

TOUCH-SCREEN PLC

## CAN-based control of material conveying systems

A typical application of the M7-IPC programmable logic controller (PLC) by Wittmann is to control preparation and supply of plastic granulate.



*M7 controller for material handling systems (Source: Wittmann)*

The touch-screen allows for user control and adjustment of the process parameters. It represents the respective material flow and provides an overview of all attached units using symbols. In addition to the fixed displays, the device offers a VNC (virtual network computing) server option. VNC allows the user to get an overview of the individual system components without to visit the production site. This option is also available for retrofitting.

The controller can handle network configurations with up to 320 participants. Each participant is connected via a BM-4/4 CAN I/O module and can be configured for a specific task. The LS-B30T (line server) enables control of up to 31 I/O modules, which can be connected to one CAN line. The individual I/O module functions can be managed and controlled from the line server. A complete system can include up to eight CAN lines. The I/O module acts as an interface to control vacuum loaders, blower stations, central filters, dry air valves, purging valves, etc. Required functions can be assigned to the four available digital inputs and four digital outputs. This allows to configure a customized system for each application.

The relevant control data and parameters can be transferred to a company-wide enterprise resource planning (ERP) and process data monitoring (PDM) system via the Ethernet interface using the OPC (open platform communication) protocol.

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