Sensor Programming Inputs

RUN/PRG/ADJ Mode Switch

CH1/CH2 Switch

+/SET/- Rocker Button

LO/DO Switch

DF-G Basics

1. When inserting a fiber, make sure it is pushed in as far as possible. Gaps can result in signal attenuation.
2. If the fiber cables have a multi-core end and a single-core end, insert the multi-core fiber to the receiver and the single-core fiber to the transmitter. Direction of light is indicated by arrows on the side of the DF-G sensor.
3. Use the rocker button to move left and right through the menu or to adjust the threshold. Press the rocker button to confirm entry.
4. Middle button on the rocker button cannot be pressed if rocker is tilted to either side.
5. When done programming, slide Mode switch back to Run to prevent accidental changes.

DF-G Factory Default Reset

1. Set Mode switch to PRG.
2. If this is a 2-channel device, it must be set to CH1. Use the rocker button to navigate to factory default “Fcty dEF” and press the rocker button to confirm.
3. Screen will prompt ”no”. Slide the rocker to either side to change to “yes”. Select “yes” with the rocker button to confirm.
4. Screen will flash several times with “yes” displayed confirming choice.

Selecting Teach Method

1. Set Mode switch to PRG and select the appropriate channel.
2. Navigate to teach select (“tch SEL 1”, “tch SEL 2” or “tch SEL” depending on sensor and channel selected).
3. Press rocker to enter submenu and make selection.

Switch Point Adjustments

1. Manual Adjustment.
   A. Set Mode switch to ADJ.
   B. Slide rocker to “+” to adjust high setpoint or slide rocker to “-“ to adjust low setpoint. For 1-pt teach modes press either “+” or “-“ to adjust setpoint.
   C. For analog outputs, press the middle button on the rocker button to confirm choice or wait ~8 seconds and the display will flash several times to confirm choice.
   D. For discrete outputs wait a moment and display will flash several times to confirm choice.
2. Offset Window (for 1-pt teach modes only).
   A. Set Mode switch to PRG.
   B. For an analog channel select CH1. With the sensor in 1-pt teach, find “OFSt Pct 1”, press the rocker button and adjust offset between 5 and 95 (5% and 95%). Press rocker button again to confirm choice.
   C. For a discrete output select the appropriate channel. With the sensor in a 1-pt teach mode, find the offset percent option (“OFSt Pct”, “OFSt Pct 1” or “OFSt Pct 2” depending on sensor and channel selected), press the rocker button and depending on model and mode adjust offset between 2 and 98, 2 and 999 or 10 and 999 (2% to 98%, 2% to 999% or 10% to 999% respectively). Press rocker button to confirm choice and screen will flash several times to confirm choice.

NOTE: Manual adjustment is disabled if Auto-Threshold is on. Instead of adjusting threshold, screen will flash “Auto”.

NOTE: 1-pt teach modes includes Window, Light, Dark, Cal Set and Analog 1-pt teach.

Teach Procedures

All teach procedure charts shown in Light Operate Mode. Before beginning any teach method put Mode Switch in ADJ mode. Press rocker button to begin the teach.

Analog 2-pt Teach

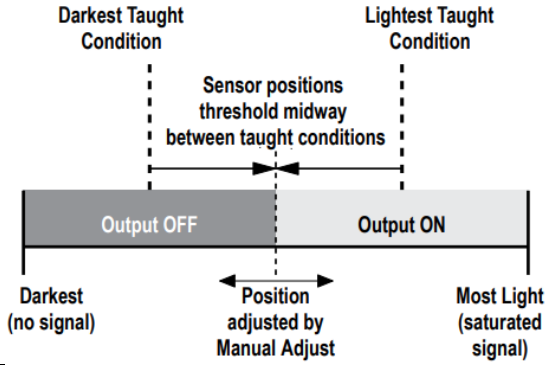
Press rocker button to initiate teach. First prompt is to set low point (4mA/0V). Present the low point target then press rocker button again to confirm. Next present the high point target (20mA/10V) and press rocker button to confirm. Screen will flash "PASS" several times to indicate successful teach. If high/low point teach order is reversed, then output slope will be negative.

Analog 1-pt Teach

Press rocker button to initiate teach. Set the target midpoint in front of the sensor. Press the rocker button again to teach the point. If teach is successful, the screen will alternate "PASS" with % Minimum Difference. Adjust offset "OFSt Pct 1" to change the size of the sensing window.

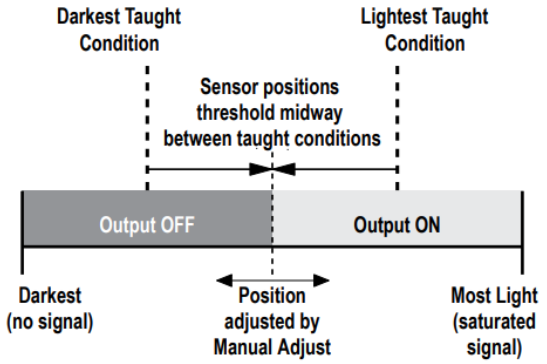
Discrete output Two-Point Teach

Present either lightest or darkest condition. Press rocker button. Display will flash "2Pt tch" then hold "xxxx 2nd" with xxxx being the number of counts. Present next condition then press rocker button again. Display will alternate "Pass" and % Minimum difference to indicate accepted Teach.

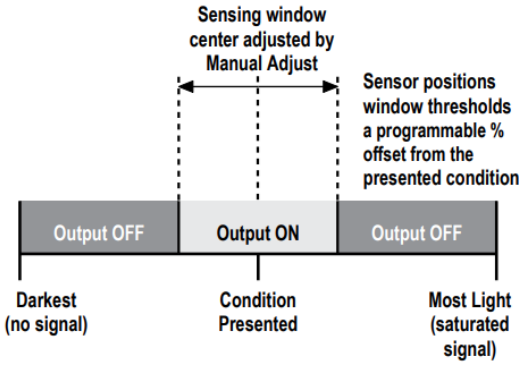


Dynamic Teach

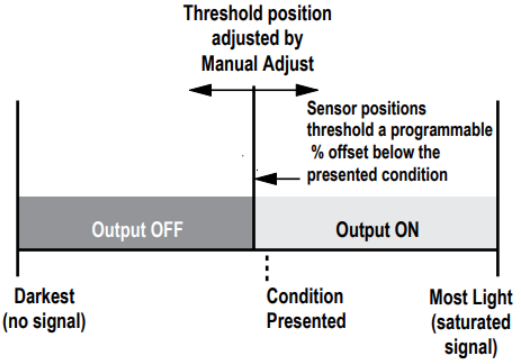
Press rocker button. Display will flash "dYn tch" then hold on "xxxx dYn" with xxxx being the number of counts. Present ON and OFF conditions to the sensor. Press rocker button again and if teach is successful the screen will alternate "PASS" with % Minimum Difference.



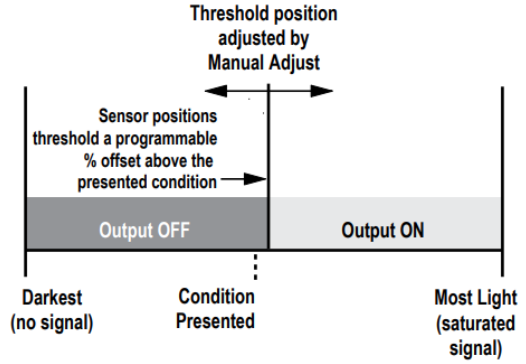
Window Set - Sets a window around the taught condition. Present sensing condition and press rocker button. Display will read "wInd SEt" then alternate "PASS" with % Offset to indicate successful teach.



Light Set - Sets threshold just below the taught condition. Present sensing condition and press rocker button. Display will read "Lt SEt" then alternate "PASS" with % Offset to indicate successful teach.



Dark SET - Sets threshold just above the taught condition. Present sensing condition and press rocker button. Display will read "dr SEt" then alternate "PASS" with % Offset to indicate successful teach.



Calibration SET - Sets the threshold at the taught condition. Present sensing condition and press rocker button. Display will read "cAL SEt" then flash "PASS" several times to indicate successful teach.