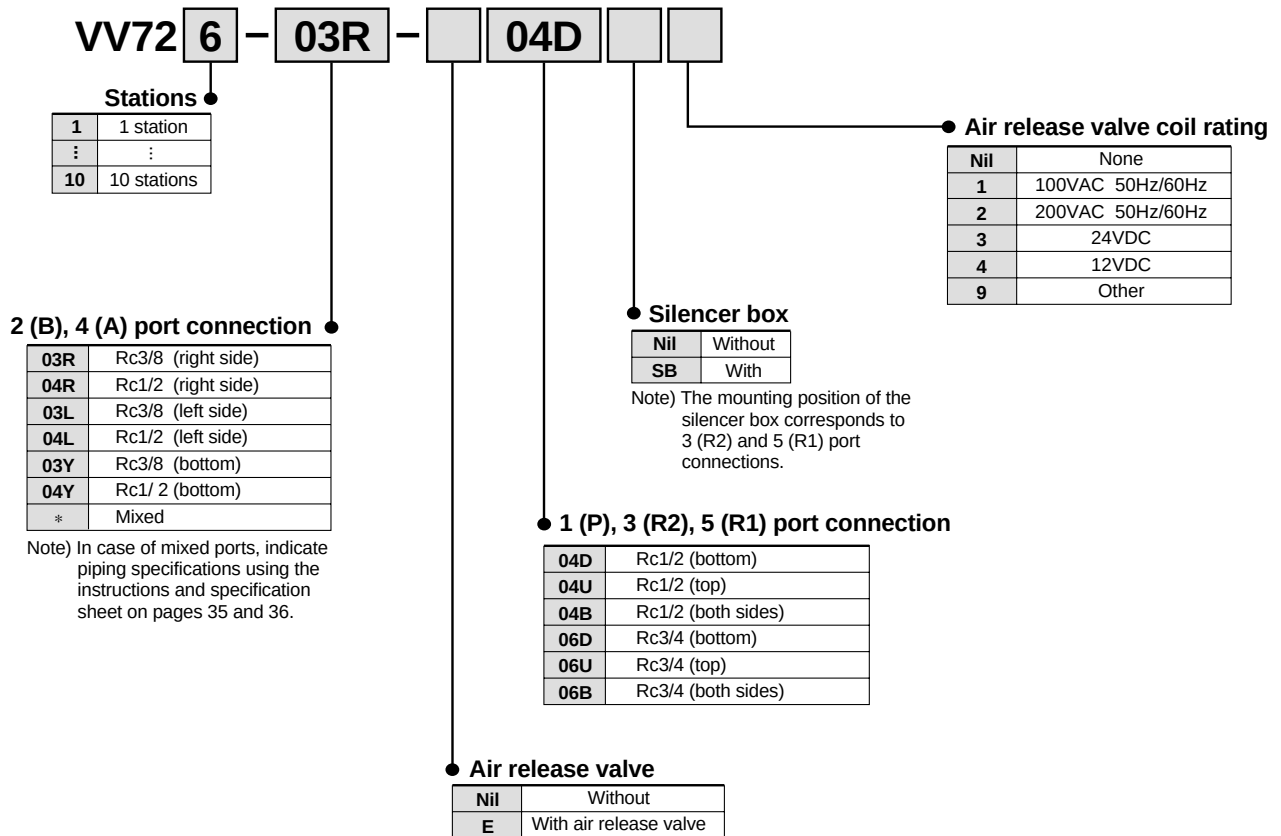


Valve replacement parts

No.	Description	Material	VQ7-8-FG-S-□	VQ7-8-FG-D-□	VQ7-8- ^{FHG} FJG -D-□ FIG	VQ7-8-FPG-D-□	VQ7-8-FG-S-□R□	VQ7-8-FG-D-□R□	VQ7-8- ^{FHG} FJG -D-□R□ FIG
1	Gasket	NBR				AXT510-13			
2	Gasket A	NBR				VQ7060-13-2			
3	Gasket B	NBR				VQ7080-13-1			
4	Gasket C	NBR				VQ7080-13-3			
5	O-ring	NBR				37 x 1.6			
6	Mini Y seal	NBR	MYN-16		MYN-14				
7	Mini Y seal	NBR	MYN-8						
8	Pilot valve assembly					VQZ110Q-□			
9	Double check spacer					VV72-FPG			

Series VQ7-8 Manifold Series VV72

How to Order Manifolds



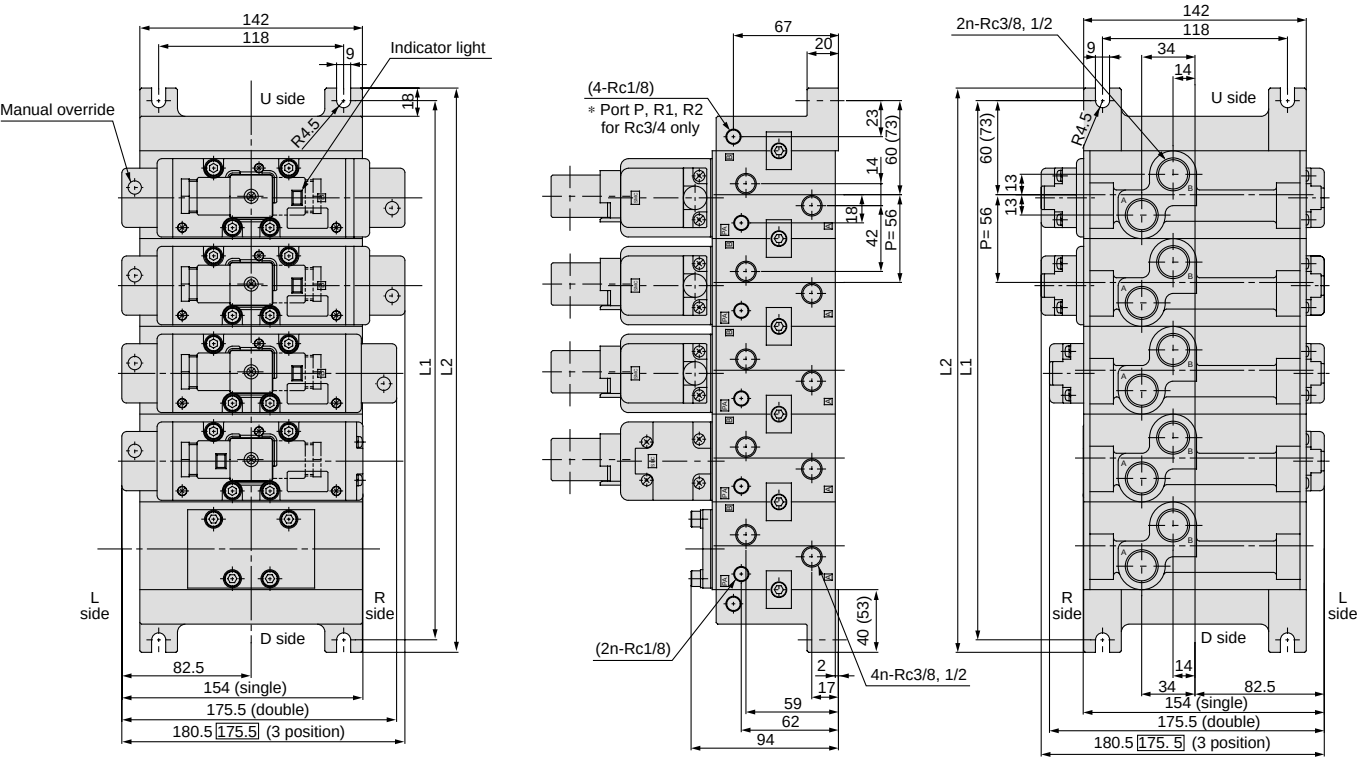
Manifold specifications

Manifold block size	Applicable solenoid valves	Piping specifications		Stations	Weight kg
		2 (B), 4 (A) port size	1 (P), 3 (R2) 5 (R1) port size		
ISO size 2	VQ7-8 ISO size 2 series	Rc3/8 Rc1/2	Rc1/2 Rc3/4	Max. 10 stations	0.96n + 0.77 (n: stations)

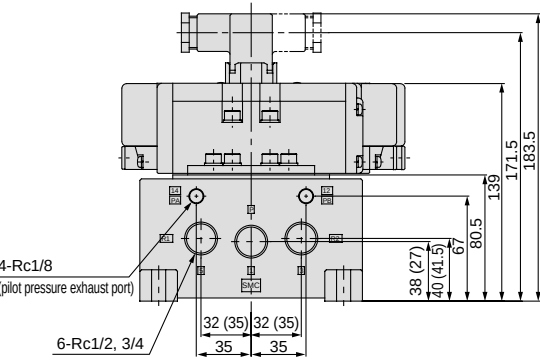
Series VQ7-8

DIN Connector Type

VV72□-□-□□□



Bottom port drawing



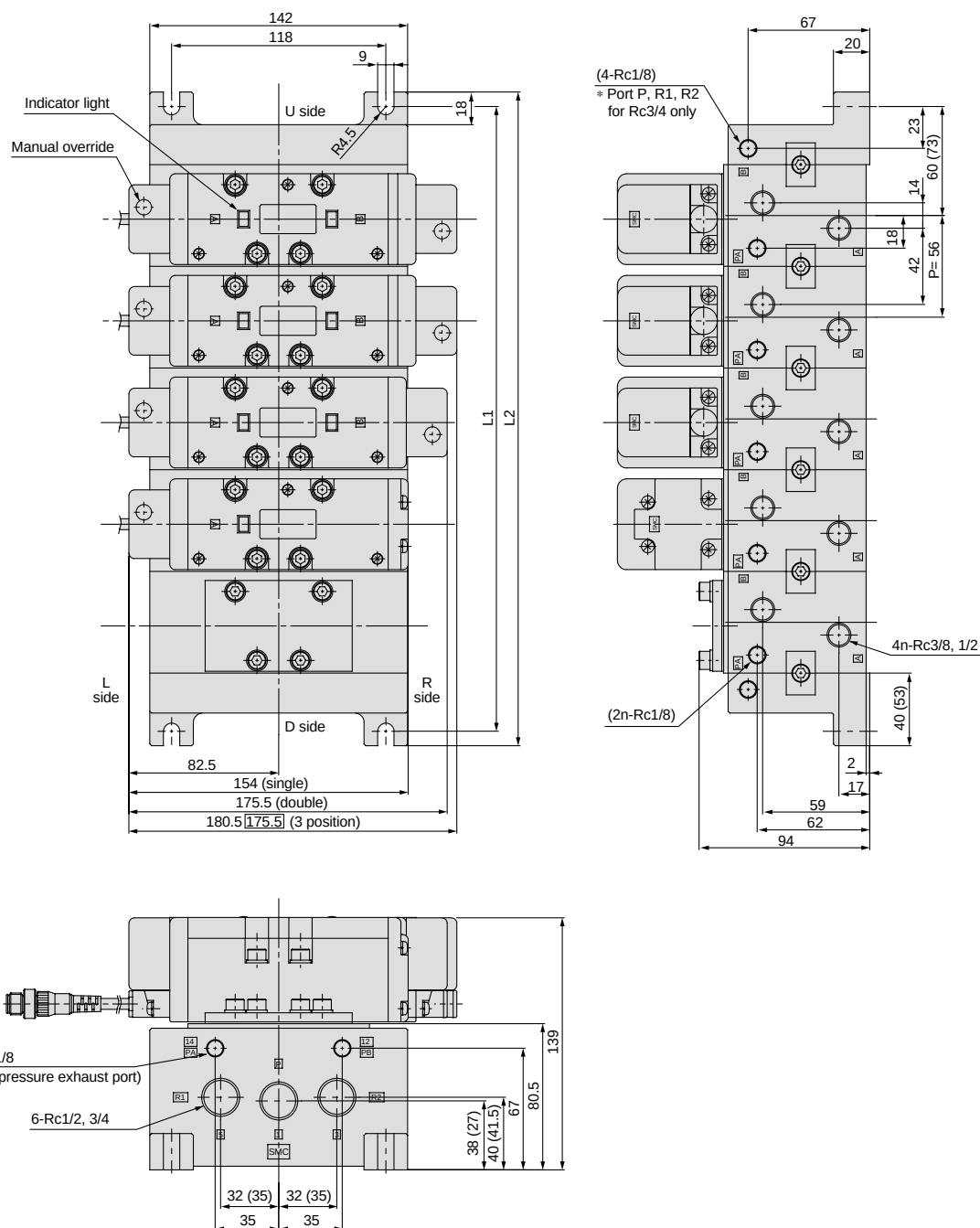
L: Dimensions

Port P, R1, R2	L	n										Formula
		1	2	3	4	5	6	7	8	9	10	
Rc1/2	L1	120	176	232	288	344	400	456	512	568	624	n: stations L1 = 56n + 64 L2 = 56n + 80
	L2	136	192	248	304	360	416	472	528	584	640	
Rc3/4	L1	146	202	258	314	370	426	482	538	594	650	n: stations L1 = 56n + 90 L2 = 56n + 106
	L2	162	218	274	330	386	442	498	554	610	666	

Dimensions inside () are for Rc3/4
Dimensions inside □ are for rubber seals

Prewired Connector Type

VV72□-□-□□□



L: Dimensions

Port P, R1, R2	n	1	2	3	4	5	6	7	8	9	10	Formula
Rc1/2	L1	120	176	232	288	344	400	456	512	568	624	n: stations L1 = 56n + 64
	L2	136	192	248	304	360	416	472	528	584	640	L2 = 56n + 80
Rc3/4	L1	146	202	258	314	370	426	482	538	594	650	n: stations L1 = 56n + 90
	L2	162	218	274	330	386	442	498	554	610	666	L2 = 56n + 106

Dimensions inside () are for Rc3/4

Dimensions inside □ are for rubber seals

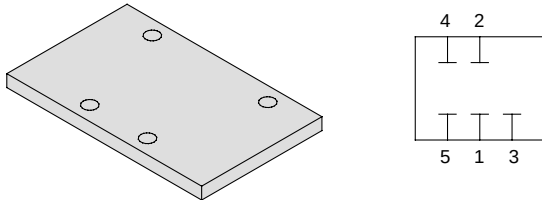
Series VQ7-8

Optional Manifold Parts

Blank plate assembly

AXT512-9A

This is used by mounting it on a manifold block when a valve is removed for maintenance or when it is planned to install an additional valve in the future, etc.

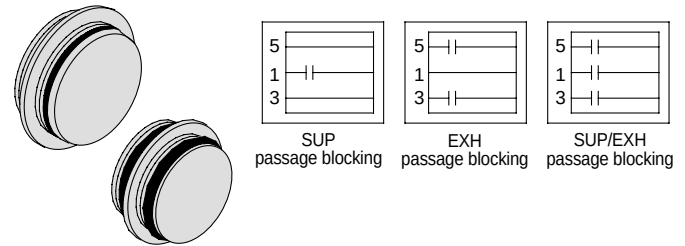


Blocking plate (for SUP/EXH passages)

AXT512-14-1A (for SUP)

AXT512-14-2A (for EXH)

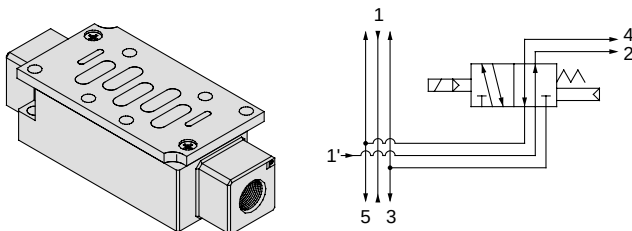
When two or more different high pressures are supplied to one manifold, blocking plates are installed between stations having different pressures. Also, in cases such as when valve exhaust effects other stations in a circuit, blocking plates are used for exhaust at stations where the exhaust is to be separated.



Individual SUP spacer

VV72-P-⁰³₀₄

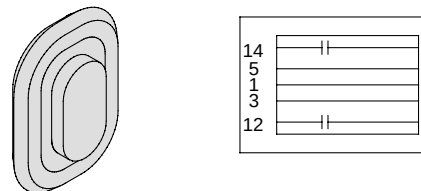
By mounting individual supply spacers on a manifold block, supply ports can be provided individually for each valve.



Blocking plate (for pilot EXH passage)

AZ512-49A

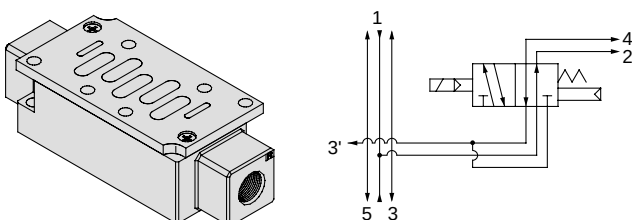
When a valve's pilot valve exhaust effects other valves in a circuit, blocking plates are used between stations where the pilot exhaust passages are to be separated.



Individual EXH spacer

VV72-R-⁰³₀₄

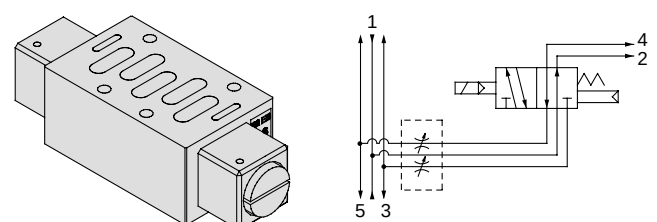
By mounting individual exhaust spacers on a manifold block, exhaust ports can be provided individually for each valve. (3, 5 common exhaust type)



Throttle valve spacer

AXT510-32A

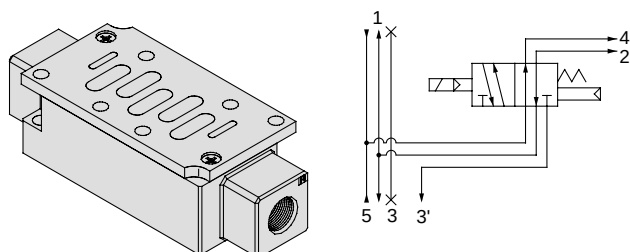
By mounting a throttle valve spacer on a manifold block, a cylinder's speed can be controlled by throttling the exhaust.



Reverse pressure spacer

AXT512-19A-2

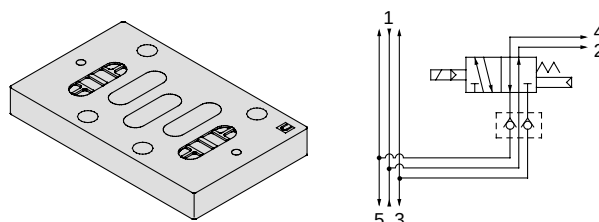
With reverse pressure control manifold specifications, when pressure is changed individually on one side (ex. high speed cylinder return), pressure can be supplied individually to the R2 side by mounting a reverse pressure spacer. {port 3 (R2) is individual and 5 (R1) is common}



Main EXH back pressure check plate

AXT512-25A

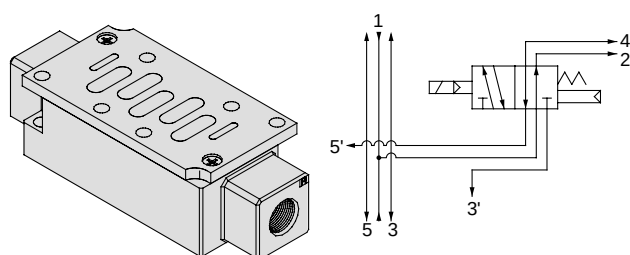
In cases where back pressure effects actuator operation due to simultaneous operation of manifold valves, etc., this effect can be eliminated by installing a plate between the manifold block and the valve from which back pressure is to be prevented.



R1, R2 individual EXH spacer

VV72-R2-04

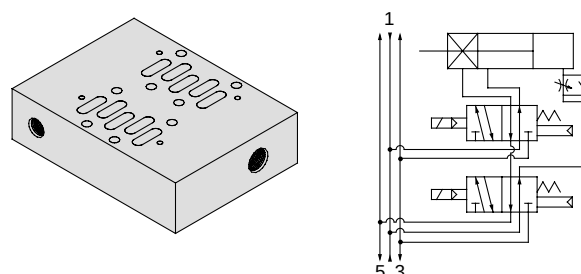
By mounting an individual exhaust spacer on a manifold block, individual exhaust is possible from both R1 and R2 .
{3 (R2) and 5 (R1) are individual ports}



Adapter plate for locking cylinder

AXT602-6A

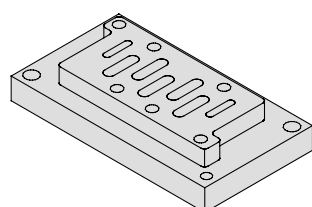
When using a locking cylinder with 2 valves for control, this spacer can be used by mounting on a manifold block. It consists of a circuit equipped with a function to prevent lurching during release.



Conversion adapter plate

VV72-V-1

This conversion adapter plate allows a VQ7-6 (size 1) valve to be mounted on a VQ7-8 manifold base.
(V type)



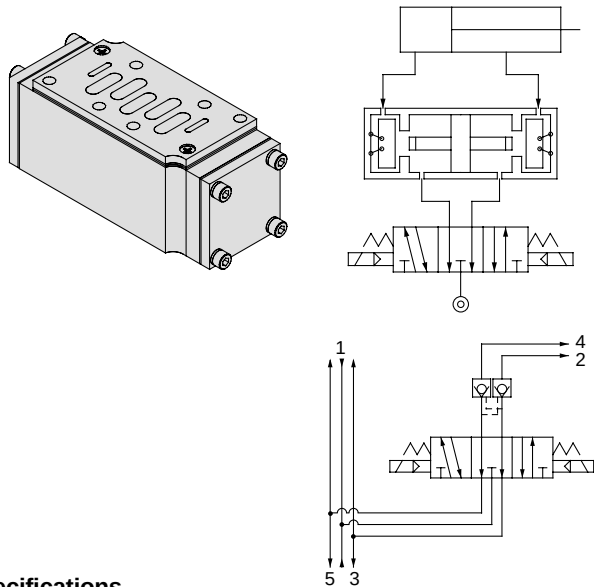
Series VQ7-8

Optional Manifold Parts

Double check spacer

VV72-FPG

By combining a 3 position exhaust center valve with a double check spacer, an intermediate stopping position of a cylinder can be held for an extended period. It can also be used for drop prevention at the cylinder stroke end when releasing residual supply pressure, by combination with a 2 position single or double valve.



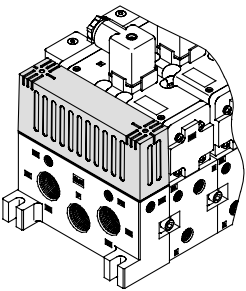
Specifications

Double check spacer part no.		VV72-FPG		
Applicable solenoid or air operated valve		Series VS7-8, VSA7-8		
Leakage cm³/min (ANR)	One solenoid energized (One pilot pressurized)	P	R1	280
			R2	
	Both solenoids unenergized (Both pilots unpressurized)	P	R1	280
			R2	
		A	R1	0
		B	R2	

Silencer box

VV72-□□□-□□-SB

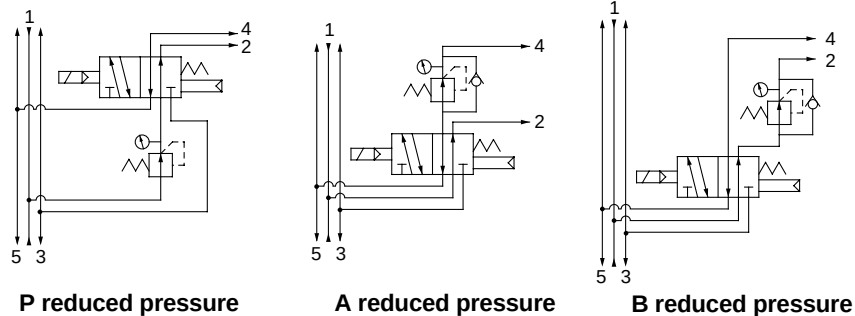
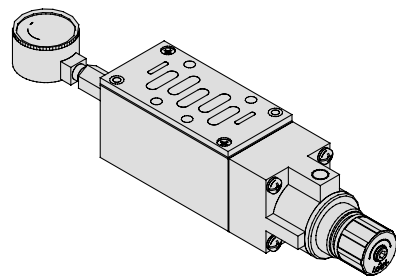
This can be provided as a unit on the end plate to reduce manifold exhaust noise and piping labor.



Interface regulator

ARB350-00-^P_A_B

By mounting an interface regulator on a manifold block, it is possible to regulate each valve.



Part No.

P reduced pressure	ARB350-00-P
A reduced pressure	ARB350-00-A
B reduced pressure	ARB350-00-B

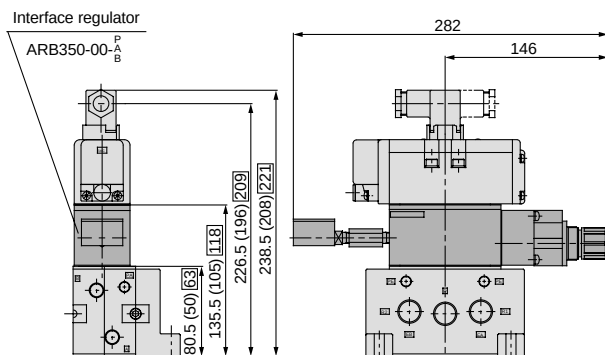
⚠ Caution

- When combining a pressure center valve and interface regulator with reduced pressure at ports A and B, use model ARB310-^A_B.
- When combining a reverse pressure valve and interface regulator, use model ARB310-^A_B. Further, it cannot be used with reduced pressure at port P.
- When combining a double check valve and interface regulator, use a manifold or sub plate as a base, and assemble by stacking in the order of double check spacer, interface regulator and valve.
- When combining a closed center valve and interface regulator with reduced pressure at ports A and B, it cannot be used for intermediate cylinder stops because of air leakage from the regulator's relief port.

Manifold Options

Interface regulator

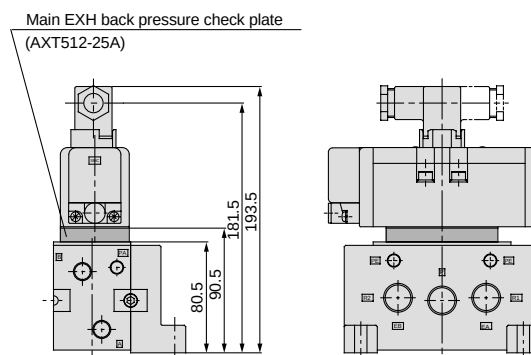
ARB350-00-^P
A
B



Dimensions inside () are for sub plate apertures Rc3/8 and 1/2
Dimensions inside are for sub plate aperture Rc3/4

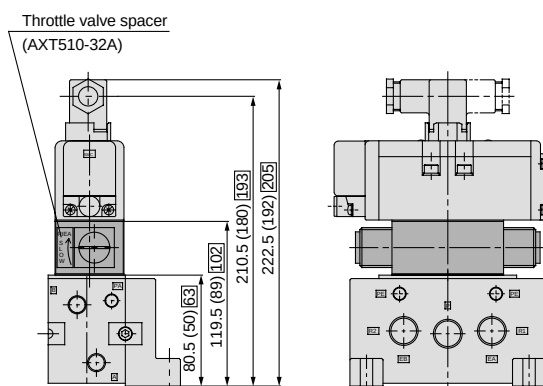
Main EXH back pressure check plate

AXT512-25A



Throttle valve spacer

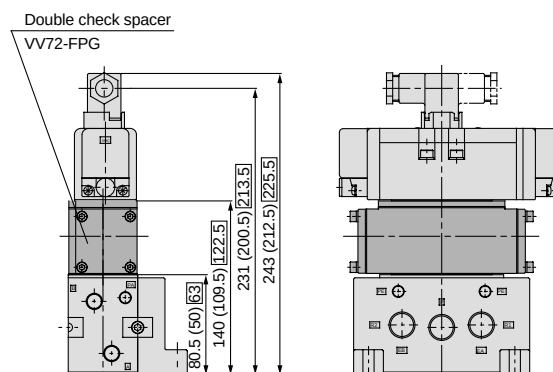
AXT510-32A



Dimensions inside () are for sub plate apertures Rc3/8 and 1/2
Dimensions inside are for sub plate aperture Rc3/4

Double check spacer

VV72-FPG



Dimensions inside () are for sub plate apertures Rc3/8 and 1/2
Dimensions inside are for sub plate aperture Rc3/4

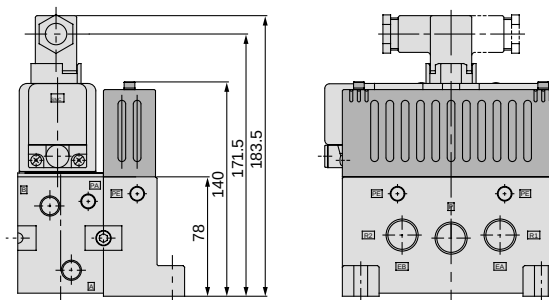
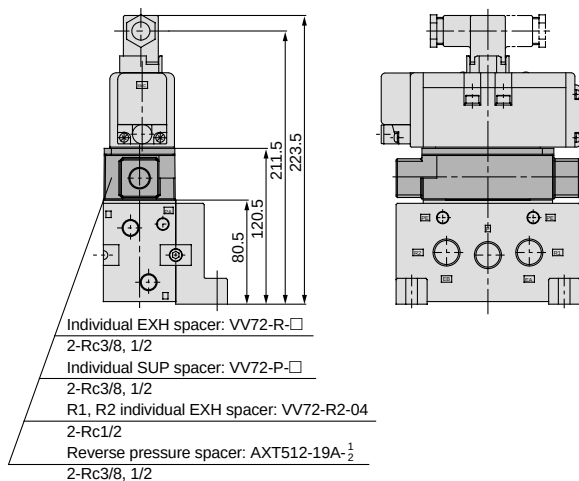
Series VQ7-8

Manifold Options

Individual EXH spacer
Individual SUP spacer
R1, R2 individual EXH spacer
Reverse pressure spacer

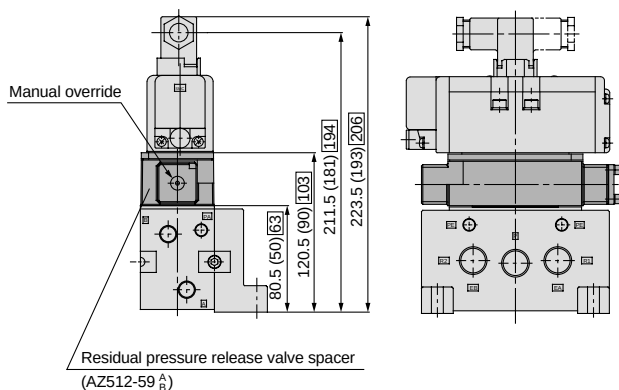
VV72-R-03, 04
VV72-P-03, 04
VV72-R2-04
AXT512-19A-¹/₂

Silencer box
AXT512-26A



Residual pressure release valve spacer

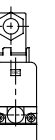
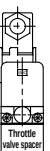
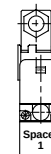
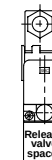
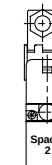
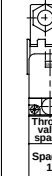
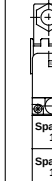
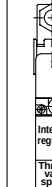
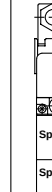
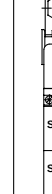
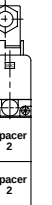
AZ512-59 ^A/_B



Dimensions inside () are for sub plate apertures Rc3/8 and 1/2
Dimensions inside □ are for sub plate aperture Rc3/4

Manifold Options/Mounting Bolt Part Numbers

VQ7-6 mounting bolt part numbers

Number of options		0			Single stack				Double stack					
Mounting bolt	Part No.	AXT632-45-1	AXT632-45-2	AXT632-45-4	AXT632-45-5	AXT632-45-6	AXT632-45-7	AXT632-45-8	AXT632-45-9	AXT632-45-10	AXT632-45-11	AXT632-45-12	AXT632-45-13	
	Size	M5 X 35 with SW	M5 X 15 with SW	M5 X 45 with SW	M5 X 60 with SW	M5 X 65 with SW	M5 X 70 with SW	M5 X 75 with SW	M5 X 90 with SW	M5 X 95 with SW	M5 X 100 with SW	M5 X 105 with SW	M5 X 115 with SW	
Option mounting diagram														
		Valve	Blank plate	Main exhaust back-pressure check plate	Throttle valve spacer	Spacer 1	Release valve spacer	Spacer 2	Throttle valve spacer	Spacer 1	Interface regulator	Throttle valve spacer	Spacer 1	Spacer 2
												Note 2)	Note 3)	

Number of options		Triple stack				
Mounting bolt	Part No.	AXT632-45-14	AXT632-45-16	AXT632-45-17	AXT632-45-18	AXT632-45-19
	Size	M5 X 120 with SW	M5 X 130 with SW	M5 X 135 with SW	M5 X 140 with SW	M5 X 145 with SW
Option mounting diagram						
		Throttle valve spacer	Spacer 2	Spacer 2	Spacer 2	Spacer 2

The installation position of spacer 1 in the option mounting diagrams is limited only by the precautions given below.

Spacers

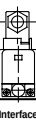
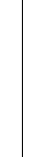
- Main exhaust back pressure check plate
- Throttle valve spacer
- Release valve spacer
- Spacer 1
 - Individual supply spacer
 - Individual exhaust spacer
 - R1, R2 individual exhaust spacer
 - Reverse pressure spacer
 - Residual pressure release valve spacer
 - Individual supply spacer with residual pressure release valve
- Spacer 2
 - Interface regulator (P reduced pressure)
 - Interface regulator (A reduced pressure)
 - Interface regulator (B reduced pressure)
 - Double check spacer
 - Double check spacer with residual pressure release valve

Note 1) A throttle valve spacer and double check spacer (including those with residual pressure release valve) cannot be combined.

Note 2) When a double check spacer (**Top**) (including those with residual pressure release valve) and individual exhaust spacer (**Bottom**) are combined with a R1, R2 individual exhaust spacer (**Bottom**), be careful regarding the installation position.

Note 3) When an interface regulator (**Top**) and double check spacer (**Bottom**) (including those with residual pressure release valve) (**Bottom**) are combined, be careful regarding the installation position.

VQ7-8 mounting bolt part numbers

Number of options		0		Single stack				Double stack			
Mounting bolt	Part No.	AXT632-54-1	AXT632-54-2	AXT632-54-3	AXT632-54-5	AXT632-54-6	AXT632-54-7	AXT632-54-8	AXT632-54-9	AXT632-54-10	AXT632-54-11
	Size	M6 X 45 with SW	M6 X 18 with SW	M6 X 55 with SW	M6 X 85 with SW	M6 X 100 with SW	M6 X 105 with SW	M6 X 125 with SW	M6 X 140 with SW	M6 X 145 with SW	M6 X 160 with SW
Option mounting diagram											
		Valve	Blank plate	Main exhaust back-pressure check plate	Spacer 1	Interface regulator	Double check spacer	Spacer 1	Interface regulator	Double check spacer	Interface regulator

Number of options		Triple stack			
Mounting bolt	Part No.	AXT632-54-12	AXT632-54-13	AXT632-54-14	AXT632-54-15
	Size	M6 X 165 with SW	M6 X 180 with SW	M6 X 185 with SW	M6 X 200 with SW
Option mounting diagram					
		Spacer 1	Interface regulator	Double check spacer	Interface regulator

Spacers

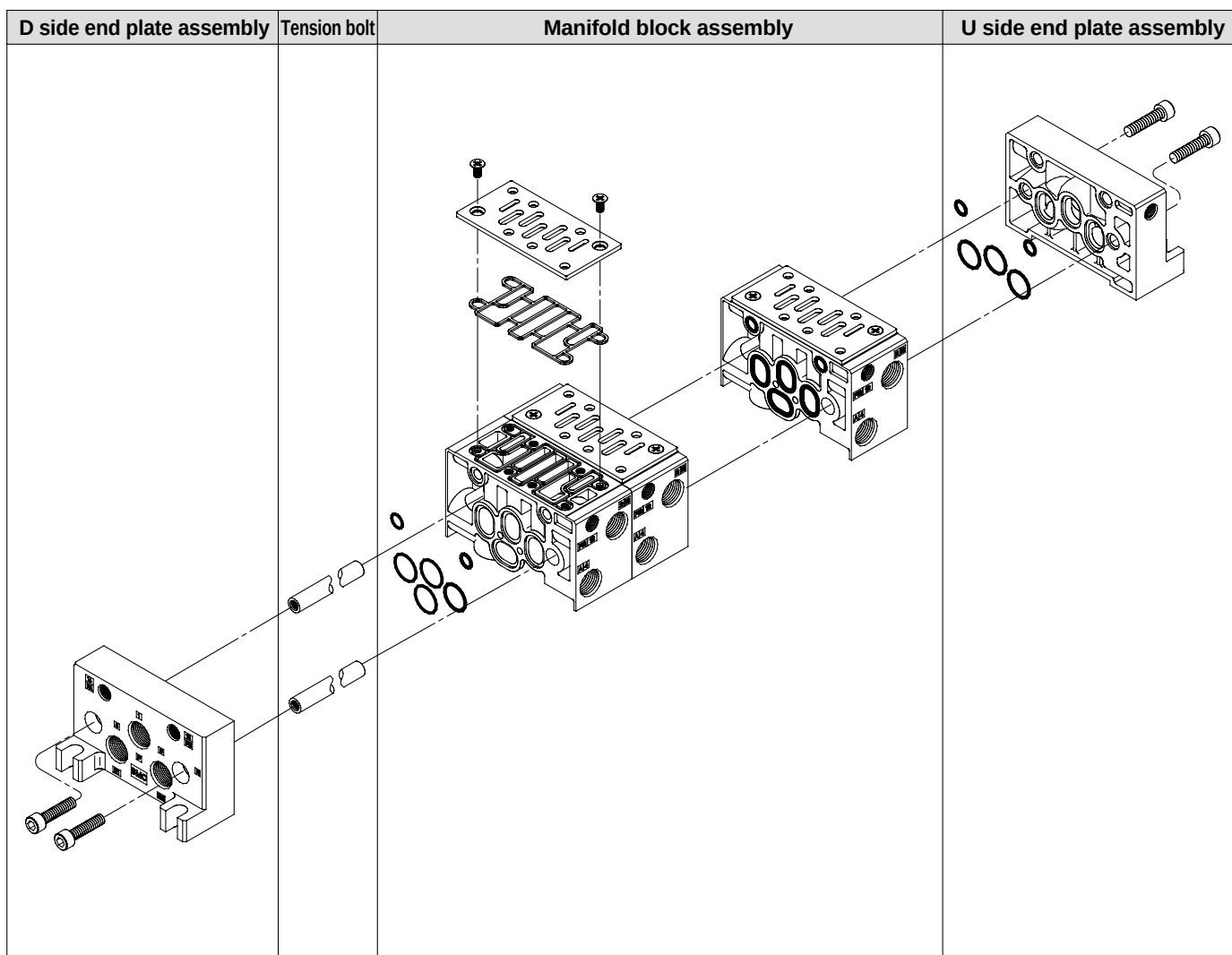
- Main exhaust back pressure check plate
- Interface regulator (P reduced pressure)
- Interface regulator (A reduced pressure)
- Interface regulator (B reduced pressure)
- Double check spacer
- Spacer 1
 - Individual supply spacer
 - Individual exhaust spacer
 - R1, R2 individual exhaust spacer
 - Reverse pressure spacer
 - Residual pressure release valve spacer
- Throttle valve spacer

Note 1) A throttle spacer and double check spacer cannot be combined.

Note 2) There is no limitation on the mounting position for spacer 1.

Series VQ7-6

Manifold Exploded View



< End plate assembly >

AXT502 – ☐ A – ☐

End plate position

L	L side
R	R side

P, R port size

02	Rc1/4
03	Rc3/8
C12	ø12 One-touch fitting

<Tension bolt part number >

AXT502 – 34 – ☐

Number of stations

2	For 2 stations
3	For 3 stations
⋮	⋮
10	For 10 stations

Note) These tie-rods are solid pieces for each number of stations.

< Manifold block assembly>

* This manifold block assembly includes tension bolts for a single station addition.

AXT502 – 1A – ☐ – ☐ – ☐

Wiring specification

A	Side
B	Bottom

Cylinder port position

L	L side
R	R side

Cylinder port size

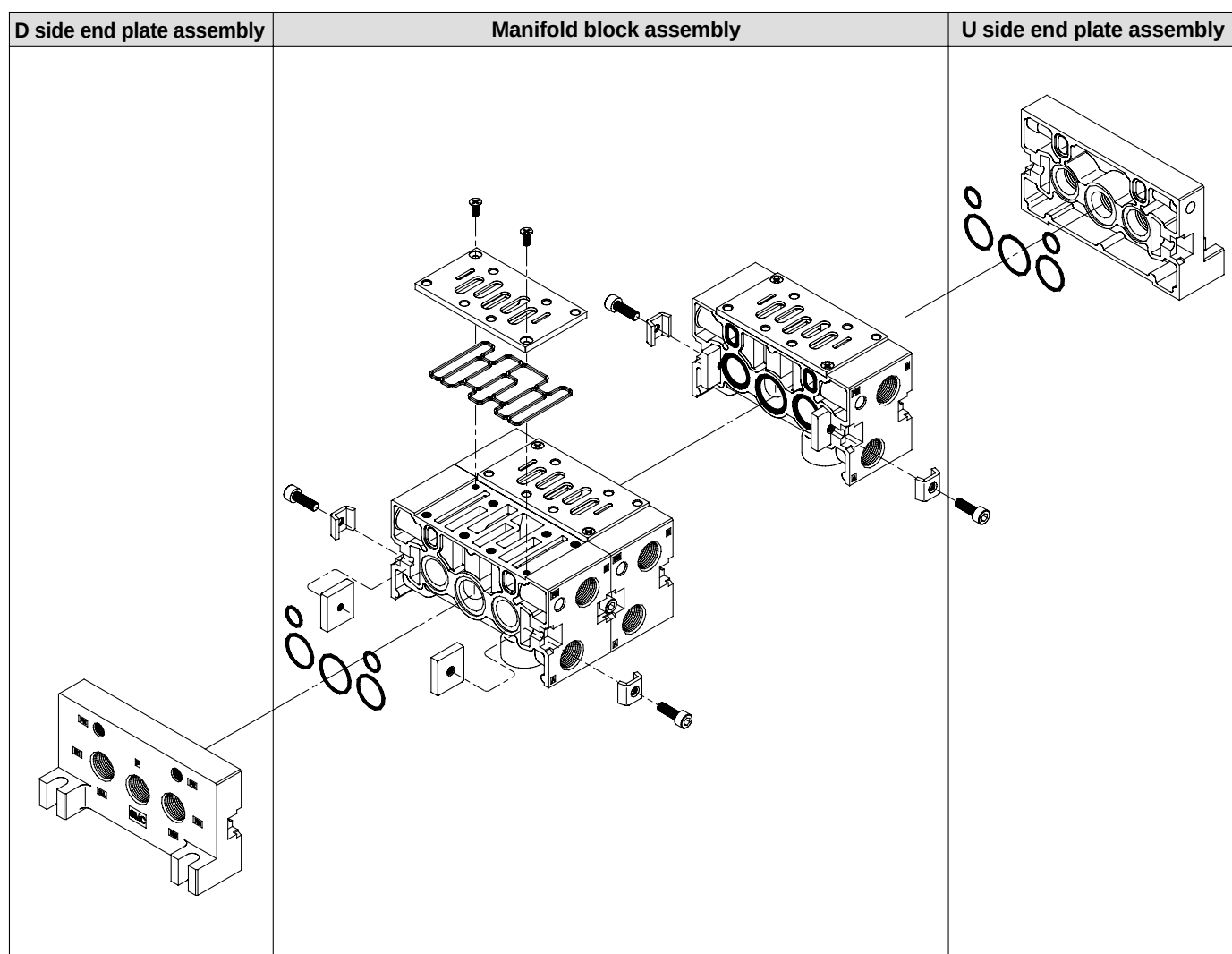
02	Rc1/4
03	Rc3/8
C6 Note 1)	ø6 One-touch fitting
C8 Note 1)	ø8 One-touch fitting
C10 Note 1)	ø10 One-touch fitting

Note 1) Side ported only

< Manifold block replacement parts >

Part No.	Description	Qty.	Material
AXT502-19	O-ring	4	NBR
AXT502-20	O-ring	2	NBR
AXT502-22-2	Plate	1	SPCC
AXT502-31	Gasket	1	NBR
M4 X 8	Oval countersunk head screw	2	SWRH3

Manifold Exploded View



< End plate assembly >

AXT512 – ☐ A – ☐

End plate position ●

L	L side
R	R side

● P, R port size

04	Rc1/2
06	Rc3/4
C12	ø12 One-touch fitting

<Manifold block assembly>

AXT512 – 1A – ☐ ☐ – ☐

Wiring specification ●

A	Side
B	Bottom

● Cylinder port position

L	L side
R	R side

● Cylinder port size

03	Rc3/8
04	Rc1/2

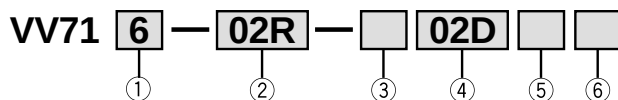
< Manifold block replacement parts>

Part No.	Description	Qty.	Material
AXT512-13	O-ring	2	NBR
AS568-022	O-ring	1	NBR
AS568-020	O-ring	2	NBR
AXT512-5	Gasket	1	NBR
AXT512-4	Plate	1	SPCC
M4X10	Oval countersunk head screw	2	SWRH3
AXT512-6-1	Connection fitting A	2	
AXT512-6-4	Connection fitting B	2	
AXT512-6-3	Hexagon socket head screw	2	

Manifold Specification Sheet

Series VQ7-6

1. How to order manifolds



① Stations

1	1 station
⋮	⋮
10	10 stations

Note) When equipped with control unit, one or two stations are used for mounting.

② 2(B), 4(A) port connection

02R	Rc1/4 (right side)
03R	Rc3/8 (right side)
02L	Rc1/4 (left side)
03L	Rc3/8 (left side)
02Y	Rc1/4 (bottom)
03Y	Rc3/8 (bottom)
C6R	One-touch fitting ø6 (right side)
C8R	One-touch fitting ø8 (right side)
C10R	One-touch fitting ø10 (right side)
C6L	One-touch fitting ø6 (left side)
C8L	One-touch fitting ø8 (left side)
C10L	One-touch fitting ø10 (left side)
*	Mixed

Note) In case of mixed ports, indicate piping specifications using the manifold specification sheet on page 34.

③ Control unit type (see pages 13 and 14 for details)

Symbol	Nil	A	AP	M	MP	F	G	C	E
Control equipment									
Air filter with auto drain		○	○			○			
Air filter with manual drain				○	○		○		
Regulator		○	○	○	○	○	○		
Air release valve		○	○	○	○			○	○
Pressure switch			○		○				
Blank plate (air release valve)						○	○		
Blank plate (filter, regulator)								○	
Number of manifold blocks required for mounting (Stations)	2	2	2	2	2	2	2	2	1

④ 1(P), 3(R2), 5(R1) port connection

02D	Rc1/4 (bottom side)
02U	Rc1/4 (top side)
02B	Rc1/4 (both sides)
03D	Rc3/8 (bottom side)
03U	Rc3/8 (top side)
03B	Rc3/8 (both sides)
C12D	One-touch fitting ø12 (bottom side)
C12U	One-touch fitting ø12 (top side)
C12B	One-touch fitting ø12 (both sides)
*	Mixed

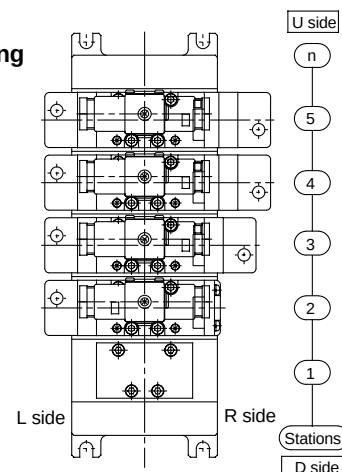
Note) In case of mixed ports, indicate piping specifications using the manifold specification sheet on page 34.

⑤ Silencer box

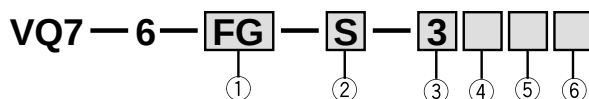
Nil	Without
SB	With

⑥ Air release valve coil rating

Nil	None
1	100VAC 50Hz/60Hz
2	200VAC 50Hz/60Hz
3	24VDC
4	12VDC
9	Other



2. How to order valves



① Type of actuation

FG	2 position
FHG	3 position closed center
FJG	3 position exhaust center
FIG	3 position pressure center
FPG	3 position double check
YZ	2 position reverse pressure

② Number of solenoids

S	Single
D	Double

③ Coil rating

1	100VAC
2	200VAC
3	24VDC
4	12VDC
9*	Other voltage

* Contact SMC regarding other voltages.

④ Options *

Nil	None
N	Indicator light
Z	Indicator light with surge voltage suppressor
V	Individual exhaust (port PE)

* When two or more symbols are applicable, indicate in alphabetical order.

⑤ Seal type

Nil	Metal seal
R	Rubber seal

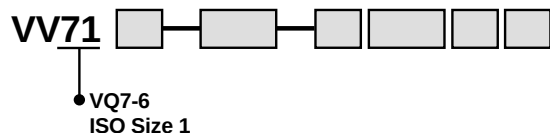
⑥ Connector

Nil	DIN terminal block (with connector)
O	DIN terminal block (without connector)
SC	Prewired connector

Manifold Specification Sheet

Series VQ7-6 ISO Size 1

How to Order Manifolds



Date / /

Company name	
Contact person	
Specification sheet no.	
Order no.	
Equipment name	
Quantity	set(s) Date required

Specification sheet

← D side

U side →

Description/Model		Stations	1	2	3	4	5	6	7	8	9	10	
Valves	2 position single												
	2 position double												
	3 position closed center												
	3 position exhaust center												
	3 position pressure center												
	2 position reverse pressure (single)												
	2 position reverse pressure (double)												
Options	Blank plate AXT502-9A												
	Individual SUP spacer VV71-P- ⁰³ / ₀₈												
	Individual EXH spacer VV71-R- ⁰³ / ₀₈												
	Double check spacer VV71-FPG	(Enter only when using for a 2 position single or double.)											
	Double spacer with residual pressure release valve VV71-FPGR	(Enter only when using for a 2 position single or double.)											
	Individual SUP spacer with residual pressure release valve VV71-PR- ⁰³ / ₀₈												
	Residual pressure release valve spacer VV71-R-AB												
	Interface regulator ARB250-00- ⁰³ / ₀₈	P reduced pressure											
		A reduced pressure											
		B reduced pressure											
	Throttle valve spacer AXT503-23A												
	Reverse pressure spacer AXT502-21A-1												
	R1, R2 individual EXH spacer VV71-R2-03												
	Main EXH back pressure check plate AXT503-37A												
Port size (ports 2, 4) (when mixed)	Rc1/4	02											
	Rc3/8	03											
	ø6 One-touch fitting	C6											
	ø8 One-touch fitting	C8											
	ø10 One-touch fitting	C10											
Description/Model		Stations											
Notes	• Double check spacers (including those with residual pressure release valve) cannot be combined with closed center or pressure center.												
	• In case of a control unit, two stations are used for mounting. However, one station is used for the E type. There is a maximum of 10 stations, including the control unit mounting stations.												

Applicable valves and options

Part No.	Quantity

Part No.	Quantity

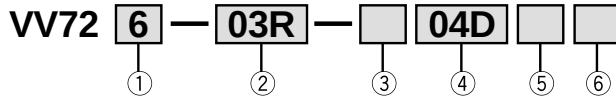
Order no.	
Clerk (code no.)	
Branch code	

* Please copy this page for use as needed.

Manifold Specification Sheet

Series VQ7-8

1. How to order manifolds



① Stations

1	1 station
⋮	⋮
10	10 stations

② 2(B), 4(A) port connection

03R	Rc3/8 (right side)
04R	Rc1/2 (right side)
03L	Rc3/8 (left side)
04L	Rc1/2 (left side)
03Y	Rc3/8 (bottom)
04Y	Rc1/2 (bottom)
*	Mixed

Note) In case of mixed ports, indicate piping specifications using the manifold specification sheet on page 36.

③ Air release valve

Nil	Without
E	With air release valve

④ 1(P), 3(R2), 5(R1) port connection

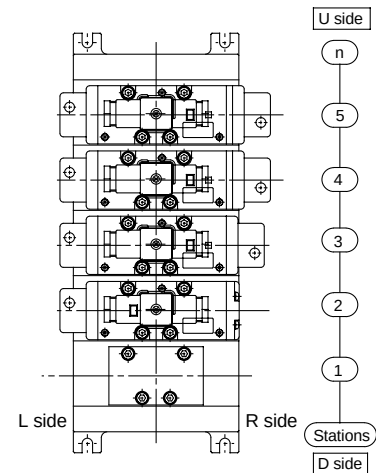
04D	Rc1/2 (bottom side)
04U	Rc1/2 (top side)
04B	Rc1/2 (both sides)
06D	Rc3/4 (bottom side)
06U	Rc3/4 (top side)
06B	Rc3/4 (both sides)

⑤ Silencer box

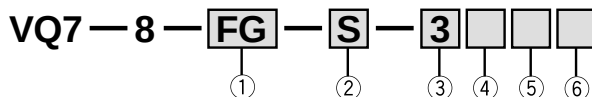
Nil	Without
SB	With

⑥ Air release valve coil rating

Nil	None
1	100VAC 50Hz/60Hz
2	200VAC 50Hz/60Hz
3	24VDC
4	12VDC
9	Other



2. How to order valves



① Type of actuation

FG	2 position
FHG	3 position closed center
FJG	3 position exhaust center
FIG	3 position pressure center
FPG	3 position double check
YZ	2 position reverse pressure

② Number of solenoids

S	Single
D	Double

③ Coil rating

1	100VAC
2	200VAC
3	24VDC
4	12VDC
9*	Other voltages

* Contact SMC regarding other voltages.

④ Options *

Nil	None
N	Indicator light
Z	Indicator light with surge voltage suppressor
V	Individual exhaust (port PE)

* When two or more symbols are applicable, indicate in alphabetical order.

⑤ Seal type

Nil	Metal seal
R	Rubber seal

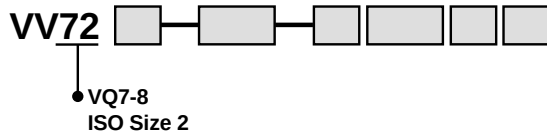
⑥ Connector

Nil	DIN terminal block (with connector)
O	DIN terminal block (without connector)
SC	Prewired connector

Manifold Specification Sheet

Series VQ7-8 ISO Size 2

How to Order Manifolds



Date: / /

Company name			
Contact person			
Specification sheet no.			
Order no.			
Equipment name			
Quantity	set(s)	Date required	

Specification sheet

← D side

U side →

Description/Model		Stations	1	2	3	4	5	6	7	8	9	10	
Valves	2 position single												
	2 position double												
	3 position closed center												
	3 position exhaust center												
	3 position pressure center												
	2 position reverse pressure (single)												
	2 position reverse pressure (double)												
Options	Blank plate AXT512-9A												
	Individual SUP spacer VV72-P-03												
	Individual EXH spacer VV72-R-04												
	Double check spacer VV72-FPG	(Enter only when using for 2 position single or double.)											
	Interface regulator ARB350-00-P _A B	P reduced pressure A reduced pressure B reduced pressure											
	Throttle valve spacer AXT510-32A												
	Reverse pressure spacer AXT512-19A-2												
	R1, R2 individual EXH spacer VV72-R2-04												
	Main EXH back pressure check plate AXT512-25A												
	Blocking plate	AXT512-14-1A	Passage 1 (P)										
AXT512-14-2A		Passage 3 (R1)											
		Passage 5 (R2)											
Port size (ports 2, 4) (when mixed)		Rc3/8	03										
	Rc1/2	04											
Description/Model		Stations											
Note	• Double check spacers cannot be combined with closed center or pressure center.												

Applicable valves and options

Part No.	Quantity

Part No.	Quantity

Order no.	
Clerk (code no.)	
Branch code	

* Please copy this page for use as needed.



Series VQ7-6/7-8

Safety Instructions

These safety instructions are intended to prevent a hazardous situation and/or equipment damage. These instructions indicate the level of potential hazard by a label of "**Caution**", "**Warning**" or "**Danger**". To ensure safety, be sure to observe ISO 4414 Note 1), JIS B 8370 Note 2) and other safety practices.

 **Caution:** Operator error could result in injury or equipment damage.

 **Warning:** Operator error could result in serious injury or loss of life.

 **Danger:** In extreme conditions, there is a possible result of serious injury or loss of life.

Note 1) ISO 4414 : Pneumatic fluid power – Recommendations for the application of equipment to transmission and control systems.

Note 2) JIS B 8370 : General Rules for Pneumatic Systems

Warning

1. The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

Since the products specified here are used in various operating conditions, their compatibility for the specific pneumatic system must be based on specifications or after analysis and/or tests to meet your specific requirements.

2. Only trained personnel should operate pneumatically operated machinery and equipment.

Compressed air can be dangerous if an operator is unfamiliar with it. Assembly, handling or repair of pneumatic systems should be performed by trained and experienced operators.

3. Do not service machinery/equipment or attempt to remove components until safety is confirmed.

1. Inspection and maintenance of machinery/equipment should only be performed after confirmation of safe locked-out control positions.
2. When equipment is to be removed, confirm the safety process as mentioned above. Cut the supply pressure for this equipment and exhaust all residual compressed air in the system.
3. Before machinery/equipment is restarted, take measures to prevent shooting-out of cylinder piston rod, etc. (Bleed air into the system gradually to create back pressure.)

4. Contact SMC if the product is to be used in any of the following conditions:

1. Conditions and environments beyond the given specifications, or if product is used outdoors.
2. Installation on equipment in conjunction with atomic energy, railway, air navigation, vehicles, medical equipment, food and beverages, recreation equipment, emergency stop circuits, press applications, or safety equipment.
3. An application which has the possibility of having negative effects on people, property, or animals, requiring special safety analysis.



Series VQ7-6/7-8 5 Port Solenoid Valve Precautions 1

Be sure to read before handling.

Precautions on Design

⚠ Warning

1. Actuator drive

When an actuator, such as a cylinder, is to be driven using a valve, take appropriate measures to prevent potential danger caused by actuator operation.

2. Intermediate stopping

When a 3 position closed center valve is used to stop a cylinder at an intermediate position, accurate stopping of the piston in a predetermined position is not possible due to the compressibility of air. Furthermore, since valves and cylinders are not guaranteed for zero air leakage, it may not be possible to hold a stopped position for an extended length of time. Contact SMC if it is necessary to hold a stopped position for an extended time.

3. Effect of back pressure when using a manifold

Use caution when valves are used on a manifold, as actuator malfunction due to back pressure may occur. Special caution is necessary when using a 3 position exhaust center valve, or when driving a single acting cylinder, etc. When there is a danger of this kind of malfunction, implement countermeasures such as the use of an individual exhaust spacer assembly or exhaust blocking plate.

4. Disposition of pilot exhaust

Operate the pilot exhaust port (PE) with silencers mounted on both the D and U sides, or with release to atmosphere. If merged with the main exhaust, the main valve may malfunction due to back pressure.

5. Holding of pressure (including vacuum)

Since valves are subject to air leakage, they cannot be used for applications such as holding pressure (including vacuum) in a pressure vessel.

6. Cannot be used as an emergency shutoff valve, etc.

The valves presented in this catalog are not designed for safety applications such as an emergency shutoff valve. If the valves are used in this type of system, other reliable safety assurance measures should also be adopted.

7. Maintenance space

The installation should allow sufficient space for maintenance activities.

8. Release of residual pressure

Provide a residual pressure release function for maintenance purposes. Special consideration should be given to the release of residual pressure between the valve and cylinder in the case of a 3 position closed center type valve.

9. Vacuum applications

When a valve is used for vacuum switching, etc., take measures against the suction of external dust or other contaminants from vacuum pads and exhaust ports, etc. Moreover, an external pilot type valve should be used in this case. Contact SMC in case of an internal pilot type or air operated valve, etc.

Selection

⚠ Warning

1. Confirm the specifications.

The products presented in this catalog are designed only for use in compressed air systems (including vacuum). Do not operate at pressures or temperatures, etc. beyond the range of specifications, as this can cause damage or malfunction. (Refer to specifications.) Contact SMC when using a fluid other than compressed air (including vacuum).

2. Extended periods of continuous energization

Contact SMC if valves will be continuously energized for extended periods of time.

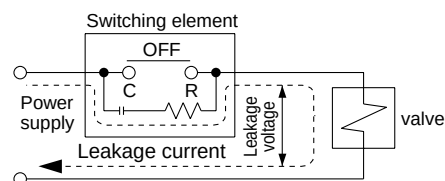
⚠ Caution

1. Momentary energization

If a double solenoid valve will be operated with momentary energization, it should be energized for at least 0.1 second.

2. Leakage voltage

Particularly when using a C-R element (surge voltage suppressor) for protection of the switching element, take note that leakage voltage will increase due to leakage current flowing through the C-R element, etc.



Limit the amount of residual leakage voltage to the following values:

With DC coil 2% or less of rated voltage

With AC coil 12.5% or less of rated voltage

3. Low temperature operation

Avoid ambient temperatures outside the range of -10 to 60°C (-5°C minimum for rubber seals). At low temperatures, appropriate measures should be taken to avoid solidification or freezing of drainage and moisture, etc.

4. Operation for air blowing

When using solenoid valves for air blowing, an external pilot type or direct solenoid operated type should be used.

Also, supply to the external pilot port compressed air within the pressure range prescribed in the specifications.

5. Mounting orientation

In the case of a single solenoid, the mounting orientation is unrestricted. In the case of double solenoid or 3 position valves, mount so that the spool valve is horizontal.

Also, when mounting in a location with vibration or impact, mount so that the spool valve is at a right angle to the direction of vibration.

Do not use in locations where vibration or impact exceeds the product's specifications.



Series VQ7-6/7-8

5 Port Solenoid Valve Precautions 2

Be sure to read before handling.

Mounting

⚠ Warning

1. If air leakage increases or equipment does not operate properly, stop operation.

After mounting or maintenance, etc., connect the compressed air and power supplies, and perform appropriate function and leakage inspections to confirm that the unit is mounted properly.

2. Instruction manual

Mount and operate the product after reading the manual carefully and understanding its contents. Also keep the manual where it can be referred to as necessary.

3. Painting and coating

Warnings or specifications printed or pasted on the product should not be erased, removed or covered up.

Piping

⚠ Caution

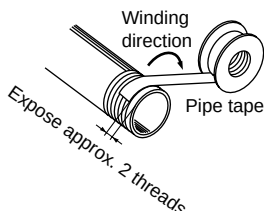
1. Preparation before piping

Before piping is connected, it should be thoroughly blown out with air (flushing) or washed to remove chips, cutting oil and other debris from inside the pipe.

2. Wrapping of pipe tape

When connecting pipes and fittings, etc., be sure that chips from the pipe threads and sealing material do not get inside the valve.

Further, when pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the pipe/fitting.



3. When using closed center valves

When using closed center type valves, check carefully to be sure there are no air leaks from the piping between the valves and cylinders.

4. Tighten threads with the proper tightening torque.

When screwing fittings into valves, tighten with the torques given below.

Tightening torque for piping

Connection threads	Proper tightening torque N·m
Rc1/8	7 to 9
Rc1/4	12 to 14
Rc3/8	22 to 24
Rc1/2	28 to 30
Rc3/4	28 to 30

5. Connection of piping to products

When connecting piping to a product, refer to its instruction manual to avoid mistakes regarding the supply port, etc.

Wiring

⚠ Caution

1. Polarity

None of the series have polarity. (non-polar type)

2. Applied voltage

When electric power is connected to the solenoid valve, be careful to apply the proper voltage. Improper voltage may cause malfunction or coil damage.

3. Confirm the connections.

After completing the wiring, confirm that the connections are correct.

Lubrication

⚠ Caution

1. Lubrication

1) The valve has been lubricated for life at the factory, and does not require any further lubrication.

2) In the event that it is lubricated, use Class 1 turbine oil (without additives), ISO VG32.

However, once lubrication is applied it must be continued, as the original lubricant may be eliminated leading to malfunction.



Series VQ7-6/7-8

5 Port Solenoid Valve Precautions 3

Be sure to read before handling.

Air Supply

Warning

1. Use clean air.

Do not use compressed air which contains chemicals, synthetic oils containing organic solvents, salts or corrosive gases, etc., as this can cause damage or malfunction.

Caution

1. Install air filters.

Install air filters close to valves at their upstream side. A filtration degree of 5μm or less should be selected.

2. Install an air dryer or after cooler, etc.

Air that includes excessive drainage may cause malfunction of valves and other pneumatic equipment. To prevent this, install an air dryer or after cooler, etc.

3. If excessive carbon powder is generated, eliminate it by installing mist separators at the upstream side of valves.

If excessive carbon powder is generated by the compressor, it may adhere to the inside of valves and cause malfunction.

Refer to SMC's "Air Cleaning Equipment" catalog for further details on compressed air quality.

Operating Environment

Warning

1. Do not use valves in atmospheres of corrosive gases, chemicals, salt water, water or steam, or where there is direct contact with same.

2. Do not use in an explosive atmosphere.

3. Do not use in locations subject to vibration or impact. Confirm the specifications for each series.

4. A protective cover, etc., should be used to shield valves from direct sunlight.

5. Shield valves from radiated heat generated by nearby heat sources.

6. Employ suitable protective measures in locations where there is contact with water droplets, oil or welding spatter, etc.

7. When solenoid valves are mounted in a control panel or are energized for extended periods of time, employ measures to radiate excess heat so that temperatures remain within the valve specification range.

Maintenance

Warning

1. Perform maintenance procedures as shown in the instruction manual.

If handled improperly, malfunction or damage of machinery or equipment may occur.

2. Equipment removal and supply/exhaust of compressed air

When equipment is removed, first confirm that measures are in place to prevent dropping of work pieces and run-away of equipment, etc. Then cut the supply pressure and power, and exhaust all compressed air from the system using its residual pressure release function.

When the equipment is to be started again after remounting or replacement, first confirm that measures are in place to prevent lurching of actuators, etc., and then confirm that the equipment is operating normally.

3. Low frequency operation

Valves should be switched at least once every 30 days to prevent malfunction. (Use caution regarding the air supply.)

4. Manual override operation

When the manual override is operated, connected equipment will be actuated. Confirm safety before operating.

Caution

1. Drainage removal

Remove drainage from air filters regularly. (Refer to specifications.)

2. Lubrication

In the case of rubber seals, once lubrication has been started, it must be continued.

Use Class 1 turbine oil (without additives) VG32. Other lubricating oils will cause malfunction or other trouble.

Contact SMC regarding Class 2 turbine oil (with additives) VG32.

How to Find the Flow Rate (at air temperature of 20°C)

Subsonic flow when $P_1 + 0.1013 < 1.89 (P_2 + 0.1013)$

$$Q = 226S \sqrt{\Delta P (P_2 + 0.1013)}$$

Sonic flow when $P_1 + 0.1013 \geq 1.89 (P_2 + 0.1013)$

$$Q = 113S (P_1 + 0.1013)$$

Q: Air flow rate [L/min (ANR)]

S: Effective area (mm²)

ΔP : Differential pressure (P₁-P₂) [MPa]

P₁: Upstream pressure [MPa]

P₂: Downstream pressure [MPa]

* Correction for different air temperatures

Multiply the flow rate calculated with the above formulas by a coefficient from the table below.

Air temperature (°C)	-20	-10	0	10	30	40	50	60
Correction coefficient	1.08	1.06	1.04	1.02	0.98	0.97	0.95	0.94



Series VQ7-6/7-8 Specific Product Precautions 1

Be sure to read before handling.
Refer to pages 37 through 40 for safety instructions and common precautions.

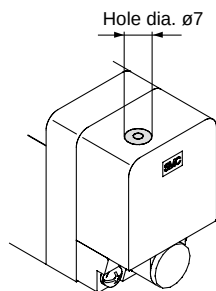
⚠ Warning

Manual Override Operation

Since connected equipment will be actuated when the manual override is operated, first confirm that conditions are safe.

The push type is standard (tool required).

Push type (tool required)



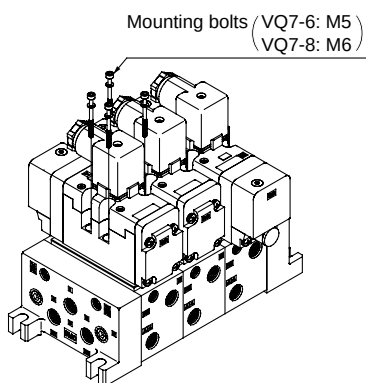
Press the manual override all the way down with a small screw driver, etc. The manual override resets when released.

⚠ Caution

Mounting Valves

After confirming installation of the gasket, securely tighten the bolts with the proper torque shown in the table below.

Series	Proper tightening torque N·m
VQ7-6	2.3 to 3.7
VQ7-8	4.0 to 6.0



⚠ Caution

Installation and Removal of Pilot Valve cover

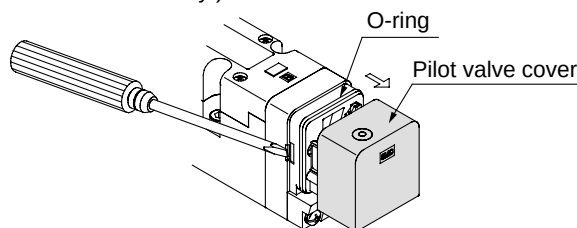
• Removal

To remove the pilot valve cover, spread the cover's hook outward about 1mm with a flat head screw driver, and pull the cover straight off.

If it is pulled off at an angle, the pilot valve may be damaged or the protective O-ring may be scratched.

• Installation

Put the cover back on straight without touching the pilot valve, and push it all the way until the cover's hook locks, without twisting the protective O-ring. (When pushed in, the hook opens and locks automatically.)

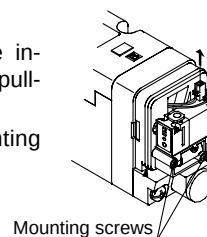


⚠ Caution

Replacement of Pilot Valve

• Removal

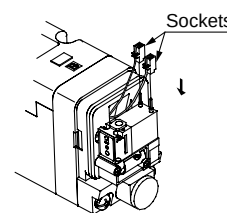
- 1) Take off the sockets which are installed on the pilot valve pins by pulling them straight upward.
- 2) Remove the pilot valve mounting screws with a small screw driver.



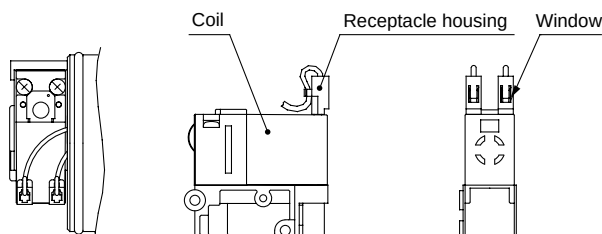
• Installation

- 1) After confirming installation of the gasket, securely tighten the mounting screws with the proper torque shown in the table below.
- 2) Put the sockets on straight and install them securely so that the receptacle housings touch the coil surface as shown in the drawing below.

If they are pushed in with excessive force, there is a danger of the sockets coming off of the receptacle housings. Confirm that the sockets do not protrude from the windows on the side of the receptacle housings.



Proper tightening torque N·m
0.8 to 1.2





Series VQ7-6/7-8 Specific Product Precautions 2

Be sure to read before handling.

Refer to pages 37 through 40 for safety instructions and common precautions.

⚠ Caution

Using a DIN Connector

ISO# : DIN 43650 A compatible

Connections

1. Loosen the holding screw and pull the connector off of the solenoid valve terminal block.
2. After removing the holding screw, insert a flat head screw driver, etc., into the notch at the bottom of the terminal block and pry it up, separating the terminal block and housing.
3. Loosen the terminal screws on the terminal block, insert the cores of the lead wires into the terminals in accordance with the connection method, and fix securely with the terminal screws.
4. Secure the cord by screwing in the ground nut.

Changing the cord entry

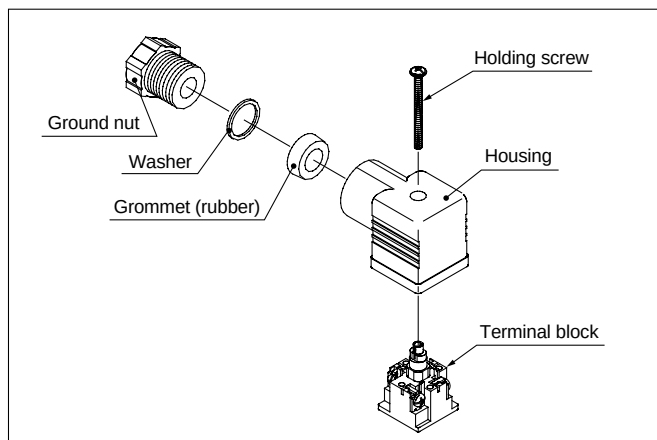
After separating the terminal block and housing, the cord entry direction can be changed by attaching the housing in the desired direction (4 directions at 90° intervals).

Precautions

Insert and pull out the connector in a straight line so that it does not tilt at an angle.

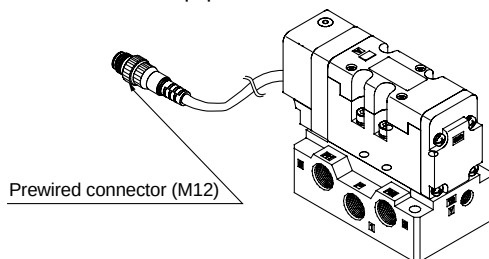
Compatible cable

Cord outside diameter: $\phi 6.8$ to $\phi 10$



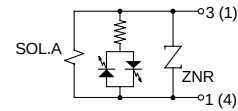
Using a Prewired Connector

4 wire round type connector (M12) conforming to NECA (Nippon Electric Control Equipment Industries Association) standard 4202

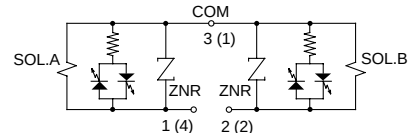


⚠ Caution

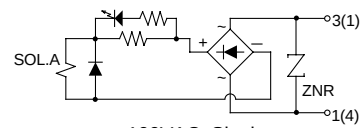
Internal Wiring Specifications



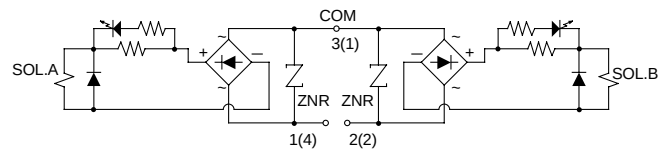
DC: Single



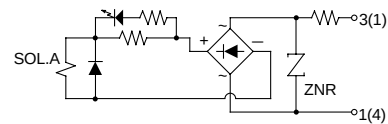
DC: Double



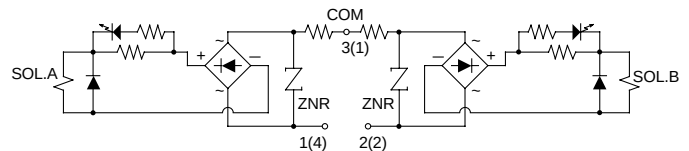
100VAC: Single



100VAC: Double



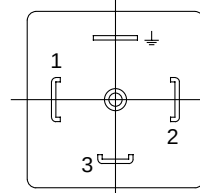
200VAC or more: Double



200VAC or more: Double

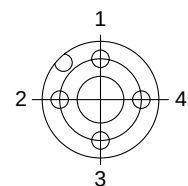
Terminal numbers in the circuits are for a DIN connector.
Numbers inside () are prewired connector pin numbers.

DIN connector wiring specification



Terminal Nos.
1: A side SOL.
2: B side SOL.
3: COM terminal

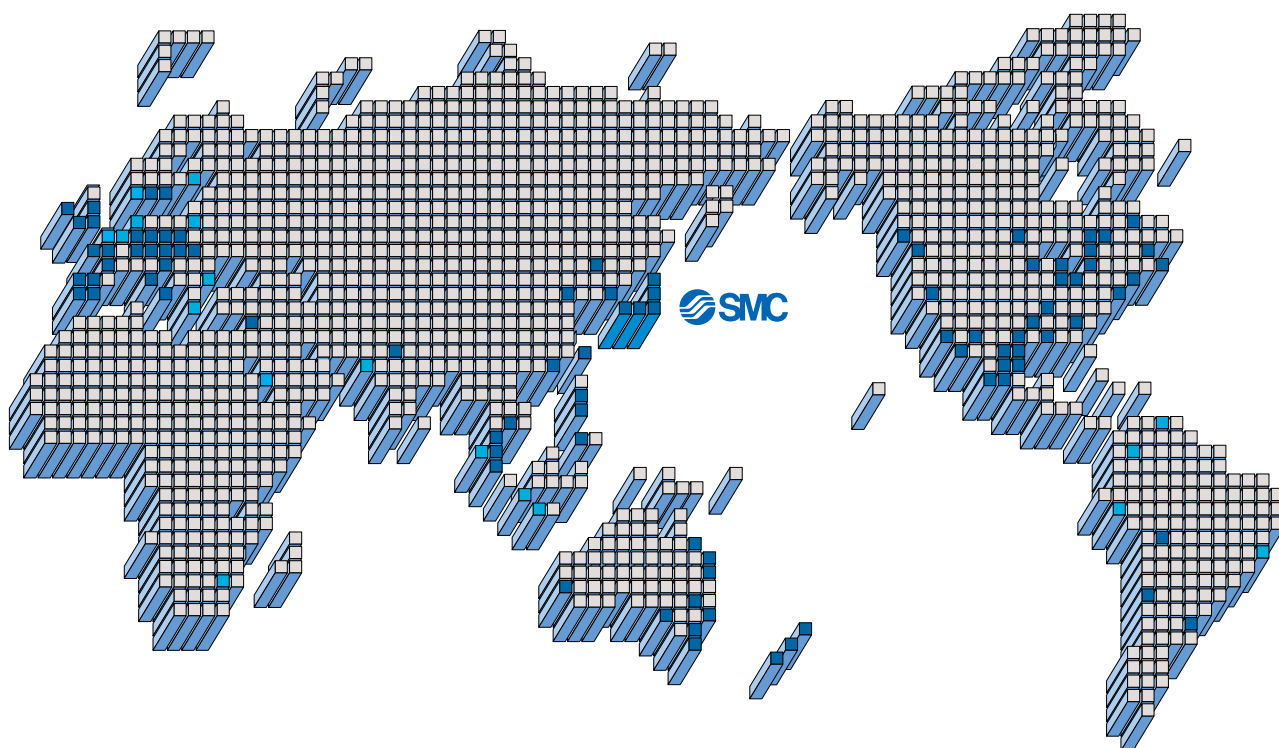
Prewired connector wiring specification



Pin Nos.
1: COM. pin
2: B side SOL.
3: Not in use
4: A side SOL.



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