Kessler-Ellis Application Note F047

Ten Supertrol-2 Frequently Asked Questions and Best Kept Secrets

Q1: How do I calculate a Pulse Input type K-Factor?

A1: For Pulse Inputs the Count K-Factor is equal to the number of pulses per unit of measure which is determined by the flowmeter. (This Information is typically on the flowmeter calibration sheet or stamped on the flowmeter itself).

The Rate Time is menu selectable it can be found in the "System Units Menu". You will have the option of choosing Seconds, Minutes, Hours or Day which adds the appropriate multiplier into the equation.

Q2: How do you scale the Current Span on the Flow Analog Input?

A2: The 4-20mA current span is the span you expect the Supertrol-2 to interpolate between. The Supertrol-2 is scaled by assigning a "Low Range" and a "High Range" to the analogous Low and High inputs of the Flow Input Menu. Let's say that the sensor gives off an output of 4mA (milliamps) when it measures "0" ACFM and 20mA when it measures "10" ACFM. Through the keyboard you dial in "0" for 4mA (Rate Low), and "10" for 20mA (Rate High) and you have completed scaling the unit. Typically the customer will tell you the range they would like to use for their application.

Q3: What is the factory code to unlock the unit should I forget my password?

A3: The unit is shipped from the Factory with an Operator Password of "1000" and a Supervisor Password of "2000" these should be tried first before giving the customer the back door code. The Factory back door code for the Supertrol-2 can be obtained by contacting the factory.

Q4: Is the Analog output Isolated?

A4: Yes. The analog outputs are Isolated. Below you will find the specifications for the analog outputs that customers usually ask about.

The Number of Outputs are: 2
The Analog Output Type is: Isolated Current Sourcing (shared common)
Isolated I/P/C: 500 V
The Available Ranges are: 0-20 mA, 4-20 mA (menu selectable)
The Resolution is: 16 bit
The Accuracy is: 0.05% FS at 20 Degrees C
The Update Rate is: 5 updates/sec
The Temperature Drift is: Less than 200 ppm/C
The Maximum Load is: 1000 ohms

Q5: Does the Supertrol-2 have a Real Time Clock?
A5: The Supertrol-2 is equipped with either a super cap or a battery backed real time clock that displays time and date. The format is: 24 hour time display and Day, Month, Year date display. (Daylight savings time is optional).

Q6: Is the Supertrol-2 Nema 4X rated?
A6: Yes, the Supertrol-2 front panel is Nema 4X rated. This rating is also comparable to the European standard IP65.

Q7: What can I view with the Supertrol-2?
A7: The user can view the Rate and Total of flow as well as the Grand Total, Temperature, Pressure, Density, Time, Date, Alarm 1 and Alarm 2. This can be accomplished by pushing the appropriate button on the front of the unit or by setting up the Scroll List to display the information desired through a scrolling display.

Q8: What Listings does the Supertrol-2 have?
A8: The Supertrol-2 has the following Listing: "CE" which is the European noise immunity standard.

Q9: What is the maximum current rating of the D.C. output?
A9: The 24Vdc output is rated at 100ma maximum current draw and is overcurrent protected.

Q10: How do I Wire the Flow Inputs on the Supertrol-2?
A10: Below you will find typical wiring diagrams to help you wire a flowmeter to the Supertrol-2.

4.2.1 Flow Input