



PHOTOINTERRUPTER WITH ENCODER FUNCTION/ OPTICAL SYSTEM DEVICE

☆ New product

PHOTOINTERRUPTERS WITH ENCODER FUNCTION

(Ta=25°C)

| Model No. | Absolute maximum ratings | | | Electro-optical characteristics | | | | |
|-----------|--------------------------|-----------|------------|--|---------------------------------------|--------------------|---------------------|---|
| | V _{CC} (V) | Topr (°C) | Tstg (°C) | Output signal | Resolution | Response frequency | | Dissipation current I _{TOT} (mA)MAX. |
| | | | | | | (kHz) MAX. | I _F (mA) | |
| GP1A13R | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 1.14 (mm) | 10 | 20 | 20 |
| GP1A16R | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 0.7 (mm) | 10 | 20 | 20 |
| GP1A30R | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 0.7 (mm) | 5 | 30 | 20 |
| GP1A33R | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 1.14 (mm) | 5 | 30 | 20 |
| GP1A35RV | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 0.22 (mm) | tr(TYP.) 1.0μs | 30 | 20 |
| GP1A36RA | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Linear scale slit pitch 0.282 (mm) | 7 | 30 | 20 |
| GP1A36RB | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Linear scale slit pitch 0.17 (mm) | 7 | 30 | 20 |
| GP1A70R | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 1.14 (mm) | 10 | 20 | 20 |
| GP1A71R | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Disk slit pitch 0.7 (mm) | 10 | 20 | 20 |
| GP1A78RB | 7 | 0 to +70 | -40 to +80 | Phase A (Digital output) Phase B (Digital output) | Linear scale slit pitch 0.17 (mm) | 7 | 20 | 20 |

DISTANCE MEASURING SENSORS

(Ta=25°C)

| Model No. | Features | Absolute maximum ratings | | Electro-optical characteristics*1 | | | | | |
|-----------|---|--------------------------|------------|-----------------------------------|---|--------------------------|---------------------|--------------|--|
| | | V _{CC} (V) | Topr (°C) | Distance measuring range(mm) | V _{OH} (V) MIN. | V _{OL} (V) MAX. | Dissipation current | | |
| | | | | | | | Operating (mA) | Standby (μA) | |
| GP2D02 | Distance measuring sensor united with PSD*, infrared LED and signal processing circuit 8-bit serial output | -0.3 to +10 | -10 to +60 | 100 to 800 | V _{CC} -0.3 | 0.3 | MAX. 35 | MAX. 8 | |
| ☆GP2D12 | Distance measuring sensor united with PSD*, infrared LED and signal processing circuit Linear voltage output | -0.3 to +7 | -10 to +60 | 100 to 800 | V _O (TYP.) = 0.4 V (at L = 80 cm) ΔV _O (TYP.) = 2.0 V (at L = 80 cm → 10 cm) | | MAX. 50 | — | |
| GP2D05 | Distance measuring sensor united with PSD*, infrared LED and signal processing circuit 1-bit output | -0.3 to +10 | -10 to +60 | 100 to 800 | V _{CC} -0.3 | 0.3 | MAX. 22 | MAX. 8 | |
| ☆GP2D15 | Distance measuring sensor united with PSD*, infrared LED and signal processing circuit Digital voltage output | -0.3 to +7 | -10 to +60 | 100 to 800 | V _{CC} -0.3 | 0.6 | MAX. 50 | — | |

*PSD: Position Sensitive Detector *1 V_{CC} = 5 V

PAPER SIZE SENSORS

(Ta=25°C)

| Model No. | Features | Operating temperature | Supply voltage | Paper detection height | LED beam pitch | Approved value of paper position sliding | Paper detection density | Dissipation current |
|-----------|---|-----------------------|---------------------|------------------------|----------------|--|-------------------------|----------------------|
| | | Topr (°C) | V _{CC} (V) | H (mm) | Lp (mm) | Δx (mm) | OD | I _{CC} (mA) |
| GP2D03 | Paper size sensor of copier used optical distance measuring method (2-beam) | 0 to +60 | 5±0.5 | TYP. 60 | TYP. 21 | MIN. ±6 | 0.8 or less*1 | TYP. 30 |
| GP2D06 | Paper size sensor of copier used optical distance measuring method (1-beam) | 0 to +60 | 5±0.5 | TYP. 60 | — | MIN. ±6 | 0.7 or less*2 | — |
| GP2D07 | Paper size sensor of copier used optical distance measuring method (3-beam) | 0 to +60 | 5±0.5 | TYP. 60 | TYP. 36 | MIN. ±6 | 0.7 or less*2 | — |

† This table shows the characteristics of configured system.

*1 Reflectivity: 16% or more, OD = log (1/T), T: Reflectivity *2 Reflectivity: 18% or more, OD = log (1/T), T: Reflectivity

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Notice

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Optoelectronics