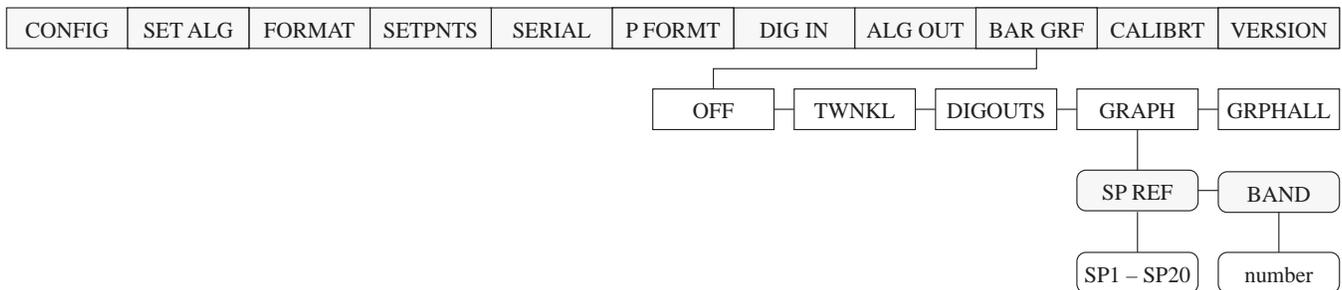


BAR GRAPH

The Bar Graph (represented by the BAR GRF menu) features 48 LED segments that can be scaled to represent weight, speed, or batch step progress. It can be used to monitor the progress of batch steps in a batching sequence, with assigned segments lighting when a particular batch step is active. The bar graph can also be used as a visual graph to monitor individual setpoint operations like a filling operation, with segments progressively lighting as the fill weight increases until all 48 are lit when the setpoint weight is achieved.

The bar graph can also be set up around a band rather than a single setpoint value. In this case, the segments begin to light at the bottom of the band value, are entirely lit at the middle of the band, and progressively extinguish until all are out at the top end of the band.

The bar graph function is configured in the Setup Mode under a separate 1st level menu, BAR GRF, reproduced below.



During a batching operation where the setpoints are configured as steps in a batching sequence, the bar graph can be programmed to illuminate the appropriate three segments in the sequence while a particular setpoint (batch step) is active. This is the "TWINKL" selection mode shown above. TWINKL gives the operator a visual indication of which setpoint is "hot" during a batch process. Any continuous setpoints that are not part of the batch process are shown as continuously on by the bar graph.

Another use for the bar graph is to monitor the active weight value of a set point during a filling operation. This gives the operator a visual indication of the level of completion of a particular set point. This is the "GRAPH" selection mode. If the band width ("BAND") is set to equal the setpoint value, each of the 48 segments is equal to approximately 2% of the total set point value. When the ingredient begins to fill, all of the bar graph segments will be off. The segments will begin to light from left to right as the weight value increases to meet the set point value.

Another popular use for the bar graph in "GRAPH" mode is as an "over/under" indicator. In this application the low level is set at one end of a bandwidth and the high level is set at the other end. The difference between the low and high points becomes the "accept" band. When the weight on the scale is below the accept band, all segments of the bar graph (except the last segment on the left) are dark. When the weight reaches the low level point, the bar graph segments begin to light from left to right. When the weight is half way between the high and low points, all of the bar graph segments will be illuminated. As the weight increases from this point the segments will begin to turn off from left to right. When the weight exceeds the high point of the band, all of the segments will be turned off except the last one on the right. This segment remains on to show that the upper range of the band has been exceeded.

The bar graph can be configured to display a particular load cell channel. For example, the weight value of scale 1 could be shown digitally on the display while the weight value of scale 2 could be shown graphically on the bar graph.

BAR GRAPH (continued)

The Bar Graph is an optional hardware feature that is recommended for all set point applications. Any of the IQplus 810 models can be fitted with the Bar Graph. It mounts on the front side of the Display Board as shown below. Be certain to install nylon insulation washers on both sides of the Power/Display Board as shown below. These nylon washers provide cushioning for traces adjacent to the mounting holes, and also provide electrical isolation to prevent possible shorting.

