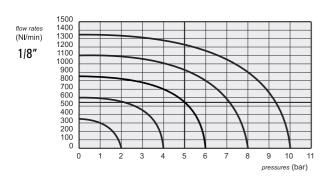
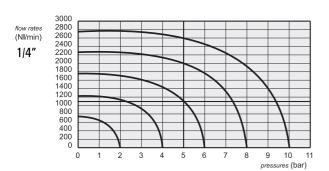
# Pneumatically piloted valves



- 3/2-5/2-5/3 spool valves with 1/8" NPT-1/4" NPT threaded ports BSP version available on request
- Installation in-line, gang or manifold mounted (refer to pages 192-201)
- Comprehensive range of actuations
- Versions with integrated logic element
- Special versions on request







#### **Materials**

Body: aluminium 11S End cups: aluminium 11S Springs: stainless steel

Seals: NBR

Spool: nickel plated aluminium

#### **Response times**

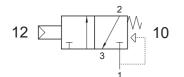
	1/8″	1/4"
mono-stable		TRA (14): 7 ms TRR (12): 15 ms
bi-stable		TRA (14): 7 ms TRR (12): 7 ms

Nominal diameter	1/8" NPT: 5 mm 1/4" NPT: 7.5 mm	
Temperature range	max +60°C (140°F)	
Operating pressure	mono-stable	bi-stable
	2.5 10 bar (36 145 PSI) 0.25 1 MPa	-0.9 10 bar (Vacuum 145 PSI) -0.09 1 MPa
	mono-stable	bi-stable
Actuating pressure	2.5 10 bar (36 145 PSI) 0.25 1 MPa	1 10 bar (14 145 PSI) 0.1 1 MPa
Fluid	$50\mu$ filtered, lubricated or non lubricated air	



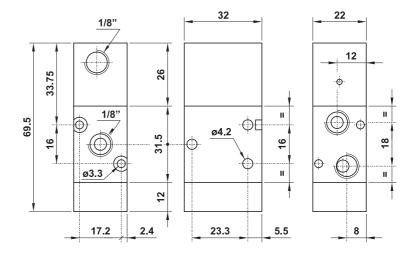
## **US321 MC**

3/2 1/8" NPT N/C pneumatic pilot - air and spring return



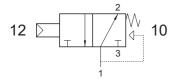
It cannot be used as normally open valve.





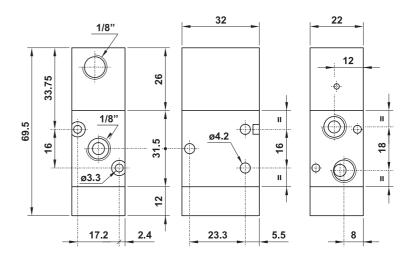
## **US321 MCA**

3/2 1/8" NPT N/O pneumatic pilot - air and spring return



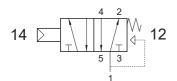
It cannot be used as normally closed valve.



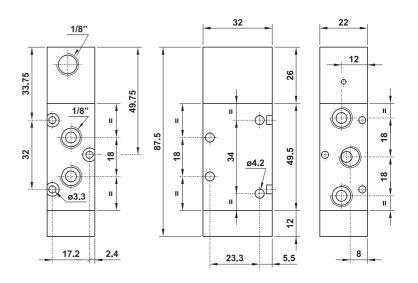


## **US521 MC**

5/2 1/8" NPT pneumatic pilot - air and spring return



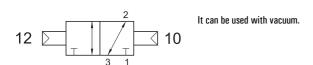




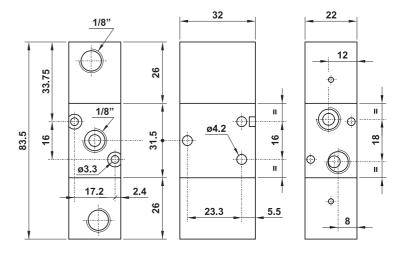


## **US321 CC**

3/2 1/8" NPT double pneumatic pilot

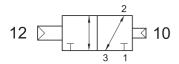




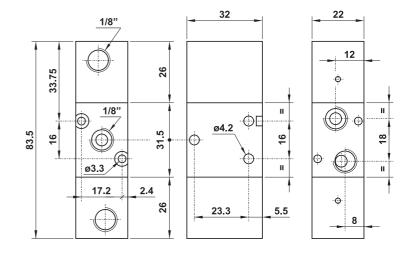


## **US321 CCD**

3/2 1/8" NPT double pneumatic pilot - with differential

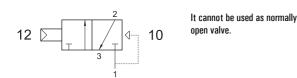




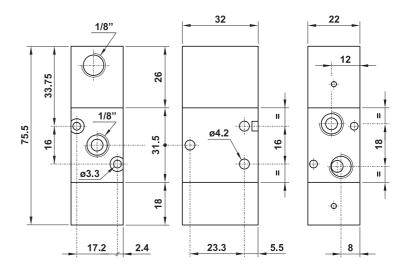


## **US321 CFP**

3/2 1/8" NPT N/C pneumatic pilot - pneumatic return



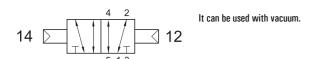




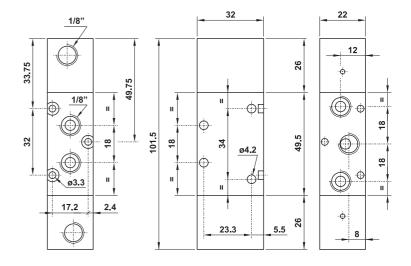


## **US521 CC**

5/2 1/8" NPT double pneumatic pilot

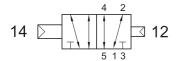




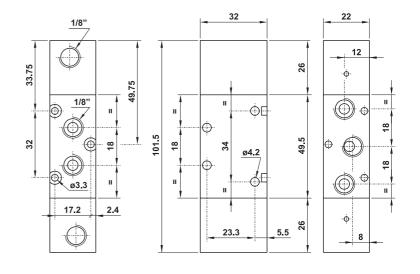


## US521 CCD

5/2 1/8" NPT double pneumatic pilot - with differential

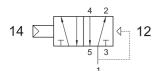




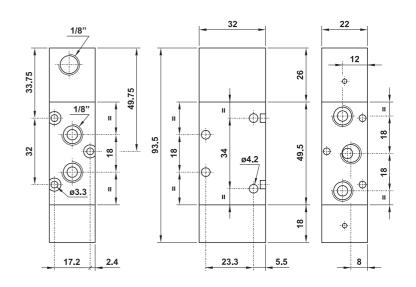


## **US521 CFP**

5/2 1/8" NPT pneumatic pilot - pneumatic return







## Pneumatically piloted valves



**US5213C CC** 

closed centers

**US5213A CC** 

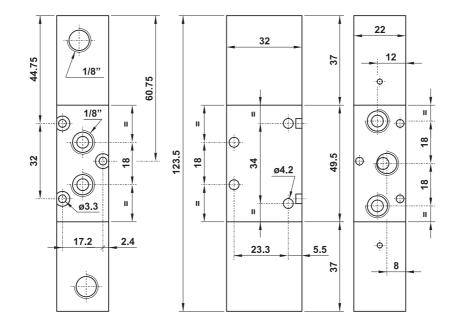
open centers

**US5213P CC** 

pressurized centers





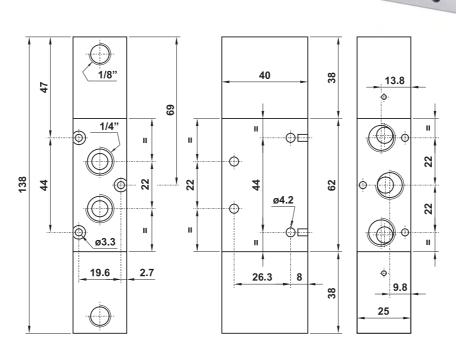


 $\pmb{US5223C\ CC}\ \ {\it closed\ centers}$ 

US5223A CC open centers

**US5223P CC** pressurized centers

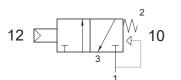
5/3 1/4" NPT double pneumatic pilot





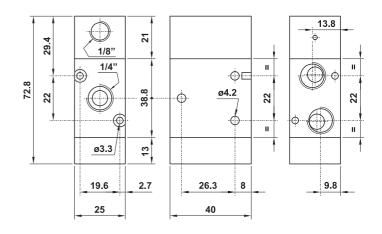
## **US322 MC**

3/2 1/4" NPT N/C pneumatic pilot - air and spring return



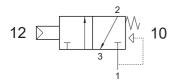
It cannot be used as normally onen valve





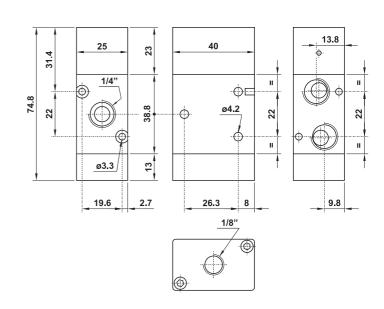
## **US322 MC SUP**

3/2 1/4" NPT N/C pneumatic pilot on the top - air and spring return



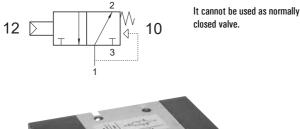
It cannot be used as normally open valve.



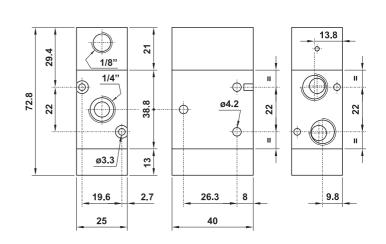


## **US322 MCA**

 $3/2\ 1/4^{\prime\prime}$  NPT N/O pneumatic pilot - air and spring return



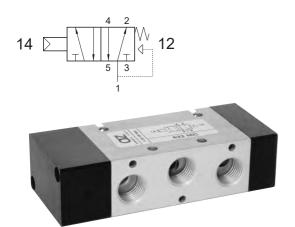


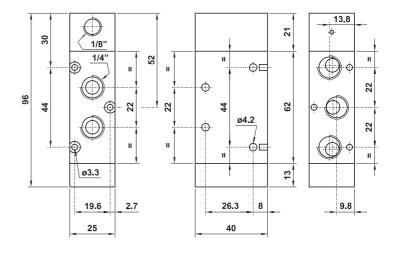




## **US522 MC**

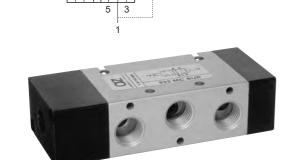
5/2 1/4" NPT pneumatic pilot - air and spring return

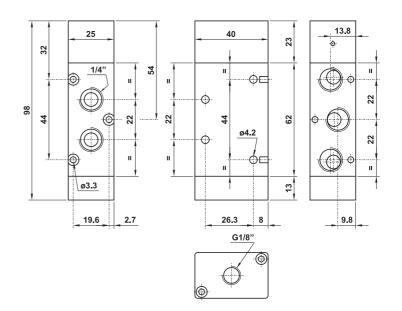




## **US522 MC SUP**

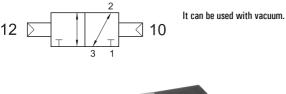
5/2 1/4" NPT pneumatic pilot on the top - air and spring return



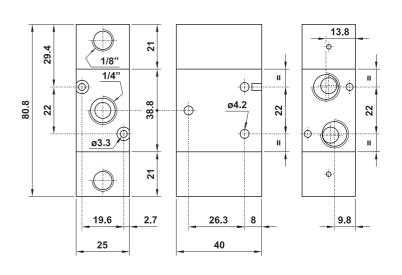


## **US322 CC**

3/2 1/4" NPT double pneumatic pilot



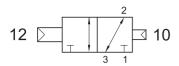




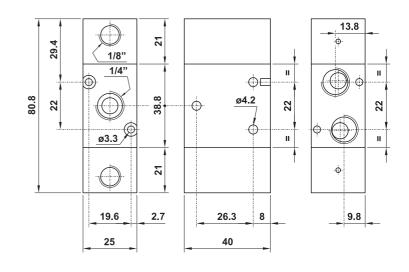


## **US322 CCD**

3/2 1/4" NPT double pneumatic pilot - with differential



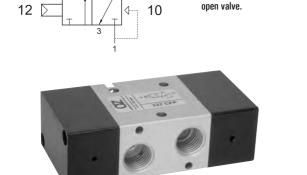


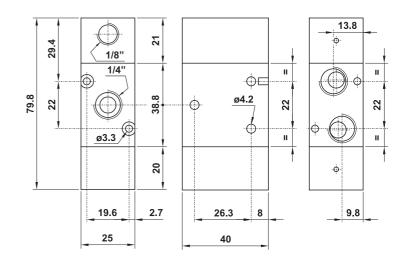


## **US322 CFP**

3/2 1/4" NPT N/C pneumatic pilot - pneumatic return

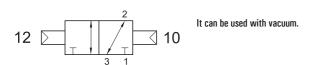
It cannot be used as normally



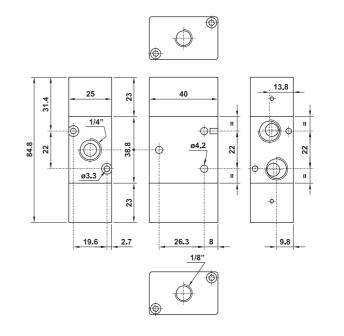


## **US322 CC SUP**

3/2 1/4" NPT double pneumatic pilot on the top



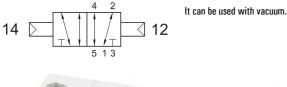




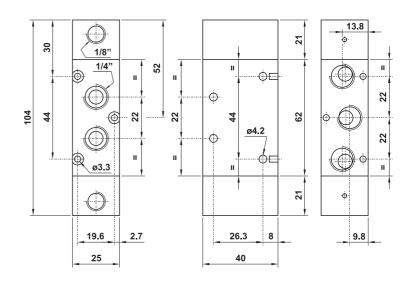


## **US522 CC**

5/2 1/4" NPT double pneumatic pilot

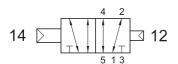




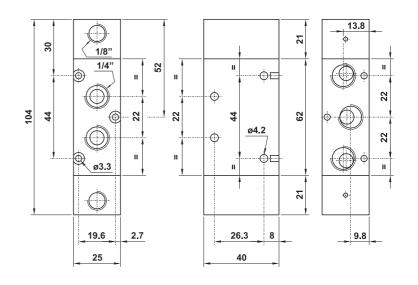


## US522 CCD

5/2 1/4" NPT double pneumatic pilot - with differential

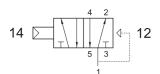




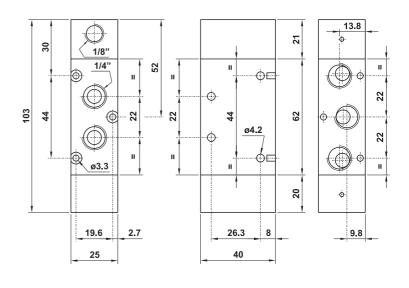


## **US522 CFP**

5/2 1/4" NPT pneumatic pilot - pneumatic return



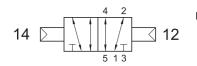






## **US522 CC SUP**

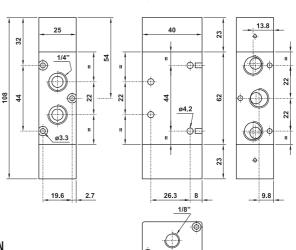
5/2 1/4" NPT double pneumatic pilot on the top



It can be used with vacuum.

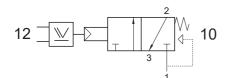


ONLY ALUMINIUM VERSION



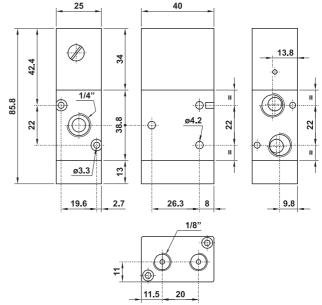
## **US322 ORM**

 $3/2\ 1/4"$  NPT N/C pneumatic pilot with integrated OR element - air and spring return



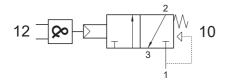
It cannot be used as normally open valve.





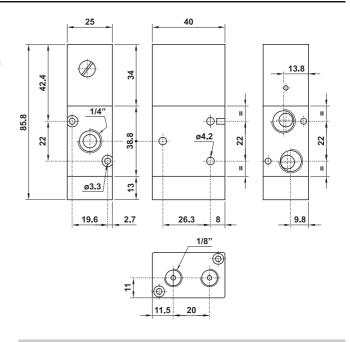
## **US322 ANDM**

3/2 1/4" NPT N/C pneumatic pilot with integrated AND element - air and spring return



It cannot be used as normall open valve.

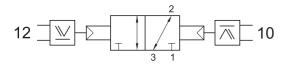


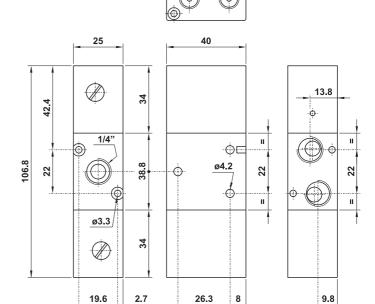




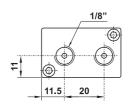
## **US322 20R**

3/2 1/4" NPT double pneumatic pilot with integrated OR elements



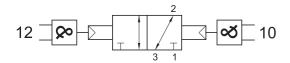


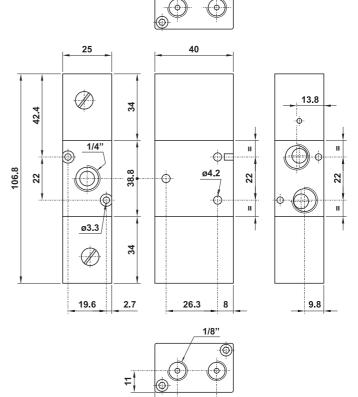




## **US322 2AND**

3/2 1/4" NPT double pneumatic pilot with integrated AND elements



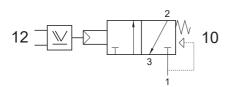


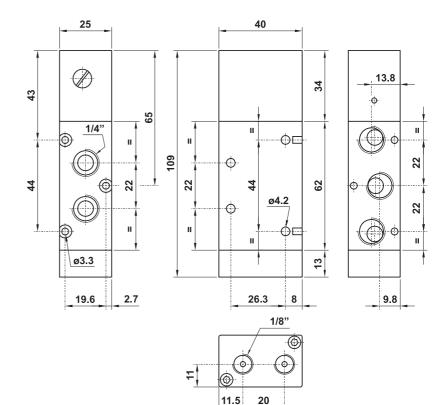




## **US522 ORM**

5/2 1/4" NPT pneumatic pilot with integrated OR element - air and spring return

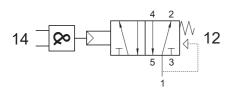




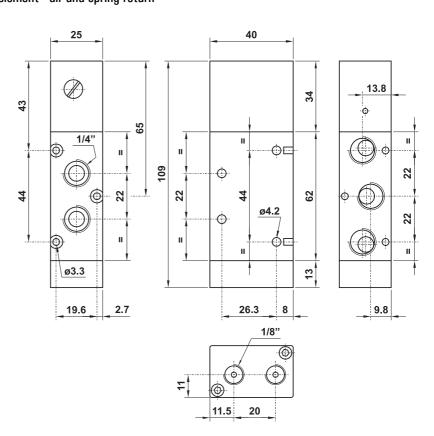


## **US522 ANDM**

5/2 1/4" NPT pneumatic pilot with integrated AND element - air and spring return



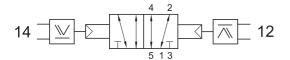


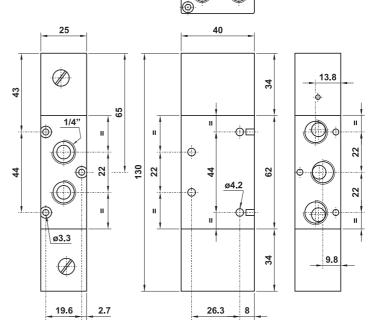




## **US522 20R**

 $5/2\ 1/4"$  NPT double pneumatic pilot with integrated OR elements



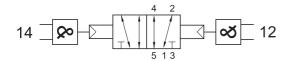




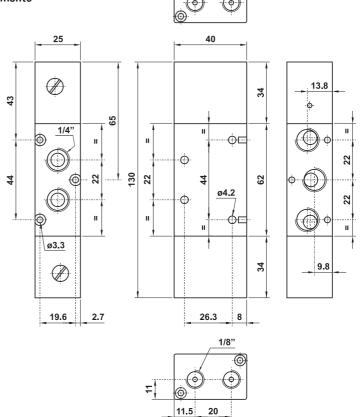
# T 1/8" 1/8" 11.5 20

## **US522 2AND**

 $5/2\,\,1/4"$  NPT double pneumatic pilot with integrated AND elements



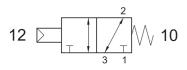






## **US321 MRC**

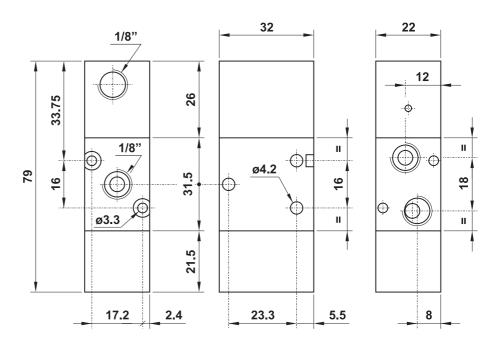
3/2 1/8"NPT pneumatic pilot - REINFORCED spring return



Operating pressure: -0.9 ... 10 bar (Vacuum ... 145 PSI)

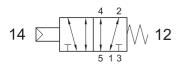
Actuating pressure: 2.5 ... 10 bar (36 ... 145 PSI)





## **US521 MRC**

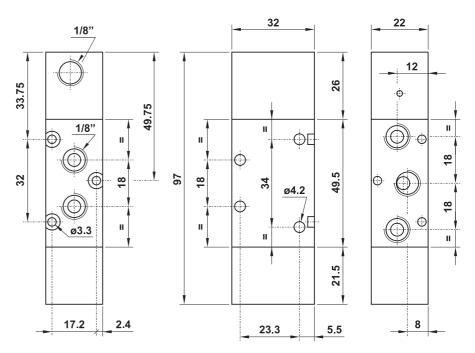
5/2 1/8" NPT pneumatic pilot - REINFORCED spring return



Operating pressure: -0.9 ... 10 bar (Vacuum ... 145 PSI)

Actuating pressure: 2.5 ... 10 bar (36 ... 145 PSI)

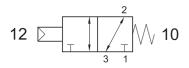






## **US322 MRC**

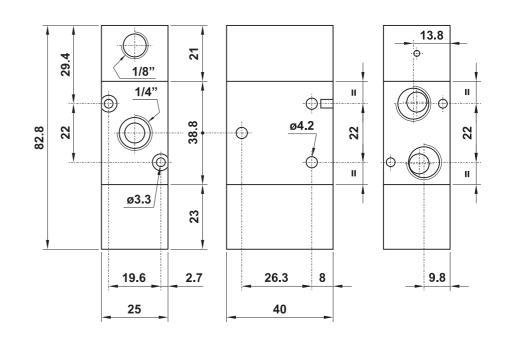
3/2 1/4" NPT pneumatic pilot - REINFORCED spring return



Operating pressure: -0.9 ... 10 bar (Vacuum ... 145 PSI)

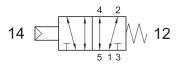
Actuating pressure: 2.5 ... 10 bar (36 ... 145 PSI)





## **US522 MRC**

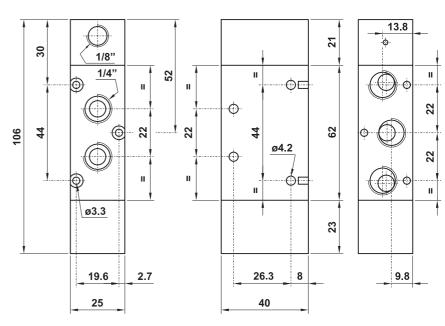
5/2 1/4" NPT pneumatic pilot - REINFORCED spring return



Operating pressure: -0.9 ... 10 bar (Vacuum ... 145 PSI)

Actuating pressure: 2.5 ... 10 bar (36 ... 145 PSI)

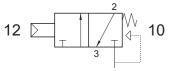






## **US321 MCQ**

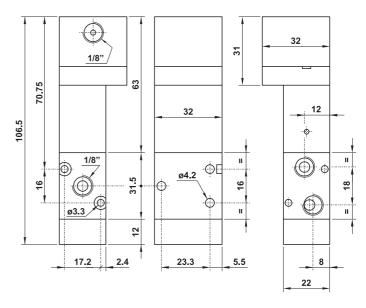
3/2 1/8" NPT N/C pneumatic pilot 0.3 bar (4.35 PSI) - air and spring return



Operating pressure: min. 2.5 bar (36 PSI)

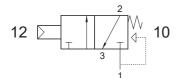
Actuating pressure: min. 0.3 bar (4.35 PSI)





#### **US321 MCS**

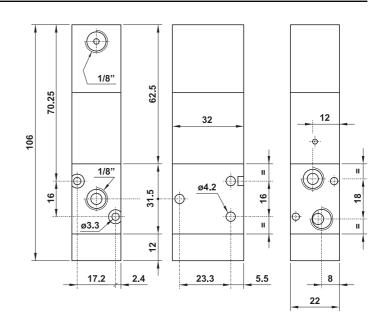
3/2 1/8" NPT N/C pneumatic pilot 0.6 bar (8.7 PSI) - air and spring return



Operating pressure: min. 2.5 bar (36 PSI)

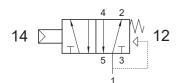
Actuating pressure: min. 0.6 bar (8.7 PSI)





## **US521 MCQ**

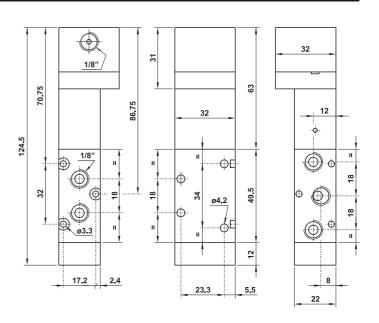
5/2 1/8" NPT pneumatic pilot 0.3 bar (4.35 PSI) - air and spring return



Operating pressure: min. 2.5 bar (36 PSI)

Actuating pressure: min. 0.3 bar (4.35 PSI)



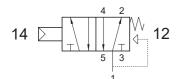


## Pneumatically piloted valves



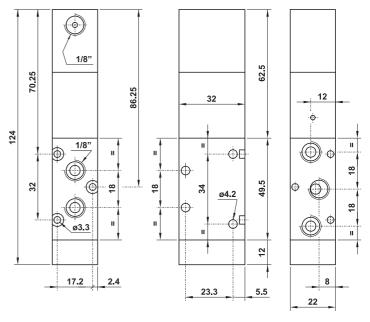
## **US521 MCS**

5/2 1/8" NPT pneumatic pilot 0.6 (8.7 PSI) bar - air and spring return



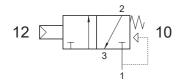
Operating pressure: min. 2.5 bar (36 PSI)

Actuating pressure: min. 0.6 bar (8.7 PSI)



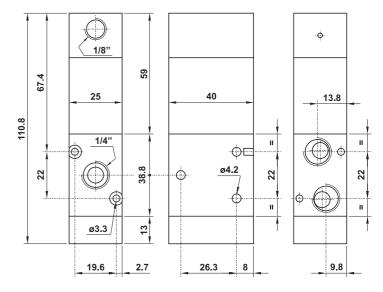
## **US322 MCS**

3/2 1/4" NPT N/C pneumatic pilot 0.6 bar (8.7 PSI) - air and spring return



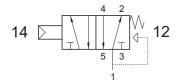
Operating pressure: min. 2.5 bar (36 PSI)

Actuating pressure: min. 0.6 bar (8.7 PSI)



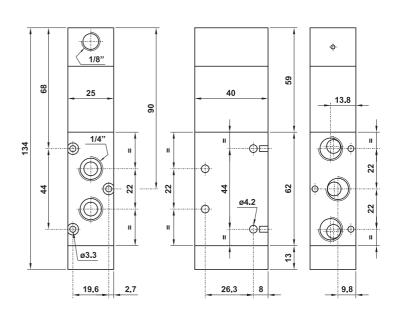
## **US522 MCS**

5/2 1/4" NPT pneumatic pilot 0.6 bar (8.7 PSI) - air and spring return



Operating pressure: min. 2.5 bar (36 PSI)

Actuating pressure: min. 0.6 bar (8.7 PSI)





- 3/2-5/2-5/3 spool valves with 1/2" NPT threaded ports BSP version avaiable on request
- · Very high flow rate
- Installation in-line
- Mono-stable or bi-stable pneumatic pilot



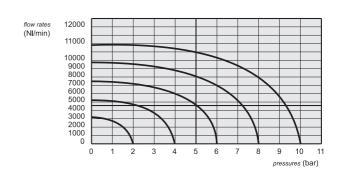


#### **Spare parts**

**02.030.2**: for 3 way valves ME - ME AS - MC **02.031.2**: for 5 way valves ME - ME AS - MC **02.032.2**: for 3 way valves EE - EE AS - CC **02.033.2**: for 5 way valves EE - EE AS - CC

#### **Response times**

mono-stable	TRA (14): 24 ms TRR (12): 43 ms
bi-stable	TRA (14): 30 ms TRR (12): 30 ms



#### **Materials**

Body: aluminium 11S Springs: stainless steel

Seals: NBR

<u>Spool</u>: nickel plated aluminium <u>Internal parts</u>: brass OT58

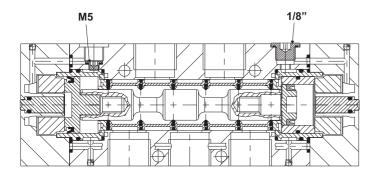
Nominal diameter	13 mm (0.5 in)	
Nominal flow rate at 6 bar (87 PSI), ∆p 1 bar (14 PSI)	4600 NI/min (4.87 Cv)	
Temperature range	max +60°C (140°F)	
	mono-stable	bi-stable
Operating pressure	2.5 10 bar (36 145 PSI) 0.25 1 MPa	-0.9 10 bar (Vacuum 145 PSI) -0.09 1 MPa
	mono-stable	bi-stable
Actuating pressure	2.5 10 bar (36 145 PSI) 0.25 1 MPa	1 10 bar (14 145 PSI) 0.1 1 MPa
Fluid	50μ filtered, lubricated or non lubricated air	



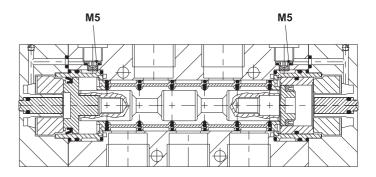
#### Multifunction feature of the valve

Valve functionality can be changed at any time. To do so, please re-collocate from its position either the M5 or 1/8" NPT plugs, which are inserted into the body according to the scheme. The valve is supplied according to the clients' needs on order. Interchangeable plugs must be ordered separately.

US324 CFP US524 CFP



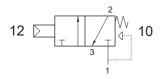
US324 CCD US524 CCD





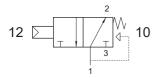
## **US324 MC**

3/2 1/2" NPT N/C pneumatic pilot - air and spring return



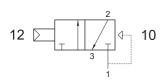
## **US324 MCA**

3/2 1/2" NPT N/O pneumatic pilot - air and spring return



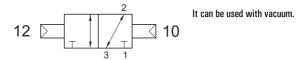
## **US324 CFP**

3/2 1/2" NPT N/C pneumatic pilot - pneumatic return



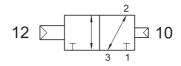
## **US324 CC**

3/2 1/2" NPT double pneumatic pilot

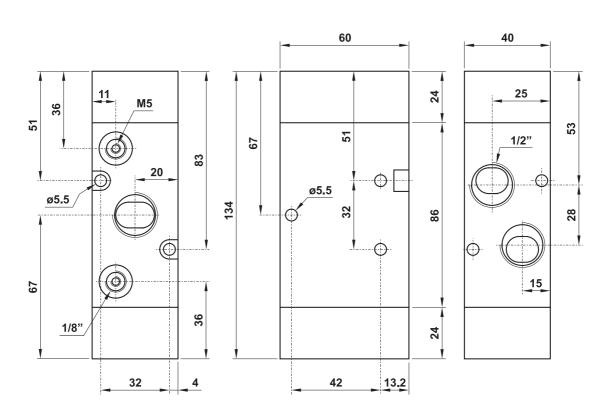


## **US324 CCD**

3/2 1/2" NPT double pneumatic pilot - with differential



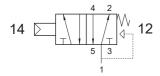






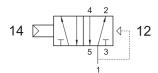
## **US524 MC**

5/2 1/2" NPT pneumatic pilot - air and spring return



## **US524 CFP**

5/2 1/2" NPT pneumatic pilot - pneumatic return



US5243C CC US5243A CC US5243P CC

closed centers

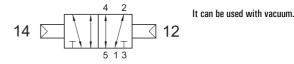
open centers

pressurized centers

 $5/3\ 1/2"$  NPT double pneumatic pilot

## **US524 CC**

5/2 1/2" NPT double pneumatic pilot



## **US524 CCD**

5/2 1/2" NPT double pneumatic pilot - with differential

