

## F130 Batch Controller with Two Outputs



### Features

- Large display shows preset value and running batch value simultaneously.
- Self-learning overrun correction.
- Easy operation to enter a batch value and to control the process.
- Count-up and count-down function available.
- Selectable on-screen engineering units; volumetric or mass.
- Ability to process all types of flowmeter signals.
- Operational temperature -30°C up to +80°C (-22°F up to 178°F).
- Very compact design for panel mount, wall mount or field mount applications.
- Rugged aluminum field mount enclosure IP67/NEMA4X.
- Intrinsically Safe  
⊕ II 1 GD EEx ia IIB/IIC T4 T100°C.
- Explosion/flame proof ⊕ II 2 GD EEx d IIB T5.
- Full Modbus communication RS232/485/TTL.
- Loop or battery powered, 8 - 24V AC/DC or 115 - 230V AC power supply.
- Sensor supply 3.2 - 8.2 - 12 - 24V DC.

### Signal output

- Two configurable control outputs: for two-stage or one-stage control.
- Scaled pulse output according to accumulated total (one stage control only).

### Signal input

#### Flow

- Reed-switch.
- NAMUR.
- NPN/PNP pulse.
- Sine wave (coil).
- Active pulse signals.
- (0)4 - 20mA.
- 0 - 10V DC.

#### Status

- Remote control: start.
- Remote control: pause / stop.

### Applications

- For batching small up to very large quantities. Single or repeating batches. Alternative basic model: F030 or more sophisticated models: F131, F136 and 0300 series.

## F130 Batch Controller with Two Outputs

### General information

#### Introduction

The F130 is a straight forward Batch controller offering exactly what is required for many applications. The operator can enter a batch quantity easily or execute repeating batches. During the batch, the preset value is displayed as well as the batched (or remaining) quantity and the units of measurement.

The automatic self-learning overrun correction will ensure an accurate result each batch again. A wide selection of options further enhance this models capabilities, including Intrinsic Safety and full Modbus communication.

#### Display

The display has large 17mm (0.67") and 8mm (0.31") digits which are used to display the batched quantity and the preset value simultaneously. On-screen engineering units are easily configured from a comprehensive selection. A seven digit resettable "day total" is available as well as an eleven digit non-resettable accumulated total. All are backed-up in EEPROM memory every minute.

#### Configuration

All configuration settings are accessed via a simple operator menu which can be pass-code protected. Each setting is clearly indicated with an alphanumeric description, therefore avoiding confusing abbreviations and baffling codes. Once familiar with one F-series product, you will be able to program all models in the series without a manual. All settings are safely stored in EEPROM memory in the event of sudden power failure.

#### Control outputs

Two outputs are available which can be configured to operate as two stage control for large batch quantities or one stage control for smaller batches. In this case, the second output is available as a scaled pulse output according to accumulated total or batch total.

The pulse output length is user defined from 0.008 second up to 2 seconds. The maximum output frequency is 64Hz.

The output signals can be a passive NPN, active PNP or isolated electro-mechanical relays.

#### Signal input

The F130 will accept most pulse and analog input signals for flow or mass flow measurement. The input signal type can be selected by the user in the configuration menu without having to adjust any sensitive mechanical dip-switches or jumpers. For remote control, two inputs are available to start, pause and stop the batch process.

#### Communication

All process data and settings can be read and modified manually or through the Modbus communication link (RS232 / RS485). If desired, the batch process can even be started and stopped through communication.

#### Hazardous areas

For hazardous area applications, this model has been ATEX certified Intrinsically Safe  $\text{Ex II 1 GD EEx ia IIB / IIC T4 T100}^{\circ}\text{C}$  with an allowed operational temperature of  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ ). A flame proof enclosure is also available with the rating  $\text{Ex II 2 GD EEx d IIB T5}$ .

#### Enclosures

Various types of enclosures can be selected, all ATEX approved. As standard the F130 is supplied in an ABS panel mount enclosure, which can be converted to an IP67 / NEMA 4X ABS field mount enclosure. Most popular is our rugged aluminum field mount enclosure with IP67 / NEMA 4X rating. Both European or U.S. cable gland entry threads are available.

### Overview application F130

