

Benzene 0.25/a

Order No. 81 03 691

A

Application Range

Standard Measuring Range:	0.25 to 2 ppm / 2 to 10 ppm
Number of Strokes n:	5 / 1
Time for Measurement:	approx. 5 min / approx. 1 min
Standard Deviation:	± 15 %
Color Change:	light grey → dark grey to black

Ambient Operating Conditions

Temperature:	0 to 40 °C
Absolute Humidity:	< 40 mg H ₂ O / L

Reaction Principle

Benzene + Alu+ → dark grey to black reaction product

Cross Sensitivity

Up to a concentration of approx. 40 ppm (n=5) and 200 ppm (n=1), toluene, xylene and ethyl benzene are kept in the pre-layer where they cause a brown discolouration. 800 ppm n-octane (n=5) and 4000 ppm n-octane (n=1) do not cause any discolouration in the indicating layer.



Place You Put Your Faith

D-28038-2017

Benzene 2/a

Order No. 81 01 231

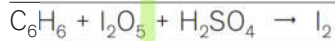
Application Range

Standard Measuring Range:	2 to 60 ppm
Number of Strokes n:	20
Time for Measurement:	approx. 8 min
Standard Deviation:	± 10 to 15 %
Color Change:	white → brown grey

Ambient Operating Conditions

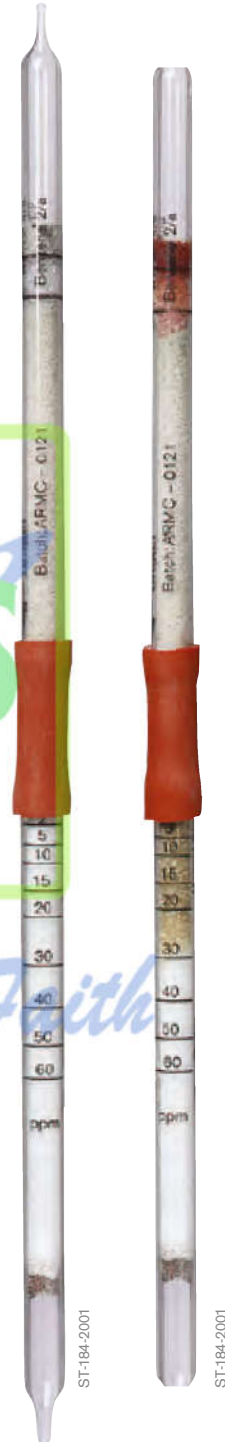
Temperature:	0 to 40 °C
Absolute Humidity:	1 to 15 mg H ₂ O / L

Reaction Principle



Cross Sensitivity

Alkyl benzenes such as toluene or xylene up to a concentration of 200 ppm do not affect the indication. It is impossible to measure benzene in the presence of petroleum hydrocarbons and carbon monoxide.



Place You Put Your Faith

Benzene 5/a

Order No. 67 18 801

B

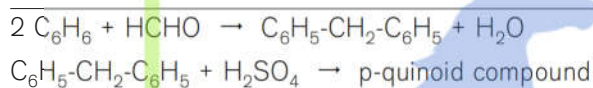
Application Range

Standard Measuring Range:	5 to 40 ppm
Number of Strokes n:	15 to 2
Time for Measurement:	max. 3 min
Standard Deviation:	± 30 %
Color Change:	white → red brown

Ambient Operating Conditions

Temperature:	0 to 40 °C
Absolute Humidity:	max. 50 mg H ₂ O / L

Reaction Principle



Cross Sensitivity

Other aromatics (toluene, xylene) are retained in the pre-layer causing a reddish brown discoloration. If the toluene or xylene concentrations are too high the entire pre-layer up to the indicating layer is discolored making a benzene measurement impossible. Petroleum hydrocarbons, alcohols and esters do not affect the indication.



ST-22-2001

Place You Put Your Faith

Benzene 5/b

Order No. 67 28 071

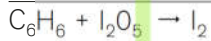
Application Range

Standard Measuring Range:	5 to 50 ppm
Number of Strokes n:	20
Time for Measurement:	approx. 8 min
Standard Deviation:	± 10 to 15 %
Color Change:	white → brown green

Ambient Operating Conditions

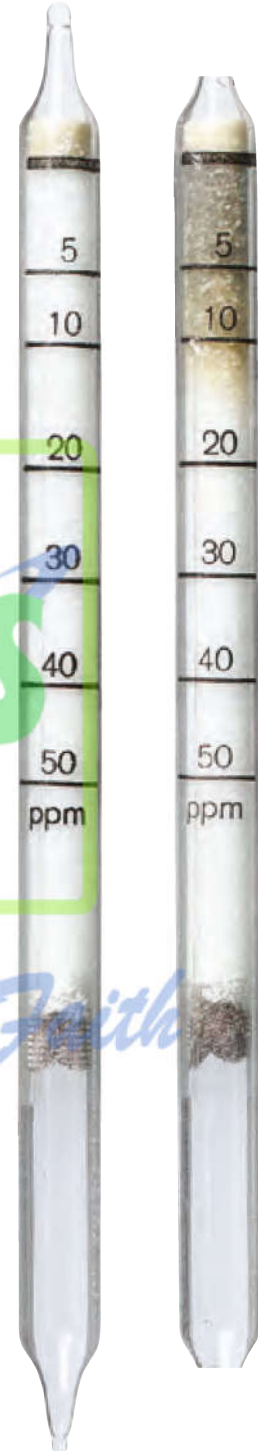
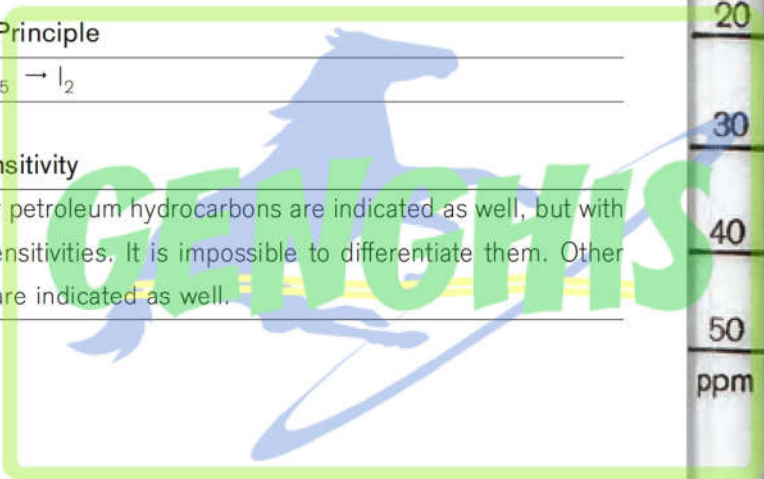
Temperature:	0 to 40 °C
Absolute Humidity:	3 to 15 mg H ₂ O / L

Reaction Principle



Cross Sensitivity

Many other petroleum hydrocarbons are indicated as well, but with different sensitivities. It is impossible to differentiate them. Other aromatics are indicated as well.



ST-23-2001

Place You Put Your Faith

Benzene 15/a

Order No. 81 01 741

B

Application Range

Standard Measuring Range:	15 to 420 ppm
Number of Strokes n:	20 to 2
Time for Measurement:	max. 4 min
Standard Deviation:	± 30 %
Color Change:	white → red brown

Ambient Operating Conditions

Temperature:	0 to 30 °C
Absolute Humidity:	max. 30 mg H ₂ O / L

Reaction Principle

- a) $2 \text{C}_6\text{H}_6 + \text{HCHO} \rightarrow \text{C}_6\text{H}_5\text{-CH}_2\text{-C}_6\text{H}_5 + \text{H}_2\text{O}$
 b) $\text{C}_6\text{H}_5\text{-CH}_2\text{-C}_6\text{H}_5 + \text{H}_2\text{SO}_4 \rightarrow \text{p-quinoid compound}$

Cross Sensitivity

Other aromatics (toluene, xylene) are retained in the pre-layer causing a reddish brown discoloration. If the toluene or xylene concentrations are too high the entire pre-layer up to the indicating layer is discolored making a benzene measurement impossible. Petroleum hydrocarbons, alcohols and esters do not affect the indication.



ST-24-2001

Place You Put Your Faith