

# SPM Single Point Monitor

Fast response device specific to target gas only



## TECHNICAL FEATURES

**Detection Technique:** Chemcassette® Detection System

**Alarm Point:** Dual level alarms typically set at 1/2 TLV and TLV

**Response Time:** 10 seconds

**Alarm Indication:** Local audio/visual alarms; remote capability optional

**Signal Outputs:**

- SPDT concentration alarm relays
- SPDT fault relay
- 4-20mA
- digital display

**Relay Rating:** 120VAC @ 10A; 240VAC @ 5A

**Operating Temperature Range:** 32° to 104°F; 0° to 40°C (basic unit); heating/cooling optional

**Power Requirements:** 115/230 VAC 50/60Hz, battery operation optional

**Enclosure:** NEMA 4X fiberglass (basic unit)

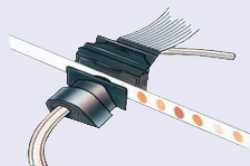
**Dimensions:** 12"(H) x 12"(W) x 7"(D) (30.5 x 30.5 x 17.8cm) (basic unit)

**Weight:** 6.6kg (14.5lb) (basic unit)

## INTRODUCTION

The **SPM Single Point Monitor** is a fast response monitor specific to a target gas only utilizing the interference-free **Chemcassette®** detection technique.

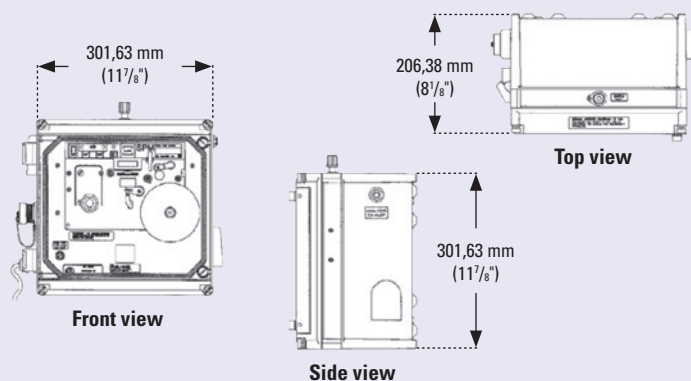
This is a calibration free toxic gas detection method that uses an optical scanning system to detect the presence of gas by a color change on the specially chemically impregnated paper tape.



**Chemcassette® technology** is highly specific and reacts extremely fast to the presence of parts per billion (ppb) levels of many hazardous gases.

## Advantages:

- Interference-free **Chemcassette®** detection technique
- Fast response monitor specific to target gas only
- Gas sensitivity to ppb levels with physical evidence
- Minimum maintenance and no dynamic calibration
- Optional extended sample
- Customized for harsh industrial environments
- More than 50 gas calibrations available



## Additional Features and Benefits

- Available in fixed and portable instrumentation
- Visible proof of a gas release event
- Greater sensitivity (detection down to parts per billion levels)
- Superior selectivity (less cross-interference with other gases)
- Fast response time
- Low false alarm occurrence
- Stability (consistent, repeatable operation)
- No calibration required
- RS-422 communication



### Measuring Ranges

Gas name	LEL	Alarm 1 (default)	Alarm 2 (default)	Sampling (seconds)	Chemcassette® part number		
					SP	EP	XPS
<b>Amines</b>							
Ammonia (NH3)	25 ppm	12,5 ppm	25 ppm	15	706042	700342	1740-9309
Dimethylamine (DMA) Low Level	5 ppm	1 ppm	3 ppm	240	706042	700342	
Dimethylamine (DMA)	5 ppm	2,5 ppm	5 ppm	15	706042	700342	1740-9309
n-butylamine (NBA)	5 ppm	2,5 ppm	5 ppm	30	706042	700342	
Diaminodiphenylmethane (MDA)	100 ppb	10 ppb	20 ppb	120	709528	700343	
p-Phenylenediamine (PPD)	20 ppb	10 ppb	20 ppb	30	709528	700343	
Diaminotoluene (TDA)	10 ppm	10 ppb	20 ppb	240	709528	700343	
Trimethylamine (TMA)	5 ppm	5 ppm	10 ppm	30	706002	N/A	
Tetrakis dimethylamino titanium (TDMAT)	1 ppm	0,5 ppm	1,0 ppm	15	706042	700342	1740-9309
<b>Diisocyanates</b>							
HDI	5 ppb	5 ppb	20 ppb	180	700506	700309	
MDI	5 ppb	5 ppb	20 ppb	120	700506	700309	
PPDI		5 ppb	20 ppb	60	700506	700309	
TDI	5 ppb	5 ppb	20 ppb	60	700506	700309	
Every other Diisocyanates		5 ppb	20 ppb	120	700506	700309	
<b>Hydrazines</b>							
MMH	10 ppb	100 ppb	200 ppb	120	708013	700347	
MMH-Low Level	10 ppb	5 ppb	10 ppb	900	708013	700347	
Hydrazine (N2H4)	10 ppb	50 ppb	100 ppb	120	708013	700347	
Hydrazine (N2H4) Low Level	10 ppb	5 ppb	10 ppb	900	708013	700347	
UDMH	10 ppb	250 ppb	500 ppb	60	708013	700347	
UDMH Low Level	10 ppb	5 ppb	10 ppb	600	708013	700347	
<b>Hydrures</b>							
Arsine (AsH3)	50 ppb	25 ppb	50 ppb	15	705502	700300	1740-9300
Arsine (AsH3) Low Level	50 ppb	2 ppb	4 ppb	480			1740-9300
Diborane (B2H6)	50 ppb	50 ppb	100 ppb	30	705502	700300	1740-9300
Disilane (Si2H6)	2,5 ppm	2,5 ppm	5 ppm	10	705502	700300	
Germane (GeH4)	200 ppb	200 ppb	400 ppb	240			1740-9300
Hydrogen selenide (H2Se)	50 ppb	25 ppb	50 ppb	60	705502	700300	1740-9300
Hydrogen sulphide (H2S)	10 ppm	5,1 ppm	10 ppm	10			1740-9300
Hydrogen sulphide (H2S) dry	10 ppm	5,1 ppm	10 ppm	10			1740-9300
Hydrogen sulphide (H2S) Low Level	10 ppm	4 ppb	80 ppb	900			1740-9300
Phosphine (PH3)	300 ppb	150 ppb	300 ppb	15	705502	700300	1740-9300
Silane (SiH4)	5 ppm	2,5 ppm	5 ppm	30	705502	700300	1740-9300
Stibine (SbH3)	100 ppb	50 ppb	100 ppb	30	705502	700300	
Tert-butyl-arsine (TBA)	0,01mg/m3	25 ppb	50 ppb	90	705502	700300	1740-9300
Tert-butylphosphine (TBP)		150 ppb	300 ppb	120	705502	700300	1740-9300
Hydrogen cyanide (HCN)	4,7 ppm	2,4 ppm	4,7 ppm	10	704510		
Hydrogen sulphide (H2S)	10 ppm	5 ppm	10 ppm	10	701012	700304	
<b>Mineral Acids</b>							
Boron trifluoride (BF3) Low Level	1 ppm	502 ppb	749 ppb	240	705505	700337	
Boron trifluoride XP (BF3)	1 ppm	0,5 ppm	1,0 ppm	60			1750-9310
Boron trifluoride XP (BF3) Low Level	1000 ppb	502 pb	769 ppb	120			1750-9310
Hydrogen bromide (HBr)	2 ppm	1,0 ppm	2,0 ppm	15	705505	700337	
Hydrogen bromide XP (HBr)	2 ppm	1,0 ppm	2,0 ppm	30			1750-9310
Hydrogen bromide XP (HBr) Low Level	2000 ppb	251 ppb	502 ppb	120			1750-9310
Hydrogen chloride (HCl)	2 ppm	1 ppm	2 ppm	10	705505	700337	
Hydrogen chloride (HCl) Low Level	2 ppm	120 ppb	240 ppb	240	705505	700337	
Hydrogen chloride XP (HCl)	2 ppm	1,0 ppm	2,0 ppm	15			1750-9310
Hydrogen chloride XP (HCl) Low Level	2000 ppb	101 ppb	200 ppb	240			1750-9310
Hydrogen fluoride (HF)	0,5 ppm	1,0 ppm	2,0 ppm	30	705505	700337	
Hydrogen fluoride XP (HF)	0,5 ppm	1,0 ppm	2,0 ppm	30			1750-9310
Hydrogen fluoride XP Low Level (HF)	500 ppb	250 ppb	500 ppb	300			1750-9310
Hydrogen iodide (HI)		3 ppm	6 ppm	15	705505	700337	
Nitric acid (HNO3)	2 ppm	1 ppm	2 ppm	15	705505	700337	
Sulfuric acid (H2SO4)	50 ppb	125 ppb	250 ppb	120	705505	700337	
<b>Oxidizers</b>							
Bromine (Br2)	100 ppb	50 ppb	100 ppb	60	711314	700313	
Chlorine (Cl2)	0,5 ppm	0,25 ppm	0,5 ppm	30			1740-9308
Chlorine II (Cl2)	0,5 ppm	0,25 ppm	0,5 ppm	15	704007		
Chlorine III (Cl2)	0,5 ppm	0,25 ppm	0,5 ppm	15	704308	700308	
Chlorine (Cl2) Low Level	0,5 ppm	10 ppb	20 ppb	600	704007		1740-9308
Chlorine dioxide (ClO2)	100 ppb	50 ppb	100 ppb	240	1750-9306	1740-9306	
Fluorine (F2)	1 ppm	0,5 ppm	1 ppm	30	1750-9306	1740-9306	
Fluorine (F2) Low Level	1 ppm	0,1 ppm	0,2 ppm	120	1750-9306	1740-9306	
Hydrogen peroxide (H2O2)	1 ppm	0,5 ppm	1 ppm	15	700278	700509	
Nitrogen dioxide (NO2)	3 ppm	1,5 ppm	3 ppm	30	703012	700305	
Ozone (O3)	100 ppb	50 ppb	100 ppb	60	704514		
Phosgene (COCl2)	100 ppb	50 ppb	100 ppb	30	702020	700307	1740-9307
Sulphur dioxide (SO2)	2 ppm	1 ppm	2 ppm	15	705015		
Sulphur dioxide (SO2)	250 ppb	125 ppb	250 ppb	60	705027	700350	

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