# Cyanide 2/a

Order No. 67 28791



Standard Measuring Range : 2 to 15 mg/m<sup>3</sup>

 
 Number of Strokes (n)
 : 10

 Time for Measurement
 : app. 2.5 min

 Standard Deviation
 : ± 20 to 30 %

 Colour Change
 : yellow →> rec
Colour Change : yellow —> red

#### **Ambient Operating Conditions**

: 0 to 30 °C Temperature Absolute Humidity  $: < 20 \text{ mg H}_{\circ} \text{O} / \text{L}$ 

### **Reaction Principle**

a)

 $\begin{array}{l} 2~\mathrm{KCN} + \mathrm{H_2SO_4} \longrightarrow 2~\mathrm{HCN} + \mathrm{K_2SO_4} \\ 2~\mathrm{HCN} + \mathrm{HgCl_2} \longrightarrow 2~\mathrm{HCl} + \mathrm{Hg(CN)_2} \\ \mathrm{HCl} + \mathrm{Methyl}~\mathrm{red} \longrightarrow \mathrm{red}~\mathrm{reaction}~\mathrm{product} \end{array}$ b)

## **Cross Sensitivity**

Free hydrogen cyanide is indicated even before breaking the ampoule.

A certain portion of the cyanide can react with the CO<sub>2</sub> in the air through hydrolysis.

It is not possible to measure cyanide in the presence of phosphine and acids.

#### **Additional Information**

After performing the required ten pump strokes the reagent ampoule must be broken. The liquid of the ampoule must be transferred to the indication layer and drawn through it with two pump strokes in cyanide free air using the pump.

The indicating layer must not become moist.