

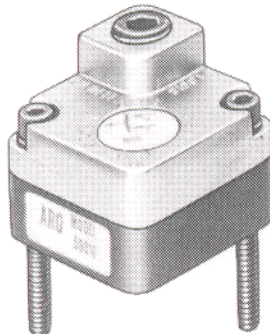
PARTS LIST

ARO PNEUMATIC LOGIC CONTROL
LOGIC FUNCTION ASSEMBLY

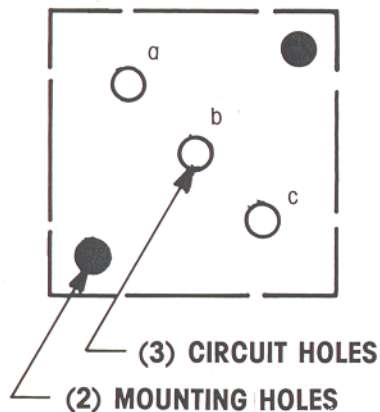
"OR" LOGIC ELEMENT

MODEL 59010

FORM 4443
REV. 3/88



CIRCUIT PATTERN



LOGIC SYMBOL	LOGIC FUNCTION	PORT DESIGNATION
	$a + b \rightarrow c$ output c (on) with input at a or b	a = input b = input c = output

For other Functions see Technical Manual

NOTE: THIS ELEMENT CAN BE ROTATED 180° SO POSITION a, b, c BECOMES c, b, a

DESCRIPTION

This element performs the logic function "OR" with two inputs and one output. The element has three bottom ports which are designated a, b, c and are marked on the cover to correspond to their position on the base. These ports connect to the circuit board or function bases and through circuit passages in the circuit module allow the required circuitry to be performed.

OPERATING PRESSURE RANGE

30 to 150 P.S.I.G.

TEMPERATURE RANGE

+32°F to +160°F

FLOW CHARACTERISTICS

Flow $a \rightarrow c$ at 100 P.S.I.G. = 9.3 C.F.M. free air
Capacity Factor $C_v = 0.14$.

Flow $b \rightarrow c$ at 100 P.S.I.G. = 16.2 C.F.M.
Capacity Factor $C_v = 0.28$

RESPONSE TIME

"a" On \rightarrow "c" On 7.5 MS.
"b" On \rightarrow "c" On 7 MS.

INSTALLATION

Pressure regulation is recommended for applications where optimum repeatability is required.

Lubrication is not required.

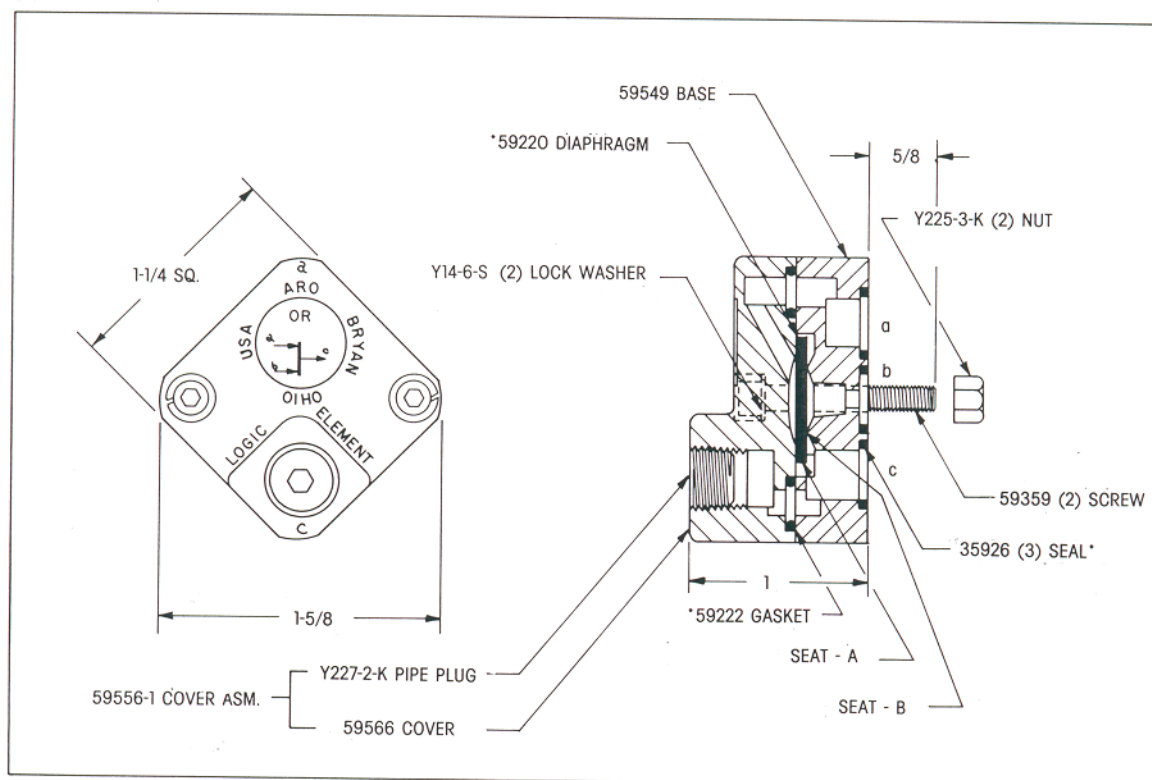
Filtration is recommended to assure a clean, dry air supply for optimum repeatability.

OPERATION DESCRIPTION

The flexible diaphragm touches both seat A and B. Pressure from either input "a" or "b" will force the diaphragm from its respective seat, thereby pressurizing output "c" (ON).

Screws 59359 thread into base to assemble element, but also extend beyond base for insertion into mounting holes in circuit board assembly (or function bases). Nuts Y225-3-K are used to attach assembly to circuit board. 35926 seals provide sealing between circuit base plate and element ports.

PARTS LIST



***Parts included in Repair Kit**

SERVICE (Use Repair Kit No. 58161)

In the event of a malfunction.

Check diaphragm 59220 for rupture or defects.

Check seats A and B for damage.

Check 59222 gasket and 35926 seals for imperfections if external leakage occurs.

Testing (element mounted on function base).

Apply pressure at port a, flow appears at port c,
no leakage at port b.

Apply pressure at port b, flow appears at port c,
no leakage at port a.