

# Model DP100-A

Combustible Gas Detector with alarm  
HART, RS232 communication

**Materontek**  
Sensing and Internet of Things

DP100-A Smart Combustible Gas Detector with alarm uses a catalytic combustion principle sensor, which converts the target combustible gas concentration on site into an instrument with 4-20mA output signal

## Features

- ❑ 4-20mA-3 wire, compatible with existing alarm control unit or DCS
- ❑ Flameproof body design, simple and easy installation and maintenance.
- ❑ Multi-parameter backlight LCD display: measuring range, gas reading, units, bar graph, system status etc.
- ❑ International standard plug-in sensor, Plug and Play.
- ❑ Programmable alarm operation value, low or high level alarm indication.
- ❑ Three-key operation for on-site configuration and maintenance.
- ❑ PC programmable software for online configuration.
- ❑ Automatic temperature compensation ensure the correct measurement.



## Technical data

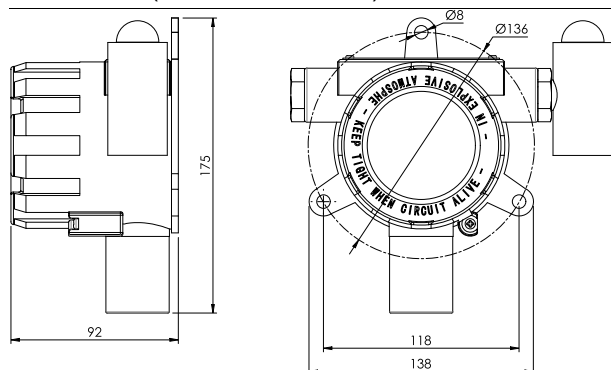
Performance	
Measurement range	0~100% LEL
Sensor type	Catalytic combustion
Accuracy	±1 %FS(min.); ±3 %FS(typ.)
Operating temperature	-40 to 70 °C (According to gas sensor operating conditions)
Humidity	20% to 80% RH non-compensating

Electrical @25°C	
Output signal	4~20mA, HART
Power supply	10.5~45VDC (Recommend 24VDC)
Resolution	1μA
Response time	<30s
Measurement units	%LEL, %VOL, mA, %

Physical Specifications	
Housing	Cast aluminum
Protection	IP65

The listed specifications and dimensions are subject to change without prior notice

## Dimensions (All dimensions in mm)



## Ordering code

Model	Gas type	Display	Accessory	Label
DP100-A	See Gas type table	1 LCD	N Audible alarm	N Neutral packing
		2 LED	C Relay output	C Custom label
		3 No display		S Standard

Gas type	Combustion Explosion range(VOL%)	Explosion grades
H <sub>2</sub>	4.0~75.6	3
CH <sub>4</sub>	5.0~15.0	1
C <sub>3</sub> H <sub>8</sub>	2.1~9.5	1
C <sub>4</sub> H <sub>10</sub>	1.5~8.5	1
C <sub>4</sub> H <sub>10</sub>	1.8~8.4	1
C <sub>5</sub> H <sub>12</sub>	1.4~7.8	1
C <sub>2</sub> H <sub>4</sub>	2.7~34	2
C <sub>2</sub> H <sub>6</sub>	2.0~11.7	1
C <sub>4</sub> H <sub>8</sub>	1.7~9.0	1
C <sub>2</sub> H <sub>2</sub>	1.5~100	3
C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	1.2~7.0	1
C <sub>6</sub> H <sub>5</sub> (CH <sub>3</sub> ) <sub>2</sub>	1.0~7.6	1
CH <sub>3</sub> OH	5.5~44	1
C <sub>2</sub> H <sub>5</sub> OH	3.5~19	1
(CH <sub>3</sub> ) <sub>2</sub> CO	2.5~13	1
CH <sub>3</sub> CO <sub>2</sub> CH <sub>3</sub>	1.8~11.5	1
CH <sub>3</sub> COO <sub>2</sub> CH <sub>3</sub>	2.1~11.5	1
CH <sub>3</sub> COO(CH <sub>3</sub> ) <sub>2</sub> CH <sub>3</sub>	1.2~7.5	1
CH <sub>3</sub> (CH <sub>2</sub> ) <sub>4</sub> CH <sub>3</sub>	5.0~	2
LPG	2.0~12.0	1
Gasoline	1.0~7.0	1
kerosene	0.7~	1
C <sub>6</sub> H <sub>14</sub>	1.2~6.9	1
CH <sub>2</sub> =CHCH=CH <sub>2</sub>	1.1~12.5	2
CH <sub>3</sub> CHO	4.0~57	1
CH <sub>2</sub> =CHCL	3.8~29.3	1
CO	12.5~74	1
NH <sub>3</sub>	15~28	1
H <sub>2</sub> S	4.3~45.5	2
SO <sub>2</sub>	--	--
C <sub>6</sub> H <sub>6</sub>	1.2~8.0	1
C <sub>2</sub> =CHCN	2.8~28	1