

1. EXTRUSION PLANTS

PID Temperature controllers forms the central figure for efficient melting of raw plastic granules in the zone-wise heaters to ensure proper lamination plastic film formation. Ampere meters to supervise the heater load consumption is used too. Energy meters for calculation of KWH Energy consumption of the machine. Any abnormalities in KWh reading may help a user to identify faulty AC motors or high-energy consuming devices.

2. TEXTILE MACHINERY

A various product like Length counters, Speed indicators, RPM meters ensures output for factory owners. Proxy & pulse-based large display indicators ensure that production linemen latest production figures. Batch counting facility is available too for the cloth batch production line. Alarms for all parameters are available too.

3. PACKAGING MACHINERY

For accurate sealing of plastic wrappers & sachets; PID Temperature controllers are used for heater temperature control & monitoring of the Heater load ampere. Heater indicators are an additional help for showing whether heaters are in a healthy condition or not. Regulating of clutch & break plus sensing the sachets mark, counting of sachets are also incorporated in a single multiple input & output controllers.

4. PROCESS INDUSTRIES

Temperature Scanners with up to 16 channels are ideal for zone-wise temperature monitoring in furnaces of power plants, cement plants & textile industries. For galvanic isolation purposes, signal isolators are used at various field lines.

Process controllers with analogue inputs/ outputs like 4-20mA, 0-10VDC, 0-20mA with high & low range settings ensure efficient controlling of parameters as pre-set by the user. Sequence timers are also widely used in dust collector systems, pharmaceutical equipment, cashew industries. Fault annunciators FA-11

5. STONE CUTTING MACHINERY

Digital Timers & Counters facilitates accurate cutting and slicing of raw stone. A logical synchronizing of Digital Timers & Counters ensures proper cutting & slicing of a stone slab. Slice Thickness is controlled by Trolley counter, Left & right counter

control horizontal travel time of blade while Timers control the depth of the stone to be cut. Ampere Relays are used for overload conservation of motors.

6. LAB TESTING EQUIPEMENTS

Lab equipment is small to medium-sized instruments specifically for testing needs for various parameters which include temperature, pressure, humidity with respect to time. We have come up with various products for this efficient & accurate control of these parameters. Water baths, Muffle furnace, Humidity & Temperature chambers, Chiller chambers, Autoclaves etcetera are such equipment. Protection devices might also become useful for monitoring current & voltage signals.

7. FOOD PROCESSING

Food processing industry nowadays requires efficient controlling of Temperature with respect to time and count to ensure the product food output quality is maintained as per guidelines of hygiene & nutrition. This is where Mistura Technology products like LCD based PLC controller MPC-5062, Temperature Controllers TC-44, Timers & counters BC-445 plays a role. Colour mark sensor CMS -4x & 5x will be for sensing the mark for sealing & cutting the pouch along with count signals to the PLC.

8. PHARMACEUTICAL APPLICATIONS

The tablet counting facility along with relevant timers makes sure the tablet count is optimised sensitive. Optimum facilities include tablet counting, rotary counting, tablet per minute speed measurements. RPM indication & Station selection. Temperature Datalogger MSU-5716U is quite used in data logging requirements. Rh + Temperature Control units are also available for storage units in the pharmaceutical industry.

9. PRINTING MACHINERY

Temperature controllers play a vital role in the printing industry by maintaining precise temperature conditions during various printing processes. These controllers are used in several ways:

Ink Temperature Control: Temperature controllers regulate the temperature of the ink to maintain its optimal viscosity. They monitor and adjust the temperature of heated ink tanks or ink lines to ensure consistent ink flow and print quality.

Drying/Curing Temperature Control: Temperature controllers are employed in drying ovens or curing systems to maintain the ideal temperature for ink drying or curing.

They ensure that the printed materials dry or cure uniformly, preventing issues like smudging or incomplete curing.

Substrate Temperature Control: Temperature-sensitive printing techniques, like digital or thermal transfer printing, require controllers to regulate the temperature of print heads or rollers. This prevents overheating of heat-sensitive substrates and ensures proper adhesion and print quality.

10. LT, HT PANEL

APFC (Automatic Power Factor Correction) systems are used in LT (Low Tension) and HT (High Tension) panels to regulate and maintain the power factor of the electrical system. They consist of capacitors and a controller that adjusts the capacitors' connection or disconnection based on the power factor, optimizing energy usage, and reducing losses.

Protection relays are essential components in LT and HT panels that monitor electrical parameters and respond swiftly to abnormal conditions. They include relays such as overcurrent, earth fault, differential, overvoltage/undervoltage, and thermal overload relays. When a fault or abnormality is detected, protection relays send signals to trip circuit breakers, isolating the faulty section from the rest of the system, ensuring safety, and preventing equipment damage.

11. POWER DISTRIBUTION PANEL

Process control instruments in power distribution panels monitor and regulate parameters such as voltage, current, power quality, temperature, pressure, and flow. They ensure safe and efficient operation by providing real-time data, detecting abnormalities, and triggering actions to maintain optimal performance and system safety.

Power energy meters are used in power distribution panels to measure and monitor the electrical energy consumption. They provide accurate readings of parameters such as voltage, current, power factor, active power, reactive power, and total energy usage. Power energy meters enable operators to track energy consumption, analyse usage patterns, and ensure efficient management of electrical resources in the power distribution system.

APFC (Automatic Power Factor Correction) systems are used in power distribution panels to regulate and maintain the power factor of the electrical system. They monitor the power factor and adjust the connection or disconnection of capacitors to optimize energy usage and reduce losses.

12. CONTROL AUTOMATIONS PANEL

Timers and controllers are used in control automation panels to facilitate precise timing and control of various processes. Here's a very brief description of how they are utilized:

Timers: Timers in control automation panels are used to set and control specific time intervals for various operations. They can be used to initiate or terminate actions, schedule events, or trigger specific functions based on predetermined time settings. Timers ensure accurate timing and synchronization of processes, allowing for efficient automation and sequencing of operations.

Controllers: Controllers in control automation panels are the brains of the system, responsible for receiving input signals, processing data, and making control decisions. They use algorithms and logic to regulate and optimize various parameters such as temperature, pressure, flow, or speed. Controllers continuously monitor the process variables and adjust control outputs accordingly to maintain desired setpoints or achieve specific objectives. They enable precise control and automation of complex systems, improving efficiency, accuracy, and consistency of operations.

13. OVEN

Temperature controllers in oven applications are used to regulate and maintain the desired temperature inside the oven. They monitor the temperature using sensors and activate the heating elements or cooling systems to achieve and sustain the set temperature. Temperature controllers ensure precise temperature control, allowing for consistent and accurate heating in oven applications.

14. CHEMICAL INDUSTRIES

Flameproof controllers in chemical industries are used to safely control and monitor processes in hazardous areas where flammable gases or vapours may be present. These controllers are designed to prevent the ignition of flammable substances by containing any sparks or flames within their enclosure. Flameproof controllers provide control functionalities while ensuring the safety of the surrounding environment, making them suitable for use in chemical industry applications where explosion-proof measures are essential.