Logic elements

Part numbers

Functions		81 521 501	81 540 001	81 540 005	81 522 501
	OR	81 521 501			
	AND	—	—	—	81 522 501
	YES	—	—	—	—
	NO	—	—	—	—
Version		On sub-base page 4/14 - 4/15	Plug-in Ø 4	Plug-in Ø 6	On sub-base page 4/14 - 4/15

Symbol

	$\begin{array}{c} 1 \\ \geqslant 1 \rightarrow 3 \\ 2 \end{array}$			$\begin{array}{c} 1 \\ \& \rightarrow 3 \\ 2 \end{array}$

Characteristics

Push-in connection for semi-rigid tubing (NFE 49100)	Male/Female/Female	—	Ø 4 mm	—	—
	Female/Female/Female	—	—	Ø 6 mm	—
Colour		Blue	Blue	Blue	Green
Operating pressure	bar	2 • 8	2 • 8	2 • 8	2 • 8
Orifice diameter	mm	2.7	2.7	4	2.7
Flow at 6 bars	Nl/min	170	170	200	170
Pressure indicator		●	—	—	●
Switching time	ms	—	—	—	—
Operating temperature	°C	-5 +50	-5 +50	-5 +50	-5 +50
Mechanical life	operations	>10^7	>10^7	>10^7	>10^7
Weight	g	25	12	25	25

Pilot/pressure curves

P.p : Pilot pressure
P.a : Supply pressure

Principle of operation

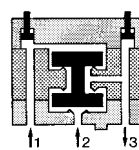**OR element**

The output signal "S" is present when a signal at "a" OR "b" is present
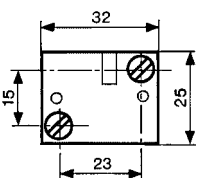
S = a OR b   S = a + b

AND element

The output signal "S" is present only when signals "a" AND "b" are present simultaneously.
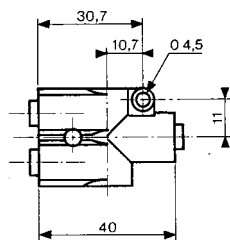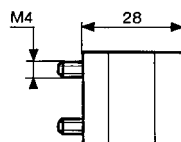
S = a AND b   S = a . b

Dimensions

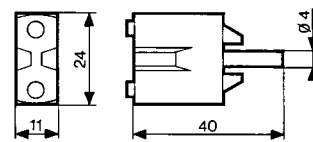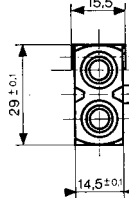**81 521 501 - 81 522 501**

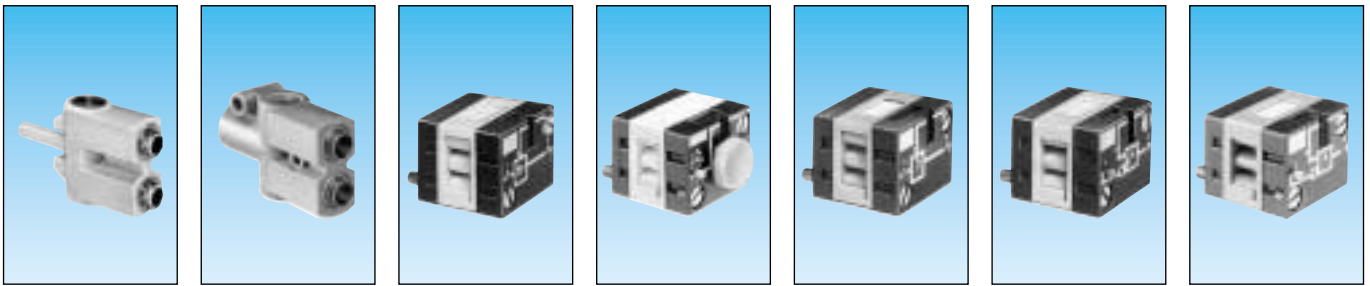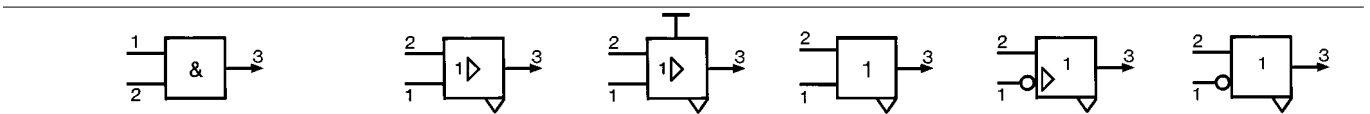**81 540 005 - 81 541 005**

81 540 001 - 81 541 001

Other information

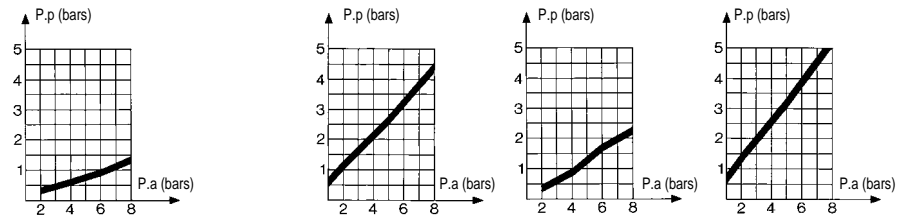See page 4/8 for mounting plan for logic elements.

81 541 001	**81 541 005**					
		81 501 025	**81 501 065**	**81 503 025**		
					81 504 025	**81 506 025**
Plug-in Ø 4	Plug-in Ø 6	On sub-base page 4/14 - 4/15	Manual override On sub-base page 4/14 - 4/15	Threshold On sub-base page 4/14 - 4/15	Simple and inhibition On sub-base page 4/14 - 4/15	Threshold On sub-base page 4/14 - 4/15
Ø 4 mm	Ø 6 mm					
Green	Green	Yellow	Yellow	Orange	Light grey	Dark grey
2 • 8	2 • 8	2 • 8	2 • 8	2 • 8	2 • 8	2 • 8
2.7	4	2.7	2.7	2.7	2.7	2.7
150	200	170	170	170	170	170
	•	•	•	•	•	•
		< 4	< 4	< 4	< 4	< 4
-5 +50	-5 +50	-5 +50	-5 +50	-5 +50	-5 +50	-5 +50
	>10^7	>10^7	>10^7	>10^7	>10^7	>10^7
13	25	30	35	30	30	30

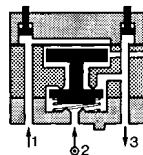$P.p$ (bars) vs $P.a$ (bars) characteristic graphs for 81 503 025, 81 504 025 and 81 506 025.

YES element

The output signal "S" is only present when the pilot is present :

S = a YES b   S = a

NOT element

The output signal "s" is present only if the input signal "a" is NOT present. The output signal is therefore the inverse of the pilot signal.
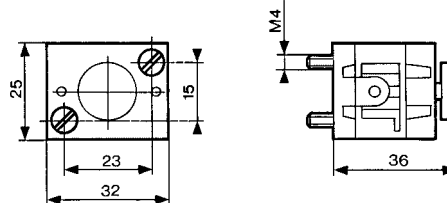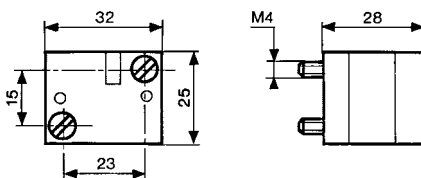
S= NOT a $S = \overline{a}$

If the supply port is connected to a 2nd input "b", the function obtained is called Inhibition.

S = NOT a AND b $S = \overline{a} \cdot b$

81 501 025 - 81 503 025
81 504 025 - 81 506 025

32 M4 28 15 25 23

81 501 065

M4 25 15 23 32 36

To order, specify :	
■ Standard products	
■ Standard products, non stocked	[1] Part number Example : Logic elements 81 521 501

Crouzet logo