

# iQ Fire Station

From the air to the ground.

35 elements. One autonomous environmental sensing station.

Air • atmosphere • fuel • soil



FOREST & WILDLAND INTERFACES



8 ft. prototype • two in-ground sensor arrays  
5 m soil-array lengths • marked bury line

| Air quality & detection  |                           | 14 |
|--------------------------|---------------------------|----|
| 01 Carbon monoxide (CO)  | 02 Carbon dioxide (CO2)   |    |
| 03 VOCs                  | 04 Nitrogen dioxide (NO2) |    |
| 05 Ozone (O3)            | 06 PM1.0                  |    |
| 07 PM2.5                 | 08 PM10                   |    |
| 09 Optical smoke         | 10 Photoelectric smoke    |    |
| 11 UV flame response     | 12 IR flame response      |    |
| 13 Thermal imaging       | 14 Visible / low-light    |    |
| Atmospheric              |                           | 12 |
| 15 Air temperature       | 16 Relative humidity      |    |
| 17 Wind speed            | 18 Wind gust              |    |
| 19 Wind direction        | 20 Solar radiation        |    |
| 21 Precipitation rate    | 22 Precipitation total    |    |
| 23 Barometric pressure   | 24 Lightning strikes      |    |
| 25 Lightning distance    | 26 Ambient light          |    |
| ET & motion              |                           | 2  |
| 27 Evapotranspiration    | 28 Accelerometers         |    |
| Fuel & site              |                           | 3  |
| 29 10-hour fuel moisture | 30 GPS location           |    |
| 31 Compass heading       |                           |    |
| In-ground                |                           | 4  |
| 32 Temperature           | 33 Moisture (VWC)         |    |
| 34 Conductivity (EC)     | 35 Dielectric             |    |

35  
ELEMENTS

Planned communications & power  
Satellite • Starlink gateways • autonomous LTE • LoRaWAN 900 MHz  
Meshed network • 228 Ah lithium • no solar required



Turn environmental signals into timely action.  
Mission-critical autonomous alerts • GAIN intelligence  
Prototype under development. Specifications subject to change.

