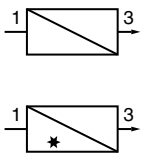
PROGRAM SEQUENCER

Series **331**



GENERAL

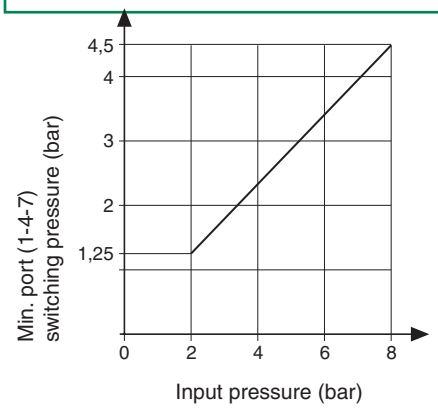
Fluid	Air or neutral gas filtered, lubricated or not
Operating pressure	2 to 8 bar
Ambiant temperature	-5°C to +50°C
Orifice	Ø 2,7 mm
Flow (Qv at 6 bar)	150 l/min (ANR)
Min. switching presssure	see graph below
Response time	6 ms
Switching time	2 ms
Mechanical life (at 6 bar)	> 10^7 cycles

OPERATION (see schematics and graph opposite)

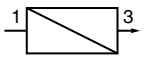
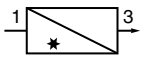
A signal at port 4 causes the spool to move. Pressure is applied through input port 2 to output port 3 (S1). A signal at port 7 moves the spool back, setting port 3 to exhaust.
If signals 4 and 7 are simultaneously present, the equipment is designed to give priority to return signal 7.

MAINTAINED RESET: in case of an input pressure failure, a brake system stops the spool in the position where it is. When pressure is reapplied, the cycle resumes from this position.

RESET TO ZERO: in case of an input pressure failure, an automatic reset system moves the spool back to the rest position.



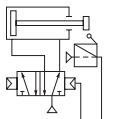
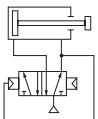
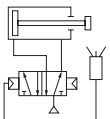
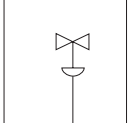
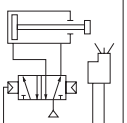
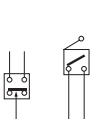
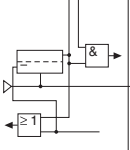
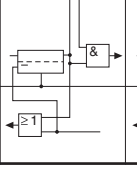
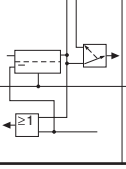
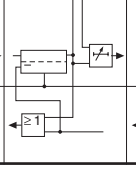
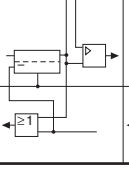
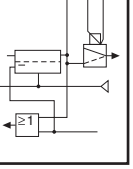
SPECIFICATIONS

description		symbols	catalogue number (1) standard	catalogue number (1) ATEX (2)
program sequencer module	w/ maintained reset		**33100049**	**33101049**
	w/ reset to zero		**33100050**	**33101050**

(1) to be completed with the reference numbers of subbases, logic element, or transition component (see below).
(2) version intended for use in potentially explosive atmospheres caused by gases, vapours, mists an/or dusts - ATEX directive 2014/34/EU
Classification : Ⓔx *II 2GDc IIB T6X*

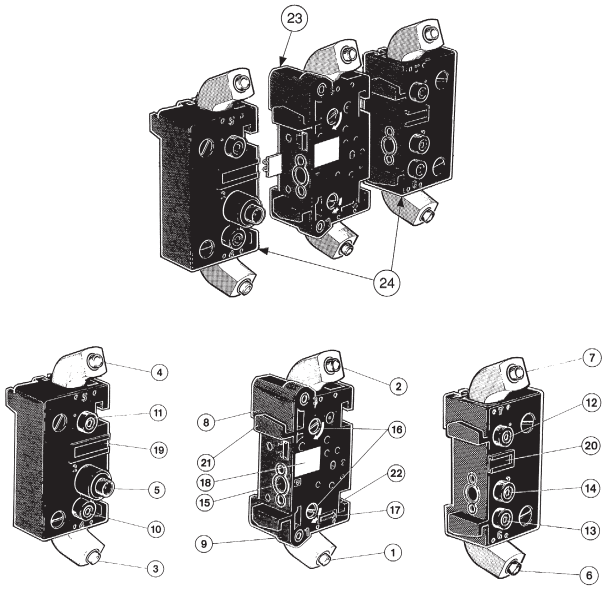
TRANSITION FUNCTIONS

The various types of autpmation require different sensor devices (see table to right).
Control information indicating movement are complete is signaled to the sequencer via the **transition functions.**
These transition fuction logic elements fit directly on the sequencer, significantly reducing wiring and size of the pneumatic logic control system.

INFORMATION SENSORS	① Mechanical limit valve	② Pressure release sensing end of stroke	③ Leak sensor (fed only during considered phase: reduction in compressed air cosumption)	④ Signal from module output or from any sensor	⑤ Proximity sensor	⑥ Sensor or electric signal
Transition function logic elements	AND logic element	Pressure release (NOT logic element)	Leak sensor relay	Timer	Amplifier	Solenoid valve
SUPPLY CIRCUIT						
CONTROL CIRCUIT						

PRINCIPLE

Program sequencer can be mounted on joinable subbases (23) which ensure connections between each module.
The subbase is equiped with rotatable instant fittings and can be installed on an Oméga EN 50022 symmetrical DIN rail.
A pair of end plates (24) consisting of an input end and an output end are used for connections to the sequencer.



1 - Input port (1, green) Ø 4 mm.
2 - Output port (3, red) Ø 4 mm.
3 - Input port (4, green) start-cycle signal, Ø 4 mm.
4 - Output port (5, red) in-cycl signal, Ø 4 mm.
5 - Pressurized port (2, yellow), Ø 6 mm.
6 - Output port (6, red) end-of-cycle, Ø 4 mm.
7 - Input port (7, green) reset-to-zero signal, Ø 4 mm.
8 - Output pressure indicator (red).
9 - Input pressure indicator (green).
10 - Pressure indicator of start-cycle signal (4, green).
11 - Pressure indicator of in-cycle signal (5, red).
12 - Pressure indicator of reset-to-zero signal (7, green).
13 - Pressure indicator of end-of-cycle signal (6, red).
14 - Pressure indicator of supply pressure (2, yellow).
15 - Subbase interconnection orifice
16 - Attaching screw
17 - Engraved arrow indicating sequence direction.
18 - Marking area.
19 - Port label slot.
20 - Port label slot.
21 - Tenon assembly.
22 - Mortise assembly.
23 - Subbase.
24 - Pair of end plates.

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

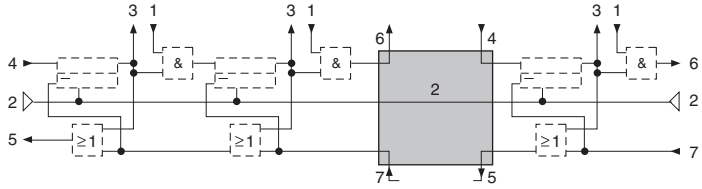
SPECIFICATIONS

description	catalogue number	
	standard	ATEX (1)
program sequencer subbase	**35900017**	**35901017**
pair of end plates	**35900018**	**35901018**

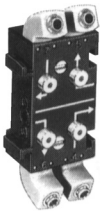
(1) version intended for use in potentially explosive atmospheres caused by gases, vapours, ATEX directive 2014/34/EU
Classification : Ⓔx *II 2GDc IIB T6X*

ACCESSORIES

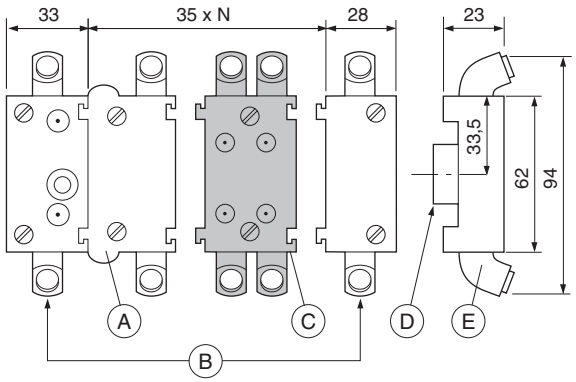
Bypass block - standard catalogue number: **35900023,**
ATEX catalogue number: **35901023**



Bypass block

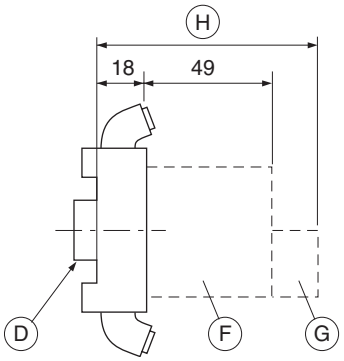


DIMENSIONS (mm), WEIGHT (kg)



Ⓐ - Subbase.
Ⓑ - Pair of end plates.
Ⓒ - Bypass block.
Ⓓ - Oméga DIN rail.
Ⓔ - Rotatable instant fittings for flexibles tube OD Ø 4 mm.
Ⓕ - Sequencer.
Ⓖ - Transition component.
Ⓗ - 95 to 145 mm according to transition function logic element (95 with AND logic element).
N - Number of steps.

SUBBASE + SEQUENCER



	weight (kg)
Joinable subbase	0,055
Pair of end plates	0,135
Bypass block	0,060
Program sequencer + joinable subbase	0,125