## General

New 104 micro valves series have been realized as an economic version to complete the range of 105 valves version. With their small overall dimensions it makes easy installation and operation.
Their main characteristic is the possibility to choose between the version with lateral or rear pneumatic connections realized with quick fitting for $\varnothing 4 \mathrm{~mm}$. tube included.
The valves are available with 2 or 3 ways versions, normally closed or open, 5 ways and 5 ways 3 positions open centres and pressured centres.
The 5 ways version is made with two 3 ways valves placed side by side with common inlet.
The operators available for this valve are push button (different versions), selector (key, short and long lever), lever (lever roller or lever unidirectional) and pneumatic.
It is also possible to combine the 2 and 3 ways valves with electrical switches, normally closed or open.


A: 2/2 N.C.
B : 2/2 N.O.
C: 3/2 N.C.
D: 3/2 N.O.

## Construction characteristics

| Body and cover | Technopolymer |
| :--- | :--- |
| Actuators | Plastic material for buttons and switches |
| Seals | NBR |
| Spacer | Acetal resin |
| Spool | Steel |
| Spring | Spring steel |

## Use and maintenance

These valves have an average life of 15 million cycles depending on the application and air quality, filtered and lubricated air using specified lubricants will dramatically reduce the wear of the seals and ensures long and trouble free operation.
Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature and that exhaust ports 3 \& 5 are protected against the possible ingress of dirt or debris.
Repair kits including the spool complete with seals are available for overhauling the valves; however, although this is a simple operation it should be carried out by a competent person.

ATTENTION: use hydraulic oil class H for lubrication such as MAGNA GC 32 (Castrol).
Tappet - Spring



| Operational characteristic |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fluid | Max working pressure (bar) | Temperature ${ }^{\circ} \mathrm{C}$ | Flow rate at 6 bar with $\Delta p=1(\mathrm{Nl} / \mathrm{min})$ | Orifice size (mm) | Working ports size |
| Filtered air, with or without lubrication | 10 bar | $-5-+70$ | $90 \mathrm{NI} / \mathrm{min}$ | mm 2,5 | ø4 tube |




| Palm button 2 positi |  | 5/2 | Ordering code |  | 5/2 |  | Palm button 2 position |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lateral connections |  |  | 104.52.6.25.P |  |  |  | Rear connections |
|  |  |  | $\text { P } \begin{aligned} & \mathrm{CON} \\ & \mathrm{~L}=\mathrm{L} \\ & \mathrm{P}=\mathrm{L} \end{aligned}$ |  |  |  |  |
| Weight gr. 120 <br> Operating force 32 N <br> Emergency - Rotate to unlock |  |  |  |  |  |  | Weight gr. 120 Operating force 32N Emergency - Rotate to unlock |
| Operational characteristic |  | Temperature ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |
| Fluid | Max working pressure (bar) |  |  | Flow rate at 6 bar with $\Delta p=1(\mathrm{Nl} / \mathrm{min})$ |  | Orifice size (mm) | Working ports size |
| Filtered air, with or without lubrication | 10 bar | -5-70 |  | $90 \mathrm{~N} /$ /min |  | mm 2,5 | ${ }^{\circ} 4$ tube |



Weight gr. 120
Switch 2 positions stable

Operational characteristic

| Fluid | Max working pressure (bar) | Temperature ${ }^{\circ} \mathrm{C}$ | Flow rate at 6 bar <br> with $\Delta \mathrm{p}=1(\mathrm{Nl} / \mathrm{min})$ | Orifice size (mm) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Filtered air, with or without <br> lubrication | 10 bar | $-5-+70$ | $90 \mathrm{NI} / \mathrm{min}$ | Working ports size |


Lever roller - Spring
Lever roller ball bearing - Spring
Lever unidirectional - Spring






