Command memory module Type SBA-2N-PK-3
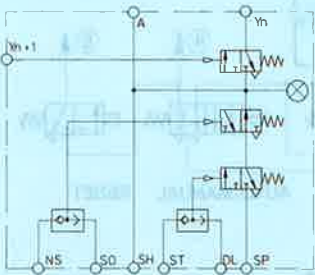with input logic
on 2n sub-base

Port identification:

ST = Port for start signal
SO = Port for stop signal
NS = Port for emergency stop signal
P = Compressed air supply port
SH = Output for latching loop
DL = Input for latching loop
A = Output signal
Yn + 1 = Input for additional AND logic (e.g. last stepper module of a sequencer)
Yn = Port for switched output signal (e.g. to the first stepper module of a sequencer)

The purpose of the command memory module is to make the design and assembly of pneumatic control systems simpler and less expensive.

All pneumatic control circuits require signal input elements. In the case of more complex control tasks, several signal input functions may be required e.g. START, STOP, EMERGENCY STOP, etc. The command memory module provides logic switching for these recurring start and stop functions and for preconditions for the selection of modes of operation.
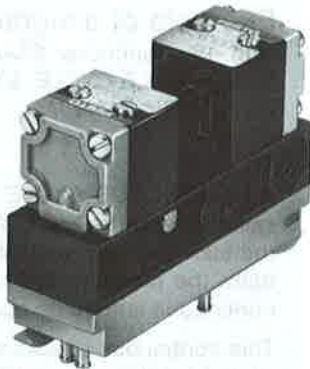
An external connection between ports SH and DL guarantees that there is a start memory latching loop after start is accomplished, thus producing a continuous signal at A. A switch can be fitted into this connection for the "continuous operation" or "single-cycle operation" modes of operation. As the start memory is set, a pressure indicator is simultaneously actuated.

When the command memory module is used with a FESTO sequencer, the signal Yn + 1 from the last module of the sequencer is applied to port Yn + 1 of the memory, and the outlet signal Yn is applied to port Yn of the first stepper module. This additional AND function makes it possible to restart the sequencer only at the end of the sequence cycle. Outlet A should be sealed off.

A signal to port SO (STOP) or NS (EMERGENCY STOP) interrupts the continuous-operation mode immediately, i.e. the sequencer stops at the end of the sequence cycle.

Pilot pressure at ports NS, SO, ST, DL as a function of the operating pressure at port P.

① Impermissible area

16
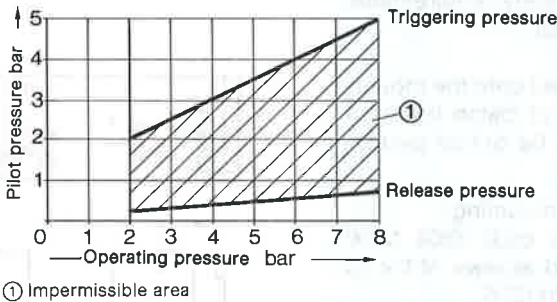
Order code	Part No./Type	9708 SBA-2N-PK-3
Medium		Compressed air, filtered (lubricated or unlubricated)
Design		Diaphragm-controlled poppet valves and integrated AND or OR elements
Mounting		On mounting frame
Connection		Barbed fittings for 3 mm plastic tubing
Nominal size		3 mm
Standard nominal flow rate (P→A)		70 l/min
Operating pressure range		2 to 8 bar
Temperature range		−10 to +60° C
Materials		Housing: plastic, zinc casting; sub-base: plastic, brass; seals: perbunan
Weight		0.350 kg

Example of a signal input

with the functions START, CONTINU-OUS-/SINGLE CYCLE, STOP, AUTOMATIC/MANUAL, EMERGENCY STOP

If CONTINUOUS CYCLE and AUTO are selected, depressing START will initiate the start memory latching loop, and actuate the pressure indicator, triggering continuous automatic operation.

This continuous operation can be interrupted only by pressing the STOP button or by a pressure failure. The sequencer then stops at the end of the sequence cycle.

With AUTOMATIC preselected, a start can be made in the usual manner. If a switchover is made to MANUAL during the cycle, the start memory latching loop is cancelled, and the sequencer stops at the end of the sequence cycle. In this switching state, the working valves can be reversed by means of MANUAL buttons, thus making it possible to influence the final control elements.

If the EMERGENCY OFF button is pressed, the start memory latching loop is cancelled via the OR element, and the signal can be used to control external elements.

The EMERGENCY OFF functions should be matched to the safety requirements for each control circuit.

The module is mounted onto the mounting frame by means of clamp levers. If required, it can also be bolted permanently in position.

Accessories for bolt mounting:
Two brackets, Order code 5658 NRW 9/1.5; 2 cheese-head screws M4 × 10 DIN 84, Order code 200 525.

Mounting frame for manifold mounting and control cabinet fitting see sheet 6.430.

Accessory:

Adhesive schematic transparencies of the command memory module with graphical symbols as per DIN ISO 1219, for the production of circuit diagrams (10 transparencies on a sheet, DIN A4).

Order code
9406 SBAF-A4

EMERGENCY-OFF STOP CONTINUOUS/ START AUTO/MANUAL RESET
SINGLE CYCLE
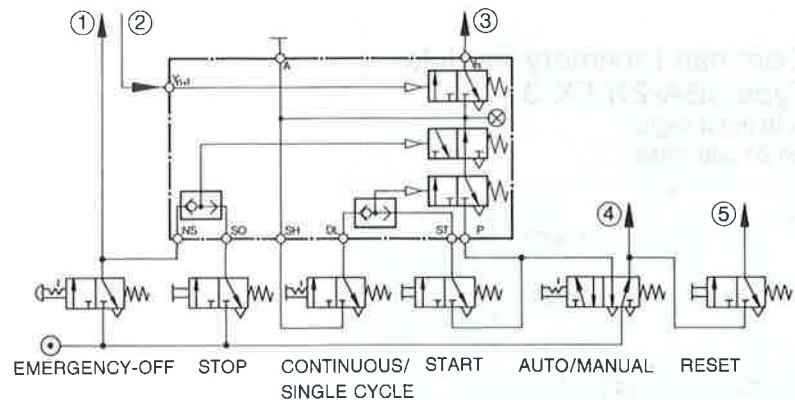
① EMERGENCY-OFF signal to the final control elements
② Signal Yn + 1 from the last stepper module of the sequencer
③ Outlet signal to the first stepper module of the sequencer
④ Compressed air supply for MANUAL button
⑤ Signal to port L of the sequencer
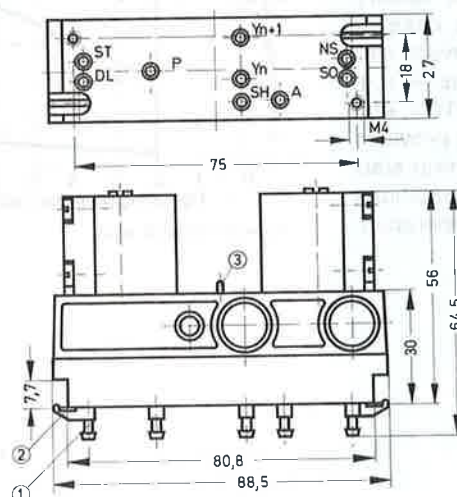
① Barbed fittings for 3 mm plastic tubing
② Clamper lever for mounting frame
③ Pressure indicator for set start memory
ST   = Port for start signal
SO   = Port for stop signal
NS   = Port for emergency stop signal
P   = Compressed air supply port
SH   = Outlet for self-hold
DL   = Inlet for self-hold
A   = Outlet signal
Yn + 1 = Inlet for additional AND logic circuit (e.g. last stepper module of a sequencer)
Yn   = Port for switched outlet signal (e.g. to the first stepper module of a sequencer)