The VARiON® Plus H is an online ion selective electrode (ISE) sensor for continuous measurement of ammonium and nitrate. The VARiON Plus H is certified for use in Class 1 Division 2 hazardous locations.

- **Certified for use in Class I, Division 2 (CID2) areas** - Conforms with NFPA standard 820 for CID2, groups A, B, C, D, and T6.

- **Cost Savings** - Individually user-replaceable electrodes have a typical lifetime of 18 to 24 months and have an industry-leading 1 year warranty, minimizing maintenance efforts and ownership costs.

- **Accurate and Reliable** - Measure either ammonium and nitrate plus 1 compensation electrode (potassium or chloride). The VARiON's mesh membrane and stable electrode provide accurate measurements for reliable treatment controls.

- **Compatible with IQ SensorNet’s extensive suite of online controllers and sensors.**
## VARiON® Plus 700 IQ H Data Specifications

### Measurement Method
- **Measuring principle:** Potentiometric measurement by means of ion sensitive electrodes (ISE)

### Measuring Range
- **NH₄-N**
  - MR1: 0.1 to 100.0 mg/L; MR2: 1 to 2000 mg/L
- **NH₄**
  - MR1: 0.1 to 129.0 mg/L; MR2: 1 to 2580 mg/L
- **mV**
  - -2000 to +2000 mV
- **NO₃-N**
  - MR1: 0.1 to 100.0 mg/L; MR2: 1 to 1000 mg/L
- **NO₃**
  - MR1: 0.5 to 450.0 mg/L; MR2: 5 to 4500 mg/L
- **K (compensation electrode for ammonium)**
  - MR1: 0.1 to 100.0 mg/L; MR2: 1 to 1000 mg/L
- **Cl (compensation electrode for nitrate)**
  - MR1: 0.1 to 100.0 mg/L; MR2: 1 to 1000 mg/L

### Resolution
- **NH₄-N**
  - MR1: 0.1 mg/L; MR2: 1 mg/L
- **NH₄**
  - MR1: 0.1 mg/L; MR2: 1 mg/L
- **mV**
  - 1 mV
- **NO₃-N**
  - MR1: 0.1 mg/L; MR2: 1 mg/L
- **NO₃**
  - MR1: 0.5 mg/L; MR2: 5 mg/L
- **K**
  - MR1: 0.1 mg/L; MR2: 1 mg/L
- **Cl**
  - MR1: 0.1 mg/L; MR2: 1 mg/L

### Temperature Measurement
- **Temperature Sensor:** Integrated NTC
- **Measuring Range:** 23 to 140 °F (-5 °C to + 60 °C)
- **Accuracy:** ± 0.5 °C
- **Resolution:** 0.1 °C
- **Response Time:** T95 < 20 seconds

### Environmental Conditions
- **Operating Temperature:** 32 to 104 °F (0 °C to 40 °C)
- **Storage Temperature:** 32 to 104 °F (0 °C to 40 °C)
- **Allowable pH:** 4 to 12
- **Rating:** IP 68
- **Maximum Pressure:** 0.2 bar

### Electrical
- **Nominal Voltage:** Max. 24 VDC, via IQ SensorNet system
- **Power Consumption:** 0.2 W
- **Protective Class:** III

### Conformance/Certifications
- **Electrical:** UL 61010-1, CAN/CSA C22.2 # 61010.1
- **Hazardous Location Ratings:** Conforms to UL 121201, CAN/CSA C22.2 # 213; Class I Division 2, Groups A, B, C, D, T6; Class I Zone 2, Groups IIC T6

### General
- **Material:** V4A stainless steel and POM
- **Dimensions:** 15.4 x 1.6 in (392 x 40 mm)
- **Weight:** 1.48 lbs (670 g)
- **Warranty:** 2 year sensor; 1 year electrode

### Note
The VARiON Plus 700 IQ H (207040Y) requires the MIQ/BB1 module (207 001Y) for operation.