

# 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:	$\pm 15$ to 20 %	
Color Change:	yellow $\rightarrow$ red	

## Ambient Operating Conditions

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

## Reaction Principle

- a)  $\text{CH}_2=\text{CH-CN} + \text{MnO}_4 \rightarrow \text{HCN}$   
 b<sub>1</sub>)  $\text{HCN} + \text{HgCl}_2 \rightarrow \text{HCl}$   
 b<sub>2</sub>)  $\text{HCl} + \text{methyl red} \rightarrow \text{red reaction product}$

## 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 concetration is not possible.

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

