

SEQUENTIAL CONTROLLER FOR PNEUMATIC SYSTEMS TCP-2G01



USER MANUAL

GENERAL FEATURES

The Dual Sequence Injection TCP-2G01 provides a means of controlling the mold filling sequence when using Valve Gate Hot Runner Systems. TCP-2G01 enables the Valve Gates of a Hot Runner System to be individually controlled to provide the following benefits.

- **Removal or Positioning of Weld Lines**

Quality of the molded part can be improved by removing or repositioning of weld lines on visual surfaces, or sections where a weld line would cause a weakness.

- **Regulation of the Injection Quantity by Gate Operation**

Flash occurrence or short molding is improved by the regulation of the Injection Quantity from each individual gate.

- **Reduction of Clamping Force**

Injection is performed with minimum clamping force because all of the gates are not opened simultaneously.

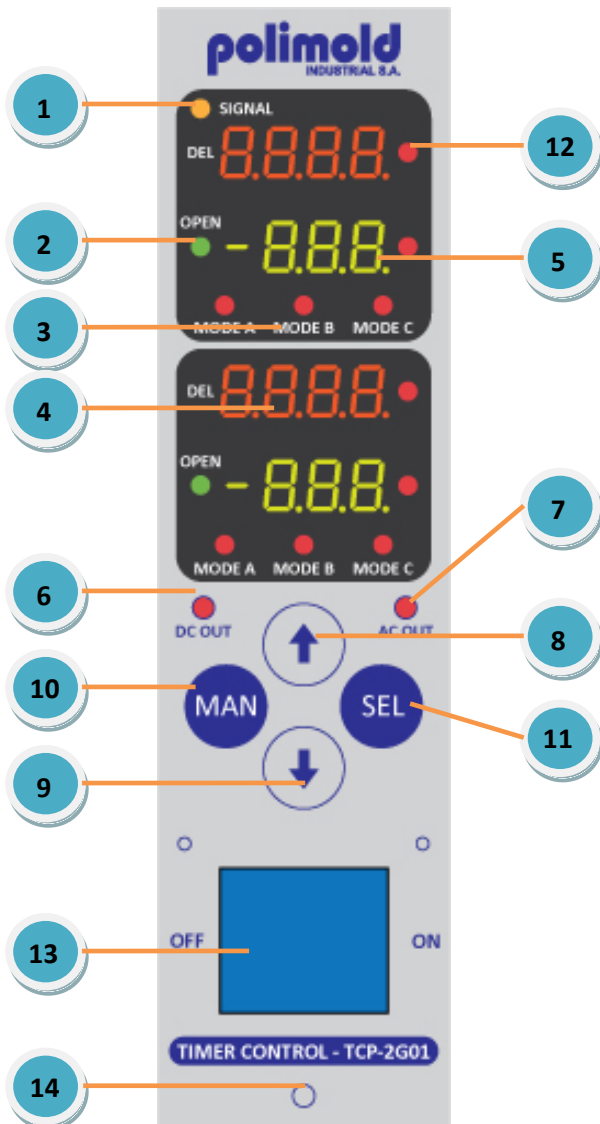
- **Reduction of Flow Marks**

Flow marks are minimized by being able to raise the injection rate at the gate.

POWER SUPPLY

Mains Power Supply (Timer case)	Single phase AC 220V (50/60 Hz)
	Dual phase AC110V (50/60 Hz)
Injection Signal Input Power Supply	DC 24V, AC 220V
	Select Signal Input
Solenoid Valve Voltage	DC 24V, AC 220V
Operating Temperature Range	-10°C ~ +50°C

TCP-2G01 CONTROL PANEL



1	SIGNAL LED	If injection signal is entered, lamp is turned on.
2	OPEN LED	If gate is opened, lamp is turned on. When it is manually operated in "10" lamp is also turned on.
3	MODE LED	Lamp is turned on when it is set as A, B, or C type. (Refer to mode setting method)
4	DEL	The time until gate is started to be opened after receiving injection signal. Mode A, MODE B, and MODE C operate in the same way. (Basic setting value : 3 seconds)
5	OPEN	The time when gate is being opened. Counting continues in mode A until injection signal ends. Gate opens only during setting time in mode B. (Basic setting value : 3 seconds)
6	DC LED	Signal Input Power Supply – DC Power
7	AC LED	Signal Input Power Supply – AC Power
8	UP KEY	A key to set up time. When the configuration is running, this key be able to set-up the mode operation (A, B, C or D)
9	DOWN KEY	A key to turn down time. When the configuration is running, this key is able to set-up the decimal time.
10	MAN	A key to set gate closed time after injection signal. When the configuration is running, this key is able to SAVE all functions changed.
11	SEL	Pressing simultaneously with Power Switch (13) when the device is turned on, the configurations is able to set-up.
12	LED	When the parameter is chosen, lamp is turned on
13	POWER SWITCH (ON – OFF)	
14	MODULE SECURING SCREW	

FUNCTIONS

Operation after power is connected

- When the power is initially connected, the system conducts a self-diagnosis
- All LED blinks simultaneously.
- After the first self-diagnosis, the memory comes back to the last parameter.

Mode and time unit setting

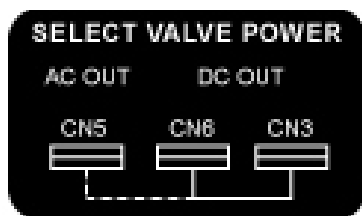
- Press POWER SWITCH simultaneously and connect power to convert to mode setting.
- All default parameters are shown on the display.
- "Set" starts blinking in the delay time display segment 'SET'.
- The superior module can be configured.
- Pressing the UP KEY will possibly change MODE OPERATION "A", "B", "C" or "D."
- Pressing the DOWN KEY to set-up the time. The set time unit saved in the open time display segment starts blinking (999,9,99,9,99).
- Press SEL and configure module 2.
- Press MAN to save the parameters.

SETTING OUTPUT VOLTAGE

Pull the Power Unit.

Insert the OUT_V1, OUT_V2 cables of the MAINFRAME into desired voltage DC 24V or AC.

(Refer to the following figure)



- Match the selected voltage with the Solenoid Valve voltage specifications. (Basic Setting AC 220V)

GATE OPENING BY MODE TYPE SELECTION

It is possible to set various conditions by selecting the DEL and OPEN timer settings as below.

