

PLASTIC CONTROL



CONTROLS

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MOTOR CONTROL BOARD PC 9510

Subject to alterations, even without advance notice.
Measurements and data without obligation.

PDC CONTROLLER PC 90-04

for single, volumetric dosing units

Features

- with four-line display
- simple operation via membrane keyboard
- various alarm signals (e.g. hopper empty, faulty material feed, motor overload etc.)
- simple and intuitive material test function
- different operation modes
 - Manual mode
 - Synchronous mode
 - Timer mode
- optional with automatic cleaning device
- with Venturi material feed

Versions

- **PC 90-04_PM**
Single controller PM motor (DC motor 160 V DC with brushes)
- **PC 90-04_BLDC**
Single controller for G330 motor (brushless BLDC motor 48 V DC)
- **PC 90-04_BLDC_C**
Single controller for G330 motor (brushless BLDC motor 48 V DC) and automatic cleaning device



MODULAR CONTROLS SERIE PDC

for single dosing units and volumetric mixing stations

You can use series PDC modular controls for different applications, which makes them very versatile.

It is possible to use the modules individually or on a series-connected basis, which means that you can control a large number of units.

The outstanding features of all the controllers are as follows:

- precise speed control
- reliable RPM constancy
- rugged construction for industrial applications
- linear control response
- overload protection
- easy operation and reliable repetition accuracy
- four-line display and membrane keyboard



Housings

- Desktop housing (fig. 1)
- 19" housings
- 19" racks

Modular controls serie PDC – OPERATION MODES

Operating mode	Way of function	Benefits
Manual mode	Each unit is set via a defined RPM speed.	Clear and easy operation.
Synchronous mode	The RPM speed of the PLASTICOLOR mixing station is synchronised with the extruder's RPM speed.	Automatic adaptation of the dosing unit output.
Mixing station mode	Level Sensors in the neckpiece are controlling the mixing station, regardless of the consumption of the extruder.	Mixing consistent with the recipe regardless of the extruder output.
Mixing station mode with synchronisation	In addition to mixing station mode, the system synchronises the RPM speeds of the PLASTICOLOR units with the extruder RPM speed.	Ability to set the fill level of the production machine, consistent runtimes and idle times.
Timer mode	An external Start/Stop signal via a contact of the injection moulding machine or the batch dosing unit.	Consistent dosing ratio at fluctuating plastification times.
Remote mode	RPM speed and Start/Stop signal via the production machine's PLC.	Easy integration and linking to the production machine's control.

PPM-CONTROL-SYSTEM

In the PPM Control System, different combinations of PPM controls are available depending on the application.

To visualise the production process and to operate the system using a touch screen, PPM Touch Screen Control Software is used in addition.

Area of application

- volumetric and gravimetric dosing units
- volumetric and gravimetric dosing/mixing stations
- volumetric and gravimetric mixing stations
- extruder throughput acquisition
- control of extruder throughput, grammage or weight per metre
- special applications

PPM-Control

- 1 with basic front panel without operation
- 2 with function front panel for the basic configurations (calibrating, taring, change of screw/cylinder, quantity test etc.)
- 3 with integrated PPM Operating Module with the full range of operator's controls as well as on/off switch and fuses
- 4 PPM Operating Module in separate design: allows the complete operating of one or several PPM Controls
- 5 PPM Interface Module allows the connecting of a PPM Control System to the production machine PLC, both via a PC and a field bus (e.g. ProfiBus DP) at the same time.
- 6 module with main switch





1 PLASTICOLOR single volumetric dosing unit, with **PPM operating module, including display and all operator inputs** for all functions.

2 PLASTICOLOR single gravimetric dosing unit with weighing hopper, **PPM module with function front** for the basic configuration (calibration, taring, change of screw/cylinder, quantity test, etc.) **PPM operating module in separate design** with display.

3 PLASTICOLOR single gravimetric dosing unit with weighing hopper, **PPM Module with function front for the basic configuration** (calibration, taring, change of screw/cylinder, quantity test, etc.), with additional **PPM Interface**.
Operation via Bus connection to customer's PLC or the PLASTICOLOR IPC with **PPM Touch Screen Control**.



PPM TOUCHSCREEN CONTROL

Visualising the production process using the PPM Touch Screen Control software makes operating your PLASTICOLOR stations easy and convenient.

The Software is showing both the individual dosing stations and the complete mixing station clearly and with many details. This makes it possible to monitor and control all the production steps in real time. If necessary, you can intervene in the production process on a flexible basis.

The system notifies you about malfunctions immediately, which allows you to start troubleshooting without delay.

The integrated material, recipe and order management systems optimise operation and standardise procedures for machine operators.

Log files record all malfunctions and changes. This documents the complete production process and can be stored.

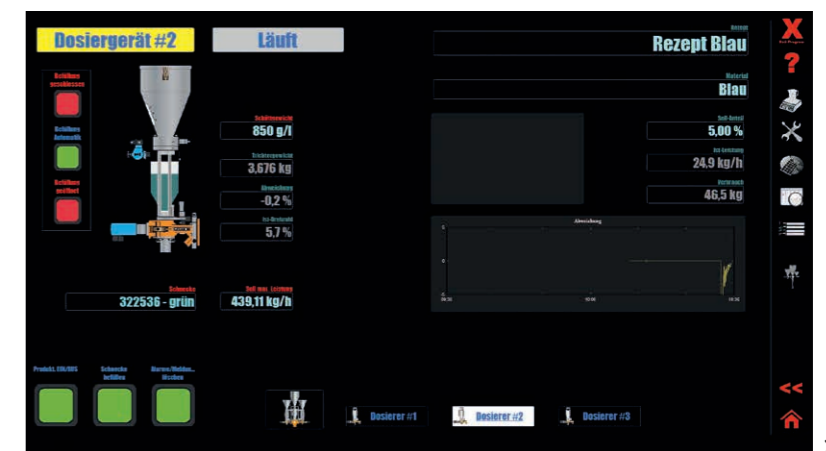
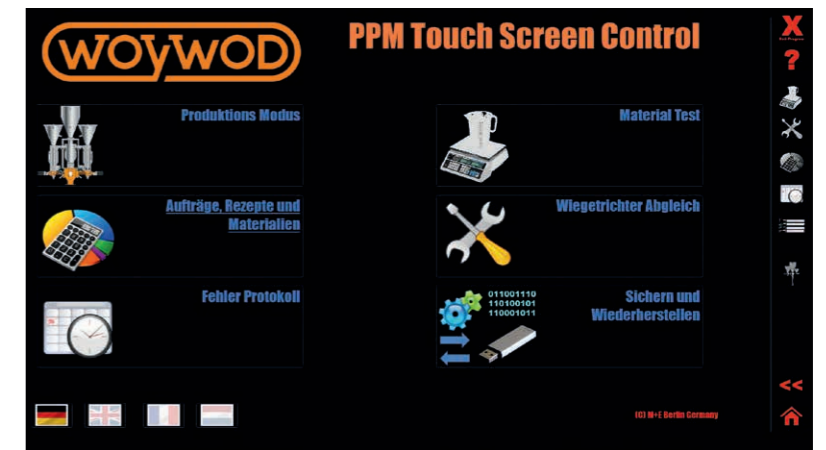
Role logs and a data export function support users.

It is possible to specify how the system responds on detecting a malfunction (by switching off, issuing a warning, etc.)

You can also select remote maintenance or diagnostics by our engineers directly from the software.

It is possible to easily integrate later extensions to the system into the software.

You operate PLASTICOLOR systems and units using the intuitive and user-friendly PPM Touch Screen Control software!



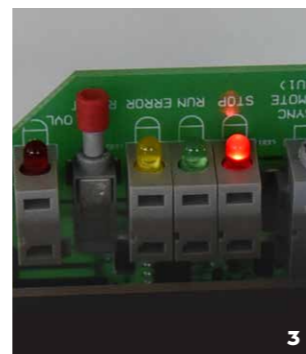
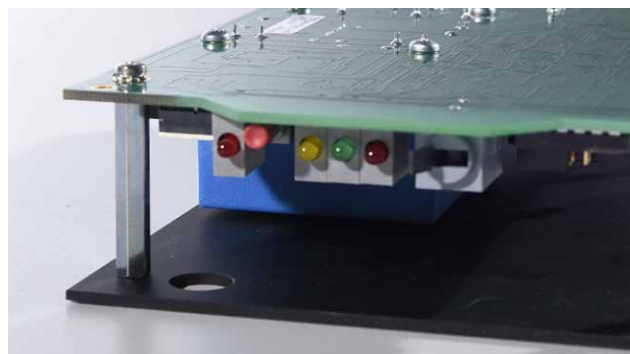
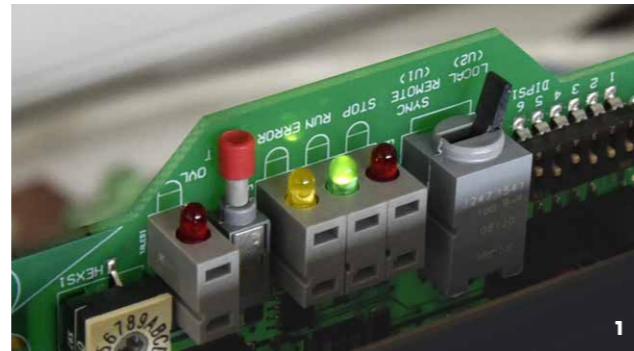
- 1 Visualisation of mixing station
- 2 Visualisation of a dosing station
- 3 Visualisation of material, recipe and order management systems

MOTOR CONTROL BOARD PC 95

The versatile and robust PC 95 motor control board can be configured for a wide variety of applications and is ideally suited for PLASTICOLOR controls, PLASTICOLOR dosing units and mixing stations.

Features

- Power MOSFET motor control
- 230 V AC 50/60 Hz mains voltage, 3.15 A max.
- 160 V DC armature voltage, 2 A max.
- speed feedback through frequency tachometer
- speed deviation less than + 0.1 / - 0.2% rel.
- local/remote capable, switchable externally or onboard
- synchronization with extruder master value possible, onboard
- all important functional elements integrated on the board; alarm outputs as relay contact
- all input and output signals separated from the mains potential
- Dimensions: 100 mm x 160 mm x 36 mm, 6TE grid dimension



- 1 signal state: RUN
- 2 signal state: ERROR
- 3 signal state: STOP

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