



Molecular Property Spectrometer™ MPS™ A2L Refrigerant Gas Sensor

MPS Firmware Release Notes

The MPS A2L Refrigerant Gas Sensor comes preprogrammed with firmware that operates the sensor. The following is a version history of this firmware.

MPS A2L Refrigerant Gas Sensor Firmware Version 4.1.0.0 Release Notes

Build 4.1.0.0 has the following improvements and updates:

- Improved environmental compensation.
- Factory-customizable analog output voltage levels.
- Expanded Power-On Self-Test (POST) and Built-In Self-Test (BIST) tests and messaging.
- Expanded API command set, including UART-enabled reset command (0x62).

MPS A2L Refrigerant Gas Sensor Firmware Version 3.1.0.0/3.1.1.0 Release Notes

Build 3.1.0.0/3.1.1.0 has the following improvements and updates:

- Enhancements to chemometric algorithms for handling rapid environmental transients.
- Improvement in accuracy of reported concentration.

MPS A2L Refrigerant Gas Sensor Firmware Version 3.0.0.0 Release Notes

Build 3.0.0.0 has the following improvements and updates:

- Significantly reduced average power consumption from 55 mW to 29 mW.
- Enhanced sensor capability when measuring up to 100% v/v concentrations.
- Faster response time: T90 is now ~5 seconds.
- Bug fixes.
- New API for UART communication:
 - All integers are now represented in Little Endian format. For processors with Little Endian format, this eliminates the need to swap bytes into native format.
 - A new command (ID 0x09) is available to query “engineering data” for debugging.
 - Inclusion of self-test commands, which are defined in the MPS A2L Refrigerant Gas Sensor User Manual.
- Previous versions of the MPS A2L Refrigerant Gas Sensor Interface are incompatible with this firmware upgrade. Version 1.6.1.4 of the MPS A2L Refrigerant Gas Sensor Interface must be used to properly upgrade and operate the sensor.

Note: sensor firmware is only upgradable within the same major firmware version number. A2L FW 4.x sensors are not backward compatible with A2L FW 3.x sensors. A2L FW 3.x sensors are not backward compatible with A2L FW 2.x sensors.