ALLIANCE SENSORS GROUP

A DIVISION OF H.G. SCHAEVITZ LLC

LR & LRL Series Wiring and SenSet™ Instructions

CE

Standard I/O connections for an LR or LRL LVIT sensor with a 4-conductor cable are below the instructions for SenSet™ field calibration on an LR or LRL series LVIT position sensor

Please note that your LR or LRL sensor was calibrated at the factory to a specified measuring range. You may choose to retain this calibration if it fits your purpose, or you may choose to field recalibrate your sensor using the SenSet™ feature if you desire a more precise match of the sensor's electrical output to your mechanical device's range of movement. The Linear Position Sensor's SenSet feature allows the installer to very simply and quickly match the full scale electrical output of a sensor to the actual range of mechanical movement of the device in which the sensor is installed or to which it is attached. This type of activity is usually referred to as field calibration. To proceed with the SenSet field calibration, follow these instructions:

1. Install the sensor into your mechanical device, leaving the sensor's I/Os unconnected.
2. Connect the black wire or *ground* terminal to power ground (-), and then connect the correct DC power input (+) to the sensor via the red wire or + *power input* terminal.
3. To begin the SenSet process for voltage output, connect a DC voltmeter having the appropriate range with its plus (+) test lead connected to the green wire or *voltage output* terminal, and the meter's (-) test lead connected to the black wire or *ground* terminal.
4. To begin the SenSet™ process for current loop output, connect a DC milliammeter having an appropriate range with its plus (+) test lead connected to the green wire or *current output* terminal and its minus (-) test lead connected to the loop load resistor, typically 250 or 500 Ohms. Connect the other end of the loop load resistor to the black wire or *ground* terminal.
5. Extend the mechanical device to the end point of its full range of motion; then connect the white (*cal*) wire or *cal* terminal to the black wire or *ground* terminal for at least 3 seconds then remove the white wire.
6. Fully retract the mechanical device to its zero (start) position; then connect the white (*cal*) wire or *cal* terminal to the black wire or *ground* terminal for at least 3 seconds then remove whit wire.
7. The sensor's output is now calibrated to the end points of your mechanical device's range of motion. The SenSet procedure can be redone without limit, but its operational range is limited to 20% of specified full range, both at zero and at full range. (0 to 20% around zero, and 80 to 100% around full range) Note that both ends of the sensor's range must be calibrated using the SenSet field programmability procedure for the process to take effect.
8. When the SenSet™ process is completed, disconnect the voltmeter, or, in the case of current loop output, disconnect the milliammeter and reconnect the loop load to the green or *current output* terminal. If you are using a leaded or cable output sensor, you may wish to trim and insulate the end of the white (*cal*) wire to avoid any inadvertent recalibration.

Questions? Contact Technical Support ASGTech@alliancesensors.com *or call 856-727-0250*

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P/N 1300-0002, Rev C, 4-17-2020

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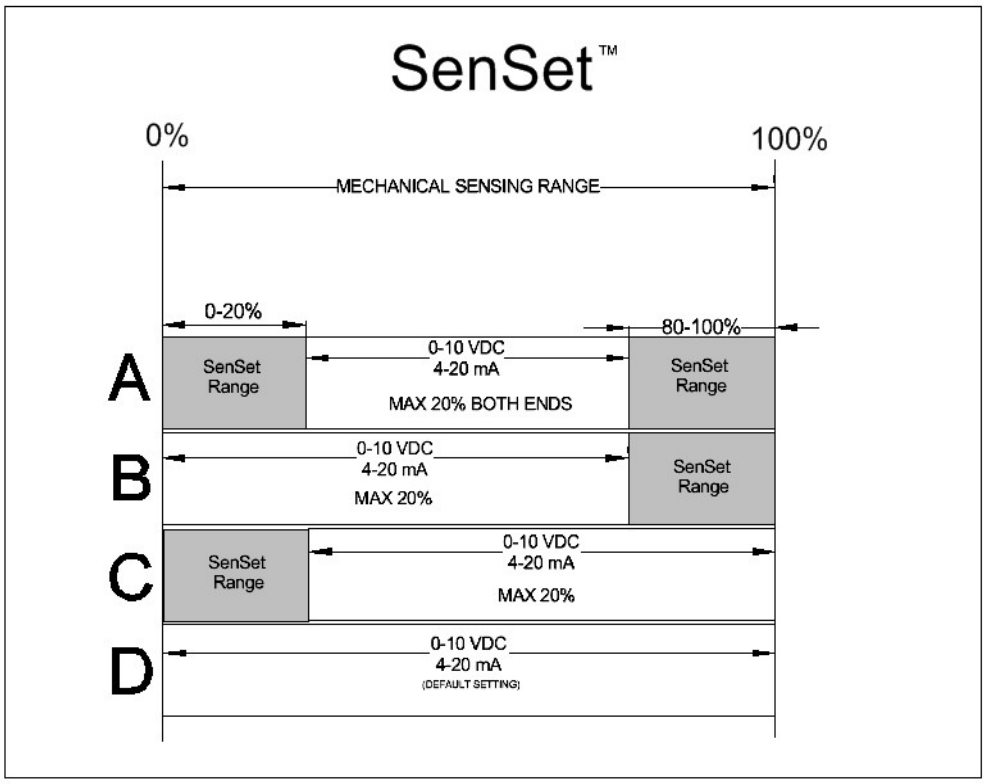

L series LVIT I/O Wiring Pinout / Color Code

Red: + Power Input
Black: Ground
Green: Voltage Output
Green: Current Output (see note below)
White: SenSet™ (cal)

Note: A metal rod eye on an LVIT's rod should be grounded

Analog I/Os:

0 - 10 VDC output with 12-30 VDC input (35 mA max)

4 - 20 mA 3-wire sourcing with 18-30 VDC input (60 mA max) ***Do not connect output to a 2-wire loop powered system.***

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