

Remote Batch Monitoring System

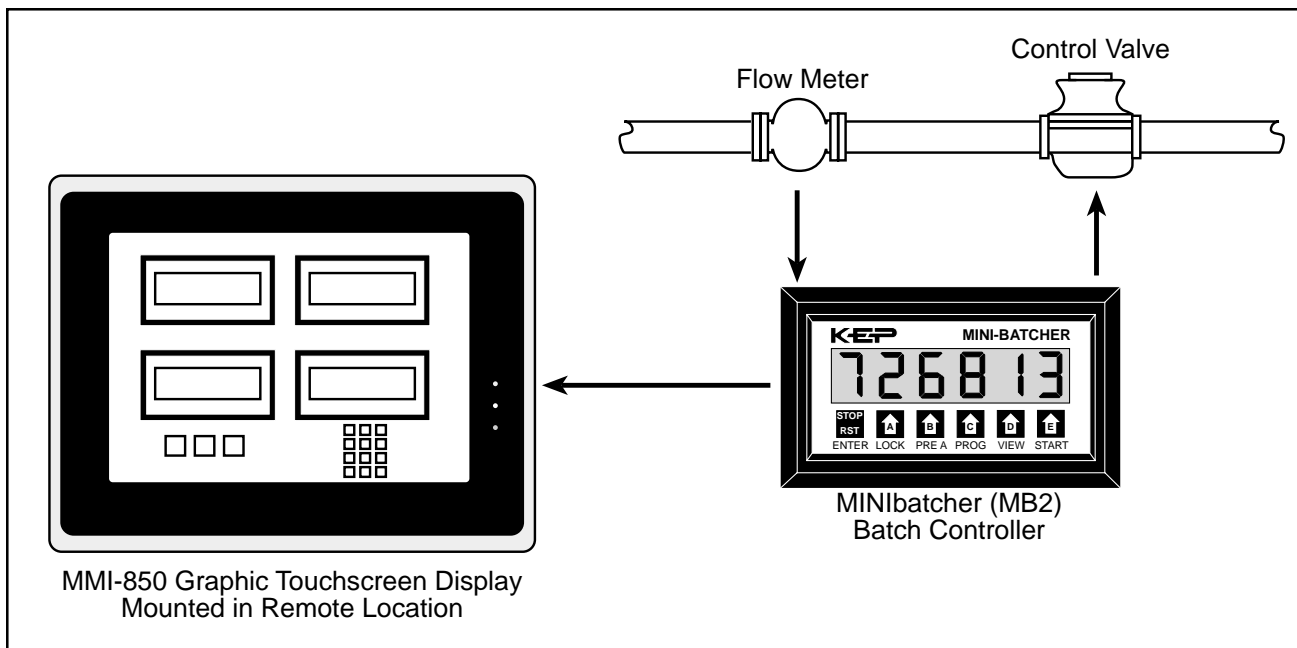
Remote Batch Monitoring and Control using the MINIBatch Batch Controller and MMI-850 Graphic Touch Panel Display



This document was created to aid in the explanation of a remote batch monitoring and control system using devices equipped with the Modbus Protocol communication option.

General

In many batching applications, it is desirable to monitor and control batch operations performed in the field or on the factory floor in a centralized control room. KEP offers a simple solution for remote monitoring and control using the MMI series graphic touchscreen panels and the MINIBatcher batch controller with Modbus protocol option. Now operators can view batch totals and flow rate on the MMI display in remote areas. The touchscreens can be programmed to control the start, stop and reset of batches and batch amounts can be easily entered as well.



Modbus RTU Protocol for MINIbatcher and MMI-850

When the units are equipped with the Modbus communication option, the protocol it uses is the Modbus RTU protocol. This protocol defines a message structure that the MINIbatcher and MMI 850 will recognize and use on the network over which they communicate. It describes the process a master device (PC compatible) uses to request access to another device, how it will respond to requests from the other devices, and how errors will be detected and reported. It establishes a common format for the layout and contents of message fields. During communications on a Modbus RTU network, the protocol determines how each unit will know its device address, recognize a message addressed to it, determine the kind of action to be taken, and extract any data or other information contained in the message. If a reply is required, the Unit will construct the reply message and send it using Modbus RTU protocol.

Set Up

MINIbatcher

The communication parameters of the Minibatcher are setup through the serial port. Mode changes can not be accomplished through the front panel keypad. The RS port has an initialization pin (pin 1 init) that when jumped to pin 7 of the terminal block (12VDC) on power up will default the communication settings to 300 baud rate, Mark parity and a device number 01.

MMI 850

The MMI-850 is a touch screen interface. It displays pictorial information, data and messages that are preloaded into it using a Personal Computer. Touch screen areas can be programmed to perform various functions. The MMI-850 is equipped with a 256 color 7.7" LCD with analog resistive touch screen. It is designed especially for harsh working environments. It connects directly to the MINIbatchers and does not require any special program for data communication. Free setup software program for configuring the MMI-850 is included with each unit. The Easy Builder Screen Editor Software takes advantage of Microsoft Windows graphical interface and object oriented scheme. It offers fast and intuitive configuration. This simplifies application design while reducing development costs.

Other Products Available With Modbus Protocol Option

The following products may also be used in applications requiring Modbus protocol:

- MINIctrl
- DRT
- SUPERtrol-ILE
- SUPERtrol-I
- SUPERtrol-II
- LEVELtrol-II

