SNEEZE GUARD HEATING CONTOL WITH EPR-3790

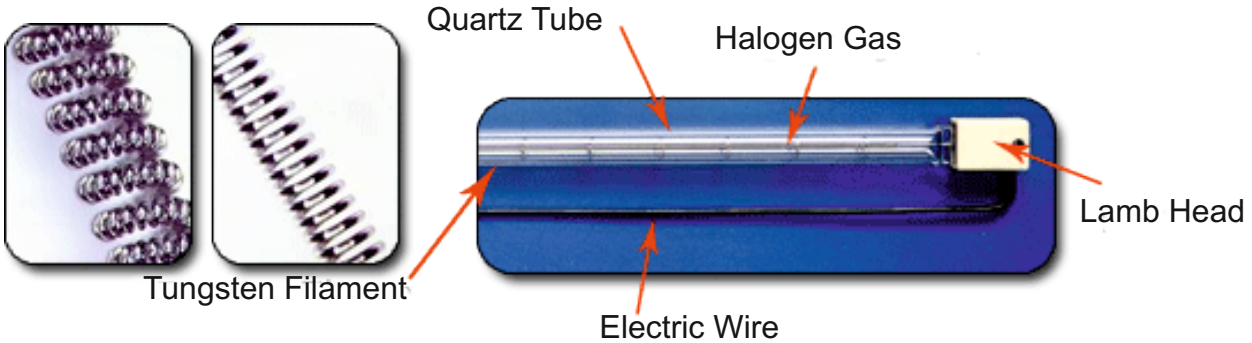
EPR-3790 is designed and manufactured as a power regulator to control analog input SSRs and TRIACs. It provide ease of use by changing the output value simultenously with the adjustments made from direction buttons from front panel. The ramp up and ramp down time features enable it to increase or decrase the ouptut value gradually within the desired period of time set in ramp up or ramp down parameters for motor control applications.

EPR-3790 can be used in applications where a infrared lamp is used as a heater or for driving a motor through an SSR / Triac with phase angle control. Plastic blow molding machines, sneeze guards can be given as examples.

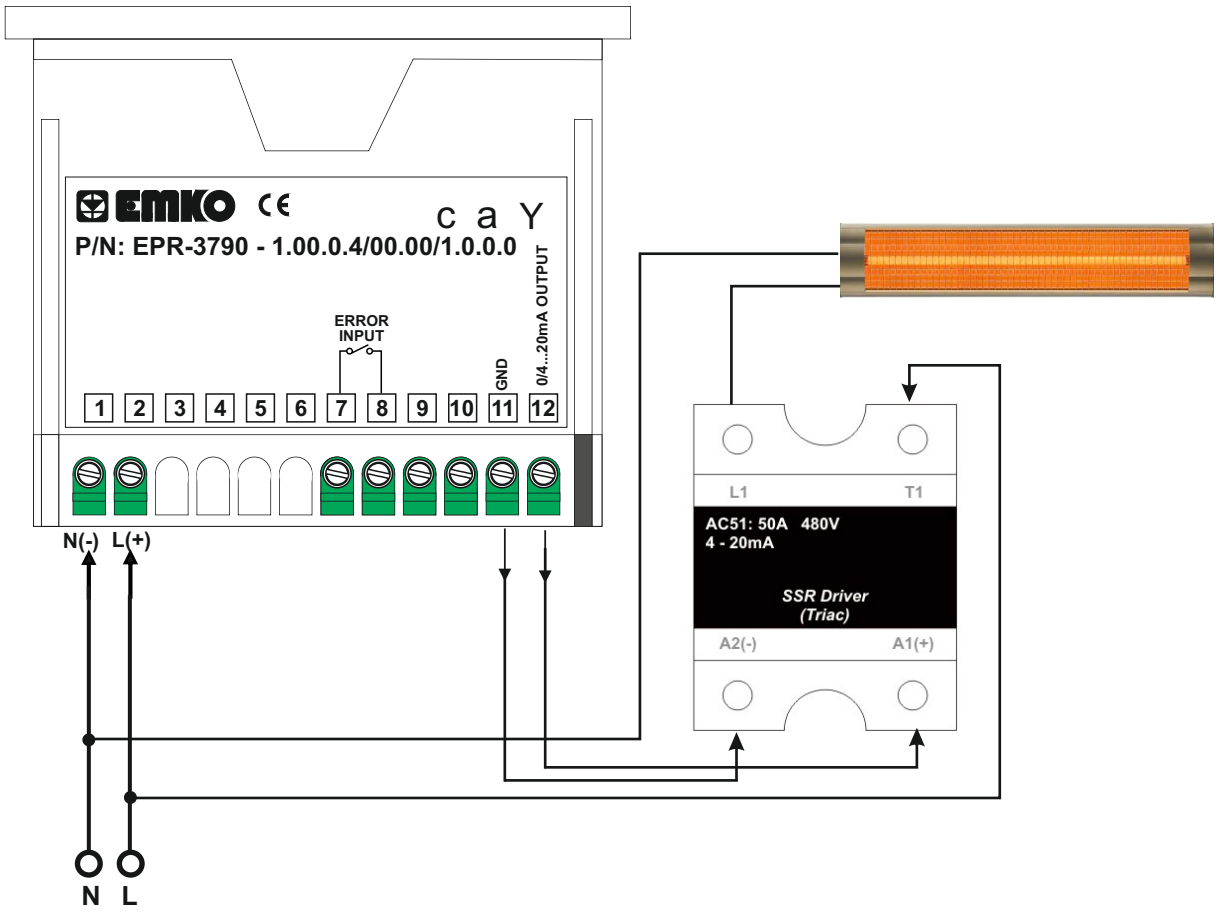
- Easily adjustable set value from front panel
- Adjustable ramp up and ramp down time
- Digital Error input
- Limiting option for current and voltage output

Example Application: A sneeze guard using heater lamps to heat the foods needs to be controlled. Heating is realized and controlled by changing the power applied to the infrared lamps.

- SSR with phase angle control or TRIAC
- Analogue signal (0/2..10V) or (0/4...20mA) is required.

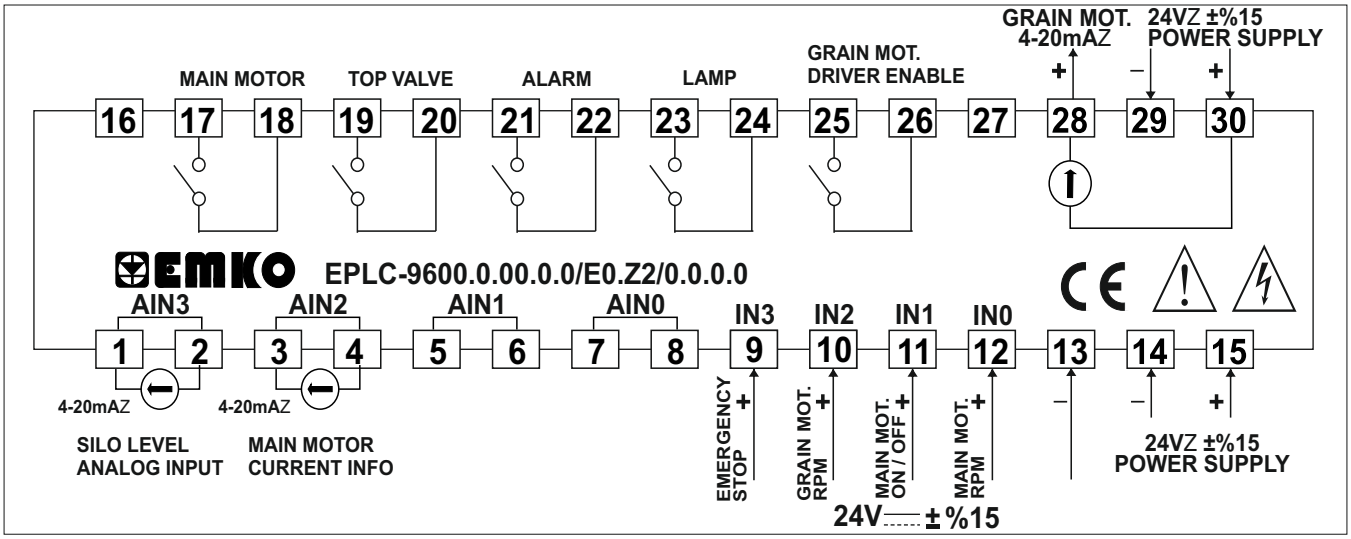


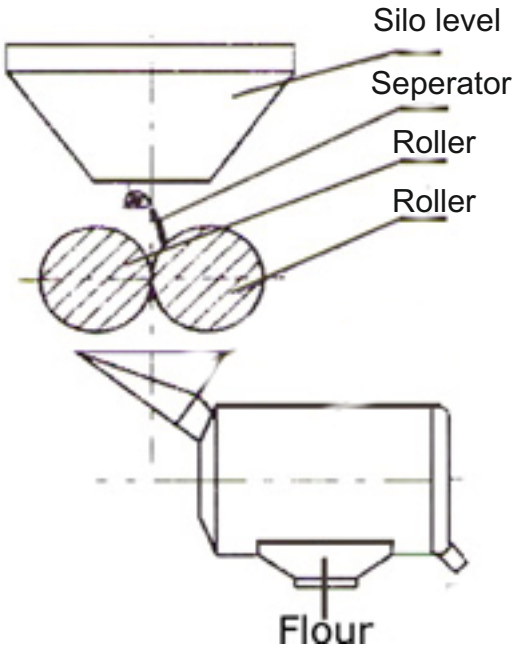
Input / Output Card Types



Example Application

Electrical Connections





The programming of device should be done according to the operation principles of the milling machine given below.

-Wheat flows down through rollers.

-The speed of the rollers is adjusted according to silo level information read from level sensor.

-The safety of the system is ensured by monitoring the current load of grain motor constantly and shutting down the motors if any excessive current load is drawn by the grain motor.

The seperator valve should operate according to silo level.

- Manual and Auto operation modes should be available.

- The rotation speed of both motors should be monitored and if an undesired RPM increase occurs both motors should be shut down and the alarm should be activated.

- Emergency stop function and illumination of the machine should be controlled.

Before writing the program on CodeSys;

- Input and Output cards need to be selected.

- Available communication modules need to be defined.

- Variables need to be defined

- Visual texts and graphs should be created on visualization section.

Snapshots from programming window

After finishing the initial setups we can proceed with writing the program for this particular application. Programming can be done by using 6 different programming languages.

A snophot of ladder and st programming are presented below.