5.2.2 Data about Dräger Chips for Short-Term Measurements

Acetic Acid 2 - 50 ppm Order No. 64 06 330

Measuring Range:	2 to 50 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 40 to 300 s
Rel. Standard deviation:	± 17%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 5 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Formic acid is indicated with the same sensitivity.	

Acetone 40 - 600

Order No. 64 06 470

Measuring Range:	40 to 600 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 60 to 600s
Rel. Standard deviation:	± 16%
Ambient Operating Conditions	
Temperature:	5 to 40 °C
Humidity:	0 to 30 mg/L
	(corresp. 0 to 100% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
200 ppm Methylethylketon	approx. 370 ppm
100 ppm Methylisobutylketon	approx. 240 ppm
100 ppm Methanol	approx. 200 ppm
500 ppm Ethanol	approx. 500 ppm
250 ppm i-Propanol	approx. 290 ppm

Ammonia 0.2 - 5 ppm

Order No. 64 06 550

Measuring Range:	0.2 to 5 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 100 to 600 s
Rel. Standard deviation:	± 14%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	

Acid gases can cause minus errors. Other basic substances such as organic amines are indicated with differing sensitivity.

Ammonia 2 - 50 ppm Order No. 64 06 130

Measuring Range:	2 to 50 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 15 to 140 s
Rel. Standard deviation:	± 12%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 10 ppm $\rm NH_3$ by	
	≤ 200 ppm hydrogen sulfide
	≤ 200 ppm sulfur dioxide
Other basic substances such as organic amines are indicated with differing sensitivity.	

Ammonia 10 - 150 ppm Order No. 64 06 020

Measuring Range:	10 to 150 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 15 to 50 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 25 ppm $\rm NH_3$ by	
	≤ 200 ppm hydrogen sulfide
	≤ 200 ppm sulfur dioxide
Other basic substances such as organic amines are indicated with differing sensitivity.	

Ammonia 100 - 2000 ppm Order No. 64 06 570

100 to 2000 ppm (20 °C, 50% r.h.)
approx. 15 to 120 s
± 10%
0 to 40 °C
1 to 30 mg/L
(corresp. 2 to 60% r.h. at 40 °C)
700 to 1100hPa

Cross Sensivity

Acid gases can cause minus errors, basic substances such as organic amines are indicated with differing sensitivity. There is no indication due to 200 ppm SO_2 or 200 ppm H_2S , cause however in presence of NH₃ substantial minus errors.

Benzene 50 - 2500 ppb

Order No. 64 06 600

Measuring Range:	50 to 2500 ppb
Measuring Time:	approx. 80 to 600s
Rel. Standard deviation:	± 25%
Ambient Operating Conditions	
Temperature:	0 to 30 °C
Humidity:	1 to 20 mg/L
	(corresp. 3 to 65% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 250 ppb benzene by	
	≤ 10 ppm toluene
	≤ 10 ppm xylene
	≤ 200 ppm n-octane

Benzene 0.2 - 10 ppm Order No. 64 06 030

Measuring Range:	0.2 to 10 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 35 to 300 s
Rel. Standard deviation:	± 25%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.2 ppm benzene by	
	≤ 50 ppm toluene
	≤ 50 ppm xylene
	≤ 800 ppm n-octane

Benzene 0.5 - 10 ppm Order No. 64 06 160

Measuring Range:	0.5 to 10 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 35 to 225 s
Rel. Standard deviation:	± 25%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.5 ppm benzene by	
	≤ 50 ppm toluene
	≤ 50 ppm xylene
	≤ 1000 ppm n-octane

Benzene 10 - 250 ppm Order No. 64 06 280

Measuring Range:	10 to 250 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 40 to 275s
Rel. Standard deviation:	± 18%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 10 ppm benzene by	
	≤ 50 ppm toluene
	≤ 50 ppm xylene
	≤ 1000 ppm n-octane

Butadiene 1 - 25 ppm

Order No. 64 06 460

Measuring Range:	1 to 25 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 90 to 550 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	5 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
20 ppm styrene	approx. 6 ppm
5 ppm 1-butene	approx. 1 ppm
5 ppm chloroprene	approx. 10 ppm
5 ppm propene	approx. 2 ppm

Carbon Dioxide 200 - 3000 ppm Order No. 64 06 190

Measuring Range:	200 to 3000 ppm
	(20 °C, 50% r.h.)
Measuring Time:	approx. 60 to 260 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 200 ppm $\rm CO_2$ by	
	≤ 1 ppm hydrogen sulfide
	≤ 0.2 ppm sulfur dioxide

Carbon Dioxide 1000 - 25000 ppm

Order No. 64 06 070

Measuring Range:	1000 to 25000 ppm
	(20 °C, 50% r.h.)
Measuring Time:	approx. 25 to 100 s
Rel. Standard deviation:	± 7%
Ambient Operating Conditions	
Temperature:	0 to 30 °C
Humidity:	1 to 30 mg/L
	(corresp. 3 to 98% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 5000 ppm $\rm CO_2$ by	
	≤ 10 ppm hydrogen sulfide
	≤ 2 ppm sulfur dioxide

Carbon Dioxide 1 - 20 Vol% Order No. 64 06 210

Measuring Range:	1 to 20 Vol% (20 °C, 50% r.h.)
Measuring Time:	approx. 12 to 120 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 1 Vol% $\rm CO_2$ by	
	≤ 100 ppm hydrogen sulfide
	≤ 100 ppm sulfur dioxide

Carbon Monoxide 5 - 150 ppm Order No. 64 06 080

Measuring Range:	5 to 150 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 80 to 300 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 50 mg/L
	(corresp. 2 to 98% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 25 ppm CO by	
≤ 1000 ppm butane	≤ 300 ppm hydrogen sulfide
≤ 1000 ppm propane	≤ 100 ppm sulfur dioxide
≤ 500 ppm n-octane	≤ 15 ppm nitrogen dioxide

Chlorine 0.2 - 10 ppm Order No. 64 06 010

Measuring Range:	0.2 to 10 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 30 to 400 s
Rel. Standard deviation:	± 12%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	5 to 12 mg/L
	(corresp. 30 to 70% r.h. at 20 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.5 ppm chlorine by	
	≤ 10 ppm hydrochloric acid

Ethanol 100 - 2500 ppm Order No. 64 06 370

Measuring Range:	100 to 2500 ppm
	(20 °C, 50% r.h.)
Measuring Time:	approx. 60 to 340 s
Rel. Standard deviation:	± 14%
Ambient Operating Conditions	
Temperature:	10 to 30 °C
Humidity:	5 to 25 mg/L
	(corresp. 16 to 82% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
250 ppm methanol	approx. 225 ppm
500 ppm methanol	approx. 450 ppm
200 ppm n-butanol	approx. 150 ppm
100 ppm i-propanol	approx. 100 ppm

Ethylene Oxide 0.4 - 5 ppm Order No. 64 06 580

Measuring Range:	0.4 to 5 ppm (20°C, 50% r.h.)
Measuring Time:	approx. 160 to 600s
Rel. Standard deviation:	± 25%
Ambient Operating Conditions	
Temperature:	10 to 30 °C
Humidity:	3 to 25 mg/L
	(corresp. 10 to 83% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	

Other organic substances are likewise indicated, however, with differing sensitivity.

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Formaldehyde 0.2 - 5 ppm Order No. 64 06 540

Measuring Range:	0.2 to 5 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 100 to 600 s
Rel. Standard deviation:	± 25% (0.2 to 0.9 ppm)
	± 15% (1.0 to 5.0 ppm)
Ambient Operating Conditions	
Temperature:	10 to 30 °C
Humidity:	2 to 12 mg/L
	(corresp. 10 to 70% r.h. at 20 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No intiuence by	≤ 5 ppm NO ₂
(at 1 ppm HCHO)	≤ 5 ppm HCl
Following substances are not indicated: 0.5 ppm acrolein, 500 ppm octane, 20 ppm	

styrene, 10 ppm vinyl acetate. Acetaldehyde is indicated with approx. the factor 8 less than fomaldehyde.

Hydrochloric Acid 1 - 25 ppm Order No. 64 06 090

Measuring Range:	1 to 25 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 15 to 110 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 10 mg/L
	(corresp. 5 to 60% r.h. at 20 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 5 ppm HCl by	
	≤ 10 ppm hydrogen sulfide
	≤ 2 ppm sulfur dioxide

Hydrochloric Acid 20 - 500 ppm

Order No. 64 06 140

Measuring Range:	20 to 500 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 6 to 80 s
Rel. Standard deviation:	± 8%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 10 mg/L
	(corresp. 5 to 60% r.h. at 20 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 20 ppm HCl by	
	≤ 100 ppm hydrogen sulfide
	≤ 20 ppm sulfur dioxide

Hydrocyanic Acid 2 - 50 ppm Order No. 64 06 100

Measuring Range:	2 to 50 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 30 to 260 s
Rel. Standard deviation:	± 16%
Ambient Operating Conditions	
Temperature:	0 to 30 °C
Humidity:	1 to 20 mg/L
	(corresp. 3 to 65% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 10 ppm HCN by	
	≤ 80 ppm hydrogen sulfide
	≤ 200 ppm ammonia
	≤ 50 ppm sulfur dioxide
	≤ 200 ppm hydrochloric acid

Hydrogen Peroxide 0.2 - 2 ppm Order No. 64 06 440

0.2 to 2 ppm (20 °C, 50% r.h.)
approx. 180 to 600 s
± 30%
10 to 30 °C
1 to 20 mg/L
(corresp. 3 to 65% r.h. at 30 °C)
700 to 1100hPa
Display of Anlayzer indicates
approx. 0.3 ppm
approx. 2 ppm
approx. > 2 ppm

Hydrogen Sulfide 0.2 - 5 ppm Order No. 64 06 520

Measuring Range:	0.2 to 5 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 40 to 450 s
Rel. Standard deviation:	± 15%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.2 ppm H_2S by	
	≤ 5 ppm nitrogen dioxide
	≤ 2 ppm sulfur dioxide
Mercaptan is also indicated, but with different sensitivity.	

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Hydrogen Sulfide 2 - 50 ppm

Order No. 64 06 050

Measuring Range:	2 to 50 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 20 to 200 s
Rel. Standard deviation:	± 7%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 10 ppm H_2S by	
	≤ 50 ppm nitrogen dioxide
	≤ 20 ppm sulfur dioxide
	≤ 200 ppm mercaptan

Hydrogen Sulfide 20 - 500 ppm Order No. 64 06 150

Measuring Range:	20 to 500 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 4 to 60 s
Rel. Standard deviation:	± 13%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 100 ppm H_2S by	
	≤ 50 ppm nitrogen dioxide
	≤ 20 ppm sulfur dioxide
	≤ 200 ppm mercaptan

Hydrogen Sulfide 100 - 2500 ppm Order No. 64 06 220

Measuring Range:	100 to 2500 ppm
	(20 °C, 50% r.h.)
Measuring Time:	approx. 10 to 70 s
Rel. Standard deviation:	± 9%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Air Pressure: Cross Sensivity	700 to 1100hPa
	700 to 1100hPa
Cross Sensivity	700 to 1100hPa ≤ 10 ppm nitrogen dioxide
Cross Sensivity	
Cross Sensivity	≤ 10 ppm nitrogen dioxide

Mercaptan 0.25 - 6 ppm Order No. 64 06 360

Measuring Range:	0.25 to 6 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 70 to 480 s
Rel. Standard deviation:	± 15%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 1 ppm mercaptan by	
	≤ 10 ppm hydrogen sulfide

Methanol 20 - 500 ppm

Order No. 64 06 380

Measuring Range:	20 to 500 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 200 to 600 s
Rel. Standard deviation:	± 19%
Ambient Operating Conditions	
Temperature:	15 to 30 °C
Humidity:	5 to 25 mg/L
	(corresp. 16 to 82% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
250 ppm i-propanol	approx. 350 ppm
250 ppm ethanol	approx. 380 ppm
100 ppm n-butanol	approx. 75 ppm

Methylene Chloride 20 - 200 ppm Order No. 64 06 510

Measuring Range:	20 to 200 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 180 to 600 s
Rel. Standard deviation:	± 25%
Ambient Operating Conditions	
Temperature:	10 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence by	≤ 5 ppm HCl
(at 10 ppm CH ₂ Cl ₂)	\leq 0,1 ppm Cl ₂
	\leq 1 Vol% CO ₂
It is impossible to measure methylene ch	oride in the presence of other chlorinated

hydrocarbons

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MTBE (tert butyl methyl ether) 10 - 200 ppm Order No. 64 06 530

Manauring Danga	10 to 000 ppm (00 °C 50% rb)
Measuring Range:	10 to 200 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 90 to 450 s
Rel. Standard deviation:	± 15%
Ambient Operating Conditions	
Temperature:	10 to 30 °C
Humidity:	1 to 30 mg/L
	(corresp. 3 to 98% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Aromatics and petroleum hydrocar	bons are also indicated, however, with

different sensitivities.

Nitrogen Dioxide 0.5 - 25 ppm Order No. 64 06 120

Measuring Range:	0.5 to 25 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 20 to 330 s
Rel. Standard deviation:	± 8%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 3 to 98% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 3 ppm NO_2 by	
	≤ 0.1 ppm ozone
	≤ 50 ppm sulfur dioxide
Chlorine is indicated with differing sensiti	vity. Nitrogen monoxide is not indicated.

Nitrous Fumes 0.5 - 15 ppm

Order No. 64 06 060

Measuring Range:	0.5 to 15 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 40 to 350 s
Rel. Standard deviation:	± 11%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 3 ppm NO_x by	
	≤ 0.1 ppm ozone
	≤ 50 ppm sulfur dioxide
Chlorine is indicated with differing sensiti	vity.

Nitrous Fumes 10 - 200 ppm Order No. 64 06 240

Measuring Range:	10 to 200 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 20 to 100 s
Rel. Standard deviation:	± 14%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 20 ppm $\rm NO_x$ by	
	≤ 0.2 ppm ozone
	≤ 50 ppm sulfur dioxide
Chlorine is indicated with differing sensitiv	vity.

Oxygen 1 - 30 Vol%

Order No. 64 06 490

Measuring Range:	1 to 30 Vol% (20 °C, 50% r.h.)
Measuring Time:	approx. 100 to 600 s
Rel. Standard deviation:	± 18%
Ambient Operating Conditions	
Temperature:	1 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 1 Vol% O_2 by	< 60 ppm CO
	< 0.5 Vol% CO ₂
	< 200 ppm xylene
	< 100 ppm tri- and perchloroethylene
	< 1000 ppm acetone
	< 850 ppm ethyl acetate

Ozone 25 - 1000 ppb Order No. 64 06 430

Measuring Range:	25 to 1000 ppb (20 °C, 50% r.h.)
Measuring Time:	approx. 100 to 600 s
Rel. Standard deviation:	± 20%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 25 mg/L
	(corresp. 2 to 50% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
0.2 ppm hydrogen peroxide	approx. 50 ppb
1.0 ppm hydrogen peroxide	approx. 250 ppb
0.5 ppm chlorine	approx. 500 ppb
2.5 ppm chlorine	> 1000 ppb

Perchloroethylene 5 - 150 ppm

Order No. 64 06 040

Measuring Range:	5 to 150 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 40 to 200 s
Rel. Standard deviation:	± 12%
Ambient Operating Conditions	
Temperature:	15 to 40 °C
Humidity:	5 to 30 mg/L
	(corresp. 10 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 5 ppm perchloroethylene by	
	≤ 10 ppm n-octane

Petroleum Hydrocarbons 20 - 500 ppm Order No. 64 06 200

Measuring Range:	20 to 500 ppm n-octane
	(20 °C, 50% r.h.)
Measuring Time:	approx. 50 to 330 s
Rel. Standard deviation:	± 15%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
250 ppm n-hexane	approx. 330 ppm
250 ppm n-heptane	approx. 280 ppm
250 ppm n-nonane	approx. 150 ppm
200 ppm toluene	approx. 80 ppm
50 ppm o-xylene	< 20 ppm

Dräger-CMS

Petroleum Hydrocarbons 100 - 3000 ppm Order No. 64 06 270

100 to 3000 ppm n-octane
(20 °C, 50% r.h.)
approx. 30 to 110 s
± 13%
0 to 40 °C
1 to 30 mg/L
(corresp. 2 to 60% r.h. at 40 °C)
700 to 1100hPa
Display of Analyzer indicates
approx. 330 ppm
approx. 280 ppm
approx. 150 ppm
< 100 ppm
< 100 ppm

Phosgene 0.05 - 2 ppm Order No. 64 06 340

Measuring Range:	0.05 to 2 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 90 to 420 s
Rel. Standard deviation:	± 12%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.05 ppm COCl_2 by	
	≤ 100 ppm methyl chloride
	< 10 ppm hydrochloric acid
	≤ 100 ppm carbon monoxide

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Phosphine 0.1 - 2.5 ppm Order No. 64 06 400

Measuring Range:	0.1 to 2.5 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 30 to 400 s
Rel. Standard deviation:	± 14%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 1 ppm PH_3 by	
	≤ 10 ppm methyl bromide

Phosphine 1 - 25 ppm Order No. 64 06 410

Measuring Range:	1 to 25 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 50 to 600 s
Rel. Standard deviation:	± 14%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 1 ppm PH_3 by	
	≤10 ppm methyl bromide

Phosphine 20 - 500 ppm

Order No. 64 06 420

Measuring Range:	20 to 500 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 25 to 220 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 20 ppm PH3 by	
	≤ 50 ppm methyl bromide.

Phosphine 200 - 5000 ppm Order No. 64 06 500

Measuring Range:	200 to 5000 ppm
	(20 °C, 50% r.h.)
Measuring Time:	approx. 20 to 200 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No infuence at 200 ppm PH_3 by	
	< 50 ppm methyl bromide

Propane 100 - 2000 ppm Order No. 64 06 310

Measuring Range:	100 to 2000 ppm
0 0	(20 °C, 50% r.h.)
Measuring Time:	approx. 60 to 360 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 100 ppm propane by	
	≤ 2000 ppm methane
	≤ 2000 ppm ethane
Other aliphatic hydrocarbons are also indicated, however, with differing sensitivity.	

i-Propanol 40 - 1000 ppm Order No. 64 06 390

Measuring Range:	40 to 1000 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 100 to 550 s
Rel. Standard deviation:	± 16%
Ambient Operating Conditions	
Temperature:	10 to 30 °C
Humidity:	5 to 25 mg/L
	(corresp. 16 to 82% r.h. at 30 ℃)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicate
250 ppm ethanol	approx. 275 ppm
100 ppm methanol	approx. 120 ppm
100 ppm n-butanol	approx. 80 ppm

Styrene 2 - 40 ppm

Order No. 64 06 560

Measuring Range:	2 to 40 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 100 to 550 s
Rel. Standard deviation:	± 19%
Ambient Operating Conditions	
Temperature:	5 to 40 °C
Humidity:	5 to 30 mg/L
	(corresp. 10 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	

100 ppm n-octane, 50 ppm toluene, 50 ppm o-xylene, 50 ppm methanol and 50 ppm ethyl acetate are not indicated.

Sulfur Dioxide 0.4 - 10 ppm Order No. 64 06 110

Measuring Range:	0.4 to 10 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 50 to 500 s
Rel. Standard deviation:	± 18%
Ambient Operating Conditions	
Temperature:	5 to 30 °C
Humidity:	5 to 20 mg/L
	(corresp. 15 to 65% r.h. at 30 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.4 ppm SO_2 by	
	≤ 150 ppm hydrogen sulfide
	≤ 10 ppm hydrochloric acid

Sulfur Dioxide 5 - 150 ppm Order No. 64 06 180

Measuring Range:	5 to 150 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 15 to 200 s
Rel. Standard deviation:	± 12%
Ambient Operating Conditions	
Temperature:	5 to 40 °C
Humidity:	1 to 40 mg/L
	(corresp. 2 to 80% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 5 ppm SO_2 by	
	≤ 150 ppm hydrogen sulfide
	< 10 ppm hydrochloric acid

Toluene 10 - 300 ppm Order No. 64 06 250

Measuring Range:	10 to 300 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 15 to 180 s
Rel. Standard deviation:	± 19%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
300 ppm n-octane	< 10 ppm
10 ppm o-xylene	< 10 ppm
100 ppm o-xylene	approx. 70 ppm
100 ppm benzene	approx. ≥120 ppm

Trichloroethylene 5 - 100 ppm

Order No. 64 06 320

Measuring Range:	5 to 100 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 40 to 300 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
No influence at 5 ppm trichloroethylene by	
	≤ 10 ppm n-octane
	< 2 ppm hydrochloric acid
Chlorine is indicated with identical sensitivity.	

Vinyl chloride 0.3 - 10 ppm Order No. 64 06 170

Measuring Range:	0.3 to 10 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 30 to 420 s
Rel. Standard deviation:	± 18%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 0.3 ppm vinyl chloride by	
	≤ 20 ppm hydrochloric acid
	≤ 5 ppm chlorine
	≤ 0.5 ppm trichloroethylene

Vinyl chloride 10 - 250 ppm

Order No. 64 06 230

Measuring Range:	10 to 250 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 45 to 100 s
Rel. Standard deviation:	± 12%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
No influence at 10 ppm vinyl chloride by	
	≤ 50 ppm hydrochloric acid
	≤ 25 ppm chlorine
	≤ 2 ppm trichloroethylene

Water Vapor 0.4 - 10 mg/L Order No. 64 06 450

Measuring Range:	0.4 to 10 mg/L (20 °C, 50% r.h.)
Measuring Time:	approx. 20 to 120 s
Rel. Standard deviation:	± 10%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Acid and basic gases cause plus errors.	

o-Xylene 10 - 300 ppm

Order No. 64 06 260

Measuring Range:	10 to 300 ppm (20 °C, 50% r.h.)
Measuring Time:	approx. 75 to 500 s
Rel. Standard deviation:	± 19%
Ambient Operating Conditions	
Temperature:	0 to 40 °C
Humidity:	1 to 30 mg/L
	(corresp. 2 to 60% r.h. at 40 °C)
Air Pressure:	700 to 1100hPa
Cross Sensivity	
Substance	Display of Analyzer indicates
300 ppm n-octane	< 10 ppm
100 ppm m-xylene	approx. 120 ppm
100 ppm p-xylene	approx. 140 ppm
10 ppm toluene	approx. 130 ppm
100 ppm benzene	approx. 150 ppm

Training Chip Order No. 64 06 290

Measuring Time: approx. 30 s Rel. Standard deviation: not applicable	r.h.)
Ambient Operating Conditions	
Temperature: 0 to 40 °C	
Humidity: 1 to 40 mg/L	
(corresp. 5 to 100% r.h. at 4	40 °C)
Air Pressure: 700 to 1100hPa	
Cross Sensivity not applicable	

