

Généralités

Les vannes et électrovannes à clapet ont un débit important tant pour l'air comprimé que pour le vide. Elles sont réalisées en version 3/2 et 2/2 en normalement fermée ou normalement ouverte.

Les vannes pour air comprimé ont un fonctionnement analogue au distributeur à tiroir, mais pour une utilisation avec le vide il est indispensable de choisir exactement le type et le raccordement à la pompe à vide.

Pour le pilotage électrique, il faut utiliser une microbobine standard réf. M2 pour l'air et une microbobine spéciale réf. M2/V pour le vide.

Les références de commande sont relatives aux électrovannes avec mécanique "M2" ou "M2/V". Les solénoïdes sont à commander séparément (voir série 300)

Les bobine homologuées sont également disponibles (voir série 300)

Caractéristiques de construction

	G 3/8"	G 1/2" - G 3/4"	G 1"	G 1 1/2"
Corps	Aluminium	Zamac injecté	Aluminium injecté	Aluminium
Plaque de fermeture	Aluminium anodisé			
Clapet	NBR			
Piston de commande	Aluminium			
Axe porte Clapet	Acier Inox			
Ressort	Acier Inox			
Joint de piston	NBR			

Utilisation et entretien

Ces vannes et électrovannes ont une durée de vie moyenne qui varie de 10 à 15 millions de cycles en condition d'emploi. La lubrification n'est pas nécessaire pour un bon fonctionnement mais il est conseillé d'avoir une bonne filtration pour empêcher l'accumulation d'impuretés et par conséquent, un mauvais fonctionnement. Contrôler que les conditions d'utilisation sont compatibles avec les caractéristiques techniques indiquées: pression, température etc.....

Il est important de protéger les orifices d'échappement de la vanne de la présence d'impuretés et de poussières. Pour ce produit la technique de construction et leur emploi particulier ne prévoit aucune maintenance des différents éléments de la vanne. Quand cela est nécessaire, on peut procéder à un nettoyage sommaire de la partie interne.

L'utilisation en version autoalimentée, soit par de l'air ou par le vide, nécessite une grande attention de ne pas prendre l'orifice d'utilisation pour l'alimentation car dans ce cas, la pression ou la dépression serait insuffisante pour le pilotage. Cette vérification est facile sur les vannes à clapet du fait qu'elles n'ont pas de position Centre fermé et une pression de pilotage insuffisante permettrait au système d'être à l'échappement par l'orifice 3. Dans ce cas, il faut utiliser la version avec pilotage externe.

Désignation de la vanne en fonction de l'utilisation

Normalement Fermée Auto alimenté

779/V.32.0.1AC P = 1 = Echappement
 773/V.32.0.1AC A = 2 = Utilisation
 771/V.32.0.1AC R = 3 = Pompe

Normalement Fermée Alimentation Externe

779/V.32.0.1C
 773/V.32.0.1C
 771/V.32.0.1C P = 1 = Pompe
 A = 2 = Utilisation
 779/V.32.11.1C R = 3 = Echappement
 773/V.32.11.1C
 771/V.32.11.1C

Normalement Ouverte Auto alimenté

779/V.32.0.1AA P = 1 = Pompe
 773/V.32.0.1AA A = 2 = Utilisation
 771/V.32.0.1AA R = 3 = Echappement

Normalement Ouverte Alimentation Externe

779/V.32.0.1A
 773/V.32.0.1A
 771/V.32.0.1A P = 1 = Echappement
 A = 2 = Utilisation
 779/V.32.11.1A R = 3 = Pompe
 773/V.32.11.1A
 771/V.32.11.1A

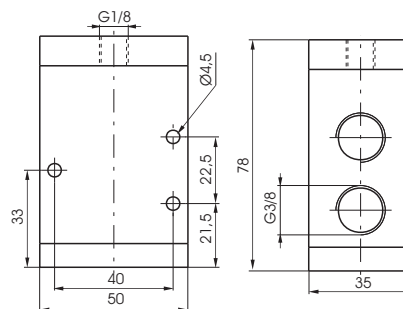
Pneumatique - ressort / pour Air comprimé

Référence de Commande

779.32.11.F

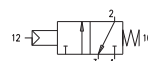
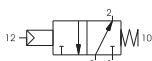
FONCTION

F 1C=Normalement Fermée
1A=Normalement Ouvert



Poids gr.360

Attention: Dans la version normalement ouverte, l'alimentation se fait par l'orifice d'échappement "3"
Pression minimum de pilotage 2,5 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
		Air filtré et lubrifié	-5 ÷ + 70	10	1800	10	G 3/8"

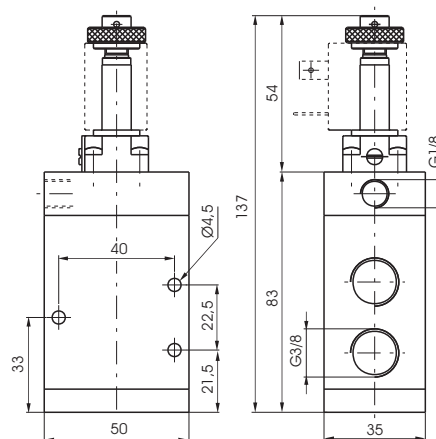
Électrique - ressort / pour Air comprimé

Référence de Commande

779.32.0.F.M2

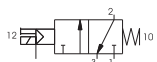
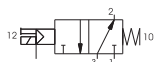
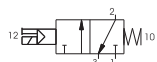
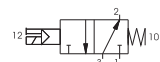
FONCTION

F 1AC=Autoalimenté Normalement Fermée
1C=Alimentation externe Normalement Fermée
1AA=Autoalimenté Normalement Ouvert
1A=Alimentation externe Normalement Ouvert



Poids gr.420

Pression minimum de fonctionnement 2,5 bar (version alimentation externe) - 3 bar (version autoalimentée)



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
		Air filtré et lubrifié	-5 ÷ + 50	10	1800	10	G 3/8"

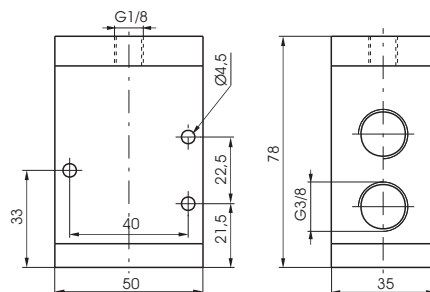
Pneumatique - ressort / pour Vide

Référence de Commande

779/V.32.11.F

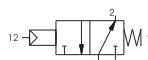
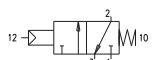
FONCTION

F 1C=Normalement Fermée
1A=Normalement Ouvert



Poids gr.360

Pression minimum de pilotage 2 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
		Vide	-5 ÷ + 70	10	G 3/8"

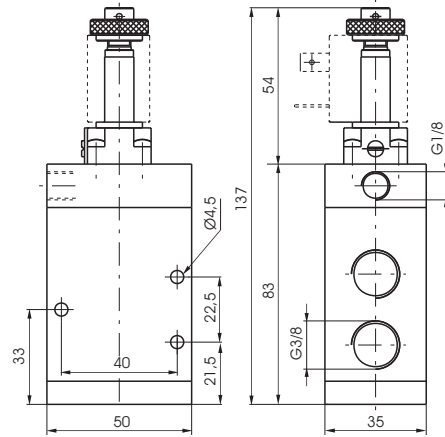


Électrique - ressort - Autoalimenté / pour Vide

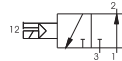
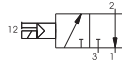
Référence de Commande

779/V.32.0.F.M2/V

F FONCTION
1AA= Normalement Ouvert
1AC= Normalement Fermée



Poids gr.420



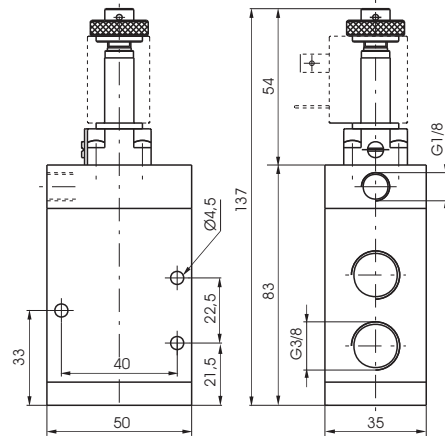
Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide	-5 ÷ + 50	10	G 3/8"	G 1/8"

Électrique - ressort - Aliment. externe / pour Vide

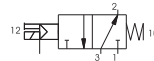
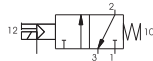
Référence de Commande

779/V.32.0.F.M2

F FONCTION
1A= Normalement Ouvert
1C= Normalement Fermée



Poids gr.420
Pression minimum de fonctionnement 2 bar (version alimentation externe)

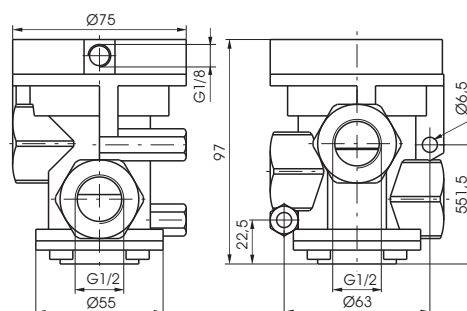


Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide	-5 ÷ + 50	10	G 3/8"	G 1/8"

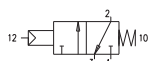
Électrique - ressort / pour Air comprimé

Référence de Commande

772.32.11.1C



Poids gr.1100
Normalement Fermée
Pression minimum de pilotage 2,5 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
		Air filtré et lubrifié	-5 ÷ + 70	10	4800	15	G 1/2"

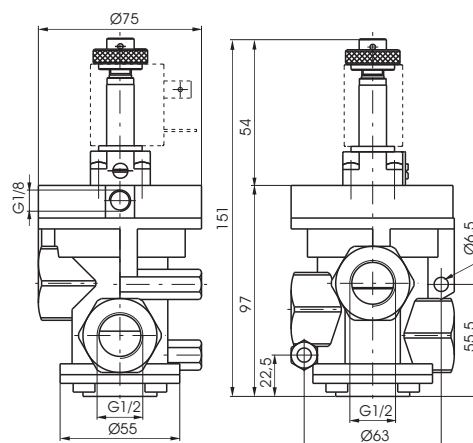
Électrique - ressort / pour Air comprimé

Référence de Commande

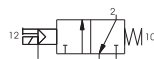
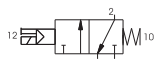
772.32.0.F.M2

FONCTION

- 1AC=Autoalimenté Normalement Fermée
- 1C=Alimentation externe Normalement Fermée



Poids gr.1160
Pression minimum de fonctionnement 2,5 bar (version alimentation externe) - 3 bar (version autoalimentée)



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
		Air filtré et lubrifié	-5 ÷ + 50	10	4800	15	G 1/2"

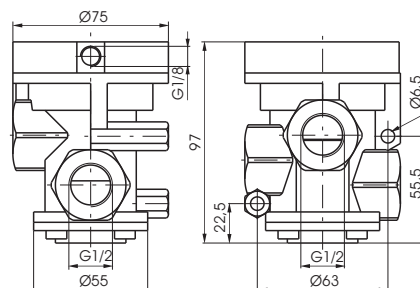
Pneumatique - ressort / pour Vide

Référence de Commande

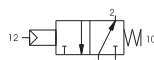
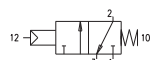
772/V.32.11.F

FONCTION

- 1C=Normalement Fermée
- 1A=Normalement Ouvert



Poids gr.1100
Pression minimum de pilotage 2 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
		Vide	-5 ÷ + 70	15	G 1/2"

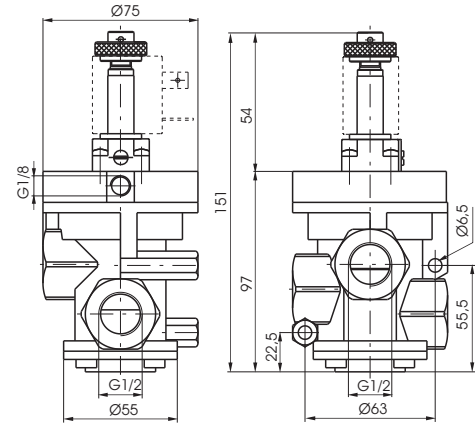
2

Électrique - ressort - Autoalimenté / pour Vide

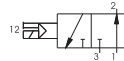
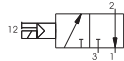
Référence de Commande

772/V.32.0.F.M2/V

F FONCTION
 1AA=Normalement Ouvert
 1AC=Normalement Fermée



Poids gr.1160



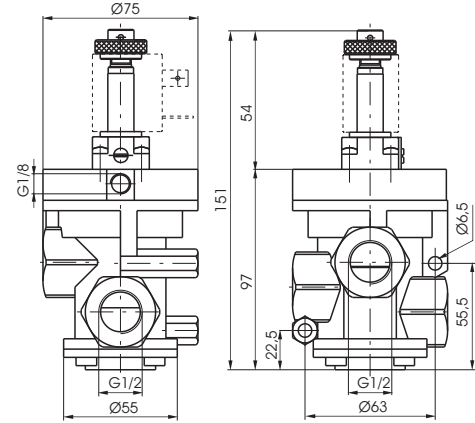
Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 50	15	G 1/2"

Électrique - ressort - Aliment. externe / pour Vide

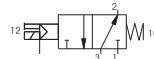
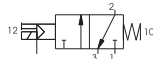
Référence de Commande

772/V.32.0.F.M2

F FONCTION
 1A=Normalement Ouvert
 1C=Normalement Fermée



Poids gr.1160
 Pression minimum de fonctionnement 2 bar (version alimentation externe)

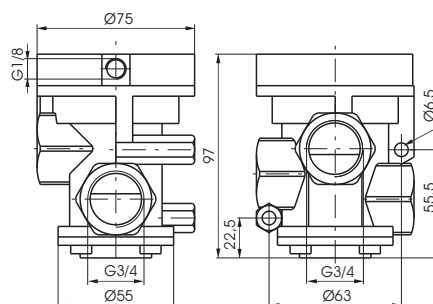


Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 50	15	G 1/2"

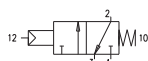
Pneumatique - ressort / pour Air comprimé

Référence de Commande

773.32.11.1C



Poids gr.990
Normalement Fermée
Pression minimum de fonctionnement 2,5 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 70	10	6100	20	G 3/4"	G 1/8"

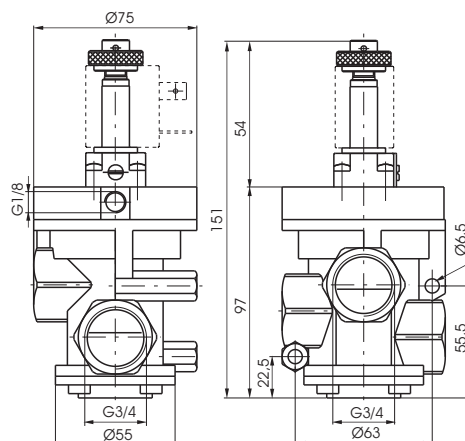
Électrique - ressort / pour Air comprimé

Référence de Commande

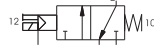
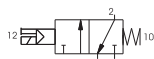
773.32.0.F.M2

FONCTION

- F** 1AC=Autoalimenté Normalement Fermée
- C** 1C=Alimentation externe Normalement Fermée



Poids gr.1050
Pression minimum de fonctionnement 2,5 bar (version alimentation externe) - 3 bar (version autoalimentée)



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 50	10	6100	20	G 3/4"	G 1/8"

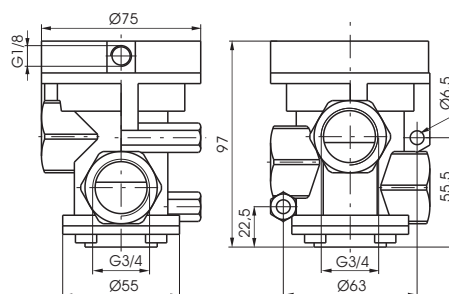
Pneumatique - Ressort / pour Vide

Référence de Commande

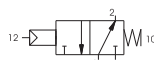
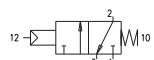
773/V.32.11.F

FONCTION

- F** 1C=Normalement Fermée
- 1A=Normalement Ouvert



Poids gr.990
Pression minimum de pilotage 2 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide	-5 ÷ + 70	20	G 3/4"	G 1/8"

2

Électrique - ressort - Autoalimenté / pour Vide

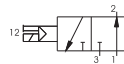
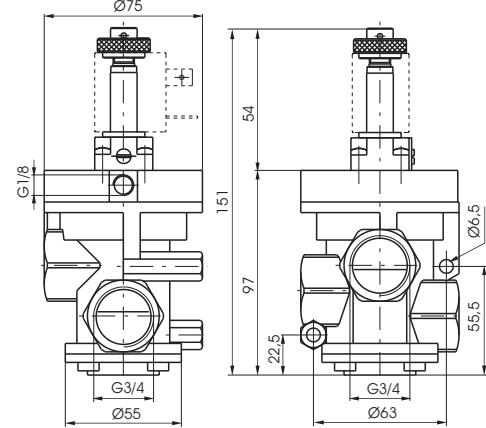
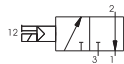
Référence de Commande

773/V.32.0.F.M2/V

F FONCTION
 1AA=Normalement Ouvert
 1AC=Normalement Fermée



Poids gr.1050



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 50	20	G 3/4"

Électrique - ressort - Aliment. externe / pour Vide

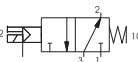
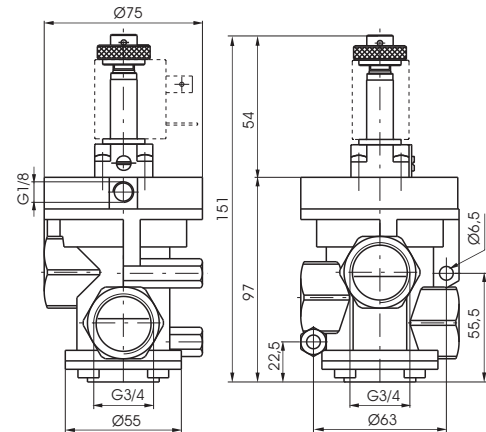
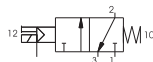
Référence de Commande

773/V.32.0.F.M2

F FONCTION
 1A=Normalement Ouvert
 1C=Normalement Fermée



Poids gr.1050
 Pression minimum de fonctionnement 2 bar (version alimentation externe)

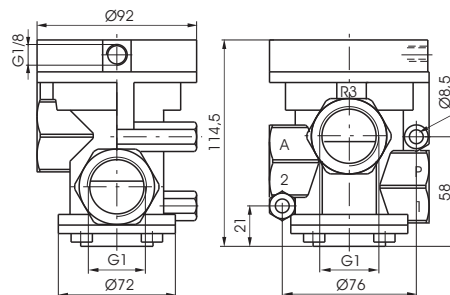


Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 50	20	G 3/4"

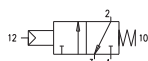
Pneumatique - ressort / pour Air comprimé

Référence de Commande

771.32.11.1C



Poids gr.1060
Normalement Fermée
Pression minimum de pilotage 2,5 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 70	10	12000	25	G 1"	G 1/8"

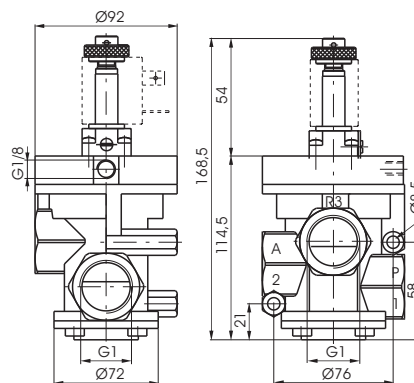
Électrique - ressort / pour Air comprimé

Référence de Commande

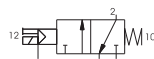
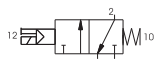
771.32.0.F.M2

FONCTION

- 1AC=Autoalimenté Normalement Fermée
- 1C=Alimentation externe Normalement Fermée



Poids gr.1120
Pression minimum de fonctionnement 2,5 bar (version alimentation externe) - 3 bar (version autoalimentée)



Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 50	10	12000	25	G 1"	G 1/8"

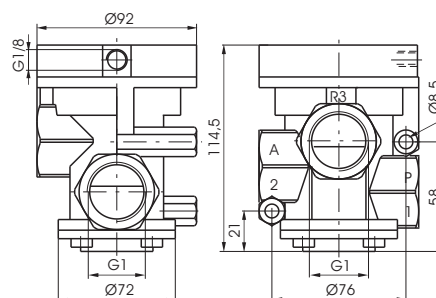
Pneumatique - Ressort / pour Vide

Référence de Commande

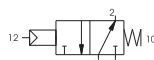
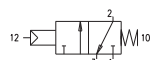
771/V.32.11.F

FONCTION

- 1C=Normalement Fermée
- 1A=Normalement Ouvert



Poids gr.1060
Pression minimum de pilotage 2 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide	-5 ÷ + 70	25	G 1"	G 1/8"

Électrique - ressort - Autoalimenté / pour Vide

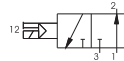
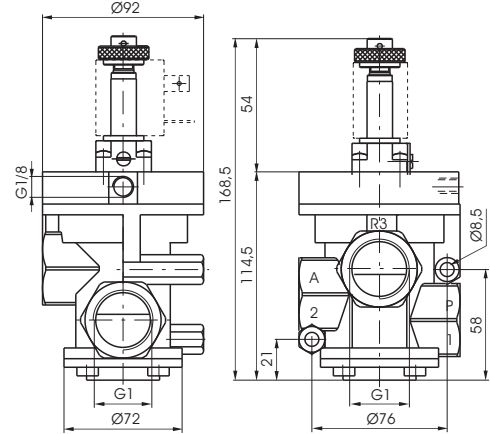
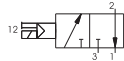
Référence de Commande

771/V.32.0.F.M2/V

F FONCTION
 1AA=Normalement Ouvert
 1AC=Normalement Fermée



Poids gr.1120



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide	-5 ÷ + 50	25	G 1"	G 1/8"

Électrique - ressort - Aliment. externe / pour Vide

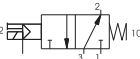
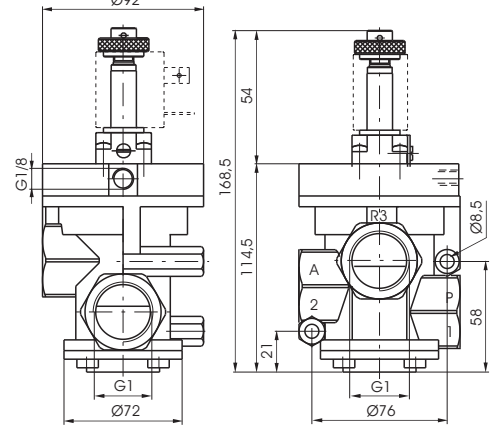
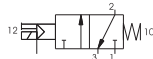
Référence de Commande

771/V.32.0.F.M2

F FONCTION
 1A=Normalement Ouvert
 1C=Normalement Fermée



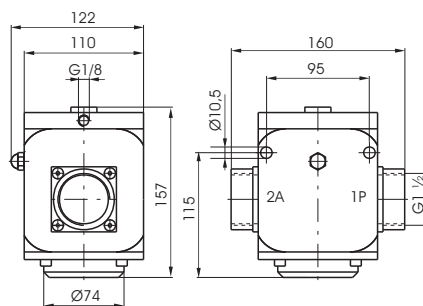
Poids gr.1120
Pression minimum de fonctionnement 2 bar



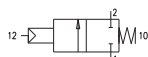
Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide	-5 ÷ + 50	25	G 1"	G 1/8"

Pneumatique - ressort / pour Air comprimé

Référence de Commande
776.22.11.1C



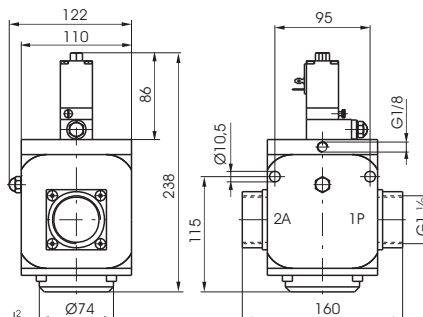
Poids gr.3950
Normalement Fermée
Pression minimum de pilotage 2,5 bar



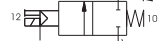
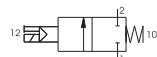
Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 70	10	33500	38	G1 1/2"	G 1/8"

Électrique - ressort / pour Air comprimé

Référence de Commande
776.22.0.F.S
F FONCTION 1AC=Autoalimenté Normalement Fermée 1C=Alimentation externe Normalement Fermée
S RÉFÉRENCE BOBINE Voir électrovannes série 300 type



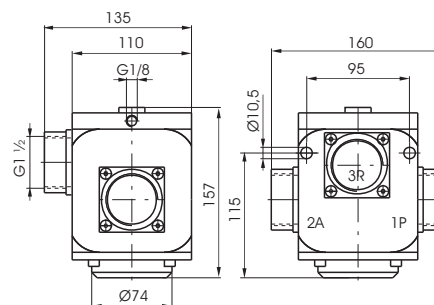
Poids gr.4450
Pression minimum de fonctionnement 2,5 bar (version alimentation externe) - 3 bar (version autoalimentée)



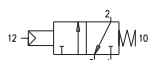
Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 50	10	33500	38	G1 1/2"	G 1/8"

Pneumatique - ressort / pour Air comprimé

Référence de Commande
776.32.11.1C



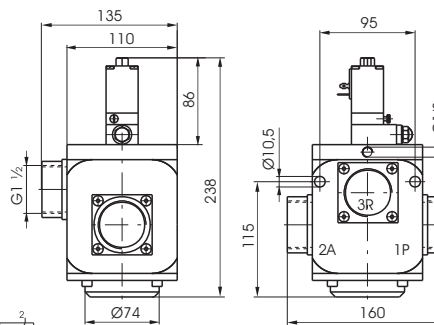
Poids gr.3900
Normalement Fermée
Pression minimum de pilotage 2,5 bar



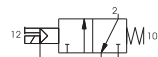
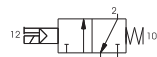
Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 70	10	33500	38	G1 1/2"	G 1/8"

Électrique - ressort / pour Air comprimé

Référence de Commande
776.32.0.F.S
F FONCTION 1AC=Autoalimenté Normalement Fermée 1C=Alimentation externe Normalement Fermée
S RÉFÉRENCE BOBINE Voir électrovannes série 300 type



Poids gr.4450
Pression minimum de fonctionnement 2,5 bar (version alimentation externe) - 3 bar (version autoalimentée)



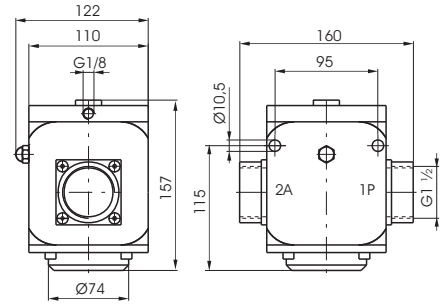
Caractéristiques de fonctionnement	Fluide	Température °C	Pression de fonctionnement maxi (bar)	Débit à 6 bar avec Δp=1 (NI/min)	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Air filtré et lubrifié	-5 ÷ + 50	10	33500	38	G1 1/2"	G 1/8"

2

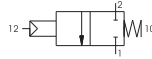
Pneumatique - ressort / pour Vide

Référence de Commande

776/V.22.11.1C



Poids gr.3950
Normalement Fermée
Pression minimum de pilotage 2 bar



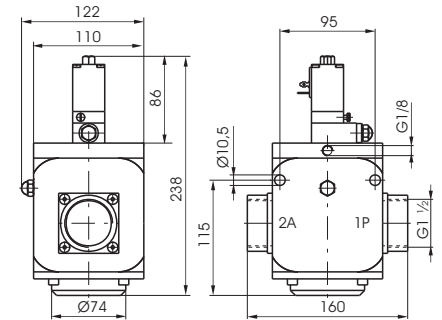
Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 70	38	G1 1/2"

Électrique - ressort / pour Vide

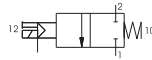
Référence de Commande

776/V.22.0.1C.S

RÉFÉRENCE BOBINE
S Voir électrovannes série 300 type "S"



Poids gr.4450
Alimentation externe Normalement Fermée
Pression minimum de fonctionnement 2 bar



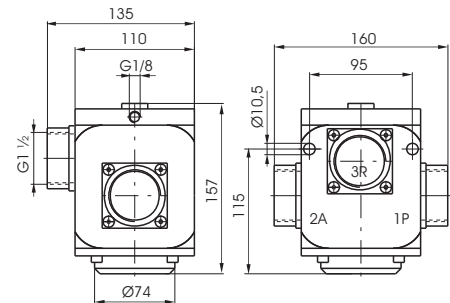
Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 50	38	G1 1/2"

Pneumatique - ressort / pour Vide

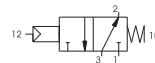
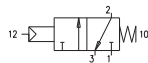
Référence de Commande

776/V.32.11.F

F FONCTION
1C=Normalement Fermée
1A=Normalement Ouvert



Poids gr.3900
Pression minimum de pilotage 2 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 70	38	G1 1/2"

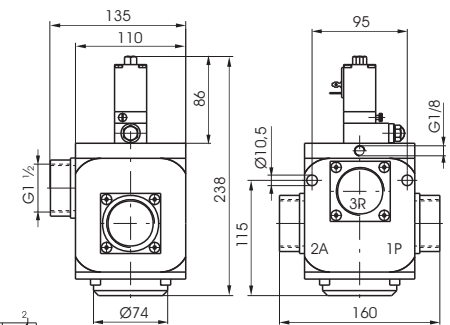
Électrique - ressort / pour Vide

Référence de Commande

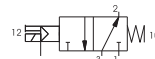
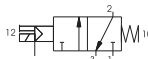
776/V.32.0.F.S

F FONCTION
1C=Alimentation externe Normalement Fermée
1A=Alimentation externe Normalement Ouvert

S RÉFÉRENCE BOBINE
S Voir électrovannes série 300 type



Poids gr.4500
Pression minimum de fonctionnement 2 bar



Caractéristiques de fonctionnement	Fluide	Température °C	Diamètre nominal de passage (mm)	Orifices d'alimentation	Raccordement de pilotage
	Vide		-5 ÷ + 50	38	G1 1/2"



PNEUMAX



VALVES POPPET SYSTEM **SERIES PG**

HIGH FLOW RATES FOR COMPRESSED AIR AND VACUUM

Series PG - for compressed air and vacuum



The large flow valves and solenoid poppet valves for compressed air and vacuum.
Are manufactured for 3/2 and 2/2 versions only, either normally close and normally open.

Construction characteristics

	G 1/2"	G 3/4"	G 1"	G 1 1/2"
Body, operator and end cover			Aluminium	
Actuators rod			Steel	
Bottom plates			Aluminium	
Seals and poppets			NBR	
Springs			Stainless steel	
Pin guide			Stainless steel	
Pistons			Acetal resin	

Use and maintenance

These valves have a mean life of 10 to 15 million cycles under normal operating conditions.

Lubrication is not required for good operation but we recommend good filtration to avoid dirty deposit causing malfunction.

Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature.

The exhaust port of the distributor has to be protected in a dusty and dirty environment.

For these products, according to the construction technique and special application, is not required any maintenance with parts replacement.

When necessary it is sufficient to clean the internal parts.

When it is used the solenoid valves with internal pilot, either for air or vacuum, inlet flow rate must be equal or higher that the required consumption flow rate.

Otherwise is better choose the external pilot version.



Coding: PG2A**N**11E**F**00000

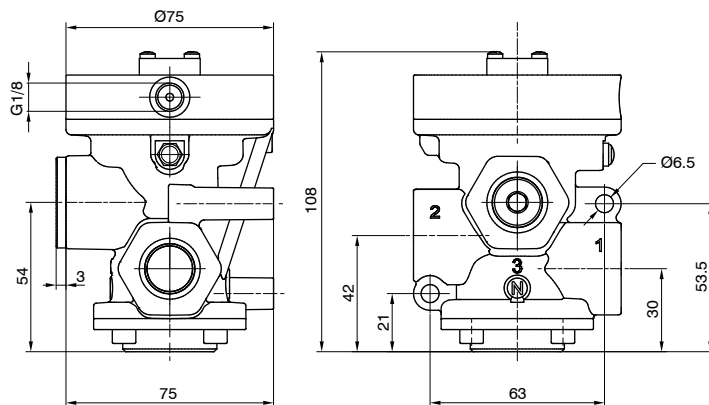
Pneumatic - Spring

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	2,5
Temperature °C	-5 ... +70
Flow rate at 6 bar with Δp=1 (NI/min)	4800
Orifice size (mm)	15
Working ports size	G1/2"
Pilot ports size	G1/8"

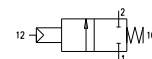
WAYS NUMBER	
N	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



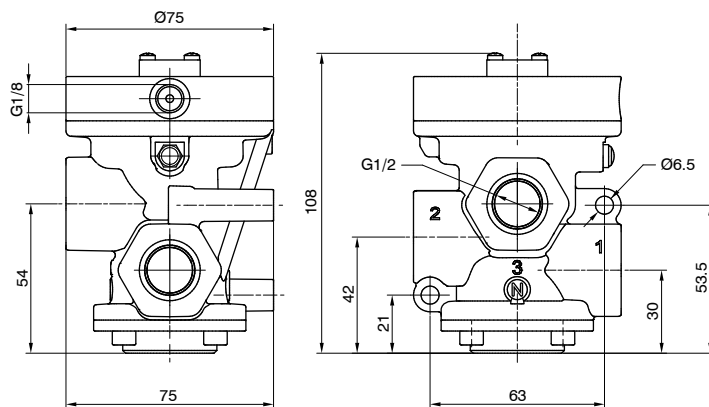
N.C.
Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



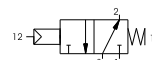
Weight 675 g

PG2A211E**F**00000

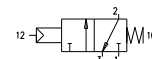
3/2



N.O.
Inlet port 3
Outlet port 2
Exhaust port 1



N.C.
Inlet port 1
Outlet port 2
Exhaust port 3



Weight 648,5 g

PG2A311E**F**00000

Solenoid-Spring

Coding: PG2A001VFFI

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	2,5
Temperature °C	-5 ... +50
Flow rate at 6 bar with Δp=1 (NI/min)	4800
Orifice size (mm)	15
Working ports size	G1/2"
Pilot ports size	G1/8"
Response time according to ISO 12238, activation time (ms)	21 (self feeding version)
Response time according to ISO 12238, deactivation time (ms)	83 (self feeding version)

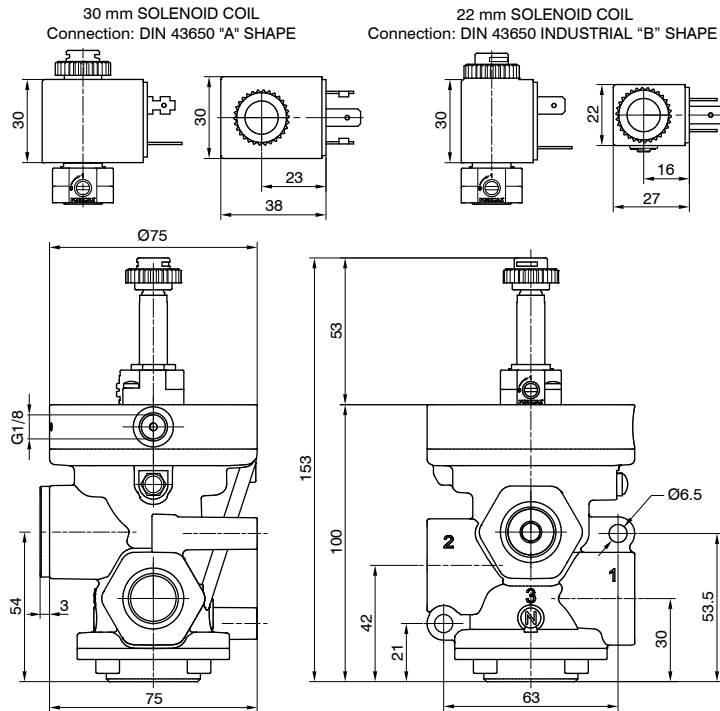
WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	A = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

2/2



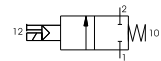
Weight 720,5 g

PG2A201VFFI



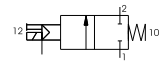
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)

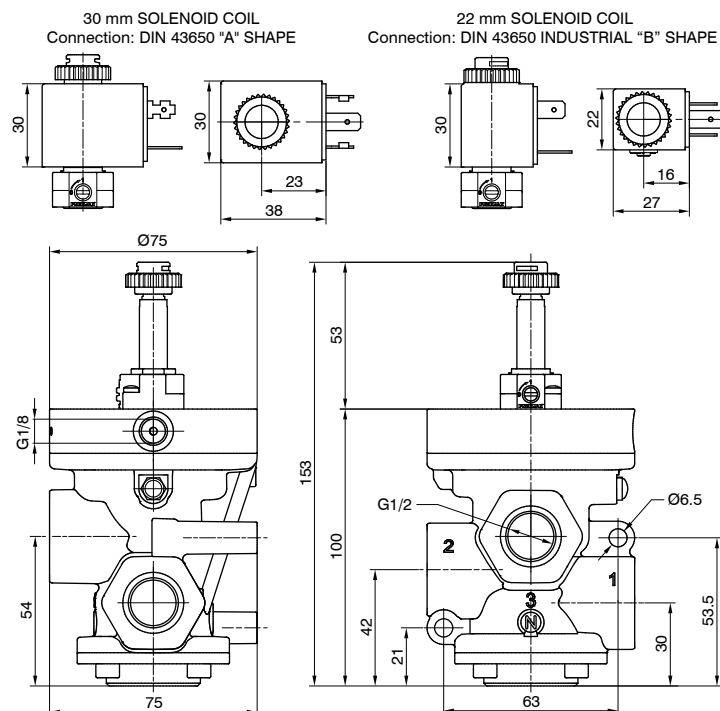


3/2



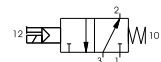
Weight 693,5 g

PG2A301VFFI



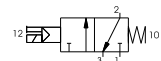
Self feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



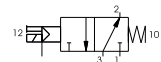
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3



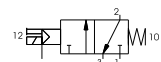
External feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3





Coding: PG2V(N)11E(●)00000

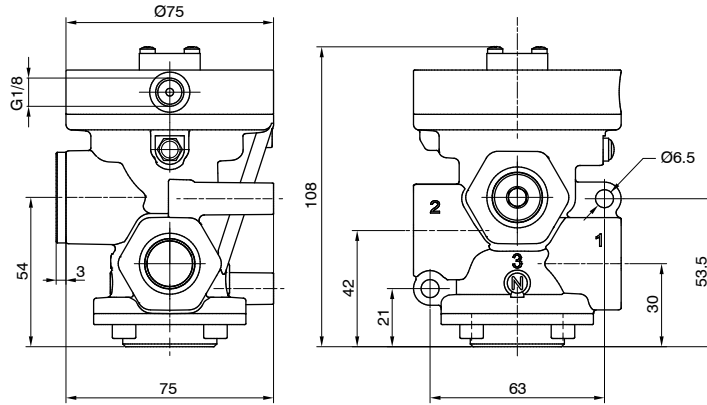
Pneumatic - Spring

Operational characteristics	
Fluid	Vacuum
Minimum piloting pressure (bar)	2
Temperature °C	-5 ... +70
Orifice size (mm)	15
Working ports size	G1/2"
Pilot ports size	G1/8"
Max. vacuum (mmHg)	758,5

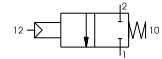
WAYS NUMBER	
N	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



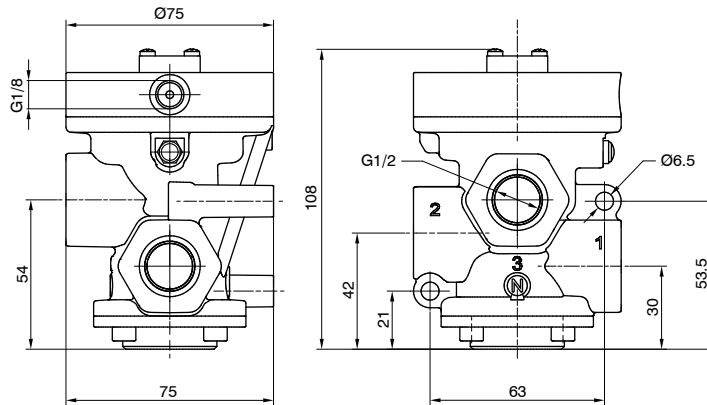
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



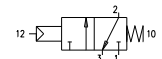
Weight 675,5 g

PG2V211E(●)00000

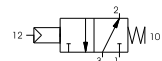
3/2



N.O.
Pump 3
Outlet port 2
Exhaust port 1



N.C.
Pump 1
Outlet port 2
Exhaust port 3



Weight 648,5 g

PG2V311E(●)00000



Valves and solenoid valves poppet system
Series PG - for compressed air - G3/4"

Coding: PG3A**N**11E**F**00000

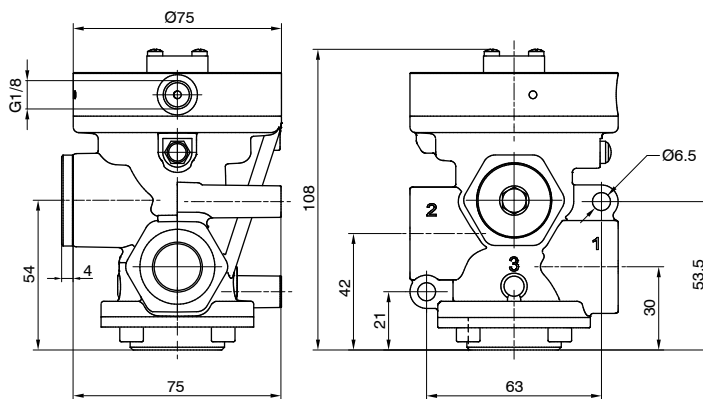
Pneumatic - Spring

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	2,5
Temperature °C	-5 ... +70
Flow rate at 6 bar with Δp=1 (NI/min)	6100
Orifice size (mm)	20
Working ports size	G3/4"
Pilot ports size	G1/8"

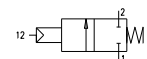
WAYS NUMBER	
N	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



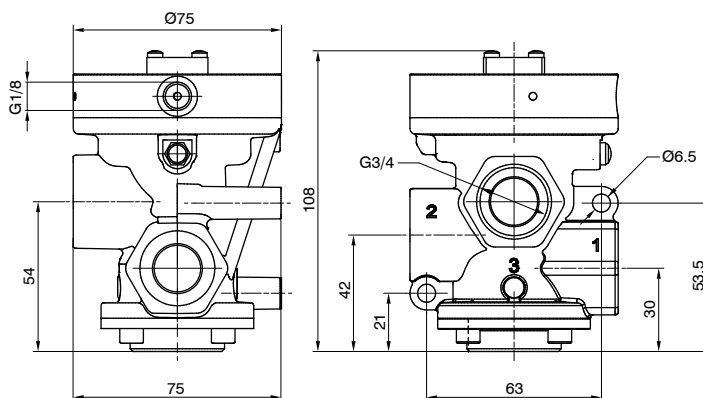
N.C.
 Inlet port 1
 Outlet port 2
 Exhaust port 3 (closed)



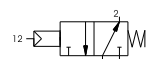
Weight 576,5 g

PG3A211E**F**00000

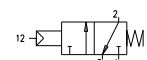
3/2



N.O.
 Inlet port 3
 Outlet port 2
 Exhaust port 1



N.C.
 Inlet port 1
 Outlet port 2
 Exhaust port 3



Weight 522,5 g

PG3A311E**F**00000

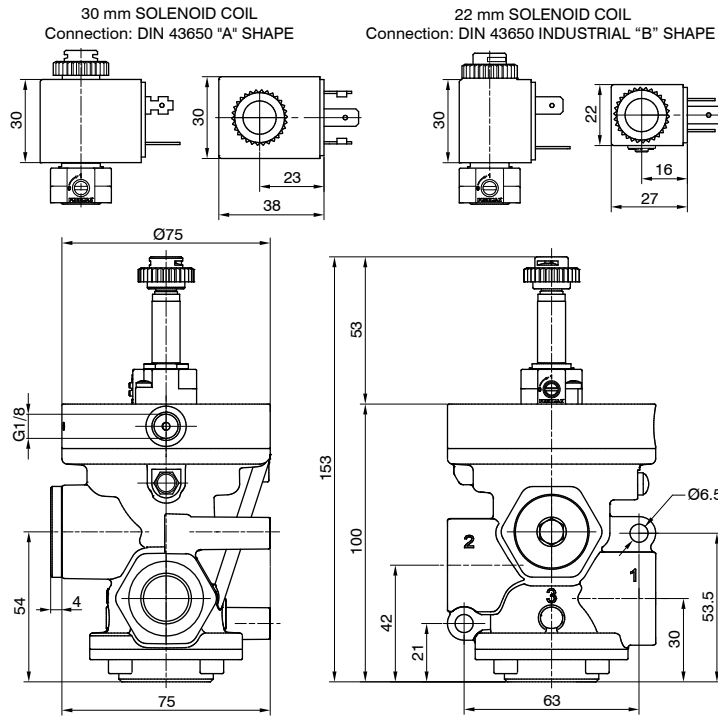
Solenoid-Spring

Coding: PG3A001VET

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	2,5
Temperature °C	-5 ... +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	6100
Orifice size (mm)	20
Working ports size	G3/4"
Pilot ports size	G1/8"
Response time according to ISO 12238, activation time (ms)	22 (self feeding version)
Response time according to ISO 12238, deactivation time (ms)	81 (self feeding version)

WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	A = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

2/2

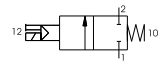


Weight 621,5 g

PG3A201VET

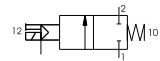
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)

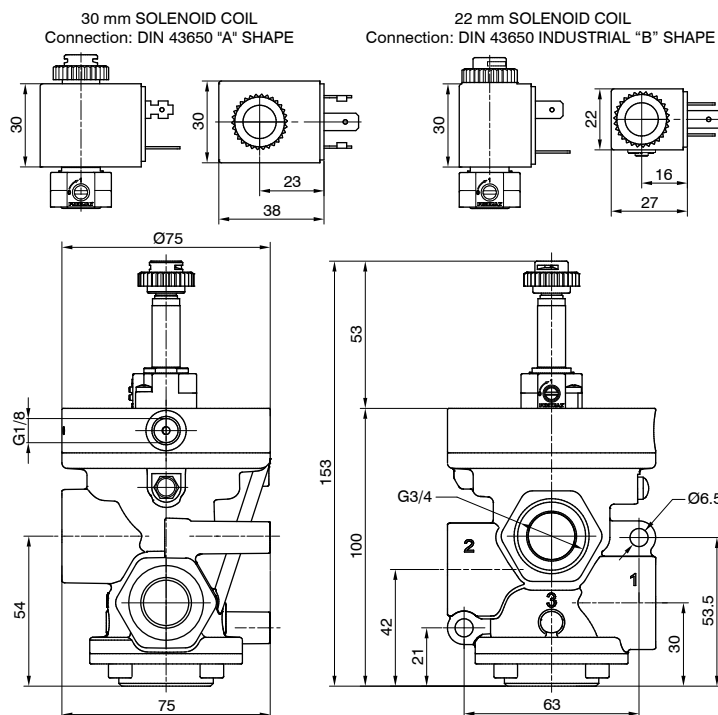


External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



3/2

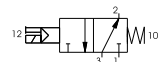


Weight 567,5 g

PG3A301VET

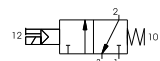
Self feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



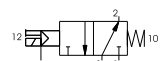
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3



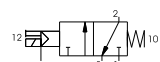
External feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3





Coding: PG3V11E00000

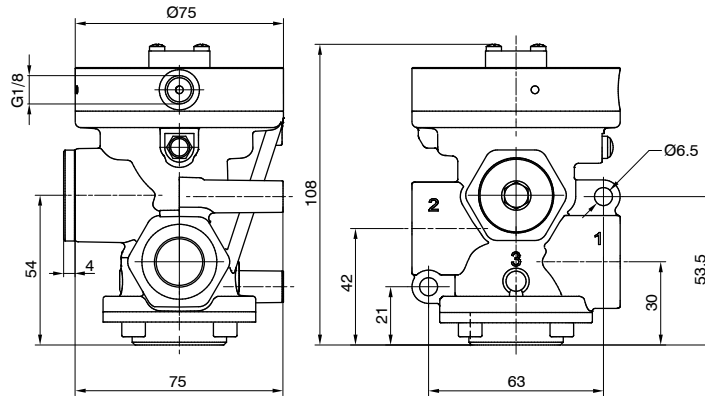
Pneumatic - Spring

Operational characteristics	
Fluid	Vacuum
Minimum piloting pressure (bar)	2
Temperature °C	-5 ... +70
Orifice size (mm)	20
Working ports size	G3/4"
Pilot ports size	G1/8"
Max. vacuum (mmHg)	758,5

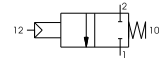
WAYS NUMBER	
N	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



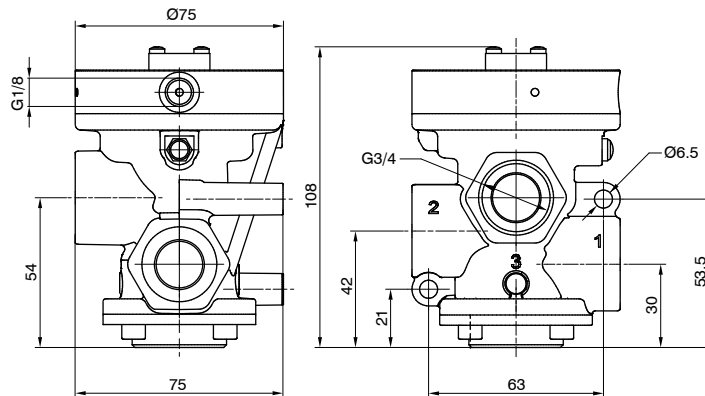
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



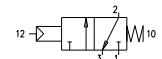
Weight 576,5 g

PG3V211E00000

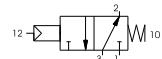
3/2



N.O.
Pump 3
Outlet port 2
Exhaust port 1



N.C.
Pump 1
Outlet port 2
Exhaust port 3



Weight 522,5 g

PG3V311E00000

Solenoid-Spring

Coding: PG3V001VET

Operational characteristics	
Fluid	Vacuum
Minimum piloting pressure (bar)	2 (external feeding version)
Temperature °C	-5 ... +50
Orifice size (mm)	20
Working ports size	G3/4"
Pilot ports size	G1/8"
Max. vacuum (mmHg)	758,5
Minimum operating vacuum (mmHg)	250 (self feeding version)

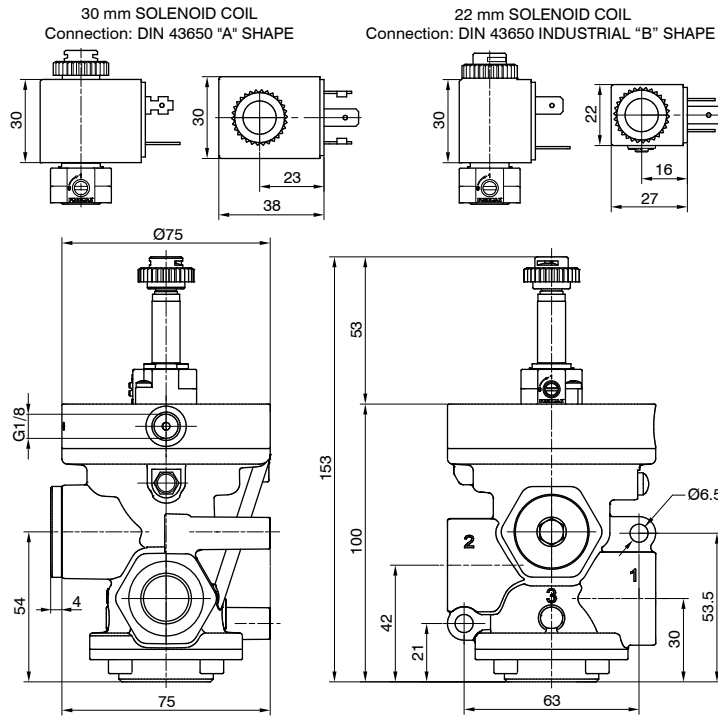
WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	A = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

2/2

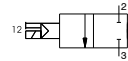


Weight 621,5 g

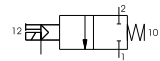
PG3V201VET



Self feeding - N.C.
Pump 3
Outlet port 2
Exhaust port 1 (closed)



External feeding - N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)

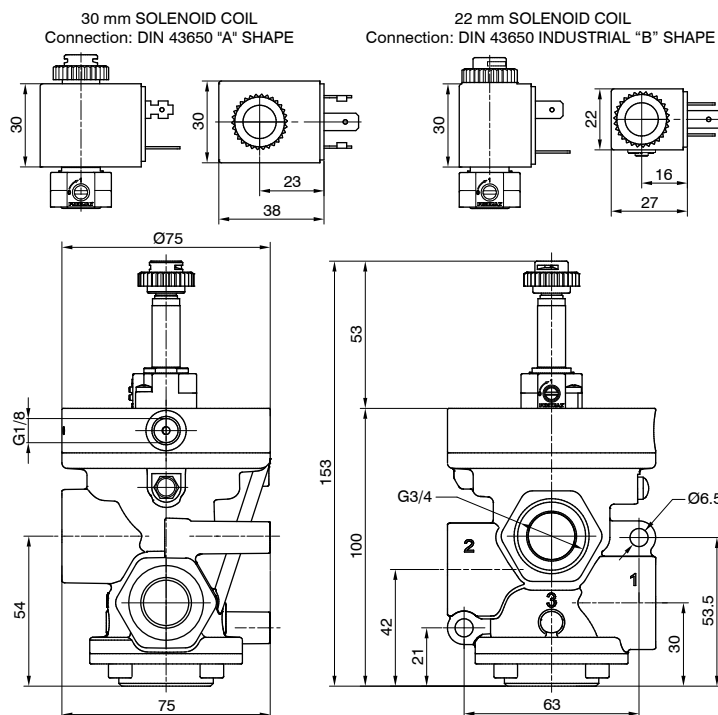


3/2

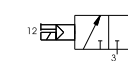


Weight 567,5 g

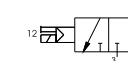
PG3V301VET



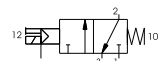
Self feeding - N.O.
Pump 1
Outlet port 2
Exhaust port 3



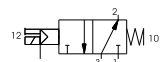
Self feeding - N.C.
Pump 3
Outlet port 2
Exhaust port 1



External feeding - N.O.
Pump 3
Outlet port 2
Exhaust port 1



External feeding - N.C.
Pump 1
Outlet port 2
Exhaust port 3





Coding: PG1A(N)11E(F)00000

Pneumatic - Spring

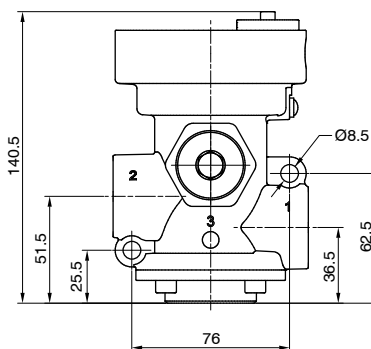
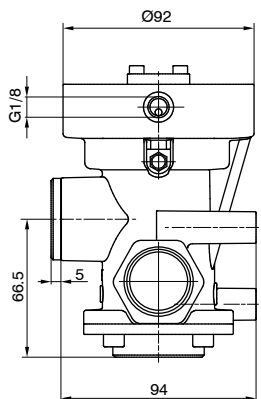
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	2,5
Temperature °C	-5 ... +70
Flow rate at 6 bar with Δp=1 (NI/min)	12500
Orifice size (mm)	25
Working ports size	G1"
Pilot ports size	G1/8"

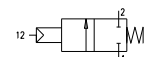
WAYS NUMBER	
N	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways) C = Normally Closed

2/2

AIR DISTRIBUTION



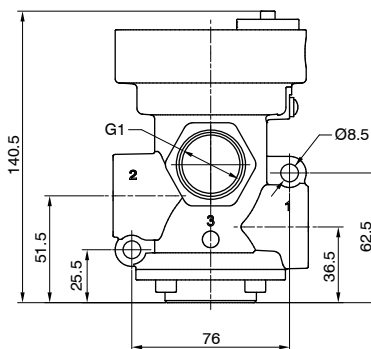
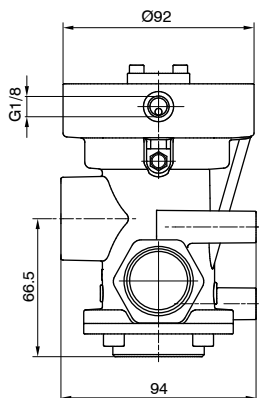
N.C.
Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



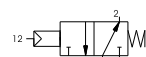
Weight 1231,5 g

PG1A211E00000

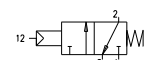
3/2



N.O.
Inlet port 3
Outlet port 2
Exhaust port 1



N.C.
Inlet port 1
Outlet port 2
Exhaust port 3



Weight 1139,5 g

PG1A311E00000

Solenoid-Spring

Coding: PG1A(N)01(V)E(T)

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	2,5
Temperature °C	-5 ... +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	12500
Orifice size (mm)	25
Working ports size	G1/2"
Pilot ports size	G1/8"
Response time according to ISO 12238, activation time (ms)	27 (self feeding version)
Response time according to ISO 12238, deactivation time (ms)	88 (self feeding version)

2/2

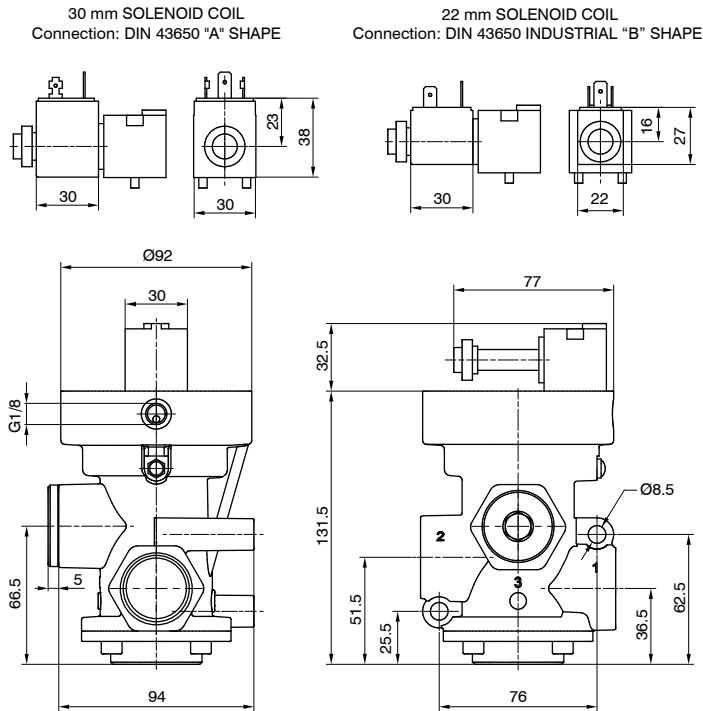
WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	A = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

AIR DISTRIBUTION



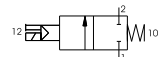
Weight 1290 g

PG1A201(V)E(T)



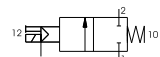
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)

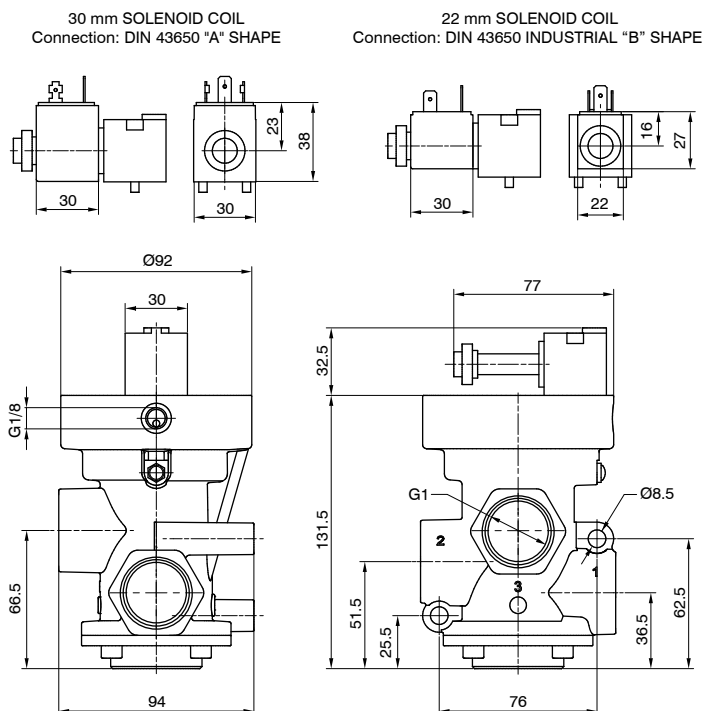


3/2



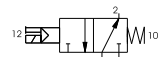
Weight 1198 g

PG1A301(V)E(T)



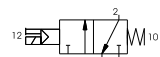
Self feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



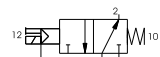
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3



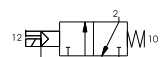
External feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3





Coding: PG1V N 11E F 00000

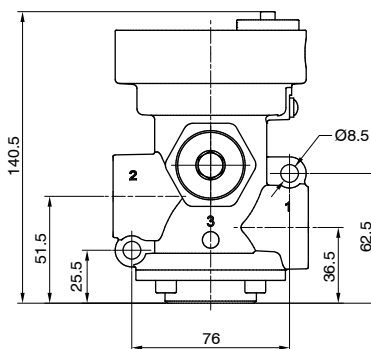
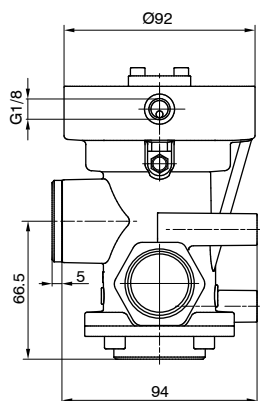
Pneumatic - Spring

Operational characteristics		
Fluid		Vacuum
Minimum piloting pressure (bar)		2
Temperature °C		-5 ... +70
Orifice size (mm)		25
Working ports size		G1"
Pilot ports size		G1/8"
Max. vacuum (mmHg)		758,5

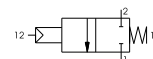
WAYS NUMBER	
N	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



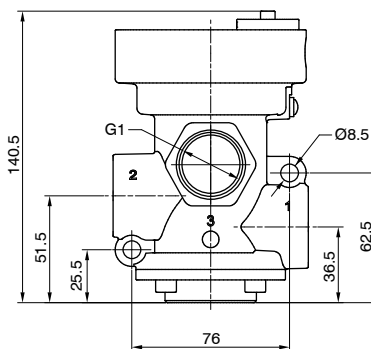
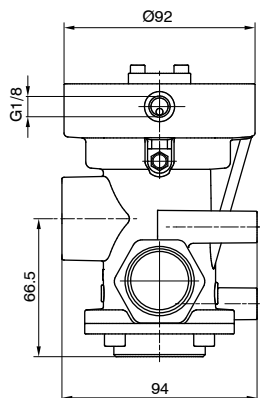
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



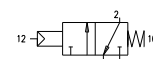
Weight 1231,5 g

PG1V211E F 00000

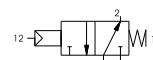
3/2



N.O.
Pump 3
Outlet port 2
Exhaust port 1



N.C.
Pump 1
Outlet port 2
Exhaust port 3



Weight 1139,5 g

PG1V311E F 00000

Solenoid-Spring

Coding: PG1V001V001

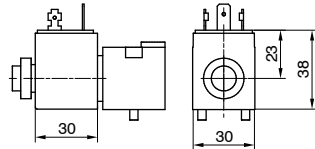
Operational characteristics	
Fluid	Vacuum
Minimum piloting pressure (bar)	2 (external feeding version)
Temperature °C	-5 ... +50
Orifice size (mm)	25
Working ports size	G1"
Pilot ports size	G1/8"
Max. vacuum (mmHg)	758,5
Minimum operating vacuum (mmHg)	250 (self feeding version)

WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	A = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

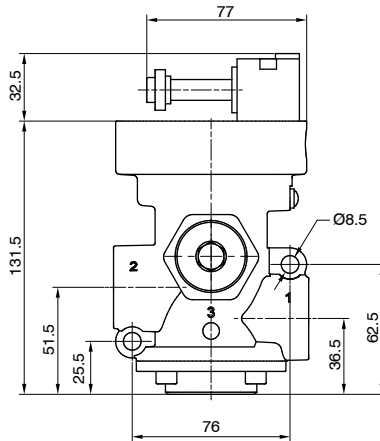
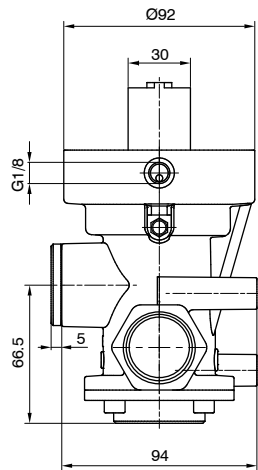
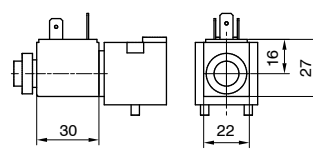
2/2



30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE

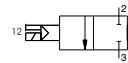


Weight 1290 g

PG1V201V001

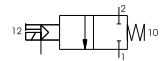
Self feeding - N.C.

Pump 3
Outlet port 2
Exhaust port 1 (closed)



External feeding - N.C.

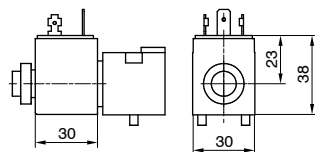
Pump 1
Outlet port 2
Exhaust port 3 (closed)



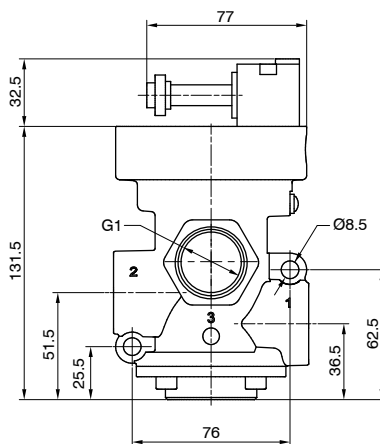
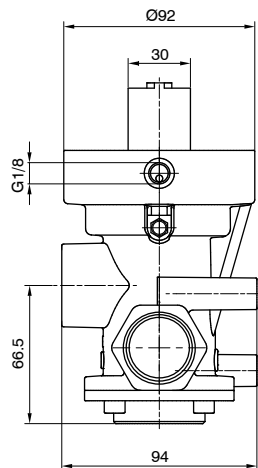
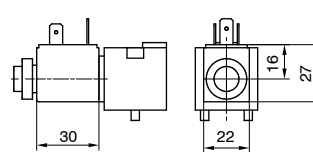
3/2



30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE

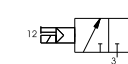


Weight 1198 g

PG1V301V001

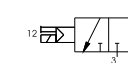
Self feeding - N.O.

Pump 1
Outlet port 2
Exhaust port 3



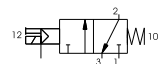
Self feeding - N.C.

Pump 3
Outlet port 2
Exhaust port 1



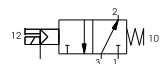
External feeding - N.O.

Pump 3
Outlet port 2
Exhaust port 1



External feeding - N.C.

Pump 1
Outlet port 2
Exhaust port 3





Valves and solenoid valves poppet system

Series PG - for compressed air - G1 1/2"

Coding: PG6A^N11E^F00000

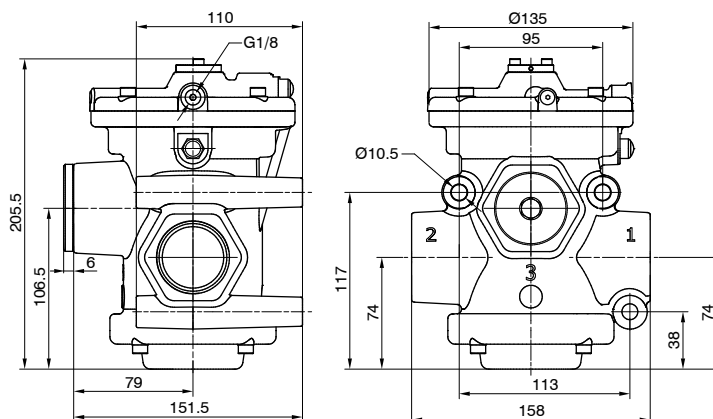
Pneumatic - Spring

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	3
Temperature °C	-5 ... +70
Flow rate at 6 bar with Δp=1 (NI/min)	33500
Orifice size (mm)	38
Working ports size	G1 1/2"
Pilot ports size	G1/8"

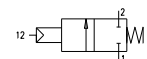
WAYS NUMBER	
N	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
F	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



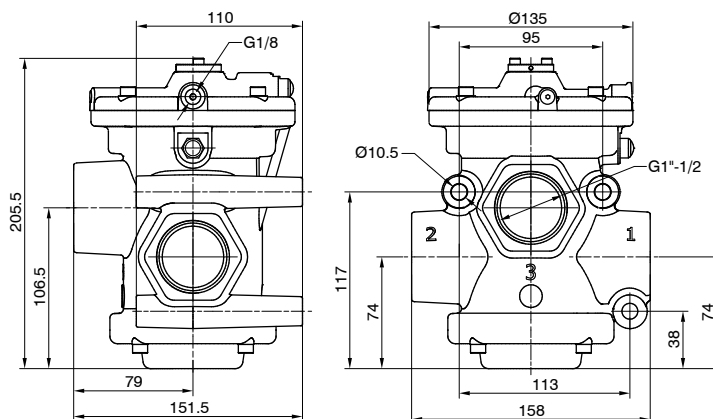
N.C.
Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



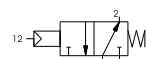
Weight 3417 g

PG6A211E^F00000

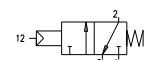
3/2



N.O.
Inlet port 3
Outlet port 2
Exhaust port 1



N.C.
Inlet port 1
Outlet port 2
Exhaust port 3



Weight 3168 g

PG6A311E^F00000

Solenoid-Spring

Coding: PG6A001VFT

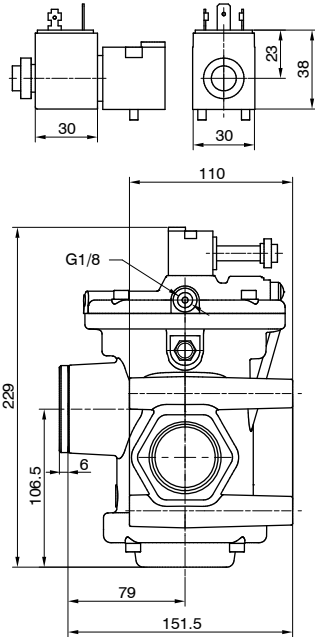
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Minimum piloting pressure (bar)	3
Temperature °C	-5 ... +50
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	33500
Orifice size (mm)	38
Working ports size	G1 1/2"
Pilot ports size	G1/8"
Response time according to ISO 12238, activation time (ms)	182 (self feeding version)
Response time according to ISO 12238, deactivation time (ms)	78 (self feeding version)

WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	F = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

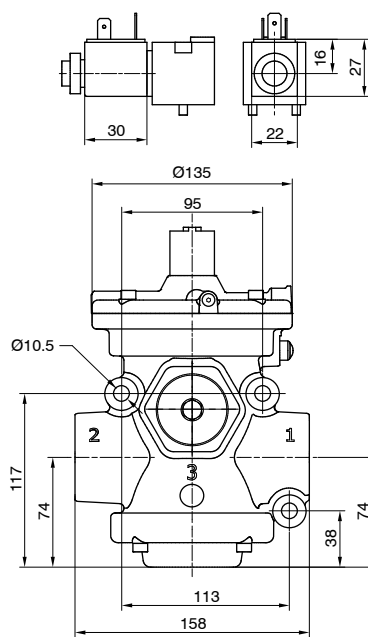
2/2



30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE

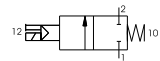


Weight 3491,5 g

PG6A201VFT

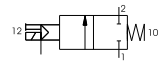
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)



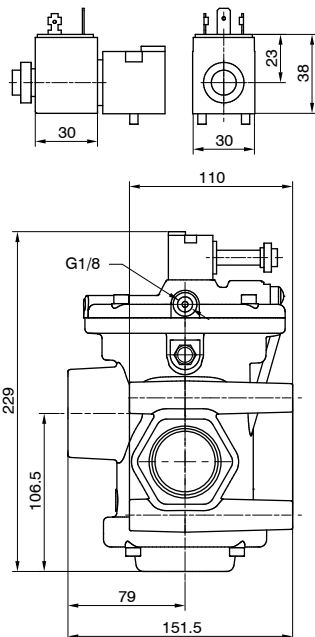
External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3 (closed)

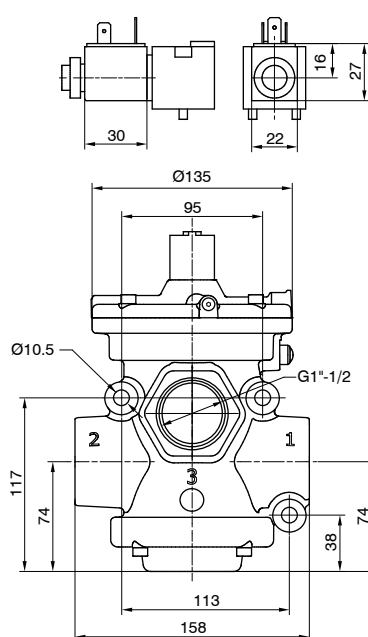


3/2

30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE



Weight 3242,5 g

PG6A301VFT

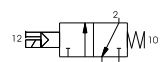
Self feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



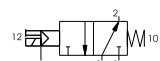
Self feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3



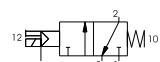
External feeding - N.O.

Inlet port 3
Outlet port 2
Exhaust port 1



External feeding - N.C.

Inlet port 1
Outlet port 2
Exhaust port 3





Coding: PG6V \mathbb{N} 11E \mathbb{F} 00000

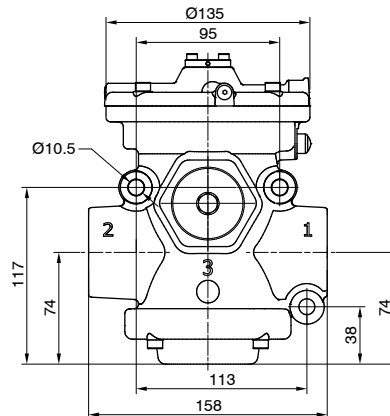
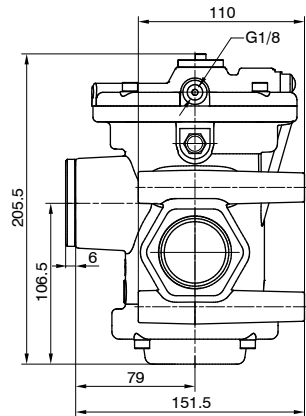
Pneumatic - Spring

Operational characteristics		
Fluid		Vacuum
Minimum piloting pressure (bar)		2
Temperature °C		-5 ... +70
Orifice size (mm)		38
Working ports size		G1 1/2"
Pilot ports size		G1/8"
Max. vacuum (mmHg)		758,5

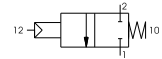
WAYS NUMBER	
\mathbb{N}	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
FUNCTION	
\mathbb{F}	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2

AIR DISTRIBUTION



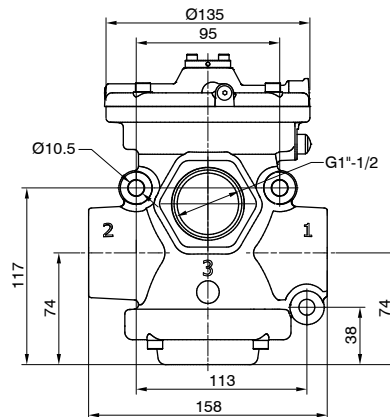
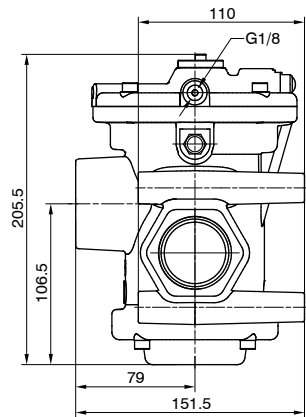
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



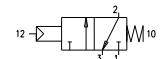
Weight 3417 g

PG6V211E \mathbb{F} 00000

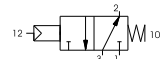
3/2



N.O.
Pump 3
Outlet port 2
Exhaust port 1



N.C.
Pump 1
Outlet port 2
Exhaust port 3



Weight 3168 g

PG6V311E \mathbb{F} 00000

Solenoid-Spring

Coding: PG6V001VFFI

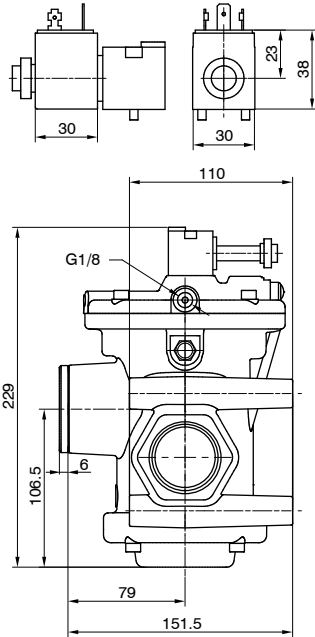
Operational characteristics	
Fluid	Vacuum
Minimum piloting pressure (bar)	2 (external feeding version)
Temperature °C	-5 ... +50
Orifice size (mm)	38
Working ports size	G1 1/2"
Pilot ports size	G1/8"
Max. vacuum (mmHg)	758,5
Minimum operating vacuum (mmHg)	250 (self feeding version)

WAYS NUMBER	2 = 2 ways, 2 positions 3 = 3 ways, 2 positions
VERSION	A = Self feeding E = External feeding
FUNCTION	A = Normally Open (only for 3 ways) C = Normally Closed
VOLTAGE (22 MM SOLENOID COIL)	S40B0 = 12 VDC S50B0 = 24 VDC S60B0 = 24 V 50/60 Hz S70B0 = 110 V 50/60 Hz S80B0 = 230 V 50/60 Hz 10000 = Without solenoid coil
VOLTAGE (30 MM SOLENOID COIL)	S40C0 = 12 VDC S50C0 = 24 VDC S60C0 = 24 V 50/60 Hz S70C0 = 110 V 50/60 Hz S80C0 = 230 V 50/60 Hz 10000 = Without solenoid coil

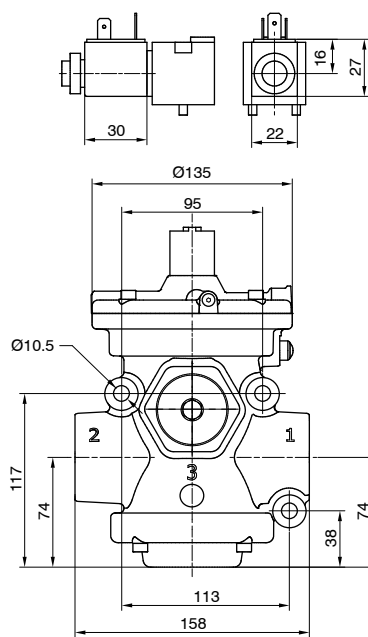
2/2



30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE

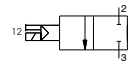


Weight 3491,5 g

PG6V201VFFI

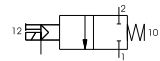
Self feeding - N.C.

Pump 3
Outlet port 2
Exhaust port 1 (closed)



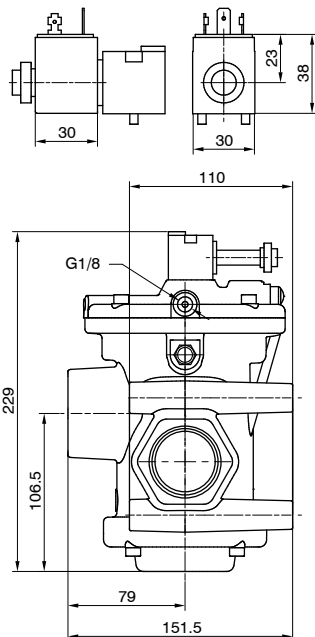
External feeding - N.C.

Pump 1
Outlet port 2
Exhaust port 3 (closed)

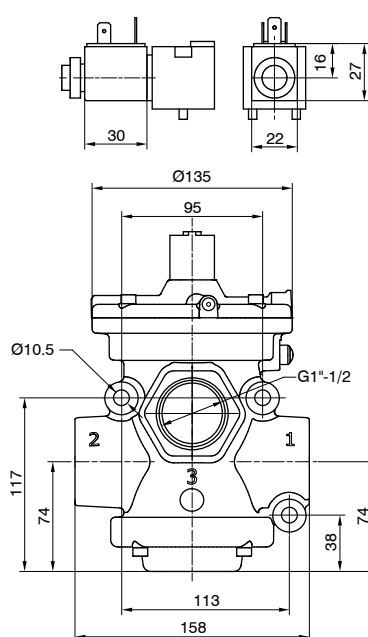


3/2

30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE

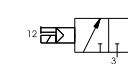


Weight 3242,5 g

PG6V301VFFI

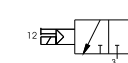
Self feeding - N.O.

Pump 1
Outlet port 2
Exhaust port 3



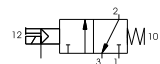
Self feeding - N.C.

Pump 3
Outlet port 2
Exhaust port 1



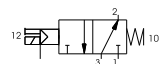
External feeding - N.O.

Pump 3
Outlet port 2
Exhaust port 1



External feeding - N.C.

Pump 1
Outlet port 2
Exhaust port 3





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