Valves and solenoid valves poppet system Series PG

Valves and solenoid valves poppet system for vacuum applications with high flow rates.

They are manufactured in 3/2 and 2/2 versions, both normally closed and normally open. There is an additional seal on the piston which isolates connection 3 from the piloting, allowing the normally open and vacuum self-powered versions (not available in the previous series for sizes G1/2“ – G3/4“ – G1“) Body and operators are made of die-cast aluminium and processed with protective epoxy paint.

Construction characteristics

	G 1/2“ - 1/2“ NPT	G 3/4“ - 3/4“ NPT	G 1“ - 1“ NPT	G 1 1/2“ - 1 1/2“ NPT
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			

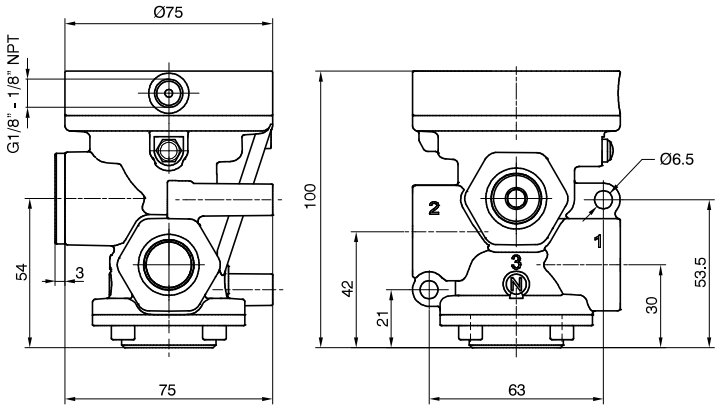
These valves have a mean life of 10 to 15 million cycles under normal operating conditions. Lubrication is not required for good operation but we recommend good filtration to avoid dirty deposit causing malfunction. Please ensure that the valve is being used according with the manufacturers specification, 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, inlet flow rate must be equal or higher that the required consumption flow rate. Otherwise is better choose the external pilot version.

Pneumatic - Spring

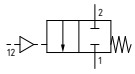
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2
Temperature °C	-5 ... +70
Orifice size (mm)	15
Working ports size	G1/2" - 1/2" NPT
Pilot ports size	G1/8" - 1/8" NPT
Max. vacuum (mmHg)	758,5

Ordering code	
P©2V®11E℗00000	
©	CONNECTIONS
	G = Gas thread
	N = NPT thread
®	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
℗	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2



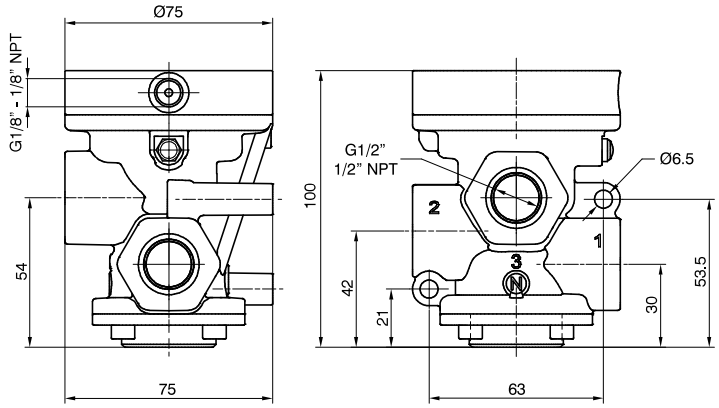
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



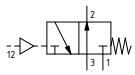
Weight 675,5 g

P©2V211E℗00000

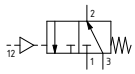
3/2



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



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



Weight 648,5 g

P©2V311E℗00000

VALVES AND SOLENOID VALVES

Solenoid-Spring

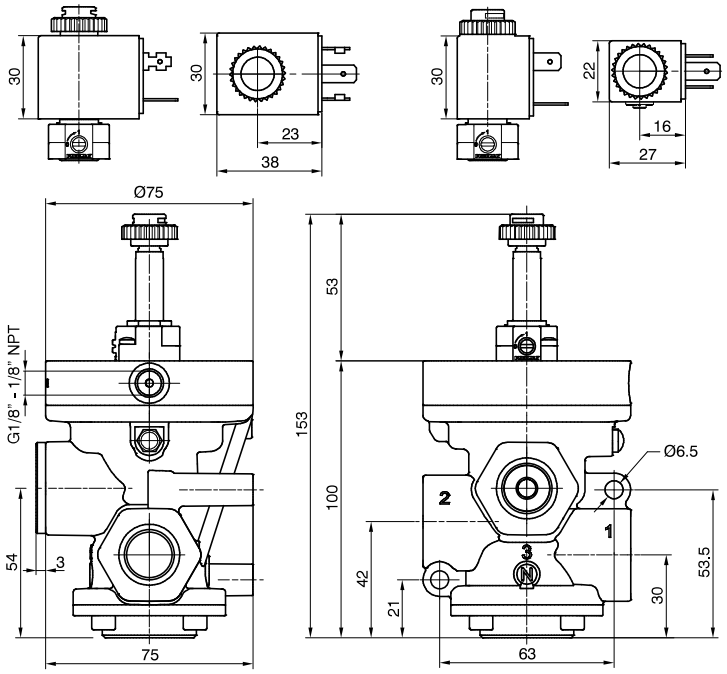
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2 (external feeding version)
Temperature °C	-5 ... +50
Orifice size (mm)	15
Working ports size	G1/2" - 1/2" NPT
Pilot ports size	G1/8" - G1/8" NPT
Max. vacuum (mmHg)	758,5
Minimum operating vacuum (mmHg)	250 (self feeding version)

Ordering code	
P●2V●01●●●	
●	CONNECTIONS
	G = Gas thread
	N = NPT thread
●	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

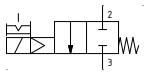
22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE



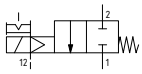
Weight 720,5 g

P●2V201●●●

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



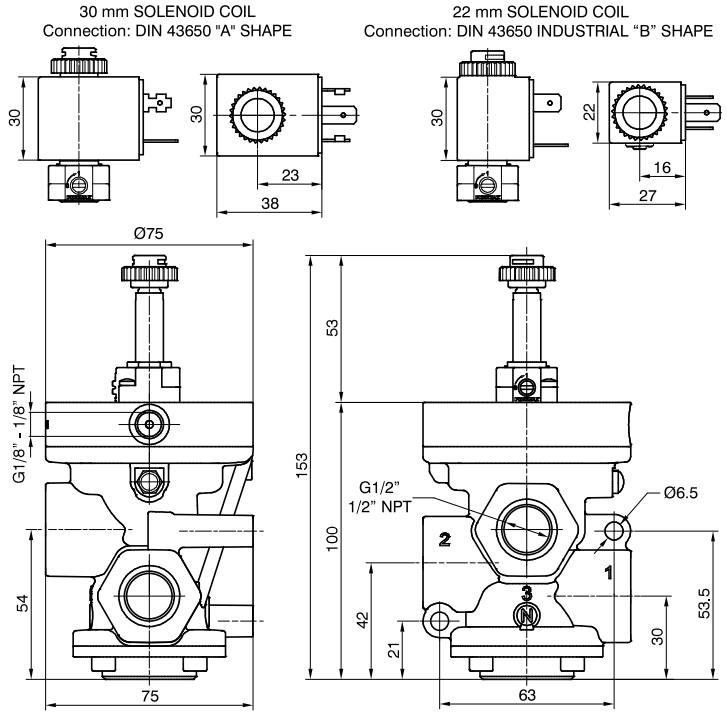
External feeding - N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



3/2

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

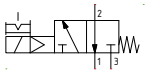
22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE



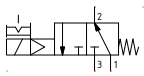
Weight 693,5 g

P●2V301●●●

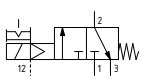
Self feeding - N.O.
Pump 1
Outlet port 2
Exhaust port 3



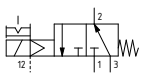
Self feeding - N.C.
Pump 3
Outlet port 2
Outlet port 1



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



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

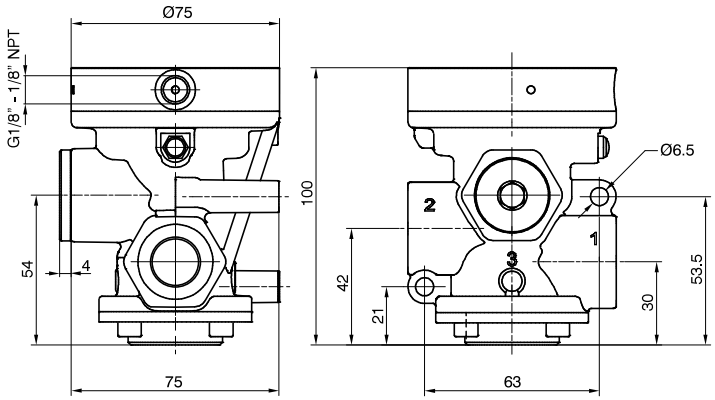


Pneumatic - Spring

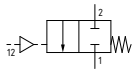
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2
Temperature °C	-5 ... +70
Orifice size (mm)	20
Working ports size	G3/4" - 3/4" NPT
Pilot ports size	G1/8" - 1/8" NPT
Max. vacuum (mmHg)	758,5

Ordering code	
P©3V®11E♦00000	
©	CONNECTIONS
	G = Gas thread
	N = NPT thread
®	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
♦	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2



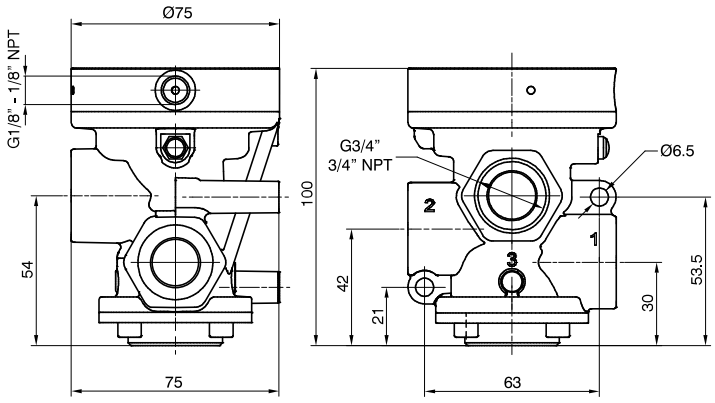
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



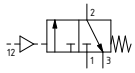
Weight 576,5 g

P©3V211E♦00000

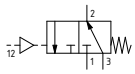
3/2



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



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



Weight 522,5 g

P©3V311E♦00000

VALVES AND SOLENOID VALVES

Solenoid-Spring

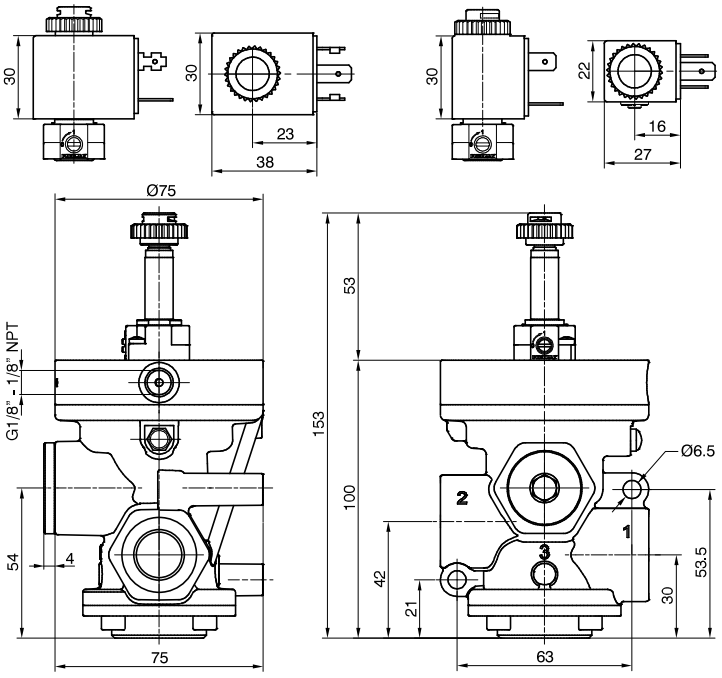
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2 (external feeding version)
Temperature °C	-5 ... +50
Orifice size (mm)	20
Working ports size	G3/4" - 3/4" NPT
Pilot ports size	G1/8" - 1/8" NPT
Max. vacuum (mmHg)	758,5
Minimum operating vacuum (mmHg)	250 ((self feeding version)

Ordering code	
P❶3V❷01❸❹❺	
❶	CONNECTIONS
	G = Gas thread
	N = NPT thread
❷	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
❸	VERSION
	A = Self feeding
	E = External feeding
❹	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed
❺	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
❺	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

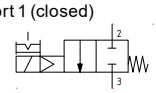
22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE



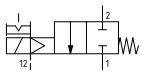
Weight 621,5 g

P❶3V201❸❹❺

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



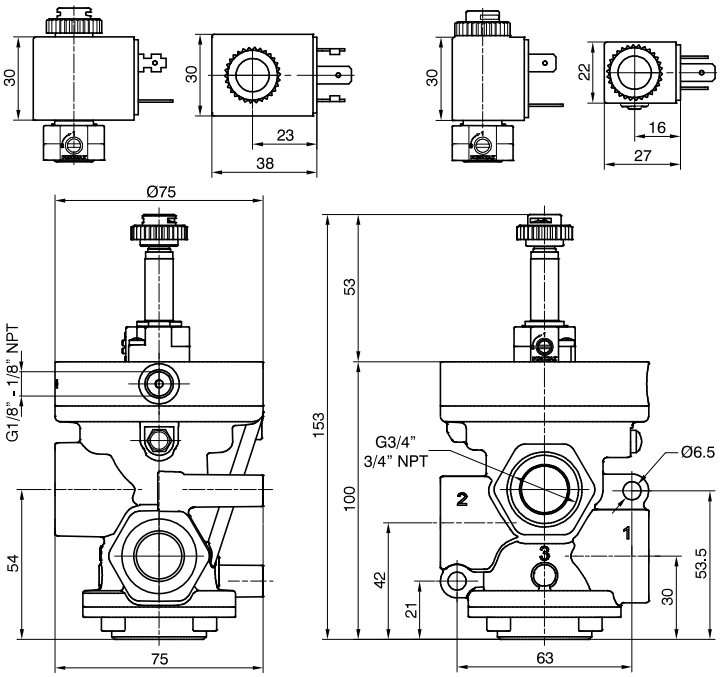
External feeding - N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



3/2

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

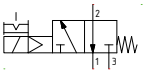
22 mm SOLENOID COIL
Connection: DIN 43650 INDUSTRIAL "B" SHAPE



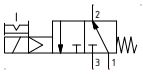
Weight 567,5 g

P❶3V301❸❹❺

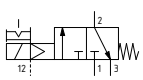
Self feeding - N.O.
Pump 1
Outlet port 2
Exhaust port 3



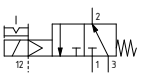
Self feeding - N.C.
Pump 3
Outlet port 2
Outlet port 1



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



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

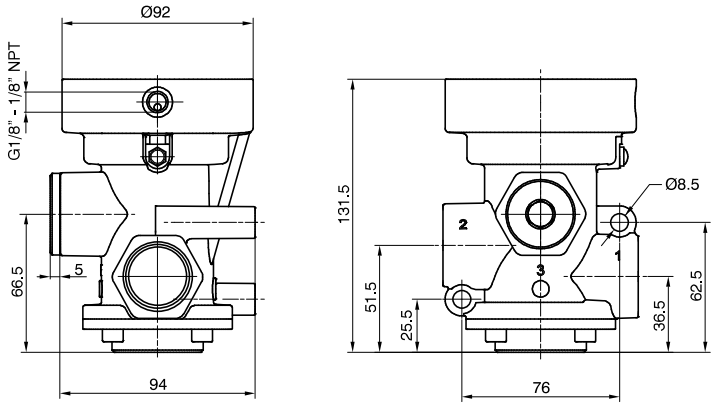


Pneumatic - Spring

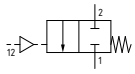
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2
Temperature °C	-5 ... +70
Orifice size (mm)	25
Working ports size	G1" - 1" NPT
Pilot ports size	G1/8" - 1/8" NPT
Max. vacuum (mmHg)	758,5

Ordering code	
P❶1V❷11E❸00000	
❶	CONNECTIONS
	G = Gas thread
	N = NPT thread
❷	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
❸	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2



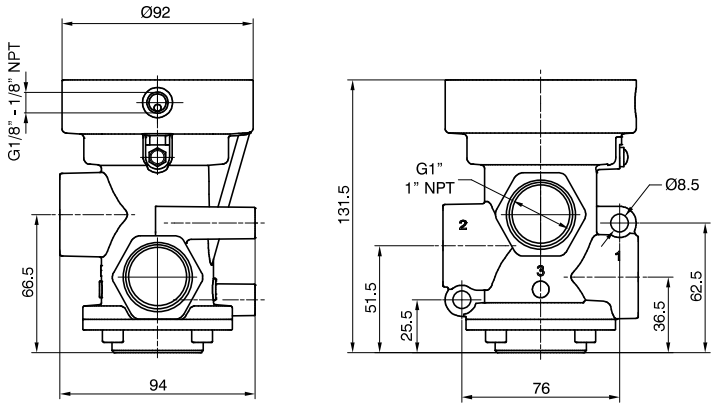
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



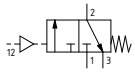
Weight 1231,5 g

P❶1V211E❸00000

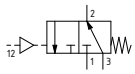
3/2



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



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



Weight 1139,5 g

P❶1V311E❸00000

VALVES AND SOLENOID VALVES

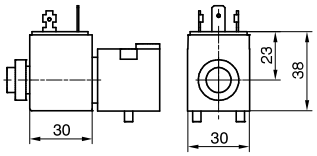
Solenoid-Spring

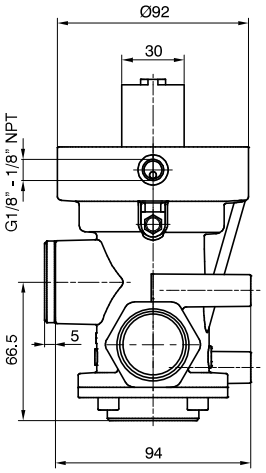
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2 (external feeding version)
Temperature °C	-5 ... +50
Orifice size (mm)	25
Working ports size	G1" - 1" NPT
Pilot ports size	G1/8" - 1/8" NPT
Max. vacuum (mmHg)	758,5
Minimum operating vacuum (mmHg)	250 (self feeding version)

Ordering code	
P❶1V❷01❸❹❺	
❶	CONNECTIONS
	G = Gas thread
	N = NPT thread
❷	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
❸	VERSION
	A = Self feeding
	E = External feeding
❹	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed
❺	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
❺	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

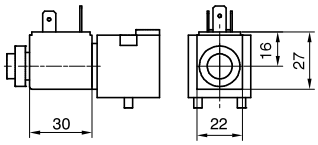
2/2

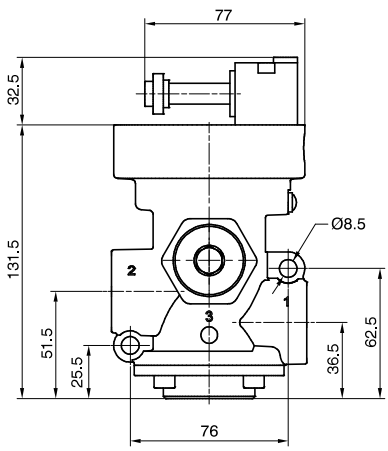
30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE





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

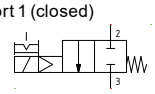




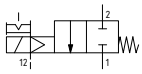
Weight 1290 g

P❶1V201❸❹❺

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

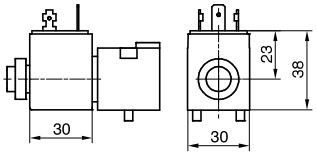


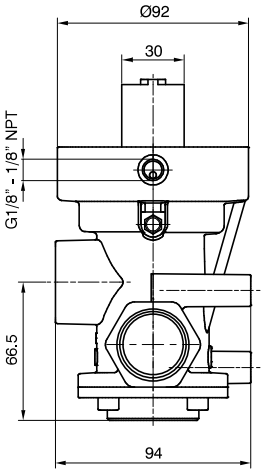
External feeding - N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



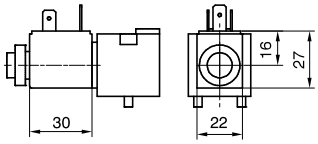
3/2

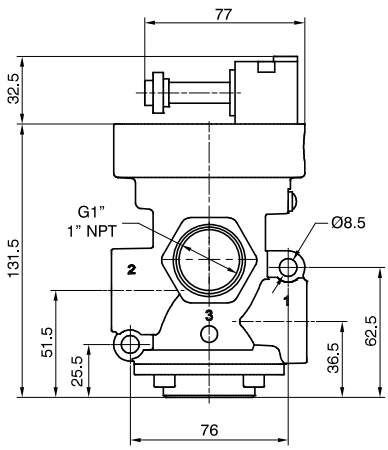
30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE





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

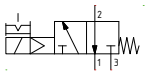




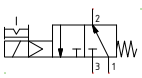
Weight 1198 g

P❶1V301❸❹❺

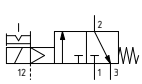
Self feeding - N.O.
Pump 1
Outlet port 2
Exhaust port 3



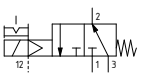
Self feeding - N.C.
Pump 3
Outlet port 2
Outlet port 1



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



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

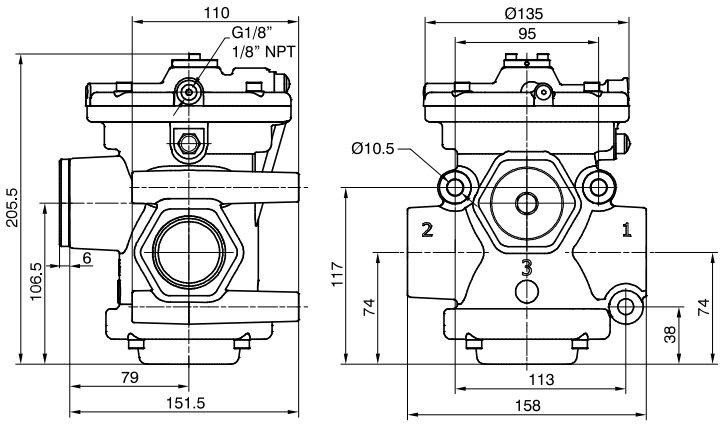


Pneumatic - Spring

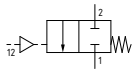
Operational characteristics	
Fluid	Vacuum
Minimum pilot pressure (bar)	2
Temperature °C	-5 ... +70
Orifice size (mm)	38
Working ports size	G1 1/2" - 1 1/2" NPT
Pilot ports size	G1/8" - 1/8" NPT
Max. vacuum (mmHg)	758,5

Ordering code	
P❶6V❷11E❸00000	
❶	CONNECTIONS
	G = Gas thread
	N = NPT thread
❷	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 =3 ways, 2 positions
❸	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed

2/2



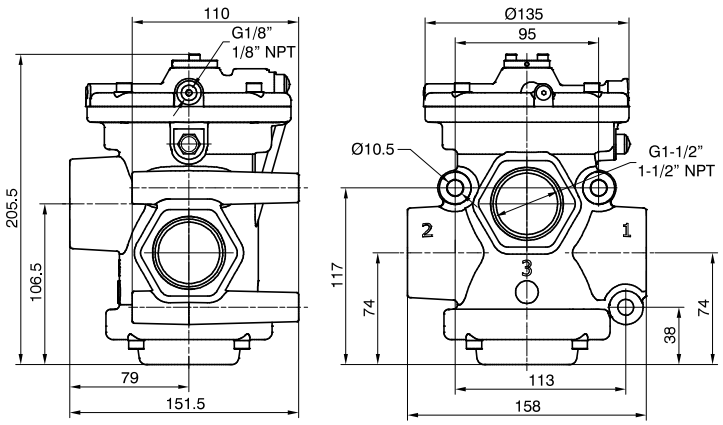
N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)



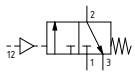
Weight 3417 g

P❶6V211E❸00000

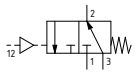
3/2



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



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



Weight 3168 g

P❶6V311E❸00000

VALVES AND SOLENOID VALVES

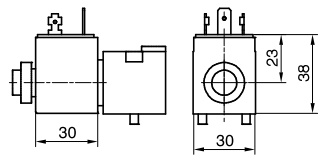
Solenoid-Spring

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

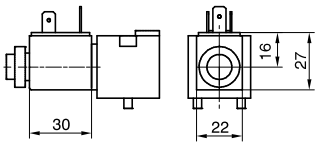
Ordering code	
P❶6V❷01❸❹❺	
❶	CONNECTIONS
	G = Gas thread
	N = NPT thread
❷	WAYS NUMBER
	2 = 2 ways, 2 positions
	3 = 3 ways, 2 positions
❸	VERSION
	A = Self feeding
	E = External feeding
❹	FUNCTION
	A = Normally Open (only for 3 ways)
	C = Normally Closed
❺	VOLTAGE (22 MM SOLENOID COIL)
	S40B0 = 12 VDC
	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
❺	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

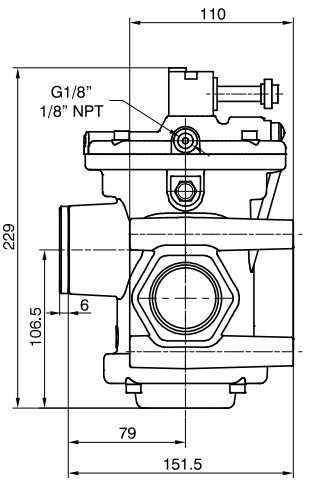
2/2

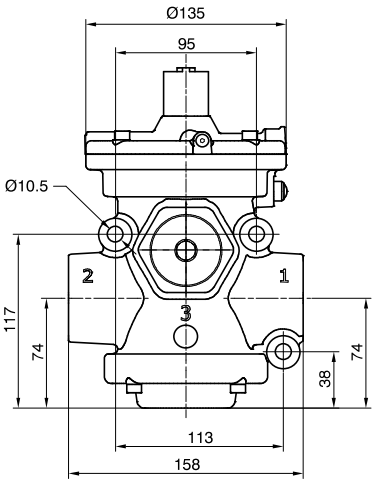
30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



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



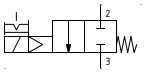




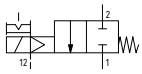
Weight 3491,5 g

P❶6V201❸❹❺

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

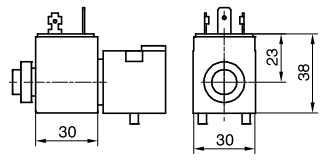


External feeding - N.C.
Pump 1
Outlet port 2
Exhaust port 3 (closed)

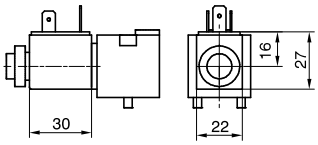


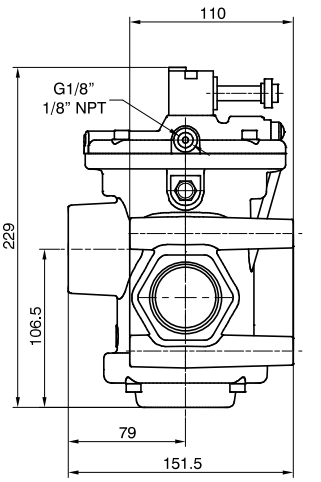
3/2

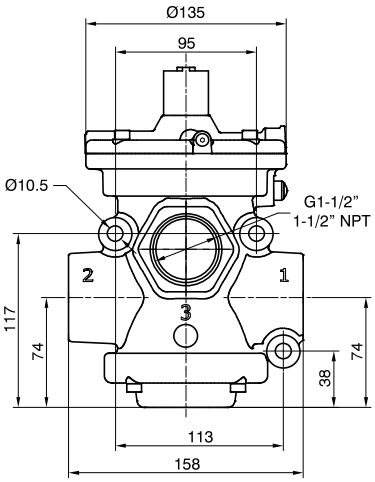
30 mm SOLENOID COIL
Connection: DIN 43650 "A" SHAPE



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



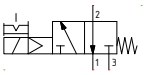




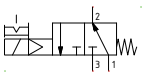
Weight 3242,5 g

P❶6V301❸❹❺

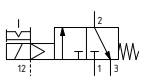
Self feeding - N.O.
Pump 1
Outlet port 2
Exhaust port 3



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



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



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