

Acrylonitrile 0.2/a

Order No. 81 03 701

A

Application Range

Standard Measuring Range:	0.2 to 4 ppm / 5 to 50 ppm
Number of Strokes n:	20 / 5
Time for Measurement:	approx. 4 min / approx. 1 min
Standard Deviation:	± 15 to 20 %
Color Change:	yellow → red

Ambient Operating Conditions

Temperature:	5 to 40 °C
Absolute Humidity:	1 to 25 mg H ₂ O / L

Reaction Principle

- a) $\text{CH}_2=\text{CH-CN} + \text{MnO}_4 \rightarrow \text{HCN}$
 b₁) $\text{HCN} + \text{HgCl}_2 \rightarrow \text{HCl}$
 b₂) $\text{HCl} + \text{methyl red} \rightarrow \text{red reaction product}$

Cross Sensitivity

At 4 ppm acrylonitrile no effect from:

1000 ppm acetone, 20 ppm benzene, 1000 ppm, ethal acetate.
 In the presence of 500 ppm ethanol, 1000 ppm n-hexane or
 100 ppm toluene, acrylonitrile is indicated with lower sensitivity and
 determining the concentration is not possible.

In the presence of 400 ppm butadiene, the indication of 4 ppm
 acrylonitrile is largely suppressed.



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