

GP2D03/GP2DM03

Paper Size Sensor System

■ Features

- Paper size sensor system
 - 2-beam paper size sensor GP2D03 3pcs.
 - Special microcomputer built in software GP2DM03 1pc.
 - E²PROM for data storage 1pc.

[Serial access type, memory capacity : 128X 8 bit] (E²PROM shall be applied to users'.)
- High sensitive detection because of less influence on the color or reflectivity of reflective object thanks to position sensitive detector (PSD)
- System control of 3 pcs. of operating sensor by GP2DM03
- 6 bit parallel output (GP2DM03)
- 2-beam type (GP2D03)
- With initial mode in order to make E²PROM store thresh level for the existence of reflective object

■ Applications

- Copiers

■ Specifications

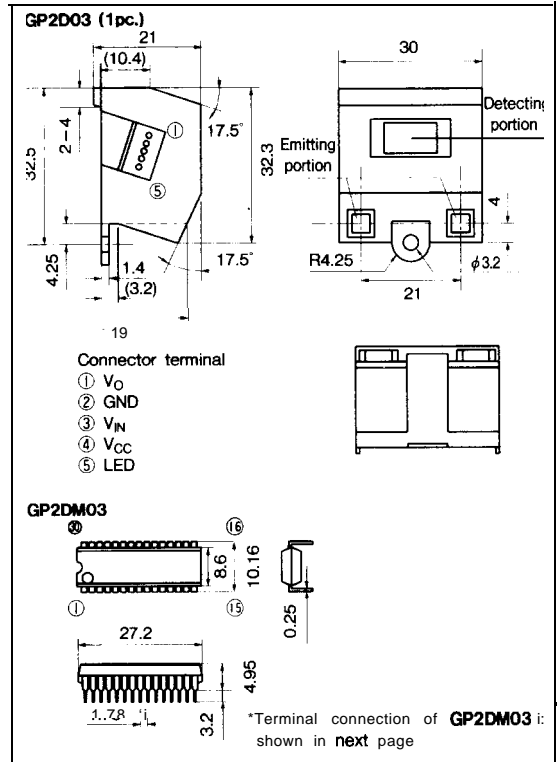
(Characteristics of system configured by GP2003 and GP2DM03, Ta= 25°C)

| Parameter | Symbol | Rating | Unit | |
|---|------------------|-----------------|---------|----|
| Supply voltage | V _{CC} | 5 ± 0.5 | v | |
| *1 Paper detection height | H | TYP. 60 | mm | |
| LED beam pitch | LP | TYP. 21 | mm | |
| *2 Approved value of paper position sliding | Δx | MIN. ± 6 | mm | |
| *3 Measuring time | t _s | TYP. 140 | ms | |
| *4 Paper detection density | OD | 0.74 or less | | |
| Dissipation current | GP2D03 | I _{CC} | TYP. 30 | mA |
| | GP2DM03 | | TYP. 2 | mA |
| Operating temperature | T _{opr} | 0 to 60 | °C | |

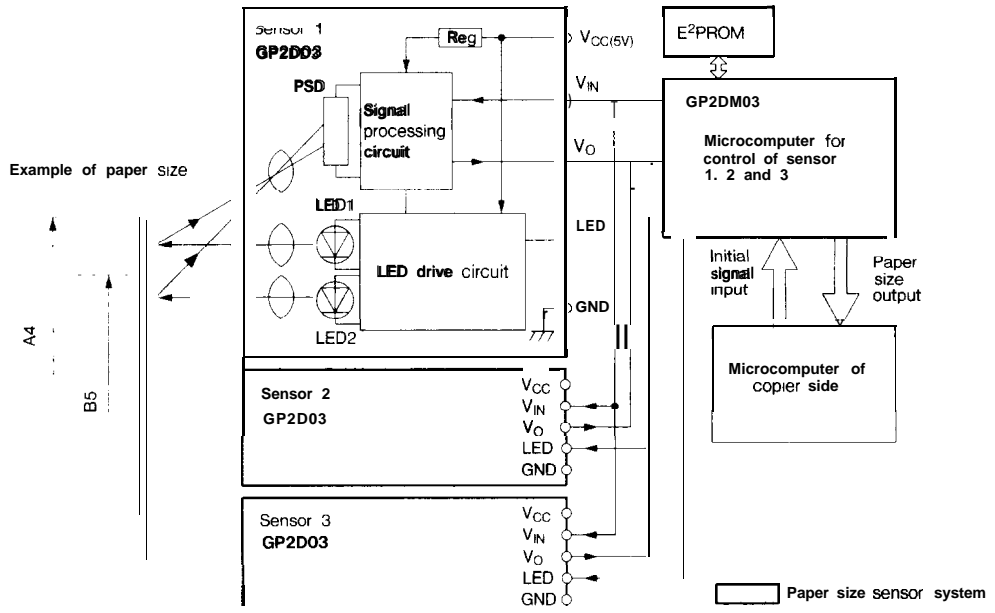
- *1 Optional setting in the range of 50mm to 70mm. Between the sensor to setting glass
- *2 At 60mm height
- *3 Time requiring for measurement of 6 portions
- *4 Reflectivity : 18% or more, OD = $\ell \log (1/T)$, T : Reflectivity

■ Outline Dimensions

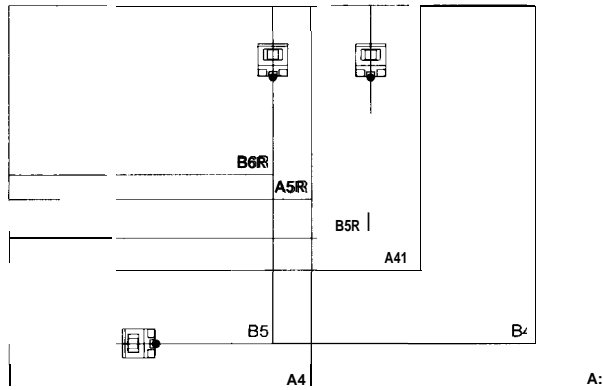
(Unit : mm)



■ System Configuration



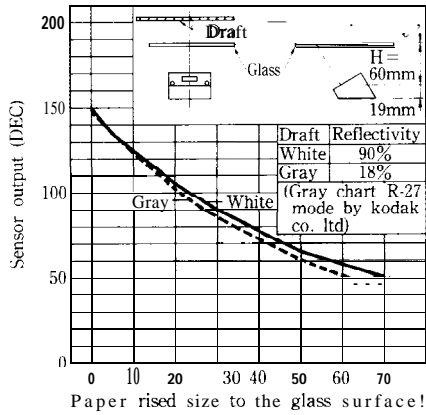
■ Example of Sensor Arrangement



■ Terminal Connection of GP2DM03

| Terminal No. | Terminal name | Terminal No. | Terminal name | Terminal No. | Terminal name | Terminal No. | Terminal name |
|--------------|-------------------------------|--------------|------------------------|--------------|----------------|--------------|---------------|
| 1 | Data 3 | 12 | V _O input 2 | 19 | RESET | 26 | CS |
| 2 | V _{CC} | 13 | V _O input 3 | 20 | Data 2 | 27 | |
| 3 to 6 | | 14 | | 21 | Data 1 | 28 | Data 6 |
| 7 | LED selecting output | 15 | OSC 2 | 22 | INS input | 29 | Data 5 |
| 8 | V _{in} signal output | 16 | OSC 1 | 23 | D ₀ | 30 | Data 4 |
| 9 to 10 | | 17 | - | 24 | DI | | |
| 11 | V _O input 1 | 18 | GND | 25 | S K | | |

Distance Characteristics of GP2D03



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