

JOUCOMATIC

GENERAL

Fluid
Operating pressure
Ambient temperature
Orifice
Flow (Qv at 6 bar)
Switching time
Mechanical life (at 6 bar)

Logic elements

Air or neutral gas filtered, lubricated or not
 2 to 8 bar
 -5°C to +50°C
 Ø 2,7 mm
 200 l/min (ANR)
 3 ms
 > 10⁷ cycles

Memory relay

0 to 12 bar
 -10°C to +60°C
 Ø 4 mm
 280 l/min (ANR)
 12 ms
 > 10⁷ cycles


OR LOGIC ELEMENT

(Logical sum)

Operation :

Output signal «3» is present when a pressure signal «1» OR «2» is present (or both simultaneously).

$$3 = 1 + 2$$

OR logic element			
catalogue number	standard	ATEX (1)	
	33100053	33101053	
dim. H* (mm)	45		
weight (kg)	0,025		

* dimension H : see page 7


AND LOGIC ELEMENT

(logical product)

Operation :

The output signal «3» can only be present if pressure signals «1» AND «2» are simultaneously present.

$$3 = 1 \cdot 2$$

AND logic element			
catalogue number	standard	ATEX (1)	
	33100054	33101054	
dim. H* (mm)	45		
weight (kg)	0,025		

* dimension H : see page 7

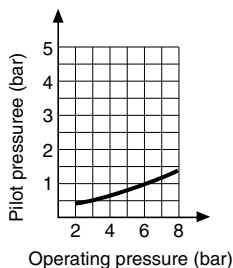
YES LOGIC ELEMENT


(logical identity)

Operation :

The output signal «3» is present if control signal «1» is present

$$3 = 1$$



YES logic element			
catalogue number	standard	ATEX (1)	
	33100055	33101055	
dim. H* (mm)	45		
weight (kg)	0,025		

* dimension H : see page 7

NOT LOGIC ELEMENT AND PRESSURE DELAY END OF STROKE RELAY

(logical negation)

Operation :

If control signal «1» is not present, output port «3» is pressurized. The output signal thus inverts the control signal :

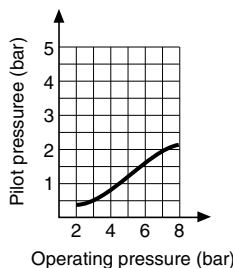
$$3 = \text{NOT } 1$$


$$3 = \bar{1}$$

If the signal of a variable is connected to port «2», the obtained function is called **inhibit** :

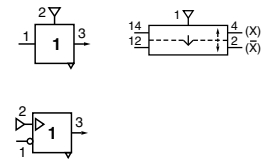
$$3 = 2 \text{ NAND } 1$$

$$3 = 2 \cdot \bar{1}$$



NOT logic element			
catalogue number	standard	ATEX (1)	
	33100056	33101056	
dim. H* (mm)	45		
weight (kg)	0,025		

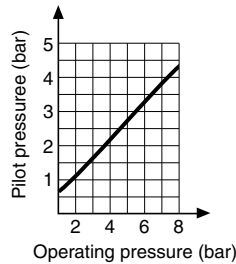
* dimension H : see page 7



**RELAY WITH POSITIVE OUTPUT THRESHOLD
(YES with threshold)**

Operation :

The output signal «3» is present when the pressure from input signal «1» has reached the relay switch threshold.



YES at threshold (+ output)			
catalogue number	standard	ATEX (1)	
	33300043	33301043	
dim. H* (mm)	45		
weight (kg)	0,025		

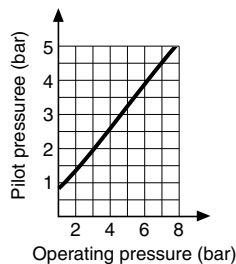
* dimension H : see page 7

**RELAY WITH NEGATIVE OUTPUT THRESHOLD
(NO with threshold)**

Operation :

The output signal «3» disappears when the pressure from input signal «1» has reached the relay switch threshold.

This signal is present when input signal «1» disappears («2» = supply pressure).



NO at threshold (- output)			
catalogue number	standard	ATEX (1)	
	33300044	33301044	
dim. H* (mm)	45		
weight (kg)	0,025		

* dimension H : see page 7

MEMORY RELAY

Operation :

When an input signal «14» appears, it causes the spool to move, and ouput port 4(X) to be pressurized. This state is memorized until the arrival of return «12», which reverses spool movement and pressurizes output 2 (X).

This state is also memorized.

Memory relay with simultaneous passive inputs.

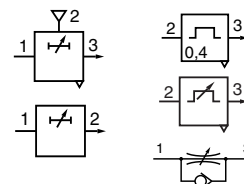
When both the output and return signals (14 - 12) are present, the relay remains in the position last signal.

Exhaust ports (3 and 5) may be piped or fitted with silencers (G 1/8).

memory relay		
catalogue number	standard	
	33300079*	
dimensions	see page 7	
weight		

* composed of spool valve 54000050 + subbase 35900022

(1) version intended for use in potentially explosive atmospheres caused by gases, vapours, mists an/or dusts - ATEX directive 94/9/EC
Classification : II 2GDc IIB T6X



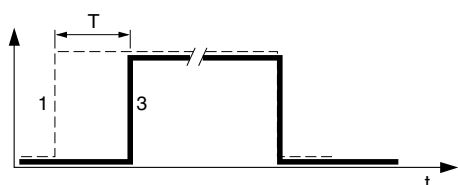
GENERAL

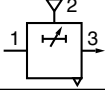


- Fluid**
- Ambient temperature**
- Operating pressure**
- Orifice**
- Flow (Qv at 6 bar)**
- Accuracy at constant pressure**
- Reset time**

Relay - logic element interface	Relay - CNOMO interface
Compressed air or neutral gas filtered, lubricated or not	Compressed air or neutral gas filtered, lubricated or not
-5°C to +50°C	-5°C to +50 °C
2 to 8 bar	3 to 10 bar
Ø 2,7 mm	-
170 l/min (ANR)	150 l/min (ANR)
± 5 %	± 10 %
0,1 s w/ 20 cm of flexible tube w/ OD Ø 4 exterior	

**ADJUSTABLE TIMER RELAY
0 - 15 s and 0 - 30 s (logic element interface)**

These 2 relays deliver a delayed output signal «3» compared to input signal «1».

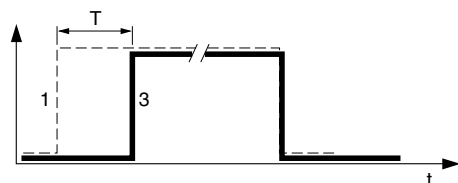


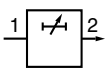

adjustable timer			
	Standard	ATEX (1)	
catalogue number (0-15 s)	33300046	33301046	
(0-30 s)	33300047	33301047	
dim. H* (mm)	97 (0-15 s) 111 (0-30 s)		
weight (kg)	0,090 (0-15 s) 0,100 (0-30 s)		

* dimension H : see page 7

**ADJUSTABLE TIMER RELAY 0 - 15 s
(CNOMO interface - LT type)**

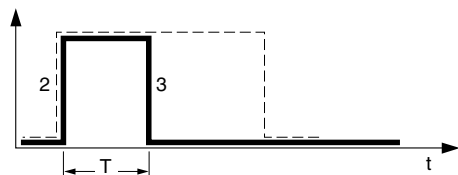
Delayed output signal «3» compared to input signal «1». CNOMO 06.05.80 interface

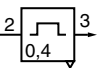



adjustable timer (0-15 s)			
	Standard	ATEX (1)	
catalogue number	34600012		
Dimensions	see page 7		
Weight (kg)			

**PULSE GENERATORS
(logic element interface)**

Converts a maintained signal «2» into a pulse «3» with a fixed duration (T = 0,4 s) or adjustable.


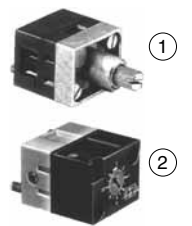


pulse generator			
	fixed	adjustable	
catalogue number	standard 33300027	ATEX (1) 33301027	standard 33300072
dim. H* (mm)	92		118
weight (kg)	0,106		0,180


* dimension H : see page 7

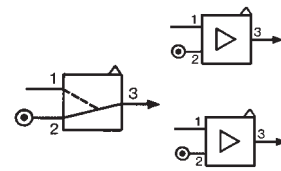
**ADJUSTABLE ONE-WAY FLOW REGULATORS
(logic element interface)**

- ① Simple flow regulator :
 - operating pressure : 2 à 8 bar
 - max. flow adjustment : 0 à 130 l/min (ANR)
- ② Sensitive flow regulator :
 - operating pressure : 1 to 8 bar
 - max. flow adjustment : 0 to 30 l/min (ANR)
w/ one turn of screw.

flow regulators			
	simple	sensitive	
catalogue number	33300036	33300048	
dim. H* (mm)	69	58	
weight (kg)	0,070	0,060	

* dimension H : see page 7

(1) version intended for use in potentially explosive atmospheres caused by gases, vapours, mists an/or dusts - ATEX directive 94/9/EC
Classification :  II 2GDC IIB T6X



GENERAL

Fluid
Operating pressure
Ambient temperature
Orifice
Flow (Qv à 6 bar)
Hysteresis
Mechanical life (at 6 bar)

Leak sensor relay	Amplifier relays
Air or neutral gas, filtered, lubricated or not	Air or neutral gas, filtered, lubricated or not
2 to 8 bar	2 to 6 bar
-5°C to +50°C	-5°C to +50°C
Ø 2,5 mm	Ø 2,5 mm
5 l/min (ANR)	6 l/min (ANR)
-	< 5% of pilot pressure
> 10 ⁷ cycles	3 x 10 ⁶ cycles

**LEAK SENSOR RELAY
(logic element interface)**
(positive output)

Operation :
Relay designed to supply air to a leak sensor - not included (see Fluid Power catalogue page P830 or ATEX catalogue page X019-395-10).
The relay and leak sensor unit allows detecting the presence of a part by shutting off the bleed at the sensor.

leak sensor relay		
catalogue number	33300022	
dim. H* (mm)	53	
weight (kg)	0,035	

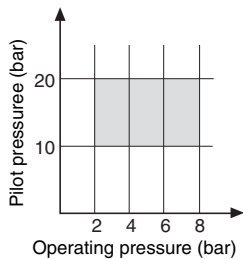
* dimension H : see page 7

**SIMPLE AMPLIFIER RELAY
(logic element interface)**

Operation :
Relay designed to supply air to a proximity or gap sensor - not included (see Fluid Power catalogue page P830 or ATEX catalogue page X019-395-10).
An output signal at normal industrial pressure is delivered on a low pressure input.

simple amplifier relay		
catalogue number	33300019	
dim. H* (mm)	77	
weight (kg)	0,150	

* dimension H : see page 7

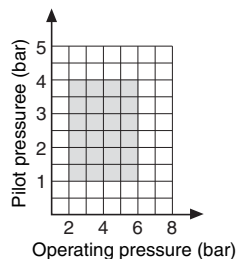


**SENSITIVE AMPLIFIER RELAY
(logic element interface)**

Operation :
An output signal at normal industrial pressure is delivered on a very low pressure input.
Relay designed to supply air to a proximity or gap sensor - not included (see Fluid Power catalogue page P830 or ATEX catalogue page X019-395-10).

sensitive amplifier relay		
catalogue number	33300020	
dim. H* (mm)	92	
weight (kg)	0,186	

* dimension H : see page 7

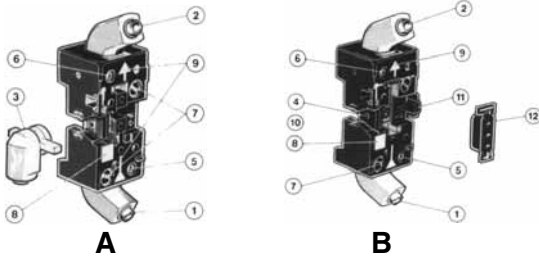


SUBBASES FOR LOGIC ELEMENTS AND OTHER COMPONENTS

Logic elements, relays, and components with logic element interface can be mounted on two types of subbases :

- Simple subbase (or end plate if mounted with joinable subbases)
- Joinable subbases (equipped with a connection selector for integrated wiring)

These subbases are equipped with rotatable instant fittings and can be fitted on an Omega EN 50022 symmetrical DIN rail.



- A - Simple subbase or pair of end plates.
- B - Joinable subbase.
- 1 - Input port (1, green).
- 2 - Output port (3, red).
- 3 - Input or pressurized port (2, yellow) OD Ø 4 mm.
- 4 - Input port inside subbase.
- 5 - Input pressure indicator (green).
- 6 - Output pressure indicator (red).
- 7 - 1/4-turn attaching screw.
- 8 - Marking area.
- 9 - Arrow indicating fluid flow direction.
- 10 - Mortise assembly.
- 11 - Tenon assembly.
- 12 - Selector

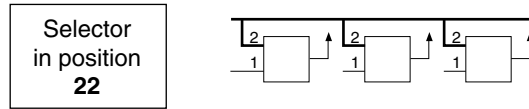
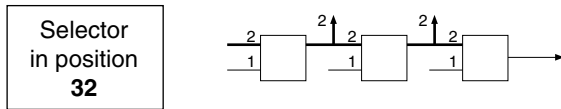
NOTE : Subbases are equipped with 360°-rotatable instant fittings and are particularly accessible due to front-end wiring. Tubes are connected to the left- or right and sides of the subbase, significantly reducing space requirements.

CONNECTION SELECTOR

The connection selector delivered with each joinable subbase can be positioned for the following two functions :

IN-SERIES WIRING (with bypass)

IN-PARALLEL WIRING



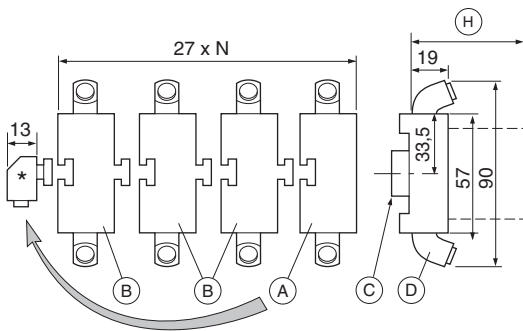
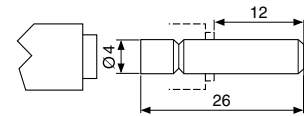
SPECIFICATIONS

description	catalogue number	
	standard	ATEX (1)
simple subbase (or end plate)	35900019	35901019
joinable subbase	35900021	35901021

NOTE : To mount a set of N components, «N - 1» joinable subbases (359 00 021) + 1 simple subbase (end of plate) (359 00 019).

ACCESSORIES

description	standard catalogue number
set of 10 plugs L3126 04 00 (OD Ø 4 mm)	33400015



- (A) - Simple subbase / end plates.
- (B) - Joinable subbases.
- (C) - Omega symmetrical DIN rail.
- (D) - Rotatable instant fittings for flexible tube OD Ø 4 mm.
- (H) - Height with component.
- N - Number of subbases.

weight simple subbase : 0,056 kg
weight joinable subbase : 0,056 kg

* The yellow rotatable instant fitting delivered with the simple subbase (end plate) is mounted at the ends of the joinable subbases.

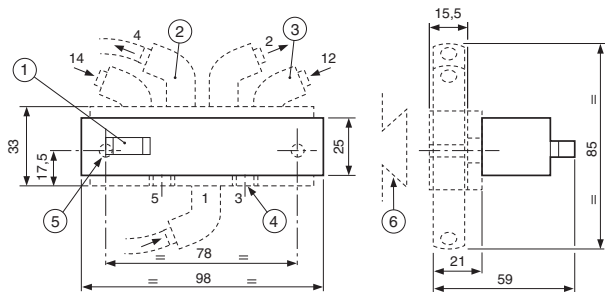
00231GB-2005/R01 Availability, design and specifications are subject to change without notice. All rights reserved.

(1) version intended for use in potentially explosive atmospheres caused by gases, vapours, mists an/or dusts - ATEX directive 94/9/EC
Classification : II 2GDc IIB T6X

MEMORY RELAY - SUBBASE

SPECIFICATIONS

description	standard catalogue number
simple subbase with fittings	35900022



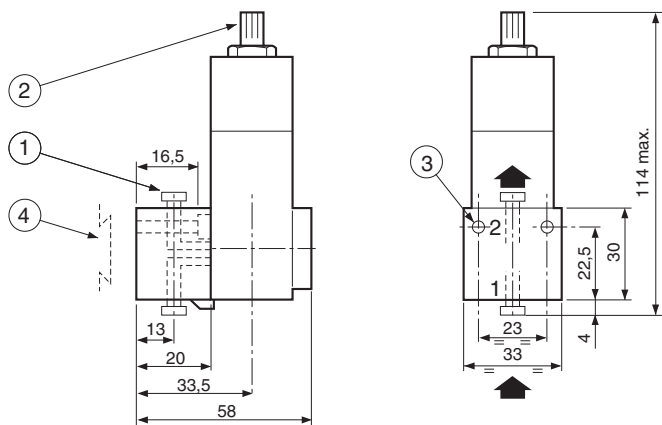
- ① Position display and manual control
- ② 3 rotatable instant fittings for flexible tube OD Ø 6 mm. (1 - 2 - 4)
- ③ 2 rotatable instant fittings for flexible tube OD Ø 4 mm.. (12 - 14)
- ④ 2 G 1/8 ports (3 - 5)
- ⑤ 2 attaching holes Ø 5,2 mm.
- ⑥ 2 mounting clips on Omega EN 50022 symmetrical DIN rail (Set of 10, catalogue number **33400043**. see page 10).

Weight (subbase + memory relay) : 0,480 kg

ADJUSTABLE TIMER RELAY (CNOMO) - SUBBASE

SPECIFICATIONS

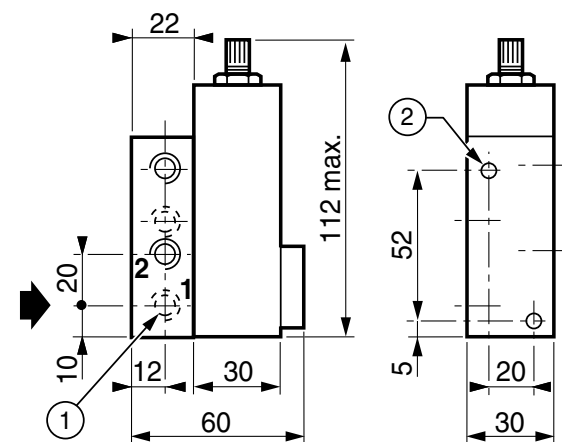
description	standard catalogue number
simple subbase - with OD Ø 4 mm fittings (polyamide 6/6)	35300069
simple subbase - G1/4 tapped (zamak)	35300049



Subbase 35300069

- ① Connection with fittings for flexible tube w/ OD Ø 4 mm.
- ② Timing set control
- ③ 2 attaching holes Ø 3,5. filed Ø 6,5 mm depth 3,5 mm.
- ④ Mounting clips on Omega EN 50022 symmetrical DIN rail (Set of 10, catalogue number **33400036**. see page 10).

Weight (subbase + timer relay) : 0,280 kg



Subbase 35300049

- ① G1/4 tapped connection
- ② 2 attaching holes Ø 4,5. filed Ø 8 mm depth 6 mm.

Weight (subbase + timer relay) : 0,394 kg