

General details

Valves and solenoid valves with shutter for larger flow rates, for vacuum.

These are manufactured only in 3/2 and 2/2 versions, either normally closed or normally open.

Selection of the right type and connection to the pump requires some knowledge and skill.

For electrical actuation a normal M2 microsolenoid is used in the case of control via air and a special M2/V microsolenoid is used when control is via vacuum.

The ordering codes correspond to the solenoid valves with mechanisms that are "M2" or "M2/V" mounted.

The windings are not included and have to be ordered separately (see summary page for electric windings).

Certified windings are also available. 

Construction features	G 3/8"	G 1/2" - G 3/4"	G 1"	G 1 1/2"
Body	Aluminium	Die-cast Zamak	Aluminium	Aluminium
End caps		Aluminium		
Shutters		NBR		
Control piston		Aluminium		
Shutter mount		Stainless steel INOX		
Springs		Stainless steel INOX		
Piston seals		NBR		

Wear and maintenance

These valves and solenoid valves have an average service life of approximately 10 - 15 million cycles under optimum conditions of usage. They do not need to be lubricated to operate well, but good filtration is recommended to prevent dirt accumulation and consequently likely malfunctioning. Ensure that the conditions of use are consistent with the indicated limits, pressure, temperature, etc. Take care to protect the discharge outlets of the valves in the presence of dirt and powder. For these products, due to the manner in which they are constructed and the particular use for which they are intended, maintenance by replacing valve parts does not have to be carried out. When necessary, basic internal cleaning can be performed, carefully removing any dirt accumulations. When the version of solenoid valves with self-supply is used, take care that it is never used to supply flow rate since in this case there would not be sufficient vacuum for actuation. This is normally found on shutter valves, since they do not have the closed centres position and insufficient actuation could cause the system to discharge from outlet 3. In this case, switch to the version with external actuation.

Connections of valves

NORMALLY CLOSED SELF-SUPPLIED

779/V.32.0.1AC P = 1 = DISCHARGE

773/V.32.0.1AC A = 2 = USE

771/V.32.0.1AC R = 3 = PUMP

NORMALLY CLOSED EXTERNALLY SUPPLIED

779/V.32.0.1C

773/V.32.0.1C

771/V.32.0.1C

P = 1 = PUMP

A = 2 = USE

R = 3 = DISCHARGE

779/V.32.11.1C

773/V.32.11.1C

771/V.32.11.1C

NORMALLY OPEN SELF-SUPPLIED

779/V.32.0.1A P = 1 = PUMP

773/V.32.0.1A A = 2 = USE

771/V.32.0.1A R = 3 = DISCHARGE

NORMALLY OPEN EXTERNALLY SUPPLIED

779/V.32.0.1A

773/V.32.0.1A

771/V.32.0.1A

P = 1 = DISCHARGE

A = 2 = USE

R = 3 = PUMP

779/V.32.11.1A

773/V.32.11.1A

771/V.32.11.1A

Response time (ms)

"The response time of the directional control valves or the moving parts of logic devices was measured in accordance with standard ISO 12238:2001"

Code	Type	Response time (ms)	
		energised	de-energised
779/V.32.11.1C	N.C.	12	46
779/V.32.11.1A	N.O.	13	48
779/V.32.0.1AC.M2/V	N.C.	26	9
779/V.32.0.1AA.M2/V	N.O.	16	11
779/V.32.0.1C.M2	N.C.	10	35
779/V.32.0.1A.M2	N.O.	11	36
772/V.32.11.1C	N.C.	30	105
772/V.32.11.1A	N.O.	17	150
772/V.32.0.1AC.M2/V	N.C.	80	20
772/V.32.0.1AA.M2/V	N.O.	25	20
772/V.32.0.1C.M2	N.C.	25	95
772/V.32.0.1A.M2	N.O.	15	140
773/V.32.11.1C	N.C.	30	105
773/V.32.11.1A	N.O.	17	145
773/V.32.0.1AC.M2/V	N.C.	75	13

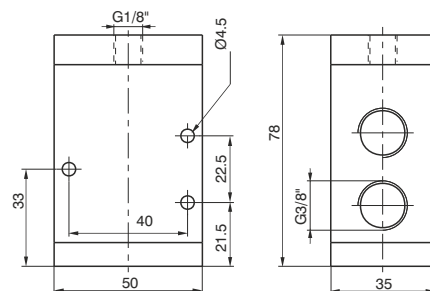
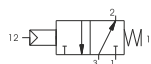
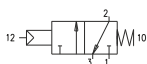
Code	Type	Response time (ms)	
		energised	de-energised
773/V.32.0.1AA.M2/V	N.O.	33	22
773/V.32.0.1C.M2	N.C.	25	95
773/V.32.0.1A.M2	N.O.	13	140
771/V.32.11.1C	N.C.	45	250
771/V.32.11.1A	N.O.	18	260
771/V.32.0.1AC.M2/V	N.C.	120	20
771/V.32.0.1AA.M2/V	N.O.	35	40
771/V.32.0.1C.M2	N.C.	45	250
771/V.32.0.1A.M2	N.O.	17	325

Pneumatic-Spring

Ordering code

779/V.32.11.F

FUNCTION

F
1C=Normally Closed
1A=Normally Open

Weight 360 gr.
Minimum actuation pressure 2 bar


Performance characteristics

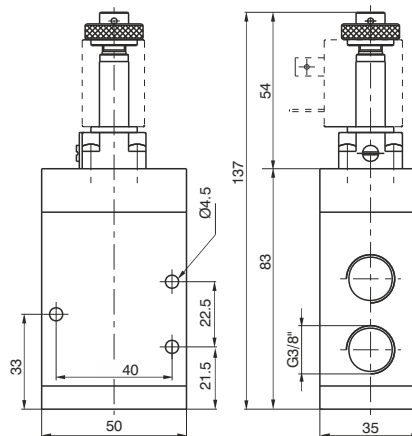
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +70	10	G3/8"	G1/8"	167	0 ÷ 101

Solenoid-Spring-Self-supplied

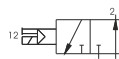
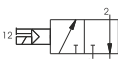
Ordering code

779/V.32.0.F.M2/V

FUNCTION

F
1AA=Normally Open
1AC=Normally Closed


Weight 420 gr.



Performance characteristics

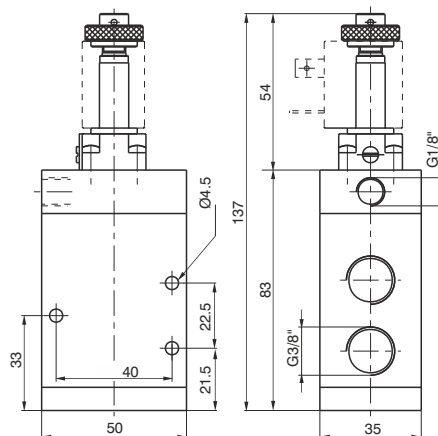
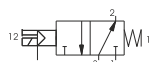
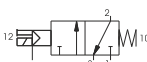
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +70	10	G3/8"	G1/8"	167	20 ÷ 101

Solenoid-Spring-External supply

Ordering code

779/V.32.0.F.M2

FUNCTION

F
1A=Normally Open
1C=Normally Closed

Weight 420 gr.
Minimum actuation pressure 2 bar


Performance characteristics

Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +70	10	G3/8"	G1/8"	167	0 ÷ 101

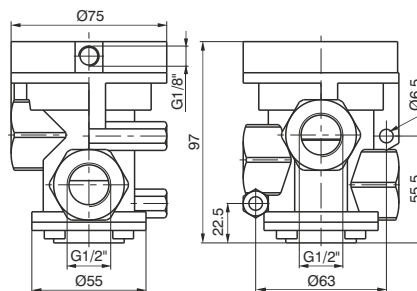
Pneumatic-Spring

Ordering code

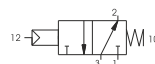
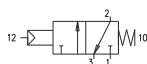
772/V.32.11.F

FUNCTION

- F** 1C=Normally Closed
1A=Normally Open



Weight 1100 gr.
Minimum actuation pressure 2 bar



Performance characteristics	Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
	Vacuum	-5 ÷ +70	15	G1/2"	G1/8"	334	0 ÷ 101

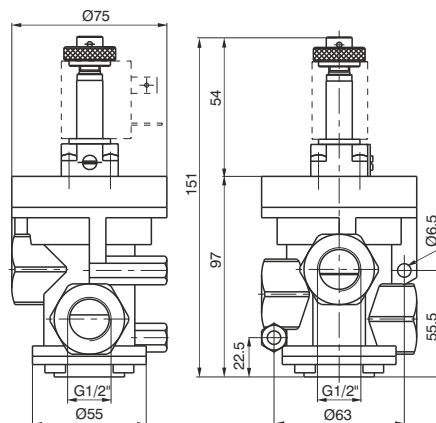
Solenoid-Spring-Self-supplied

Ordering code

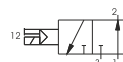
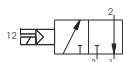
772/V.32.0.F.M2/V

FUNCTION

- F** 1AA=Normally Open
1AC=Normally Closed



Weight 1160 gr.



Performance characteristics	Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
	Vacuum	-5 ÷ +50	15	G1/2"	G1/8"	334	20 ÷ 101

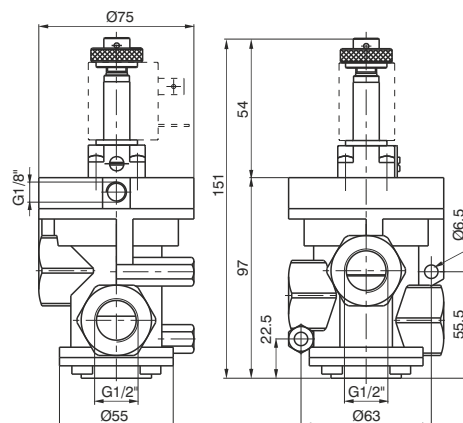
Solenoid-Spring-External supply

Ordering code

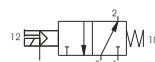
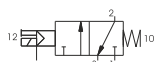
772/V.32.0.F.M2

FUNCTION

- F** 1A=Normally Open
1C=Normally Closed



Weight 1160 gr.
Minimum actuation pressure 2 bar



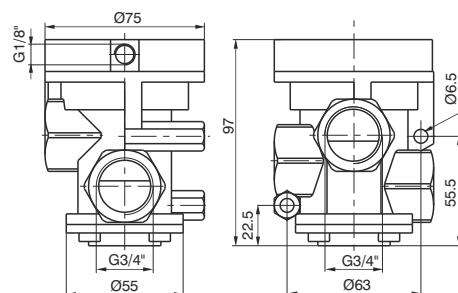
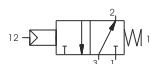
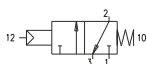
Performance characteristics	Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
	Vacuum	-5 ÷ +50	15	G1/2"	G1/8"	334	0 ÷ 101

Pneumatic-Spring

Ordering code

773/V.32.11.F

FUNCTION

F
1C=Normally Closed
1A=Normally Open

Weight 990 gr.
Minimum actuation pressure 2 bar


Performance characteristics

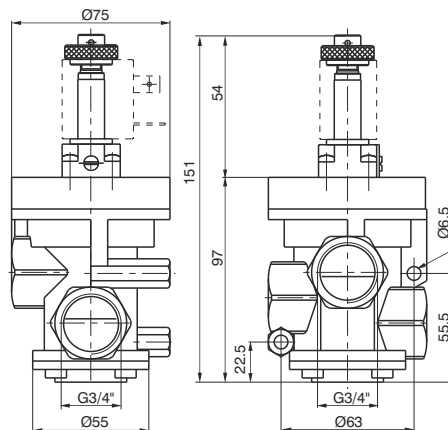
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +70	20	G3/4"	G1/8"	667	0 ÷ 101

Solenoid-Spring-Self-supplied

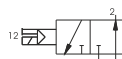
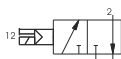
Ordering code

773/V.32.0.F.M2/V

FUNCTION

F
1AA=Normally Open
1AC=Normally Closed


Weight 1050 gr.



Performance characteristics

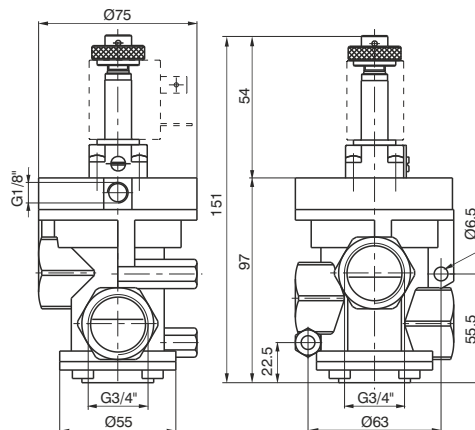
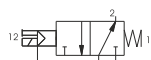
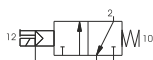
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +50	20	G3/4"	G1/8"	667	20 ÷ 101

Solenoid-Spring-External supply

Ordering code

773/V.32.0.F.M2

FUNCTION

F
1A=Normally Open
1C=Normally Closed

Weight 1160 gr.
Minimum actuation pressure 2 bar


Performance characteristics

Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +50	20	G3/4"	G1/8"	667	0 ÷ 101

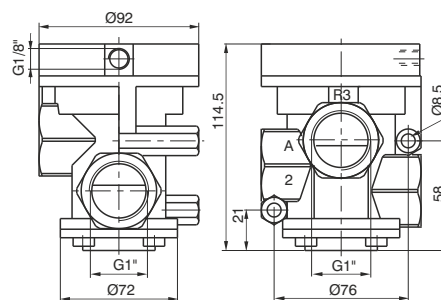
Pneumatic-Spring

Ordering code

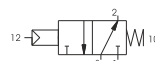
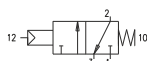
771/V.32.11.F

FUNCTION

- F** 1C=Normally Closed
1A=Normally Open



Weight 1060 gr.
Minimum actuation pressure 2 bar



Performance characteristics	Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
	Vacuum	-5 ÷ +70	25	G1"	G1/8"	1500	0 ÷ 101

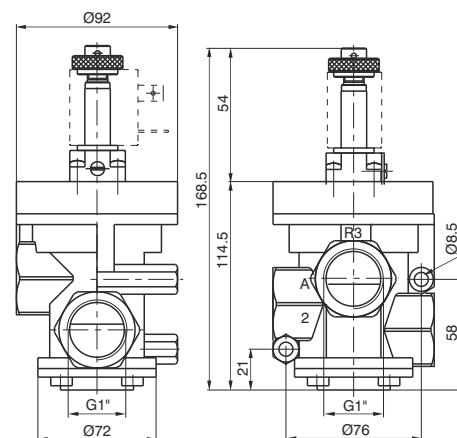
Solenoid-Spring-Self-supplied

Ordering code

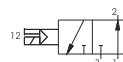
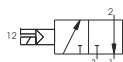
771/V.32.0.F.M2/V

FUNCTION

- F** 1AA=Normally Open
1AC=Normally Closed



Weight 1120 gr.



Performance characteristics	Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
	Vacuum	-5 ÷ +50	25	G1"	G1/8"	1500	20 ÷ 101

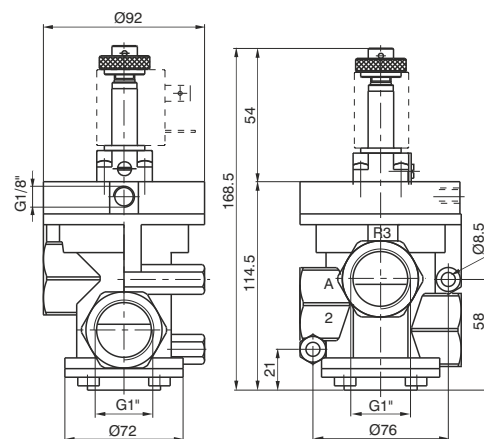
Solenoid-Spring-External supply

Ordering code

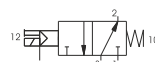
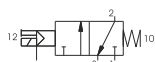
771/V.32.0.F.M2

FUNCTION

- F** 1A=Normally Open
1C=Normally Closed



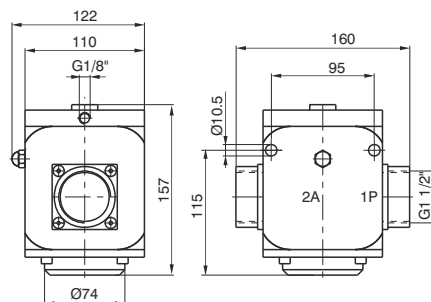
Weight 1120 gr.
Minimum actuation pressure 2 bar



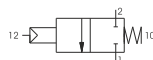
Performance characteristics	Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
	Vacuum	-5 ÷ +50	25	G1"	G1/8"	1500	0 ÷ 101

Pneumatic-Spring

Ordering code

776/V.22.11.1C


Weight 3950 gr.
Normally closed
Minimum actuation pressure 2 bar



Performance characteristics

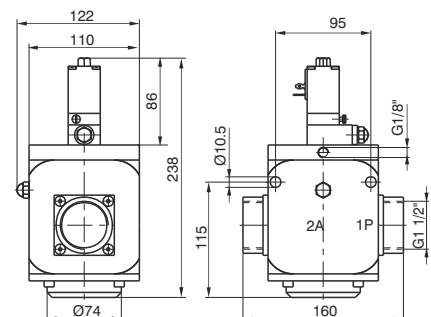
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +70	38	G1 1/2"	G1/8"	3000	0 ÷ 101

Solenoid-Spring

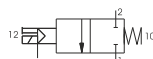
Ordering code

776/V.22.0.1C.S

Code SOLENOIDE
See electric windings
summary page



Weight 4450 gr.
External supply Normally closed
Minimum actuation pressure 2 bar



Performance characteristics

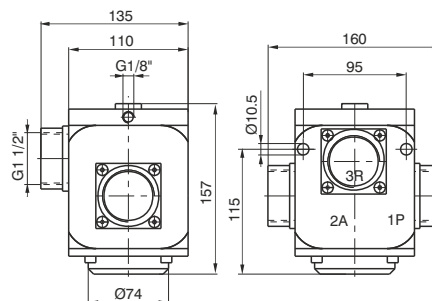
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +50	38	G1 1/2"	G1/8"	3000	0 ÷ 101

Pneumatic-Spring

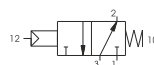
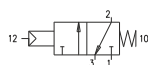
Ordering code

776/V.32.11.F

FUNCTION
1C=Normally Closed
1A=Normally Open



Weight 3900 gr.
Minimum actuation pressure 2 bar



Performance characteristics

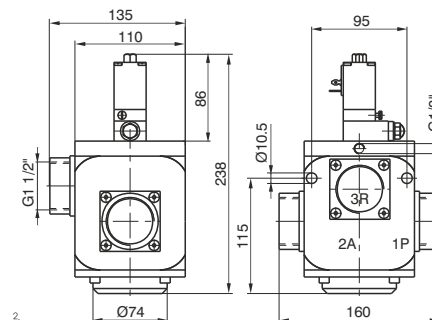
Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +70	38	G1 1/2"	G1/8"	3000	0 ÷ 101

Solenoid-Spring

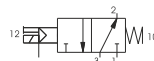
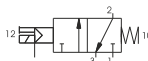
Ordering code

776/V.32.0.F.S

FUNCTION
1C=External supply
Normally closed
1A=External supply
Normally open
Code SOLENOIDE
See electric windings
summary page



Weight 4500 gr.
Minimum actuation pressure 2 bar



Performance characteristics

Fluid	Temperature °C	Nominal flow passage diameter (mm)	Supply connection	Actuation connection	Flow rate (l/min)	Degree of Vacuum (-kPa)
Vacuum	-5 ÷ +50	38	G1 1/2"	G1/8"	3000	0 ÷ 101