

GP2U04

Smoke Sensor

■ Features

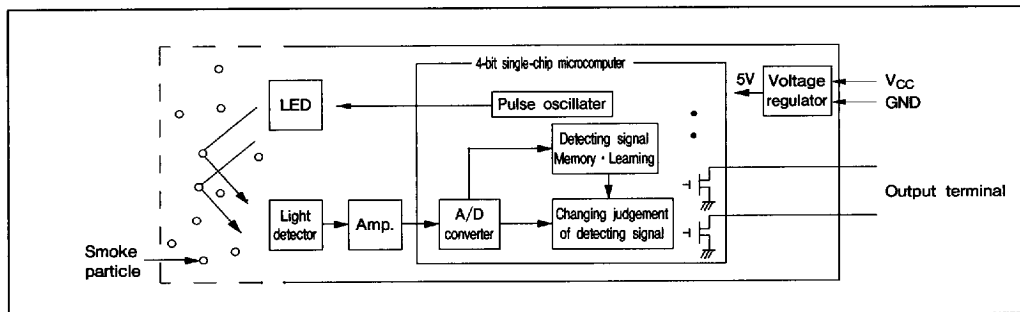
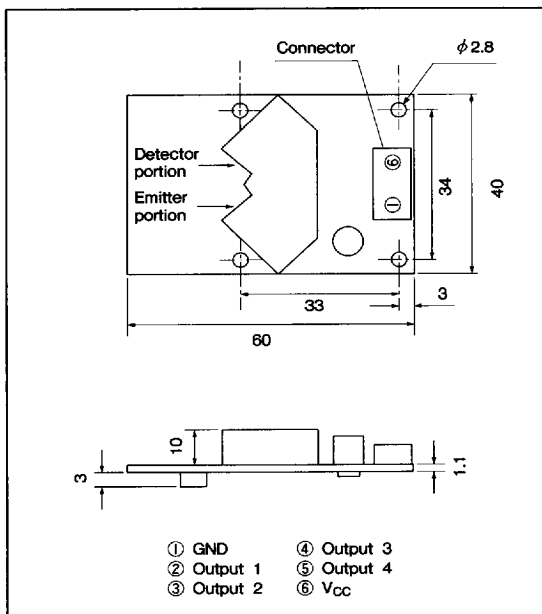
1. No requiring of sensitivity adjustment thanks to microcomputer
2. Reduced number of using devices
3. Compact package
4. 12V supply voltage

■ Applications

1. Air cleaners
2. Air checkers

■ Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings

(Ta = 25°C)

Parameter	Symbol	Rating	Unit
Supply voltage	V _{CC}	-0.3 to +16	V
*1 Output terminal voltage	V _{out}	-0.3 to +15	V
*1 Output terminal current	I _{out}	0 to -10	mA
Operating temperature	T _{opr}	0 to +60	°C
Storage temperature	T _{stg}	-30 to +80	°C

*1 Open drain output

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■ Operating Supply Voltage

Parameter	Symbol	Rating	Unit
Supply voltage	V _{CC}	10 to 16	V

■ Electro-optical Characteristics

(T_a = 25°C)

Parameter	Symbol	Condition	MIN.	TYP.	MAX.	Unit
*2 Smoke detecting sensitivity	ρ	By using Sharp's smoke measuring equipment	Table 1			
*3 Output terminal 1	ρ_{out1}		—	0.25	—	mg/m ³
*4 Output terminal 2	ρ_{out2}		—	0.25	—	mg/m ³
*4 Output terminal 3	ρ_{out3}		0.3	0.5	0.7	mg/m ³
*4 Output terminal 4	ρ_{out4}		—	1.0	—	mg/m ³
Dissipation current	I _{CC}	V _{CC} = 12V	—	15	30	mA

*2 Smoke detecting sensitivity is set to 4 steps depending on smoke density. (Refer to Table 1)

*3 Output side Tr ON to OFF

*4 Output side Tr OFF to ON

■ Table 1 Smoke Detecting Sensitivity

Output terminal	Smoke density (mg/m ³)			
	Less than 0.25	0.25 to less than 0.5	0.5 to less than 1.0	1.0 or more
1	ON	OFF	OFF	OFF
2	OFF	ON	ON	ON
3	OFF	OFF	ON	ON
4	OFF	OFF	OFF	ON

● Please refer to the chapter “Precautions for Use” (Page 78 to 93).