Uniphos Detector Tube Instruction Sheet

Direct Reading Length of Stain Type

NO_2 & NO

SNDNO-4L

No_2: TWA (TLV): 3 ppm — STEL (TLV): 5 ppm — Flammable Range: N.A.

NO: TWA (TLV): 25 ppm — STEL (TLV): N.A. — Flammable Range: N.A.

MOST IMPORTANT:

Before using this product, carefully read this instruction sheet and strictly follow the recommended instructions.

SPECIFICATION:

	Extended	Standard	Extended
Measurement Range (NO_2)	Do not extend	2.5 - 200 ppm	Do not extend
Measurement Range (NO)	Do not extend	2.5 - 200 ppm	Do not extend
No. of Pump Strokes		1 (100 mL)	
Volume Correction Factor (VCF)*		1.0	
Sampling Time	1 minute per pump stroke (100 mL)		
Color Change	Both NO_2 & NO : White ⟶ Orange		
Storage condition	Below 10°C (50°F)		
Calibration condition	Calibrated at 20°C (68°F) and 50% RH.		
Active Reagent(s)	CrO_3 and O-Tolidine		

* Multiply the observed reading by the correction factor (VCF) to obtain the true concentration.

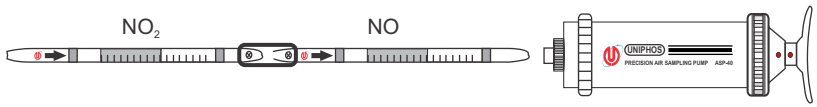
NOTES:

1. The sampling pump and detector tube together form a measuring system.
2. Ensure that these tubes are used with Uniphos ASP-40 pump only.
3. Before each day's use, check the pump for leaks and use it only if it is free from leak.

HOW TO CHECK THE PUMP FOR LEAK:

Insert an unopened tube into the pump inlet and pull a stroke. After 3 minutes unlock the handle and release it slowly holding the handle and the cylinder securely, so that the **piston does not fly back violently.** If the handle returns to the 0 red line, the pump is leak free and fit for use.

MEASUREMENT PROCEDURE



1. Break both ends of the NO_2 and NO detector tubes using the tip breaker on the sampling pump.
2. Connect the two tubes using the rubber tubing connector. The ⊗ marks on each tube indicate the ends that should be inserted into the connector.
3. Insert one end of the tube securely into the sampling pump inlet, ensuring that the arrow mark on the tube points towards the pump.
4. Rotate the piston shaft until the red dot on it aligns with the red dot on the pump body.
5. Insert the open end of the tube into the gas to be sampled and pull the handle for 1 stroke until it locks in place, and wait for the sampling time indicated. The end-of-flow indicator (Vac. Test) near the handle of the pump also shows when sampling is complete.
6. Remove the tube from the pump and read the concentration directly on the tube scale. If tailing occurs read at the midpoint of the taper. It is advisable to take the reading within a few minutes of sampling. If necessary mark the end of stain if it is to be read later.
7. Check for possible cross-sensitivities.

CORRECTION FOR TEMPERATURE AND HUMIDITY:

Relative humidity - Not necessary between R.H. 10 - 90 % .

Temperature:

a. For NO_2 tubes : Not necessary between 0 °C and 40 °C (32 °F and 104 °F)

b. For NO tube: See the table below.

Temperature °C(°F)	0 (32)	10(50)	20(68)	30(86)	40(104)
Correction Factor(TCF)	1.15	1.08	1	0.95	0.9

* Multiply the observed reading by the correction factor (TCF) to obtain the true concentration.

POSSIBLE INTERFERENCES:

For NO_2 Detector Tube:

Compound	Concentration (ppm)	Interference	Colour change / Comments
Nitrogen Monoxide	200	No	No Effect
Sulphur Dioxide	20	No	No Effect
Chlorine	50	Yes	Yellowish orange
HCl	100	No	No Effect
Ozone	5	Yes	Yellowish orange

For NO Detector Tube:

Compound	Concentration (ppm)	Interference	Colour change / Comments
Nitrogen Dioxide	200	No	No Effect
Sulphur Dioxide	10	No	No Effect
Ozone	50	No	No Effect

CAUTION:

1. The process of breaking the tube ends can generate flying glass bits and leave the tube with sharp edges. Use eye and hand protection while breaking the tube ends.
2. Keep tubes out of reach of unauthorized persons, especially children.
3. Dispose of used tubes according to local regulations.

IMPORTANT:

As we are continuously working on the improvement of products, we reserve the right to change the specifications without any prior notice.

USER RESPONSIBILITY:

It is entirely the responsibility of the user of the equipment (detector tube with pump) to see that the equipment is operated, maintained and repaired in strict accordance with the manufacturer's instructions provided with the equipment. It is also the sole responsibility of the user to ensure that the tubes are not used beyond their expiration date. The manufacturer and manufacturer's distributors are not otherwise liable for any incorrect measurement and its consequences or any damages resulting from user's negligence or otherwise.

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13362(Silicon)

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