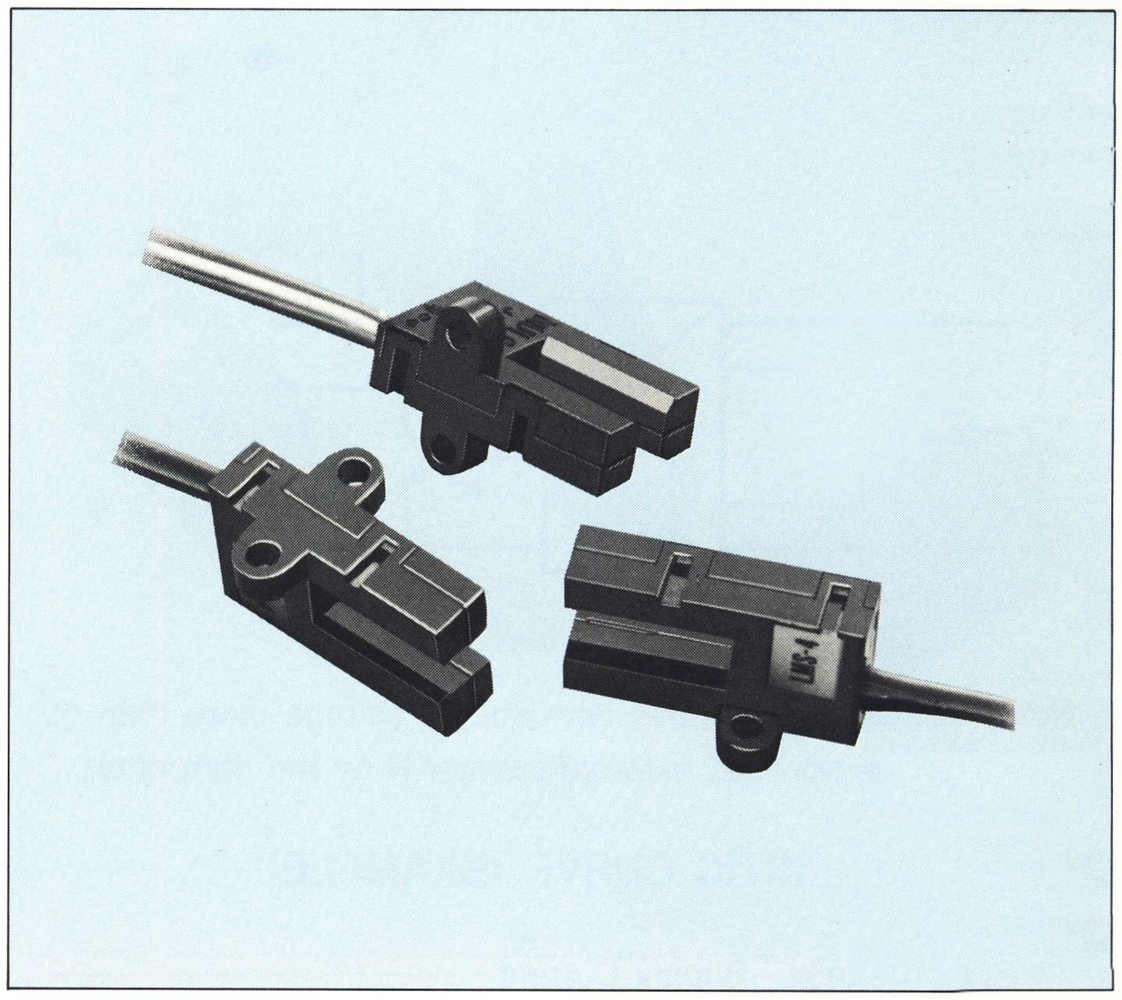
LMS

TYPE LMS-4
LIGHT SENSOR

ミューロン
MULON

TYPE LMS-4
(LED used and with amplifier)

Even it's MINI BODY and LOW COST type, can detect WIDE APPLICATION RANG, like THIN WHITE PAPER.

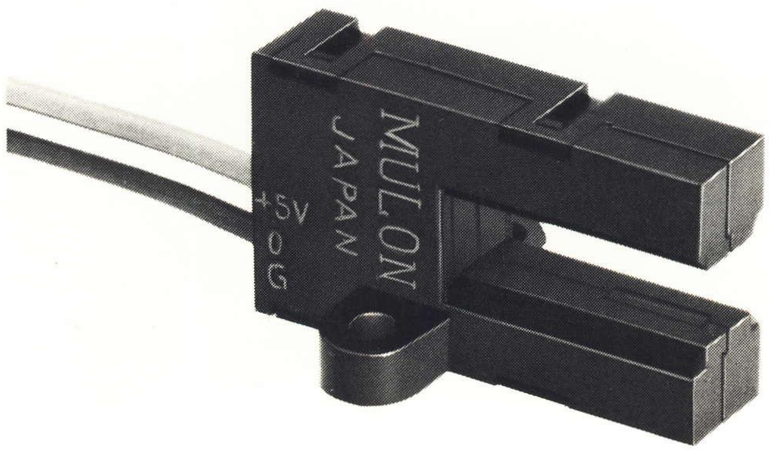


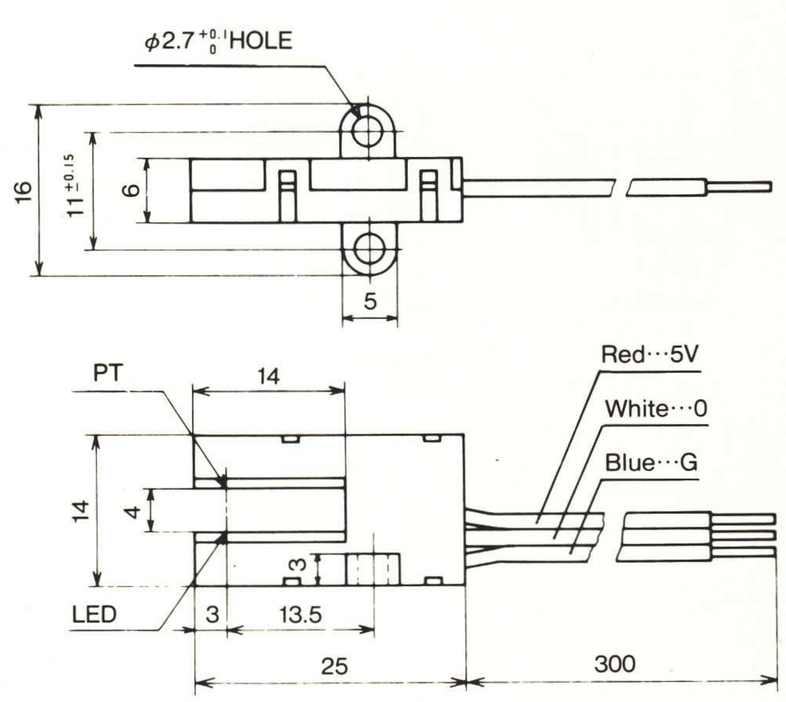
- Built-in Amplifier inside the miniature body size. 6 (W) × 14 (H) × 25 (L)
- 14 mm slit makes easy set of the Light Shielding Object.
- Infrared LED for Projecting set and Photo-transistor for Receiving set enable to detect wide application range.
- Easy to dust, as set a filter to Projecting/Receiving surface.
- Having high amplification built-in Amp., Ic max = 100 mA (Ta = 25°C) output current, and can drive Relay directly.

■SPECIFICATION

Supply Voltage	DC 5V ±10%
Supply Current	20mA (at 5V)
Load Voltage	Max. 24V
Load Current	Max. 80mA
Output Style	Open Collector Output is ON when shield the Light
Size of Light Shielding Object	Min. ϕ1mm
Working Light	Infrared LED, direct current lighting
Ambient Temperature	−10 ~ 70°C
Ambient Humidity	Under 80% RH (without waterdrops on Projecting/Receiving surface)

■OUTSIDE DIMENSION





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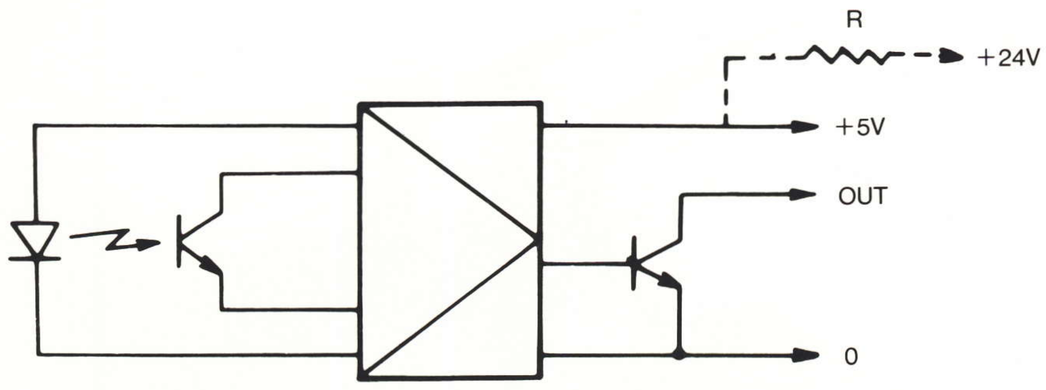
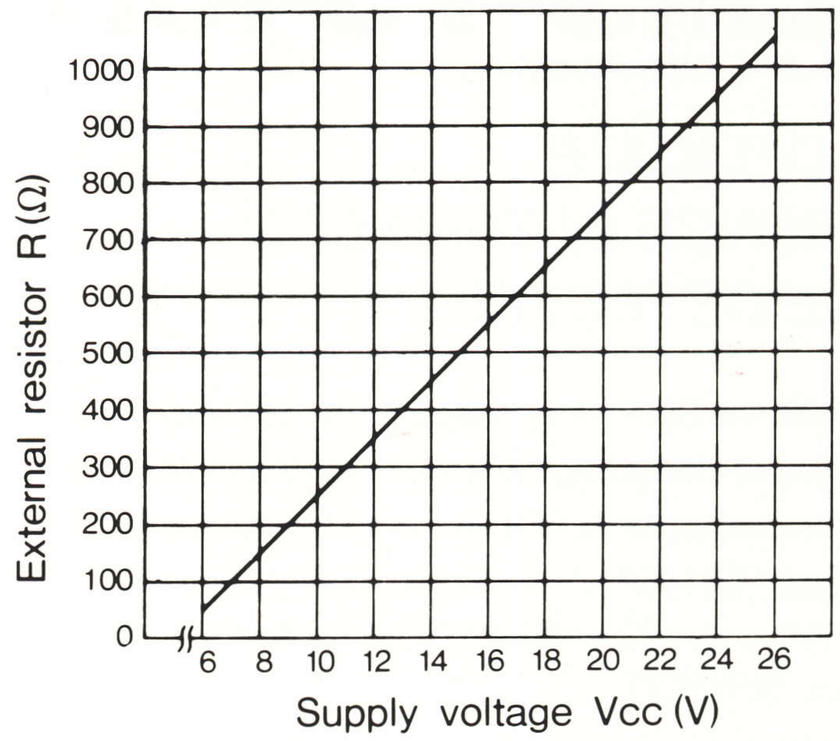
■CIRCUIT DIAGRAM

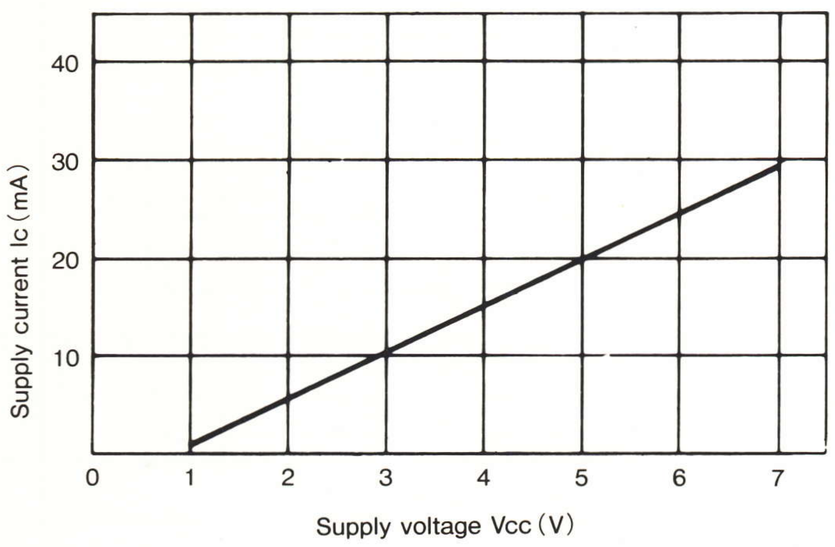


Note: In case of your use with supply voltage more than 5V, please connect external resistor R by the right chart.

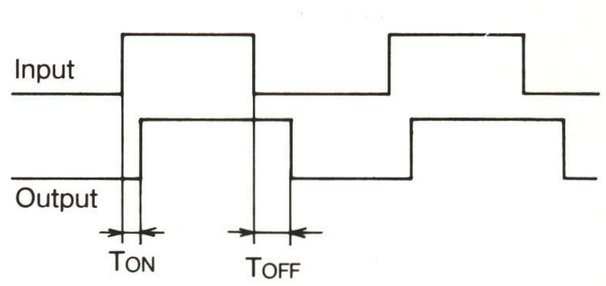


■CHARACTERISTIC CURVE (EXAMPLE)

● Supply Voltage—Supply Current



● Response

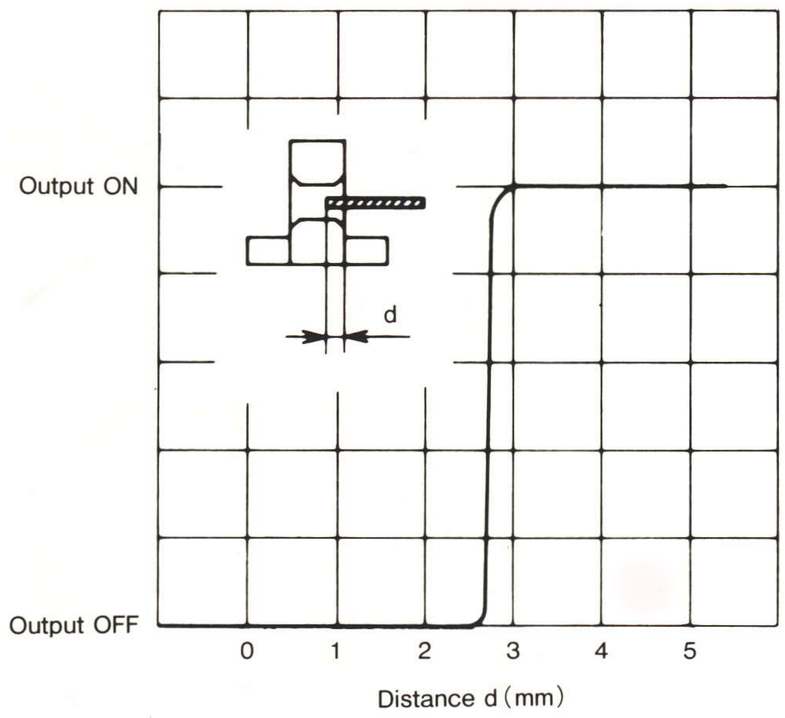


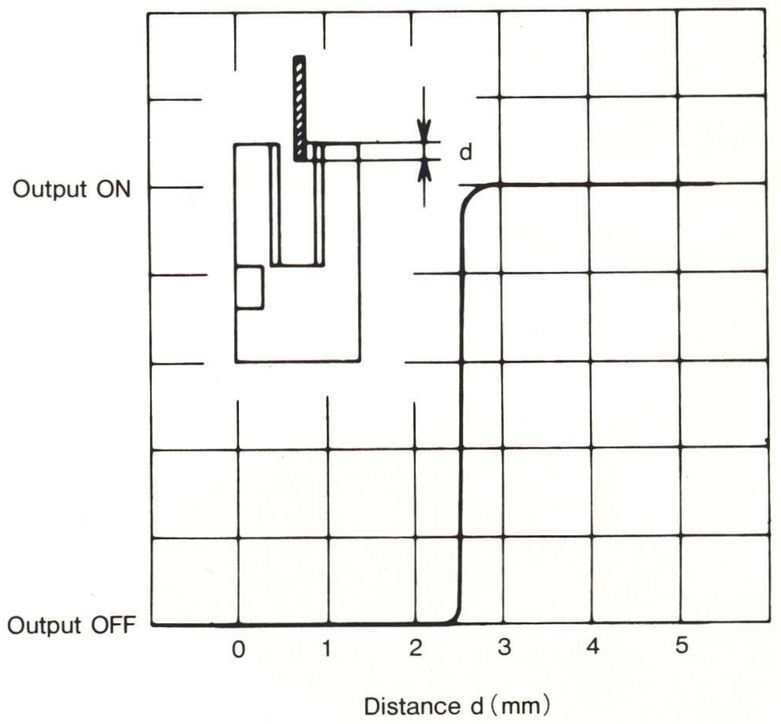
Response Speed:
Ton = Less 20 μsec
Toff = Less 50 μsec

Tr = Less 5 μsec
Tf = Less 5 μsec

※ Input is switched outside

● Detective Position



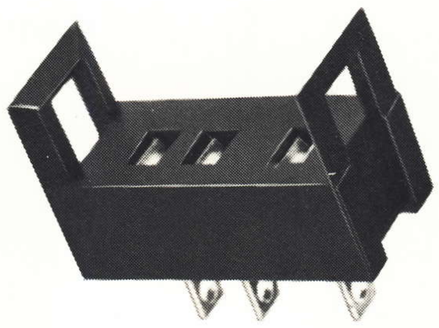


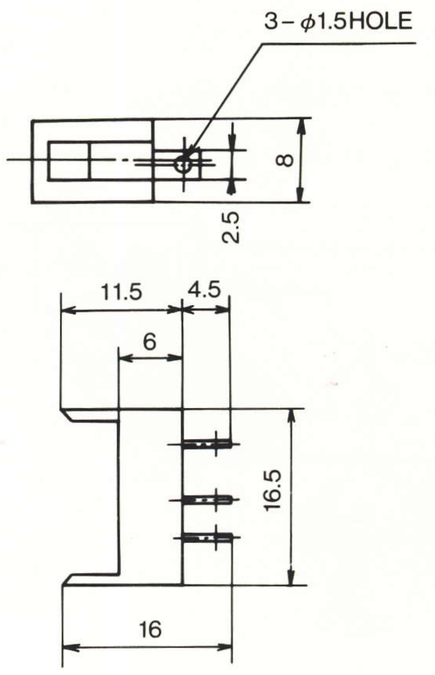
[LMS ACCESSORY・APPLICATION CIRCUIT ミューロン MULON

■ACCESSORY

●Socket For LMS-5 (Type LM-019)

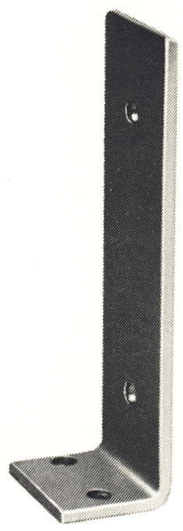
One touch mounting socket is available.
When you order, please indicate the type number.

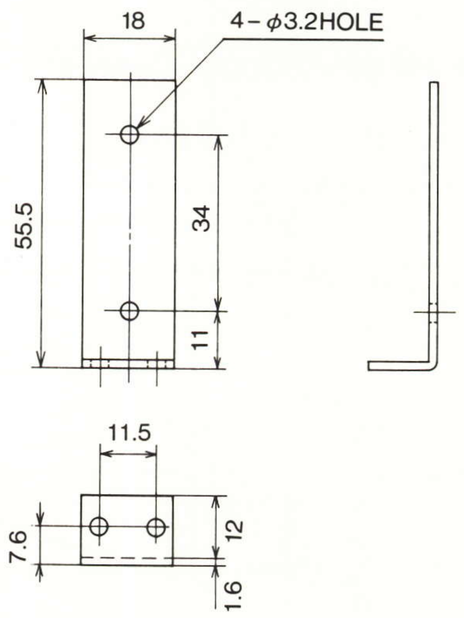




●Bracket For LMS-30 (Type LM-026)

Bracket for vertical mounting is available.
Convenient for detecting an object which is moving horizontal direction against the mounting plate.
When you order, please indicate the type number.

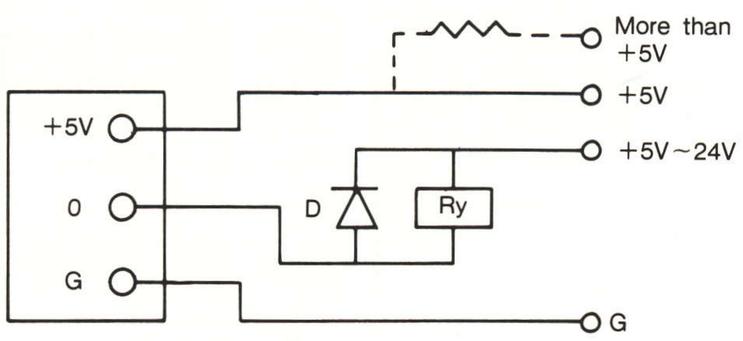




■APPLICATION CIRCUIT

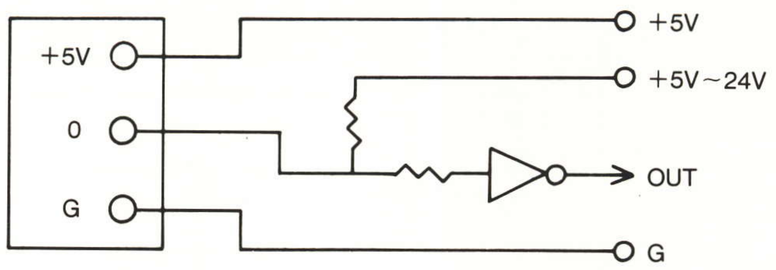
LMS-5, LMS-4, LMS-T540H

●Inductive Load Circuit



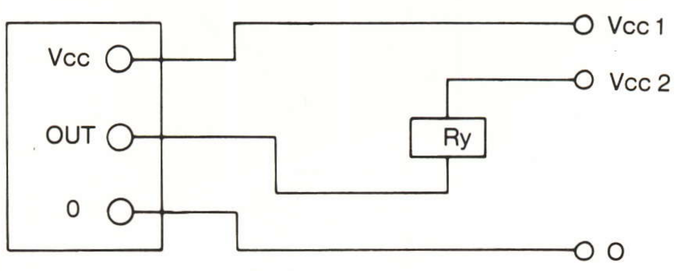
D : Protection Diodo

●Non-inductive Load Circuit

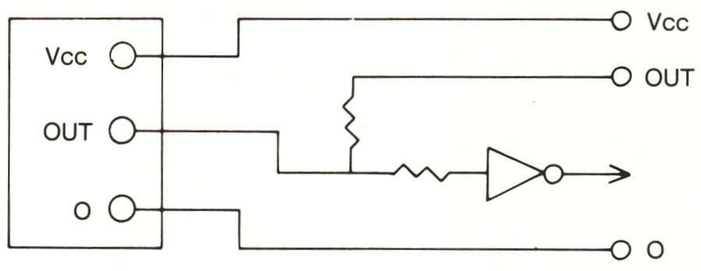


LMS-30

●Inductive Load Circuit



●Non-inductive Load Circuit



※In case of single voltage, $Vcc_1 = Vcc_2$

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USE・CAUTION ON HANDLING

LMS

■USE

- Computer Peripharels (eg: Printer, Read Tape or Punch Card)
- Vending Machine, Amusement Machine (eg: Detect and Count Coin or Ball)
- Measuring and Control Instruments (eg: Tachometer, Optical Encoder)
- Automation Systems (eg: Parts-feeder, Counting system for Conveyor Line)
- Security Systems, Office Equipments, Communication Systems etc.....

■CAUTION ON HANDLING

1. As there is no counterplan for disturbance light or noise, please consider such light or noise when you use the switches.
2. Inverse connection protective diode isn't built in, please make sure ± when you wire.
3. Be careful for vibration or shock, when you use the switches. It may cause breakage of case or change in characteristics.
4. When use in low tempareture, waterdrops on Projecting or Receiving surface may cause change in characteristics.
5. Avoid using near inflammable or explosive gas (eg: gasoline, thinner etc..), corrosive gas (eg: Sulphide, Ammonia etc..), or dusty places.
6. If operation speed of objects is extremely slow, Output becomes unstable.
7. Install firmly on flat, not warped, place.

*Type name or Specification etc. are subject to change with or without notice.