

Used in	Plug & Play	Replaceable	Guaranty	Expected sensor life
Dräger X-am 5000	no	yes	1 year	> 1.5 years
Dräger X-am 5600	no	yes	1 year	> 1.5 years
Dräger X-am 8000	no	yes	1 year	> 1.5 years

### B2X (6812424) – optional and replaceable

Cross sensitivities to hydrogen sulfide (H<sub>2</sub>S) and sulfur dioxide (SO<sub>2</sub>) are eliminated.

The filter's service life can be calculated as follows: 1,000 ppm x hours of contaminant gas. Example: Given constant concentration of 10 ppm H<sub>2</sub>S will be: Service life = 1,000 ppm x hours / 10 ppm = 100 hours.

Due to the change of sensitivity, a calibration is necessary after installation. The measurement value response time increases after the installation of the filter.

## MARKET SEGMENTS

Metal processing, mining, fumigation and pest control, chemical warfare agent (blood agents).

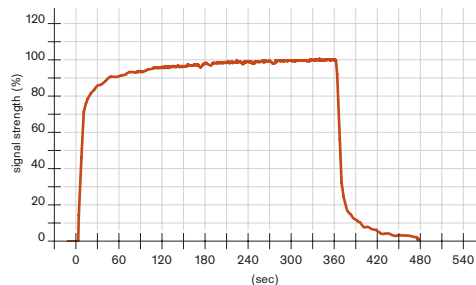
## TECHNICAL SPECIFICATIONS

<b>Detection limit:</b>	3 ppm
<b>Resolution:</b>	0.5 ppm
<b>Measurement range:</b>	0 to 50 ppm HCN (hydrogen cyanide)
<b>Response time:</b>	≤ 10 seconds (t <sub>50</sub> )
<b>Precision</b>	
Sensitivity:	≤ ± 5% of measured value
<b>Long-term drift, at 20°C (68°F)</b>	
Zero point:	≤ ± 3 ppm/year
Sensitivity:	≤ ± 2% of measured value/month
<b>Warm-up time:</b>	≤ 15 minutes
<b>Ambient conditions</b>	
Temperature:	(-20 to 50)°C (-4 to 122)°F
Humidity:	(10 to 90)% RH
Pressure:	(700 to 1,300) hPa
<b>Influence of temperature</b>	
Zero point:	≤ ± 3 ppm
Sensitivity:	≤ ± 5% of measured value
<b>Influence of humidity</b>	
Zero point:	No effect
Sensitivity:	≤ ± 0.1% of measured value/% RH
<b>Test gas:</b>	approx. 7 to 45 ppm HCN

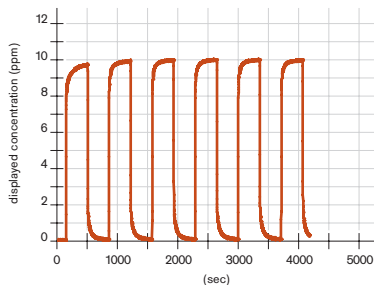
## SPECIAL CHARACTERISTICS

This sensor's extremely quick response time and excellent repeatability provides a fast and reliable warning against Prussic acid (hydrogen cyanide).

Sensor reaction to HCN at 20°C  
Flow = 0.5 l/min, 20 ppm HCN



reproducibility of HCN PC sensors  
purged with 10 ppm HCN



The values shown in the following table are standard and apply to new sensors. The values may fluctuate by  $\pm 30\%$ . The sensor may also be sensitive to additional gases (for more information, please contact Dräger). Gas mixtures may be displayed as the sum of all components. Gases with a negative cross sensitivity may displace an existing concentration of HCN. To be sure, please check if gas mixtures are present.

## RELEVANT CROSS-SENSITIVITIES

Gas/vapor	Chem. symbol	Concentration	Display in ppm HCN
Acetylene	$C_2H_2$	100 ppm	$\leq 10$
Ammonia	$NH_3$	50 ppm	No effect
Carbon dioxide	$CO_2$	10 Vol.-%	No effect
Carbon monoxide	CO	200 ppm	No effect
Chlorine	$Cl_2$	1 ppm	2 (-)
Ethanol	$C_2H_5OH$	250 ppm	No effect
Hydrogen	$H_2$	0.5 Vol.-%	$\leq 3$
Hydrogen chloride	HCl	20 ppm	$\leq 1$
Hydrogen sulfide	$H_2S$	1 ppm	$\leq 3$
Isobutylene	$(CH_3)_2CCH_2$	100 ppm	No effect
Methane	$CH_4$	1 Vol.-%	No effect
Nitrogen dioxide	$NO_2$	1 ppm	$\leq 1$ (-)
Nitrogen monoxide	NO	20 ppm	No effect
Ozone	$O_3$	0.5 ppm	No effect
Phosphine	$PH_3$	0.1 ppm	$\leq 1$
Sulfur dioxide	$SO_2$	1 ppm	$\leq 2$

(-) Indicates negative deviation