

### Series 700 - For compressed air and vacuum

### General

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.

For the compressed air oparation, the application is similar to the equivalent spool valves while for the vacuum operation a particular

attention should be paid to the valve selected and its connection to the pump.

For the electric pilot it is used a normal miniature solenoid M2 with pneumatic actuator and the special miniature solenoid M2/V with vacuum.

The ordering code are referring to the solenoid valves with mechanics "M2" or "M2/V" assembled.

Coil are not included and have to be ordored separately (see Series 300).

Coil R Mus homologated are available (see 300 Series).

### **Construction characteristics**

	G 3/8"	G 1/2" - G 3/4"	G 1"	G 1 1/2"
Body	Aluminium	Zinc alloy	Aluminium	Aluminium
Actuators		NB	R	
Bottom plates		Alumi	nium	
Springs		Stainles	s steel	
Actuators rod		Stainles	ssteel	
Pistons		Alumi	nium	
Piston seals		NB	R	

### 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.



779.32.11.

Coding:

### Pneumatic - Spring

	Operational characteristics		FUNCTION
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	Ø	1C = Normally Closed
Max working pressure (bar)	10		1A = Normally Open
Minimum piloting pressure (bar)	2,5		
Temperature °C	-10 ÷ +70		
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1800		
Orifice size (mm)	10		
Working ports size	G3/8"		
Pilot ports size	G1/8"		

For compressed air - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

12 -5 M 10

For compressed air - N.O. Inlet port 3 Outlet port 2 Outlet port 1

12 - 2 J 10

### Coding: 779.32.0.

### FUNCTION 1AC = Internal pilot normally closed 1C = External pilot normally closed 1AA = Internal pilot normally open

1A = External pilot normally open

Internal pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



Internal pilot - N.O. Inlet port 3 Outlet port 2 Outlet port 1



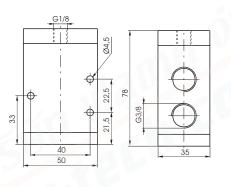
External pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



External pilot - N.O. Inlet port 3 Outlet port 2 Outlet port 1



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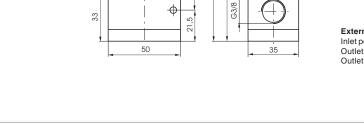


Weight 360 g Attention: for the Normally open version, connect the inlet port to the exhaust port No "3".

### Solenoid - 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 (External pilot version) 3 (Internal pilo version)			
Temperature °C	-10 ÷ +50			
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1800			
Orifice size (mm)	10			
Working ports size	G3/8"			
Pilot ports size	G1/8"			

Weight 420 g



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Fluid

Temperature °C Orifice size (mm)

Pilot ports size

Working ports size

**Operational characteristics** 

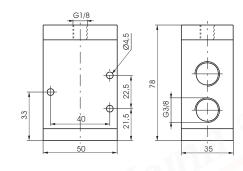
### **Pneumatic - Spring**

Minimum piloting pressure (bar)



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Vacuum

2 -10 ÷ +70

10

G3/8"

G1/8"

## For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

W 10

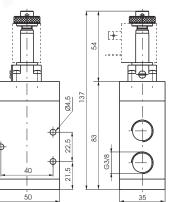
Weight 360 g

### Solenoid-Spring - Internal pilot

779/V.32.0. **G**. M2/V Coding:

Operational characteristics		FUNCTION	1
Vacuum	6	1AA =	Normally Open
-10 ÷ +50		1AC =	Normally Closed
10			
G3/8"			
G1/8"			
	Vacuum   -10 ÷ +50   10   63/8"	Vacuum Image: Constraint of the second	Vacuum 1AA =   -10÷+50 1AC =   10 10   G3/8" 10





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For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

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### 779/V.32.0. **()**. M2

## Coding:



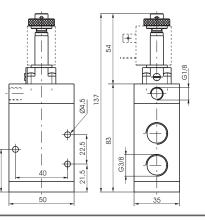
Solenoid-Spring - External pilot

Operational characteristics			FUNCTION
Fluid	Vacuum	6	1A = Normally
Minimum piloting pressure (bar)	2	1	1C = Normally
Temperature °C	-10 ÷ +50	1	
Orifice size (mm)	10	7	
Working ports size	G3/8"		
Pilot ports size	G1/8"	1	

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Weight 420 g



For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1



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G1/2 Ø63



### 772.32.11.1C Coding:

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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 $\Delta p=1$ (NI/min)	4800		
Orifice size (mm)	15		
Working ports size	G1/2"		
Pilot ports size	G1/8"		

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G1/2

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6



For compressed air - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

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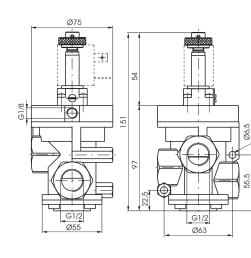
Weight 1100 g Normally Closed

### Solenoid - Spring

Operation	nal characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Max working pressure (bar)	10	- I 4
Minimum piloting pressure (bar)	2,5 (External pilot version) 3 (Internal pilo version)	
Temperature °C	-5 ÷ +50	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	4800	
Orifice size (mm)	15	
Working ports size	G1/2"	
Pilot ports size	G1/8"	







Internal pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



External pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

Weight 1160 g	

Coding: 772.32.0.

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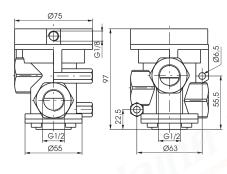


### Pneumatic - Spring

Coding: 772/V.32.11.

Operational characteristics			FUNCTION
Fluid	Vacuum	G	1C = Normally Closed
Minimum piloting pressure (bar)	2		1A = Normally Open
Temperature °C	-5 ÷ +70		
Orifice size (mm)	15		
Working ports size	G1/2"		
Pilot ports size	G1/8"		





### For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

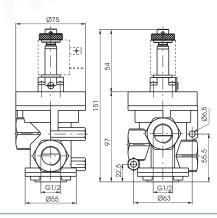


Weight 1100 g

### Solenoid-Spring - Internal pilot

Operational characteristics		FUNCTION	i	
Vacuum	9	1AA =	Normally Open	
-5 ÷ +50		1AC =	Normally Closed	
15				
G1/2"				
G1/8"				
	Vacuum -5 ÷ +50 15 G1/2"	Vacuum Image: Second seco	Vacuum IAA =   -5÷÷50 1AC =   15 G1/2"	





For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



772/V.32.0.**G**.M2

For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

Coding:

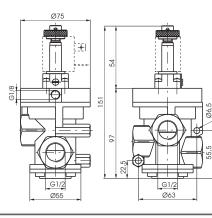
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Weight 1160 g

## Solenoid-Spring - External pilot

Operational characteristics				FUNCTION
Fluid		Vacuum	Ð	1A = Normally Open
Minimum piloting pressure (bar)		2		1C = Normally Closed
Temperature °C		-5 ÷ +50		
Orifice size (mm)		15		
Working ports size		G1/2"		
Pilot ports size		G1/8"		

Weight 1160 g



For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1



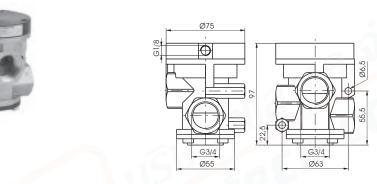
WWW.FLUTECH.CO.TH SALES@FLUTECH.CO.TH SALES@FLUTECH.CO.TH + 66 (0) 2384-6060



### Coding: 773.32.11.1C

### 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 bar	
Temperature °C	-5 ÷ +70	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	7000	
Orifice size (mm)	20	
Working ports size	G3/4"	
Pilot ports size	G1/8"	



For compressed air - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

Coding:

FUNCTION

closed

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773.32.0.**6**.M2

1C = External pilot normally closed

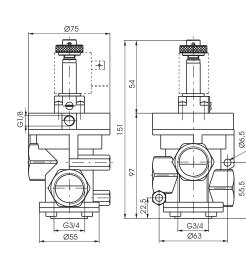
Internal pilot normally

Weight 990 g Normally Closed

### Solenoid - Spring

Operational characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Max working pressure (bar)	10	- 4
Minimum piloting pressure (bar)	2,5 (External pilot version) 3 (Internal pilo version)	
Temperature °C	-5 ÷ +50	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	7000	
Orifice size (mm)	20	
Working ports size	G3/4"	
Pilot ports size	G1/8"	





Internal pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



External pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



Weight 1050 g

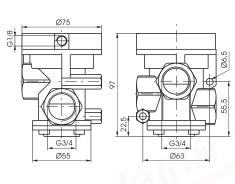


### **Pneumatic - Spring**

773/V.32.11.6 Coding:

Operational characteristics		1	FUNCTION
Fluid	Vacuum	G	1C = Normally Closed
Minimum piloting pressure (bar)	2		1A = Normally Open
Temperature °C	-5 ÷ +70		
Orifice size (mm)	20		
Working ports size	G3/4"		
Pilot ports size	G1/8"		





## For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

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Weight 990 g

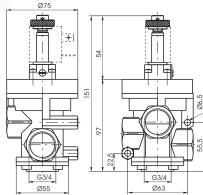
## Solenoid-Spring - Internal pilot

773/V.32.0. **(**). M2/V Coding:

W 10

Operational characteristics			FUNCTION		
Fluid	Vacuum	6	1AA =	Normally Open	
Temperature °C	-5 ÷ +50		1AC =	Normally Closed	
Orifice size (mm)	20				
Working ports size	G3/4"				
Pilot ports size	G1/8"				





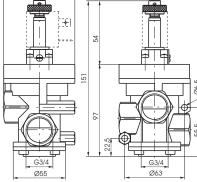
For vacuum - N.O. Exhaust port 3 Outlet port 2 Pump 1



For vacuum - N.C. Outlet port 1 Outlet port 2 Pump 3

Coding:

### Weight 1050 g



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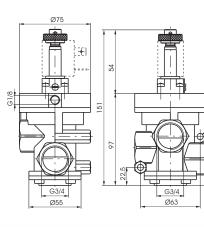
773/V.32.0. **G**.M2

### Solenoid-Spring - External pilot

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	Operational characteristics			FUNCTION
Fluid		Vacuum	6	1A = Normally Open
Minimum piloting pressure (bar)		2	1	1C = Normally Closed
Temperature °C		-5 ÷ +50	1	
Orifice size (mm)		20	1	
Working ports size		G3/4"	1	
Pilot ports size		G1/8"	1	



Weight 1050 g



For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

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#### 771.32.11.1C Coding:

	Pneumatic - Spring
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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 $\Delta p=1$ (NI/min)	12500	
Orifice size (mm)	25	
Working ports size	G1"	
Pilot ports size	G1/8"	

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G1 Ø72 14,5

G1/8

For compressed air - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

Coding:

12 -> W 10

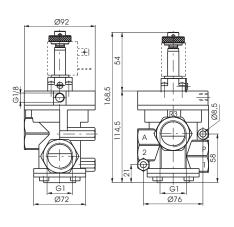
771.32.0.**()**.M2

Weight 1060 g Normally Closed

### Solenoid - Spring

Operational characteristics			FUNCTION	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	6	1AC = Internal pilot no	rmally
Max working pressure (bar)	10		closed	
Minimum piloting pressure (bar)	2,5 (External pilot version) 3 (Internal pilo version)		1C = External pilot normally c	losed
Temperature°C	-5 ÷ +50			
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	12500			
Orifice size (mm)	25			
Working ports size	G1"			
Pilot ports size	G1/8"	7		





Internal pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



External pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

12

Weight 1120 g



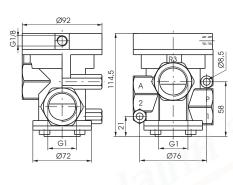


### **Pneumatic - Spring**

771/V.32.11. Coding:

Opera	itional characteristics		FUNCTION
Fluid	Vacuum	Ð	1C = Normally Closed
Minimum piloting pressure (bar)	2		1A = Normally Open
Temperature °C	-5 ÷ +70		
Orifice size (mm)	25		
Working ports size	G1"		
Pilot ports size	G1/8"		





## For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1



Weight 1060 g

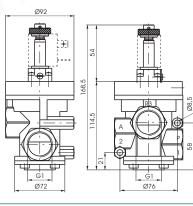
### Solenoid-Spring - Internal pilot

771/V.32.0. **@**. M2/V Coding:

Operational characteristics		FUNCTION	1	
Fluid		Vacuum	1AA =	Normally Open
Temperature °C		-5 ÷ +50	1AC =	Normally Closed
Orifice size (mm)		25		
Working ports size		G1"		
Pilot ports size		G1/8"		



**Operational characteristics** 



For vacuum - N.O. Exhaust port 3 Outlet port 2 Pump 1



For vacuum - N.C. Outlet port 1 Outlet port 2 Pump 3

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## 771/V.32.0.6.M2

### Coding: FUNCTION

	FUNCTION
Ð	1A = Normally Open
_	1C = Normally Closed

Minimum piloting pressure (bar) Temperature °C Orifice size (mm) Working ports size

Solenoid-Spring - External pilot

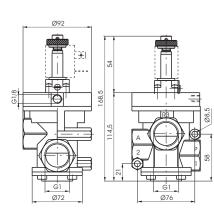


Weight 1120 g

Weight 1120 g

Fluid

Pilot ports size



Vacuum

2

-5 ÷ +50

25

G1" G1/8"

> For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

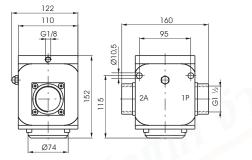




### 776.22.11.1C Coding:

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 $\Delta p=1$ (NI/min)	33500	
Orifice size (mm)	38	
Working ports size	G1 1/2"	
Pilot ports size	G1/8"	





For compressed air - N.C. Inlet port 1

Weight 3950 g Normally Closed

### **Solenoid - Spring**

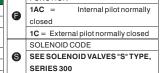
Operational characteristics				
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous			
Max working pressure (bar)	10			
Minimum piloting pressure (bar)	2,5 (External pilot version) 3 (Internal pilo version)			
Temperature °C	-5 ÷ +50			
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	33500			
Orifice size (mm)	38			
Working ports size	G1 1/2"			
Pilot ports size	G1/8"			

Outlet port 2

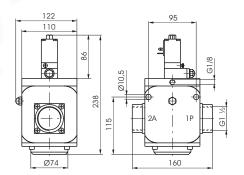
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776.22.0. Coding: FUNCTION

**AIR DISTRIBUTION** 







Internal pilot - N.C. Inlet port 1 Outlet port 2



External pilot - N.C. Inlet port 1 Outlet port 2



#### 776.32.11.1C Coding:

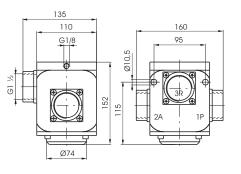
### **Pneumatic - Spring**

Weight 4450 g

Operational characteristics			
Fluid Filtered air. No lubrication needed, if applied it shall be continu			
Max working pressure (bar)	10		
Minimum piloting pressure (bar)	2,5		
Temperature °C	-5 ÷ +70		
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"		



Weight 3900 g Normally Closed



For compressed air - N.C. Inlet port 1 Outlet port 2 Exhaust port 3



### Solenoid - Spring

#### 776.32.0. Coding:

Operational characteristics			FUNCTION
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous		1AC = Internal pilot normally
Max working pressure (bar)	10		closed
Minimum piloting pressure (bar)	2,5 (External pilot version)	]	1C = External pilot normally closed
	3 (Internal pilo version)		SOLENOID CODE
Temperature °C	-5 ÷ +50	6	SEE SOLENOID VALVES "S" TYPE.
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	33500		SERIES 300
Orifice size (mm)	38	–-ון	
Working ports size	G1 1/2"	1	
Pilot ports size	G1/8"	1	

G1 1/2

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Internal pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

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G1/8



External pilot - N.C. Inlet port 1 Outlet port 2 Exhaust port 3

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Weight 4450 g

**AIR DISTRIBUTION** 

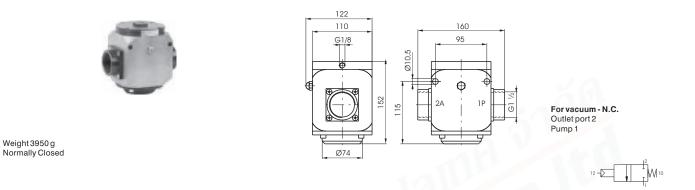


776/V.22.11.1C Coding:

### **Pneumatic - Spring**

Solenoid - Spring

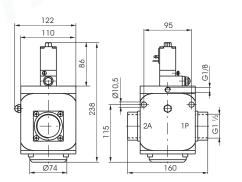
Operational characteristics		
Fluid Vacuum		
Minimum piloting pressure (bar)	2	
Temperature °C	-5 ÷ +70	
Orifice size (mm)	38	
Working ports size	G1 1/2"	
Pilot ports size	G1/8"	



776/V.22.0.1C.S Coding:

	Operational characteristics		SOLENOID CODE
Fluid	Vacuum	6	SEE SOLENOID VALVES "S" TYPE,
Minimum piloting pressure (bar)	2		SERIES 300
Temperature °C	-5 ÷ +50		
Orifice size (mm)	38		
Working ports size	G1 1/2"		
Pilot ports size	G1/8"		





For vacuum - N.C. Outlet port 2 Pump 1

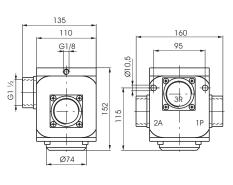


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Pneumatic - Spring		Co	oding	g: 776/V.32.11. 🖨
Operat	ional characteristics		F	UNCTION
Fluid	Vacuum			C = Normally Closed
Minimum piloting pressure (bar)	2		1	A = Normally Open
Temperature °C	-5 ÷ +70			
Orifice size (mm)	38			
Working ports size	G1 1/2"			
Pilot ports size	G1/8"			



Weight 3900 g



For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1



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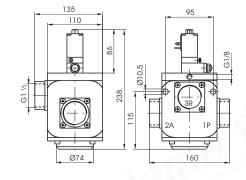


### Solenoid - Spring

### Coding: 776/V.32.0.

Operational characteristics			FUNCTION
Fluid	Vacuum	6	1C = External pilot normally closed
Minimum piloting pressure (bar)	2		1A = External pilot normally open
Temperature °C	-5 ÷ +50		SOLENOID CODE
Orifice size (mm)	38	6	SEE SOLENOID VALVES "S" TYPE,
Working ports size	G1 1/2"		SERIES 300
Pilot ports size	G1/8"		· · · · · · · · · · · · · · · · · · ·





### For vacuum - N.O. Outlet port 1 Outlet port 2 Pump 3



For vacuum - N.C. Exhaust port 3 Outlet port 2 Pump 1

12 M 10

Weight 4500 g

บริษัท ฟลูเทค จำกัด FLU-TECH CO.,LTD

FluTech

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845/3-4 Thepharak RD., T.Thepharak, A.Muang, Samutprakarn 10270 THAILAND Tel. 0 2384 6060, Fax 0 2384 5701, Email : sales@flutech.co.th, www.flutech.co.th