

## **Error Messages**

- A. The Way that the system displays the RUN in the Display can be used to diagnose a problem. The following shows what is displayed, what it means, and how to fix it

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- RUN:** everything o.k.
- RN1:** ADC-overflow. This means the sensor is not covered with product and the measured results are not valid. (For example an empty pipe). Pipes and liquids only.
- RN2:** The measured attenuation has crossed the entered thresholds and the current output is clamped to 0/4mA (see chapter 3.5)
- RN3:** The measured Brix value has crossed the Brix-Max threshold and the output is clamped to 0/4mA see chapter 3.7).
- RN4:** Evaluation of the raw phase is unstable. If this occurs the actual measuring value is rejected and the output is kept on the last valid value.
- RN5:** Evaluation of the raw phase is unstable. If this occurs the actual measuring value is rejected and the output is kept on the last valid value.
- RN6:** The measured value has crossed the min. threshold of the valid measuring range. the actual measuring value is rejected and the output is hold on the last valid value (see chapter 3.6).
- RN7:** The measured value has crossed the max. threshold of the valid measuring range. the actual measuring value is rejected and the output is hold on the last valid value (see chapter 3.6).

### **What to Do for each Message:**

- RN1:** You need to either move the system to a location where you have a full pipe or change the flow conditions so the pipe is always full.
- RN2:** You need to change the setting of the Att-L and/or the Att-H. These settings are found in the Limits Menu. Make the Att-L more negative and/or the Att-H more positive.
- RN3:** You must increase your Brix-Max setting which you can find in the Limits Menu. Set it to 1000.

**RN4: Your Measurement is bad for one of the following reasons:**

- 1. You have not performed a good Reference Measurement. Perform a new Reference Measurement and see if things improve.**
- 2. You have a loose connection in your coaxial cables. Tighten cables**
- 3. You have a bad sensor or cables. Try new sensors.**
- 4. You have a bad Microwave Signal Generator. Send in unit for repair.**

**RN5: Your Measurement is bad for one of the following reasons:**

- 1. You have not performed a good Reference Measurement. Perform a new Reference Measurement and see if things improve.**
- 2. You have a loose connection in your coaxial cables. Tighten cables**
- 3. You have a bad sensor or cables. Try new sensors.**
- 4. You have a bad Microwave Signal Generator. Send in unit for repair.**

**RN6: Your P-min value is set too high. You must make it lower. You will find this value in the Limits menu.**

**RN7: Your P-max value is set too low. You must make it larger. You will find this value in the Limits menu.**