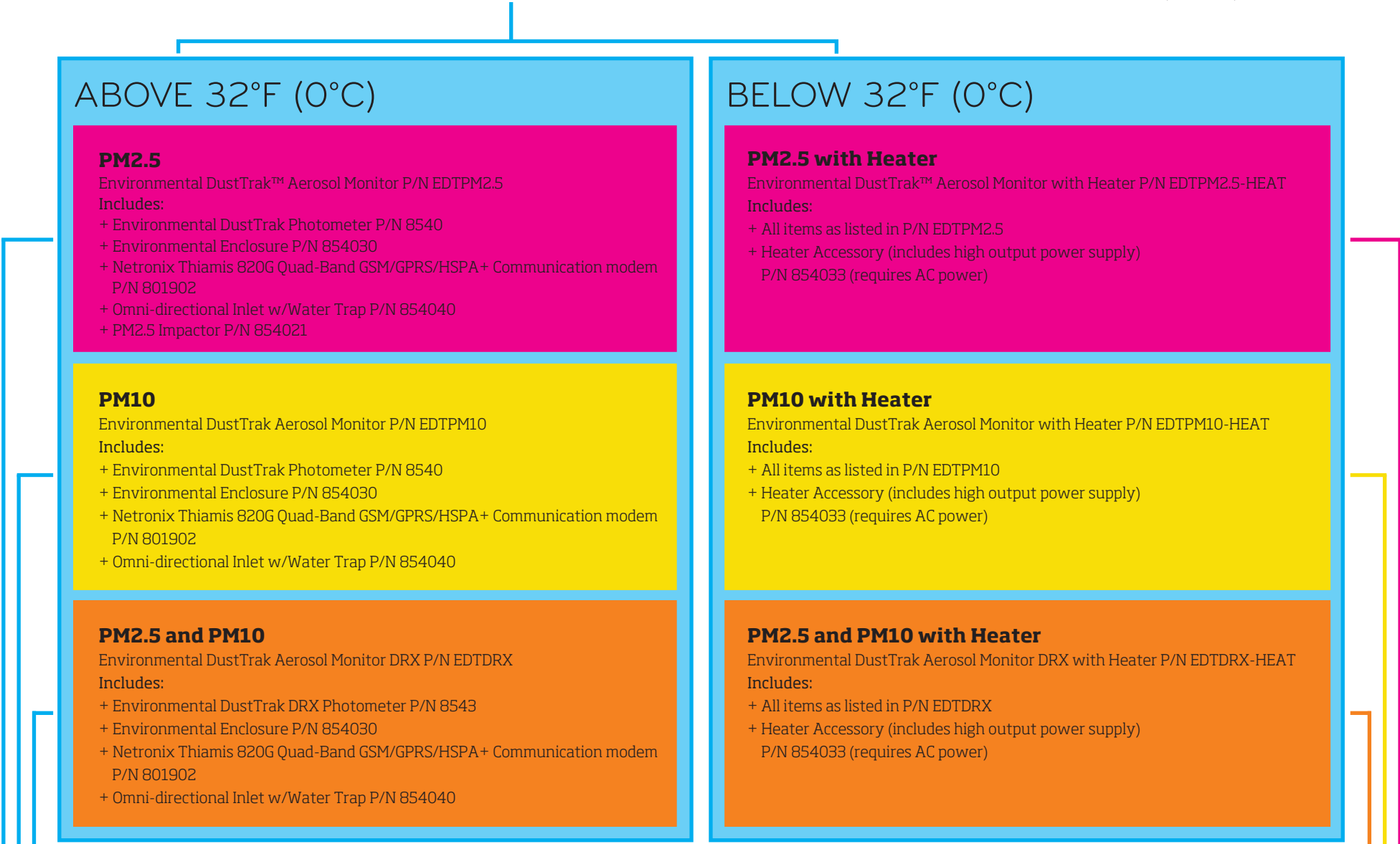


# ENVIRONMENTAL DUSTTRAK™ AEROSOL MONITOR CONFIGURATOR

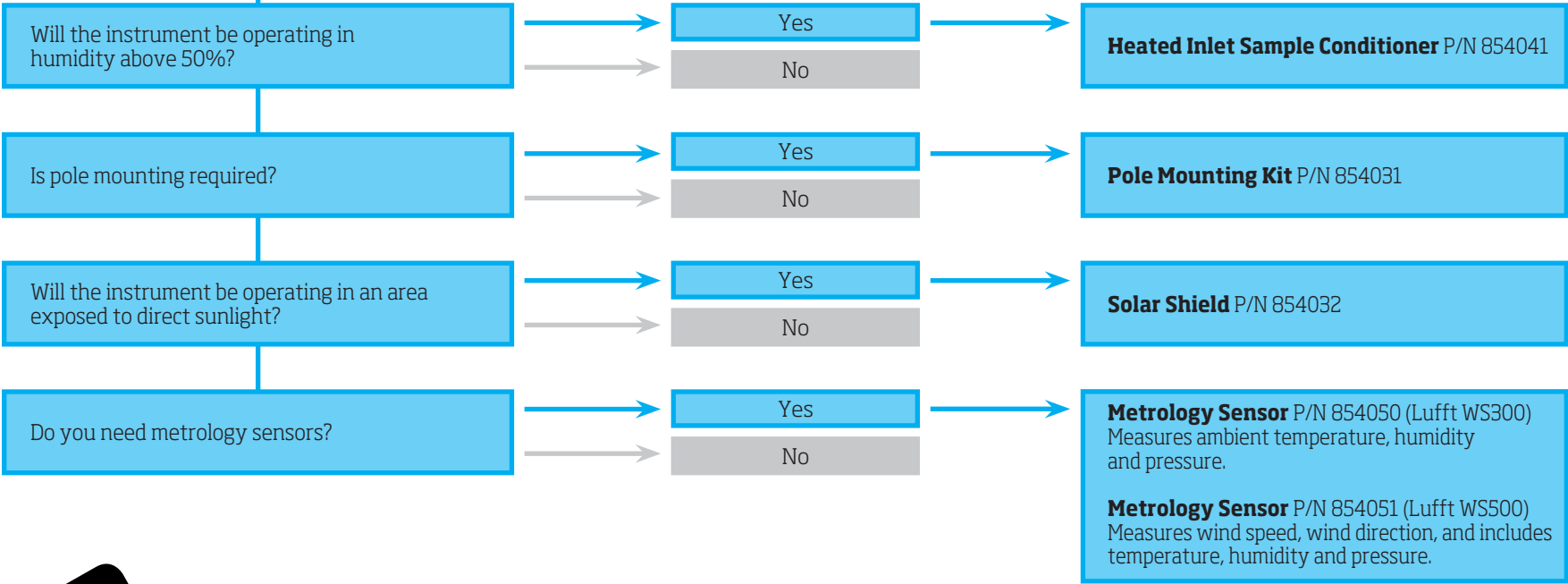
WHAT SIZE FRACTION DO YOU WANT TO MEASURE, AND  
WILL THE INSTRUMENT BE OPERATING IN TEMPS BELOW 32°F (0°C)?



WHAT KIND OF POWER SOURCE IS DESIRED?



OPTIONAL ACCESSORIES



UNDERSTANDING, ACCELERATED

# ENVIRONMENTAL DUSTTRAK™ AEROSOL MONITOR FAQs

**Lowest operating temp?**

32° to 122°F (0° to 50°C); -4° to 122°F (-20° to 50°C) with enclosure heater

**Battery run time**

24 hrs on 1 battery, 48 hrs on 2 batteries.

With Heated Inlet: 15 hr on 1 battery, 30 hrs on 2 batteries

**Who needs a heated inlet sample conditioner?**

People measuring outdoor dust in humid environments above 50% Rh and parts of the world with seasonal temperature/humidity swings.

**What does heated inlet sample conditioner do?**

Conditions the sampled aerosol to improve measurement accuracy by minimizing the effects of humidity when environments are consistently >50% Rh.

**What setting do I set the heated inlet sample conditioner to?**

The heated inlet sample conditioner is designed to reduce the sampled air to 30%, 40% or 50% Relative Humidity.

- + In the US, the EPA requires humidity control to 30-40% for PM10 particle sampling, and 35% for PM2.5 particle sampling.
- + In the UK, EN12341 requires humidity control to 50% ± 5% for PM10 particulates, and 30-40% for PM2.5 particulates.
- + The NIOSH Analytical Method O600 for Particulates, not otherwise classified, Respirable, specifies the sample filter media be equilibrated in an environmental chamber at 20°± 1° C and 50±5% Relative Humidity.

US	
Outdoor environmental sampling for PM2.5	35% Rh
Outdoor environmental sampling for PM10	30-40% Rh
Occupational Exposure sampling for respirable dust	50% Rh

UK	
Outdoor environmental sampling for PM2.5	30-40% Rh
Outdoor environmental sampling PM10	50% Rh

**How does the heated inlet sample conditioner work?**

A humidity/temperature sensor is used to measure the environment and turn the heater elements on and off based on a dew point algorithm. The incoming air is heated to reduce the humidity to the selected level.

**What does the auto zero do?**

Reduces instrument drift by periodically stopping sampling and adjusting the instrument response to a situation with zero particles in the optics.

**What do you mean by photometer drift or instrument drift?**

Drift is a change in readings that is not consistent with the present dust levels. Drift occurs over time due to contamination of the optics and can also be caused by temperature changes.

**How much does the Environmental DustTrak Monitor weigh?**

Basic Package	lbs	kg	Loaded Package	lbs	kg	Battery Package	lbs	kg
Env. DustTrak	5.3	2.4	Env. DustTrak	5.3	2.4	Env. DustTrak	5.3	2.4
Enclosure	19.6	8.9	Enclosure	19.6	8.9	Enclosure	19.6	8.9
Netronix Node Kit	0.81	0.38	Netronix Node Kit with Extender	1	0.45	Netronix Node Kit with Extender	1	0.45
Omni-directional Inlet	2.2	1	Omni-directional Inlet	2.2	1	Omni-directional Inlet	2.2	1
Impactor	0.23	0.105	Impactor	0.23	0.105	Impactor	0.23	0.105
Power Supply	1.7	0.77	Solar Shield	2	0.9	Solar Shield	2	0.9
Total	29.84	13.555	Handle Kit	0.6	0.27	Handle Kit	0.6	0.27
			Pole Mount Kit	6.7	3.04	Pole Mount Kit	6.7	3.04
			Heated Inlet Sample Conditioner	2	0.9	Heated Inlet Sample Conditioner	2	0.9
			Enclosure Heater Kit	3.4	1.54	Battery Kit	30	13.6
			Total	43.03	19.5	Total	69.63	31.565

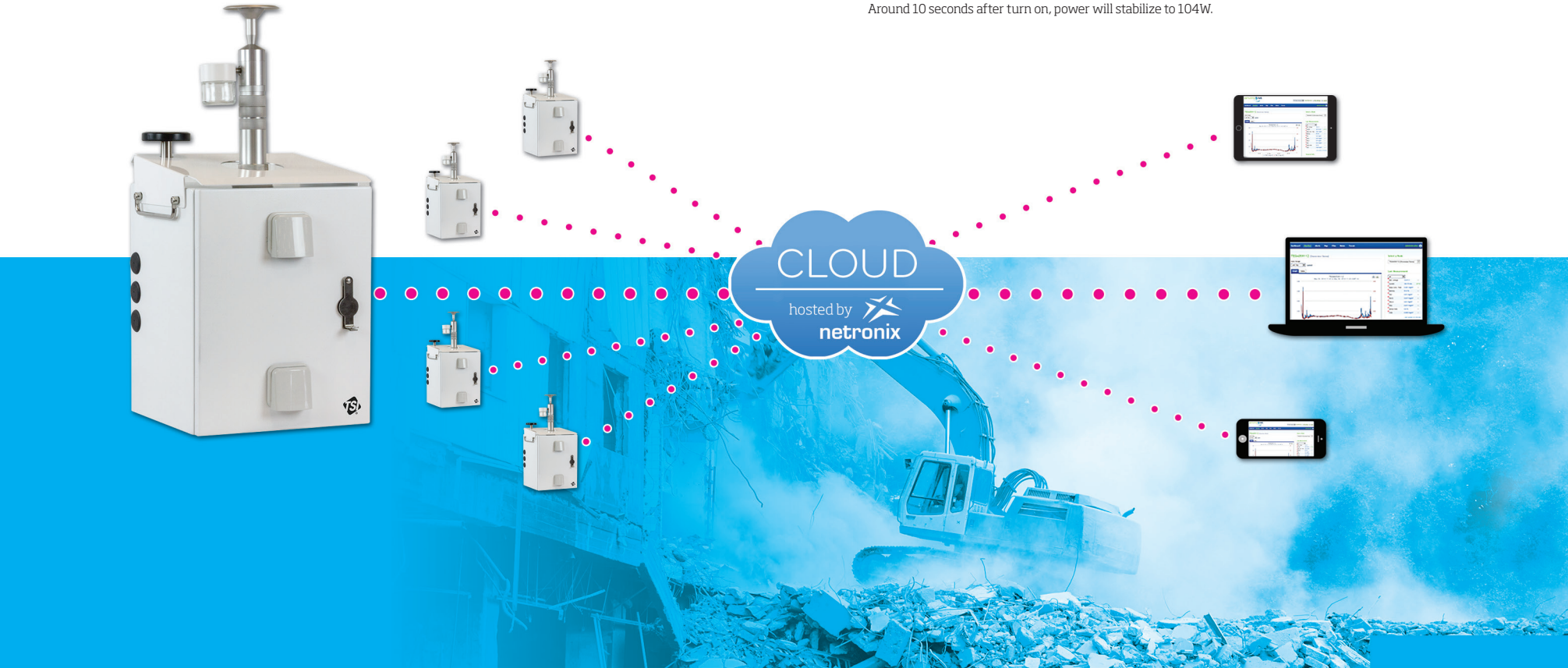
**Environmental DustTrak Monitor Impactor Maintenance Interval**

Average dust concentration (mg/m³)	Impactor maintenance interval
0.035	42 days
0.050	30 days
0.100	16 days
0.150	10 days
0.250	6 days
0.440	4 days

**Environmental DustTrak Monitor Power Budget**

Estimated Power (W)	
DustTrak	8
Thiamis Module	1
Heated Inlet Sample Conditioner	13
Weather Station	24
Enclosure Heater	104 <sup>1</sup>
Total	150

<sup>1</sup> Note: When the enclosure heater turns on, it may draw up to 340W of inrush power. Around 10 seconds after turn on, power will stabilize to 104W.



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