ScreenMaster SM500F
Field mountable paperless recorder

Introduction

A common requirement for a continuous totalizer is to trigger a relay pulse every X liters or gallons, typically to drive an external mechanical totalizer.

This can be achieved easily by configuring the totalizer in the normal way and then configuring the relay to operate on a Totalizer Count Pulse. This triggers the relay for 100 ms every time the integer value of the totalizer changes.
Configure the totalizer

Example. If a flowmeter has a 4 to 20 mA output relating to 0 to 250 l/s and a relay pulse every 1000 liters (1 kl) is required, the totalizer must be configured to count in 1000s liters (kl).

To configure the totalizers:
1. Configure the input channel:
   a. Set Input type to 4.0-20.0 mA.
   b. Set Engineering range to 0-250 l/s.

2. Configure the totalizer:
   a. Set Units to kl.
   b. Set Count range to 0.0-100000000.0.
      (Note. The count resolution of 1 decimal point equates to 100 liters).
   c. Set Count rate/Cut off to 0.25000 (for Example above).

This converts the flow rate in l/s to kl total flow:

Flow 1

125 l/s

Tot 1 49.4 kl

3. Configure the relay:
   a. Set Source to Count pulse X.X where X.X is the number of the channel configured in steps 1 and 2.

Count pulse is an internal function that energizes the relay for 100 ms every time the totalizer value increases (for example from 234.9 kl to 235.0 kl).

4. Start the totalizer.

Note. A totalizer value displayed in red in the indicator view indicates that the totalizer is not running.
Notes