General
When building automated pneumatic circuits, it is sometimes necessary to alter or modify the various sig- nals. There can be, for instance, a permanent signal coming from a limit switch that needs to be terminat- ed, or there may be a need to modify a pneumatic signal into an electric one, etc. While this can be accomplished by using commercially available components, the process is tedious and expensive. We have therefore developed a number of components to facilitates this task resulting a consistent saving of time, space and money.
The 900 series consist of the following components:
 Pressure switch, which transforms a pneumatic signal into an electric one. Impulse generator, which transforms a permanent pneumatic signal into an adjustable impulse from 0 to 10 seconds.
 Pneumatic timer (N.C. or N.O.), which cuts or releases a pneumatic signal within an adjustable time. Two hands safety valve, which allows a safety use of two hands pneumatic controls (for example two push-button 3/2 N.C. to a certain distance) excluding false signals in case of push-button or valve malfunction.
- Flip - Flop: 5/2 ways valve, single signal actuated, commutes the outlet from 2 to 4 and vice versa at each puls.
For a correct functioning it's important that inlet pressure be the same or lower than pilot pressure. - Oscillator valve, 5/2 - G 1/8" with two logic functions "NOT" mounted on board, switches when the pressure in the connected cylinder exhaust chamber is reaching the threshold of "NOT". - Signal amplifier, 3/2 - G 1/8" N.C. valve actuated by weak signals but higher than 0.05 bar. - Progressive start-up valve, which is a device that is fitted in between valve or solenoid valve and
cylinder allows a gradual filling of the chamber providing a low power cylinder movement. The progressive start-up valve is made of a flow control valve and a 2/2 N.C. valve with 6 mm nominal orifice.
The valve is totally open when the pressure in the cylinder reaches 50% of inlet pressure. - High-low pressure devices, located in the pneumatic circuit between valve and cylinder, allow the function of the cylinder with two different pressures. Example: in case of a locking action, it is possible to approach the required position at a low pressure, then increase to its maximum value in the circuit with the use of an electric signal. They are practically made of a piloted pressure regulator without relieving
Construction characteristics
We have not listed all different materials used for the construction of these components because the list would be too long. We use corrosion proof material, brass or anodized aluminium and the most appro- priate specific mixture for seals. If more information is required please contact our technical departement.
Use and maintenance
In use new attention to the minimum and measure exiteria for temperature and pressure, checking and

In use pay attention to the minimum and maximum criteria for temperature and pressure, checking and ensure good quality compressed air. In a dirty environment, protect the exhaust ports. In this case, maintenance is minimal and is necessary only if the air is particularly dirty. The components most subject to damage by the accumulation of dirt are flow regulators with fine regulation and silencers. As for regulators, follow the normal procedure for disassembling, washing with non-chemical cleaning agents and remounting. The silencers need only to be rinsed in petrol or solvent and blown dry with compressed air.

The number of requests for spare seals for flow regulators and shuttle valves are statistically irrelevant. More often, it is necessary to replace the lining of the quick exhaust because of the wear it undergoes due to the particular conditions of operating.

ATTENTION: for lubrication use class H hydraulic oils, for example Castrol MAGNA GC 32.



Complementary valves

Pneumatic time	r N.C G 1/8"								
Ordering coc 900.18. TIME 3 = 0 - 30 sec. 3-60 = 0 - 60 sec.				$\begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $					
Operational	Fluid	Working	g pressure (bar) T	emperature °C F	Flow rate at 6 bar with Δp=1 (NI/	/min) Orifice	size (mm)		
characteristic	Filtered and lubricated	dair 3	3 - 10 bar	-5 - +70	130 NI/min	m	mm 2,5		
Pneumatic time	r N.O G 1/8"	· · · · · · · · · · · · · · · · · · ·							
900.18.0 Image: state of the state of									
Operational	Fluid	Working	g pressure (bar) T	emperature °C F	Flow rate at 6 bar with $\Delta p=1$ (NI/	/min) Orifice	size (mm)		
characteristic	Filtered and lubricated	dair 4	4 - 10 bar -5 - +70		130 NI/min	m	im 2,5		
Two hands safe Ordering cod 900.52.1.1	ty valve G 1/4" de I	00							
Operational	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp min)	D=1 (NI/ Orifice size (mm)	Working ports size	Working pilot size		
characteristic	Filtered and lubricated air	10 bar	-5 - +70	1030 NI/min	mm 7	G 1/4"	G 1/8"		



Complementary valves





Weight gr. 600

4

Operational	Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p = 1$ (NI/min)	Orifice size (mm)	Working ports size
characteristic	Filtered and lubricated air	10 bar	-5 - +70	540 NI/min	mm 6	G 1/8"



Complementary valves

-5 - +70

760 NI/min

900 NI/min

mm. 6

Filtered and lubricated air

2,5 bar10 bar

