Quickstepper and Commander FSS/FSSC

Key features

FESTO

Quickstepper	Commander
• Pneumatic/mechanical sequencer with 12 steps and start logic circuits • Ready to install • Acknowledgement-controlled motion sequences	• Command module for use with Quickstepper, including the most important functions for pneumatic sequencers

The Quickstepper is a miniature controller with 12 switching steps. It is particularly suitable for use with the Commander. Each input Xn is assigned an output An. Only one output at a time is fed with compressed air, in an order corresponding to the sequence of the switching steps. The other outputs are exhausted at this time. The Quickstepper offers a safe mode of operation: each given switching step cannot begin until the preceding step has been executed and acknowledged. If the pulses fed to the input L are too short, the output A is disabled.

Quickstepper and Commander FSS/FSSC

Key features

Quickstepper FSS-12-C

Commander FSSC-12

Functions

- Step counter for steps 1 to 12 with upward counting function
- White pressure indicator for activated output Pn
- Blue pressure indicator for acknowledgement signal from last step to be executed (INPUT)
- Slide switch OUTPUT:
  When the switch is at 0, the outputs are disabled. The control steps can be worked through manually. Only the selected step is activated. When the switch is set to 1, pressure is fed to the activated output.
- Pushbutton MAN.STEP (inching operation):
  Advance to next step or selection of a switching step.
- Port MAN/P:
  Port for pilot air P for operation without a Commander. This signal can also be obtained from an external preselect MAN.

- Safety:
  When the port L (reset) is activated, the step indicator always advances to the last step (12). This is important when the control is at a standstill. The Quickstepper has the additional safety feature that it will switch only when a continuous signal is present at the AUTO port. When an AUTO signal is present, inching operation (step-by-step manual switching) is not possible. The OUTPUT preselect is then disabled. This ensures that no manual intervention can be made while the Quickstepper is running in the AUTOMATIC mode.
  Only one output at a time is fed with compressed air. All other outputs are exhausted.

Functions

- O position:
  Visual indicator for direct reporting of initial position from system signal generator.
- Reset
  Reset is active in the MAN mode. The Quickstepper is reset to step 12 in its initial position.
- START button
- Preselect AUTO/MAN
  In the MAN mode, setup or inching operation is activated.
- STOP button
  For a stop within the cycle. The next step is then disabled.
- Preselect for continuous/single cycle If, while the controller is in operation, this selector switch is moved from continuous cycle to single cycle, or from continuous cycle to single cycle and back to continuous cycle, operation will stop (stop at end of cycle).

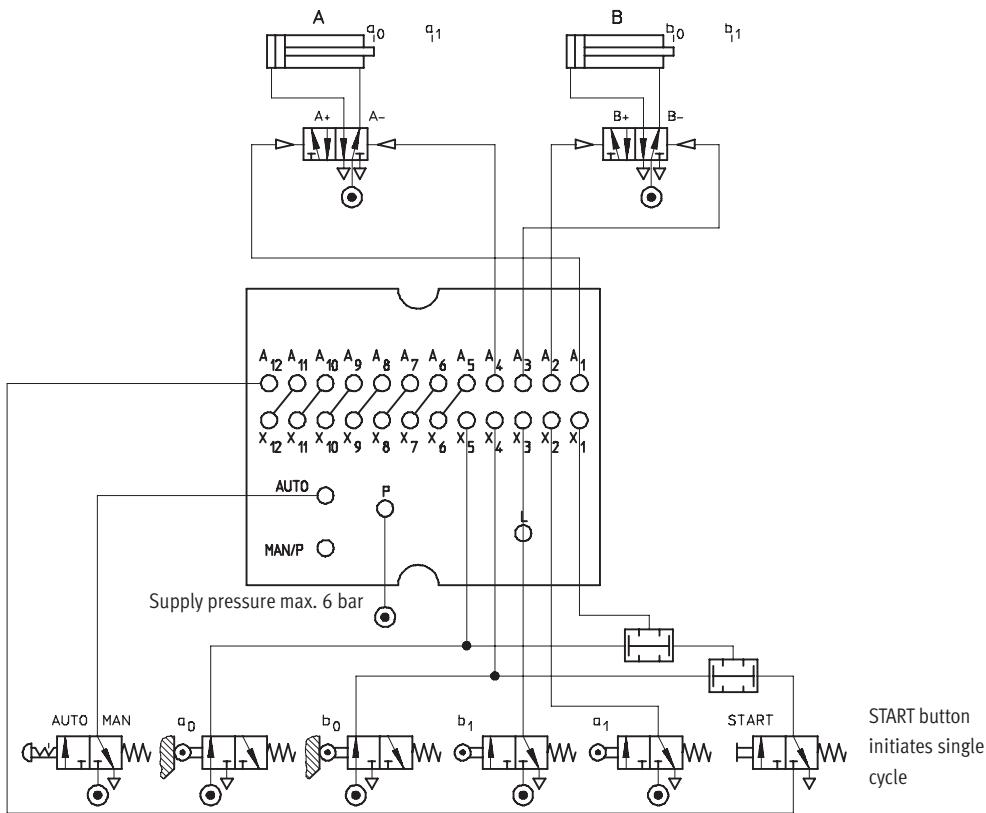| Technical data			
		Quickstepper FSS-12-C	Commander FSSC-12
Operating medium		5 µm filtered, unlubricated compressed air	
Constructional design		Sequencer with 12 switching steps (additive)	
Nominal size			
Inputs and outputs	[mm]	2.5	
Standard nominal flow rate	[l/min]	60	
P › An			
Operating pressure range	[bar]	2 ... 6	
Acknowledgement response pressure	[bar]	≥ 1.5	
Acknowledgement drop-off pressure	[bar]	≤ 0.5	
Acknowledgement pulse length	[ms]	min. 50	
Step frequency max.	[Hz]	12	
Temperature range	[°C]	−15 ... +60	
Pneumatic connection		Barbed fitting for plastic tubing with 3 mm standard ID	
		P, P_{IN}, A_P: Barbed fitting for plastic tubing PU or PP with 4 mm standard ID	
Type of mounting		On mounting frame 2n or panel mounting	
Materials		Housing, sub-base: plastic; barbed fitting: brass;	
		seals: perbunan, vulkollan	
Weight	[g]	450	450

Example of control application
Shown in initial position

Circuit diagram

P	= Compressed air supply		AUTO	= Start signal	
L	= Reset signal		MAN/P	= Pilot air supply for oper-	
X_1–X_{12}	= Inputs			ation without Commander	
A_1–A_{12}	= Outputs				

Quickstepper and Commander FSS/FSSC

Technical data

Circuit diagram

Rear side of Quickstepper-C
- MAN/P
  Port for pilot air P for operation without a Commander. This signal can also be obtained from an external preselect MAN.

Rear side of Commander
- $Start_{IN}$
  For alternative external START signal.

- ▓ - Note

If an external start is used, the START button on the front panel must be locked out (to disable the internal START function). This is important, since safety regulations specify that it must be possible to initiate a start from one place only.

- L_{IN}
  For an external reset signal. Note: The RESET button on the front panel can be locked out to disable the internal RESET function.
- EMERGENCY STOP
  If no signal is present or the pilot air supply fails, the outputs A1 ... A12 are disabled. They remain disabled even if an emergency stop pushbutton which has been pressed is released.

- P_{IN}
  Pilot pressure
- $Stop_{IN}$
  External signal for stop within cycle
- $O\ position_{IN}$
  Direct common initial position
- END_{IN}
  External signal for stop at end of cycle

Pneumatic control systems
Controller units

6.1

Standard connections
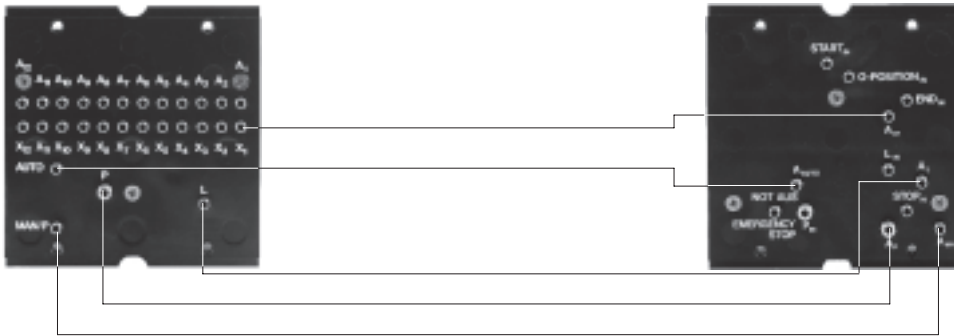
The Quickstepper and Commander can be replaced quickly. Tubing can be left in place.

Plug set FSS-KM-8-12

Used to bridge unused Quickstepper inputs and outputs. The blanking strip is cut to length according to the number of unused steps and pushed onto the barbed fittings. The P connection is made via a tubing connector to the lowest step which is to be bypassed. The threaded plug is always inserted at step 12.
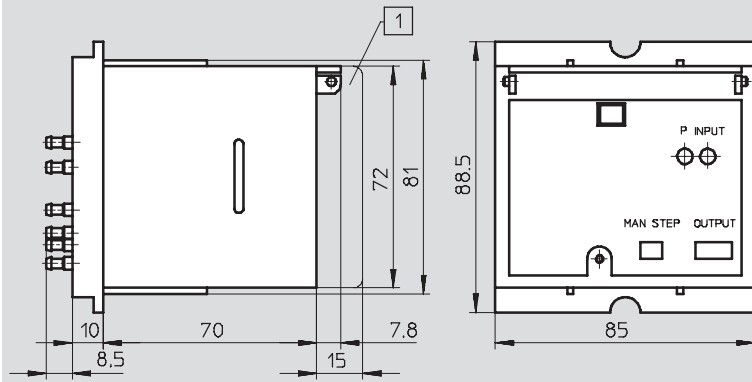
Quickstepper and Commander FSS/FSSC

Technical data

Dimensions

Download CAD data ➔ **www.festo.com/en/engineering**

Quickstepper FSS-12-C

P INPUT

MAN STEP   OUTPUT
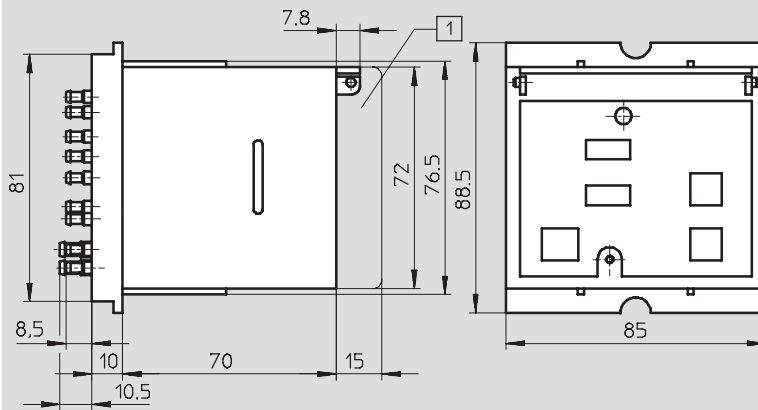
Commander FSSC-12

1   Protective cover

Frame for panel mounting FSS-F-12
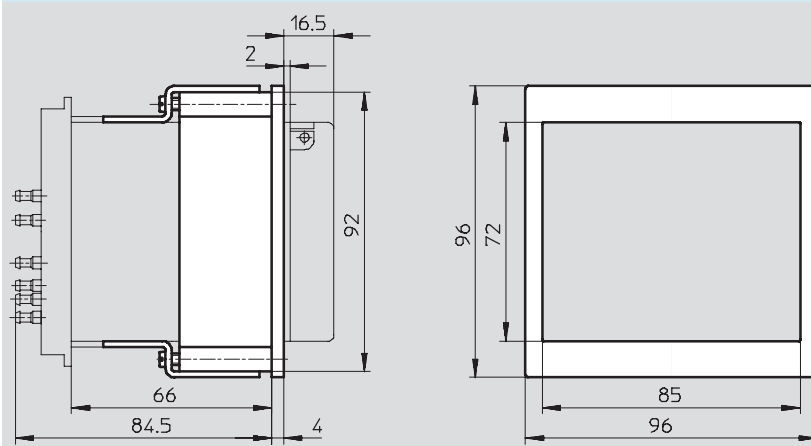
Ordering data

	Part No.	Type
Quickstepper	**15 609**	**FSS-12-C**
Commander	**13 985**	**FSSC-12**

Quickstepper and Commander FSS/FSSC

Accessories

Cover cap FSS-K-12-C	Panel frame FSS-F-12		Plug set FSS-KM-8-12

Required front panel aperture
☐ 92 mm
Panel thickness max. 13 mm

Ordering data			
	Weight [g]	Part No.	Type
Cover cap, lockable	40	**15 701**	**FSS-K-12-C**
Frame for panel mounting	110	**11 570**	**FSS-F-12**
Plug kit	–	**13 830**	**FSS-KM-8-12**