



# Lifetime NO-DRIFT Warranty Statement

Effective 1/15/2020

## **Lifetime NO-DRIFT Sensor Warranty**

### **Sierra MEMS Thermal Mass Flow Products**

In addition to Sierra's standard three (3) year manufacturing warranty on all MEMS mass flow instruments produced, Sierra also offers a Lifetime No-Drift Sensor Warranty. Sierra defines no-drift as less than 1% of full scale over the life of the instrument. Therefore, if drift of greater than 1% of full scale occurs over the sensor's lifetime, the sensor and/or entire instrument will be repaired or replaced and recalibrated free of charge.

This warranty applies to all MEMS/CMOS thermal mass flow sensors standard on every Sierra RedySmart™ and RedyCompact™ models sold after January 15, 2020. This warranty is only valid if the unit is exclusively used with the gas or gases specified during the initial calibration or recalibration, without any additives in any form and under the operating conditions (temperature, inlet and outlet pressure, full scale flow rate) the unit was originally specified for.

Sierra's Lifetime No-Drift Sensor Warranty is made possible due to high-precision MEMS (Micro-Electro Mechanical Systems) technology utilizing an advanced ultra-stable CMOS (Complementary Metal Oxide Semiconductor) sensor. The use of MEMS techniques allows both electronic circuits and mechanical devices to be manufactured on a silicon chip, similar to the process used for integrated circuits.

To assure warranty service, customers must register their products online on Sierra's website. Online registration of all of your Sierra products is required for our warranty process.

### ***Warranty Limitations:***

Warranty does not cover any damage or discoloration caused by particulates deposited by dirty gases, liquids, residue or any other source. Warranty does not cover usage of any corrosive gas not compatible with the wetted materials listed:

### **Wetted Material**

#### **Sensor Compartment**

- Aluminum
- Stainless Steel

**Sensor Element CMOS**

- Silicon (Si)
- Silicon oxide (SiO<sub>x</sub>)
- Silicon nitride (Si<sub>3</sub>N<sub>4</sub>)
- Stainless steel
- Hysol FP4450/4451TD
- Gold connectors

**Sensor Compartment O-ring Sealing**

- FKM
- EPDM / FFKM on request

Warranty does not cover electronics drift or recalibration expenses for any reason other than the failure described above. Such returns are contingent on Sierra's examination and reasonable satisfaction that any defects are covered by this warranty and that the customer has not returned the equipment in a damaged condition, due to any negligence, tampering, misapplication or product modification on the part of the customer or customer agents. Third party reports will not be accepted for warranty claims.

Sierra shall not be liable for installation charges, for expenses of customer for repairs or replacement, for damages from delay or loss of use, or other indirect or consequential damages of any kind. Sierra extends this warranty only to Sierra products properly used and properly installed for the particular application for which intended and quoted, and this warranty does not cover products which have been modified without Sierra's approval or which have been subjected to unusual physical or electrical stress, alteration, or tampering, or upon which the original identification marks have been removed or altered. Whenever the design of the equipment to be furnished or the system in which it is to be incorporated originates with the customer, Sierra's Lifetime No-Drift Sensor Warranty is limited specifically to matters relating to furnishing Sierra equipment free of defects in materials and workmanship and Sierra assumes no responsibility for implied warranties of fitness for purpose or use. Any replacement or repair shall be done by Sierra's factory by qualified technicians.