

## TYPE LMS-T540H

(LED used and with Amplifire)

**EVEN DELICATE  
DIFFERENCE IN THICKNESS  
CAN BE DETECTED.**

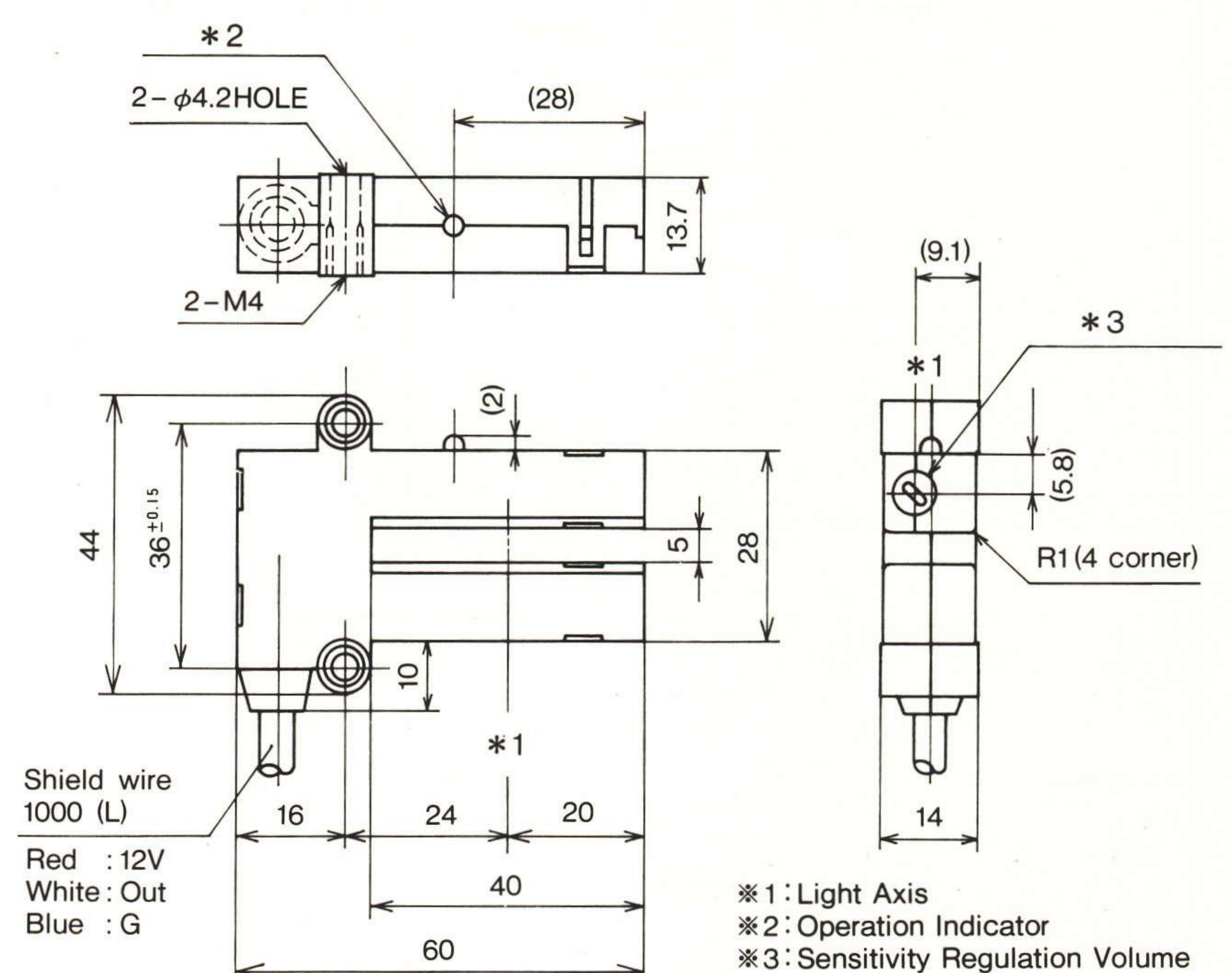
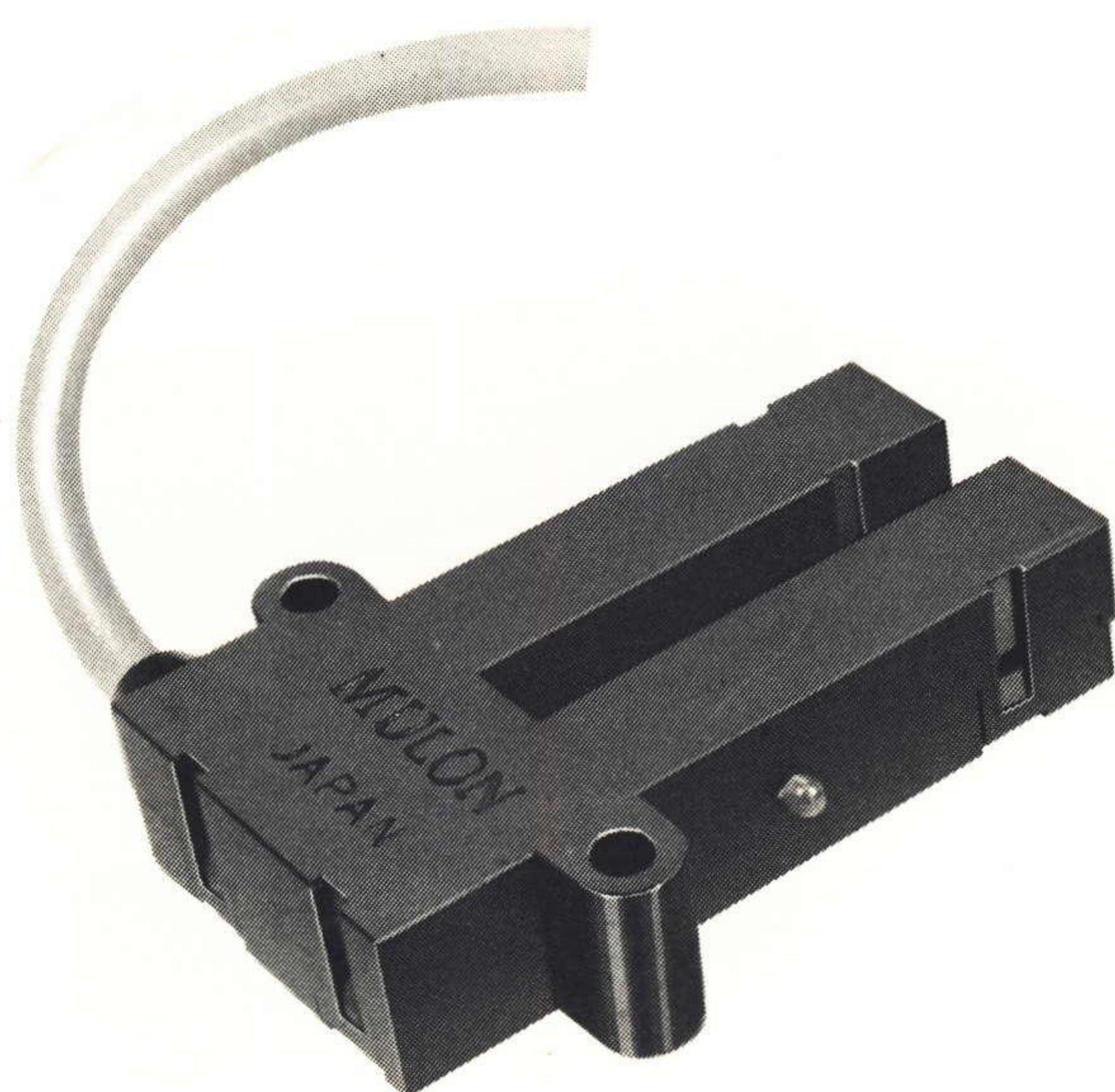
- Using internal Sensitivity Regulation Volume makes it suitable for detecting different thickness of object.
- Operation Indicator (LED) is built in, so can easily make sure "ON-OFF" at sight.
- Using high grade IC enhance sensitivity and reliability of this SENSOR.
- Noise Filter Circuit, designed inside Amp., and Shield Wire for Lead shows effective noise-proof.
- Bushing, inside Fixing Hole, enable to do slight regulation and easy setting of object.



### SPECIFICATION

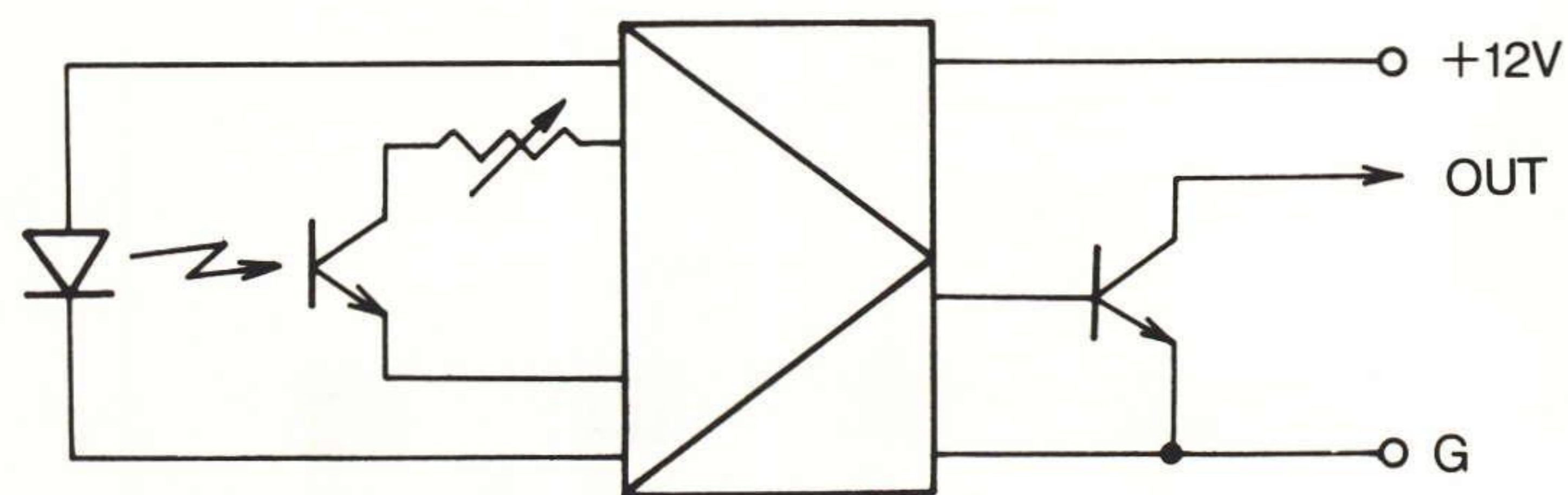
Supply Voltage	DC 12V ±10%
Supply Current	18mA (at 12V)
Load Voltage	Max. 24V
Load Current	Max. 100mA
Output Type	Open Collector Project the Light: Operation Indicator ON, Output OFF Shield the Light: Operation Indicator OFF, Output ON
Size of Light Shielding Object	Min. φ2mm
Working Light	Infrared LED, direct current lighting
Ambient Temperature	-10~70°C
Ambient Humidity	Under 80% RH (without waterdrops on Projecting/Receiving surface)

### OUTSIDE DIMENTION



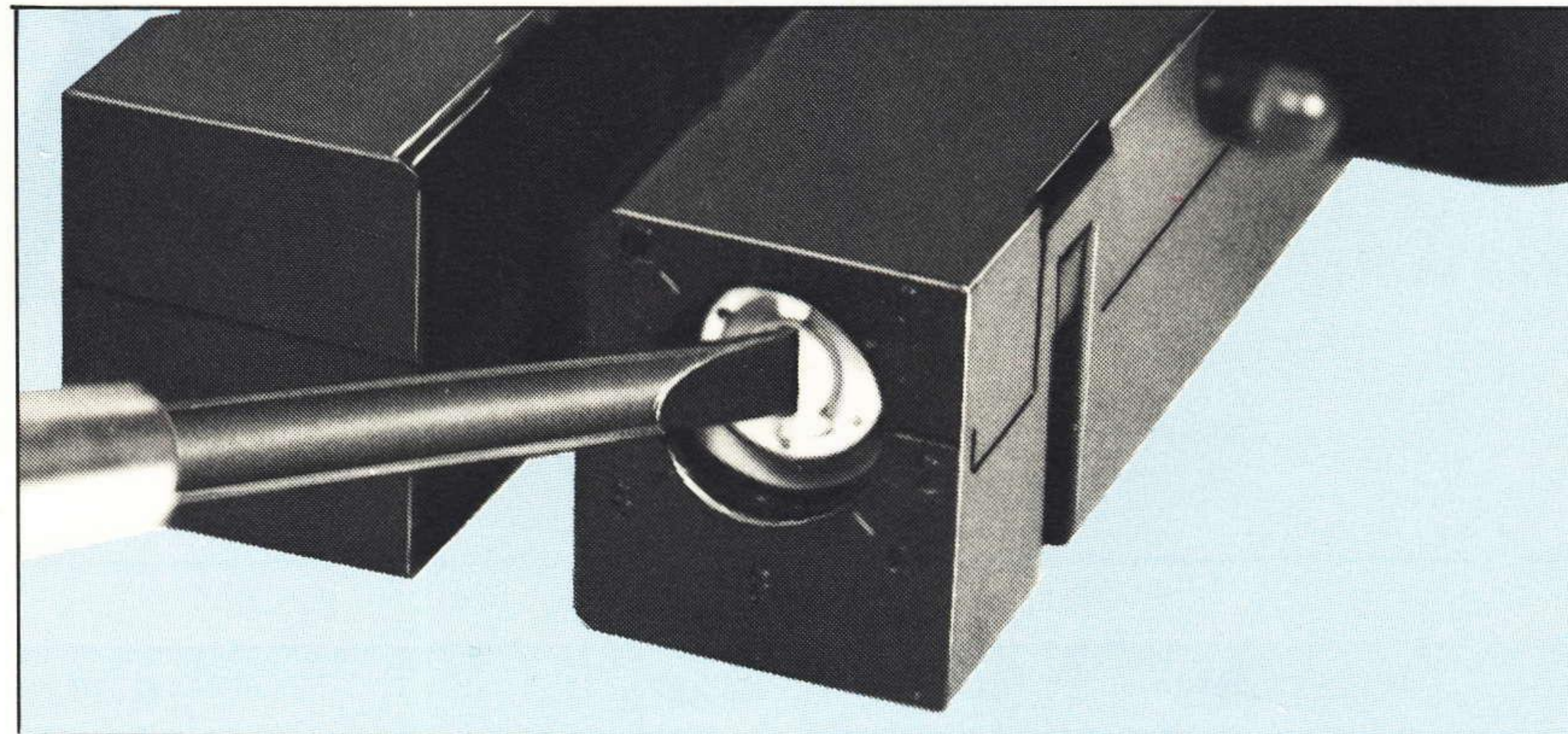


■ **CIRCUIT DIAGRAM**



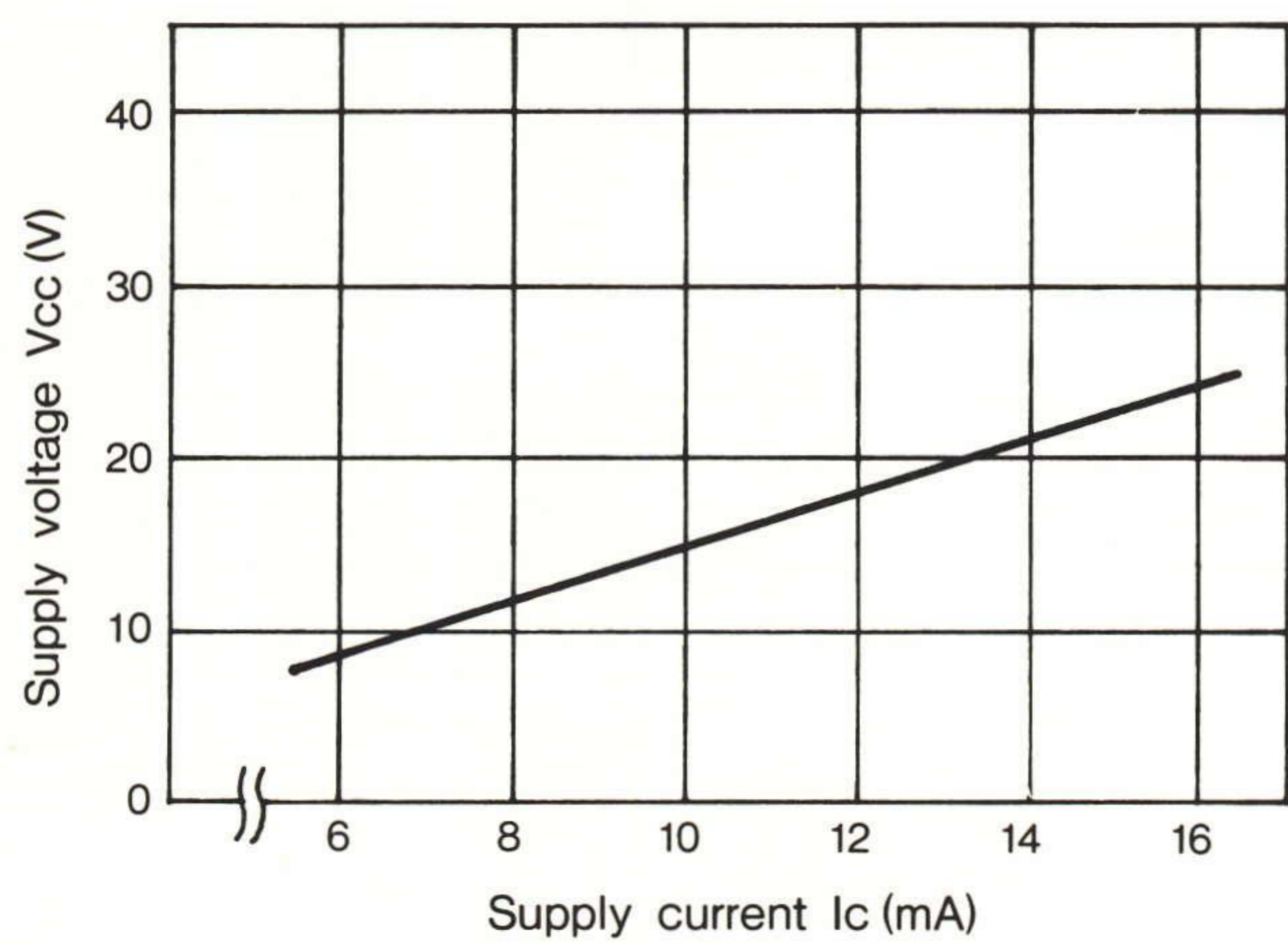
■ **HOW TO TUNE THE SENSITIVITY REGULATION**

Turning the groove with screw driver towards mark 12, sensitivity rises. And can detect an object with different thickness like label. In this case please set the volume a little more than the detecting position.

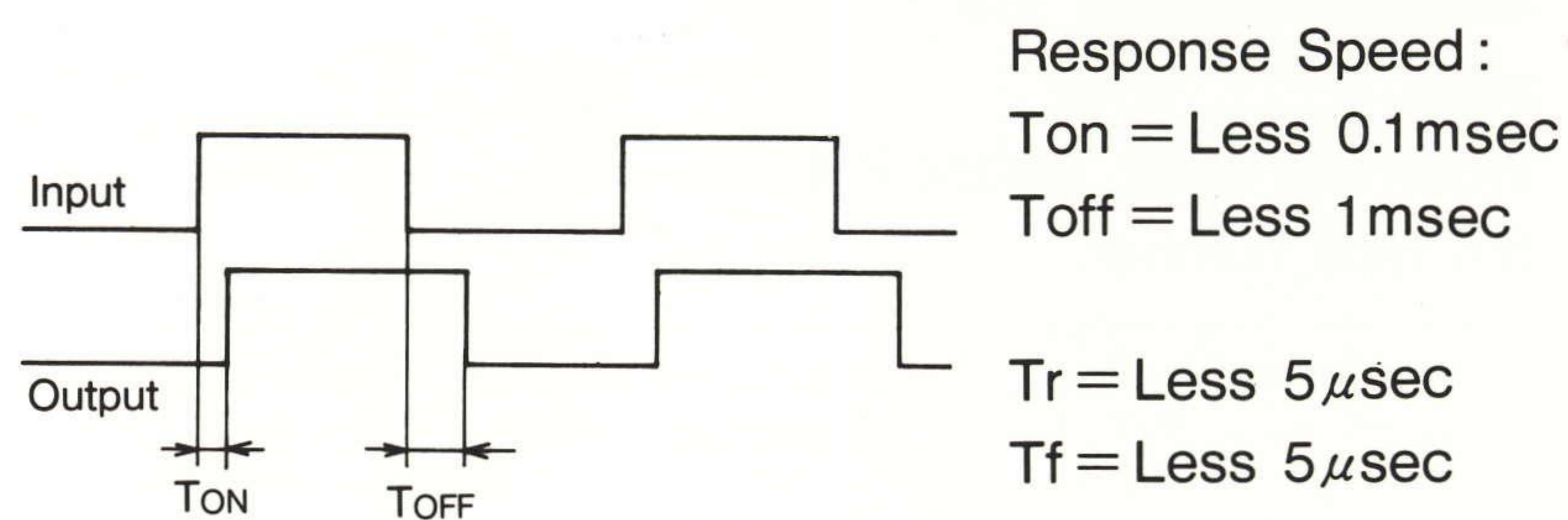


■ **CHARACTERISTIC CURVE (EXAMPLE)**

● **Supply Voltage—Supply Current**

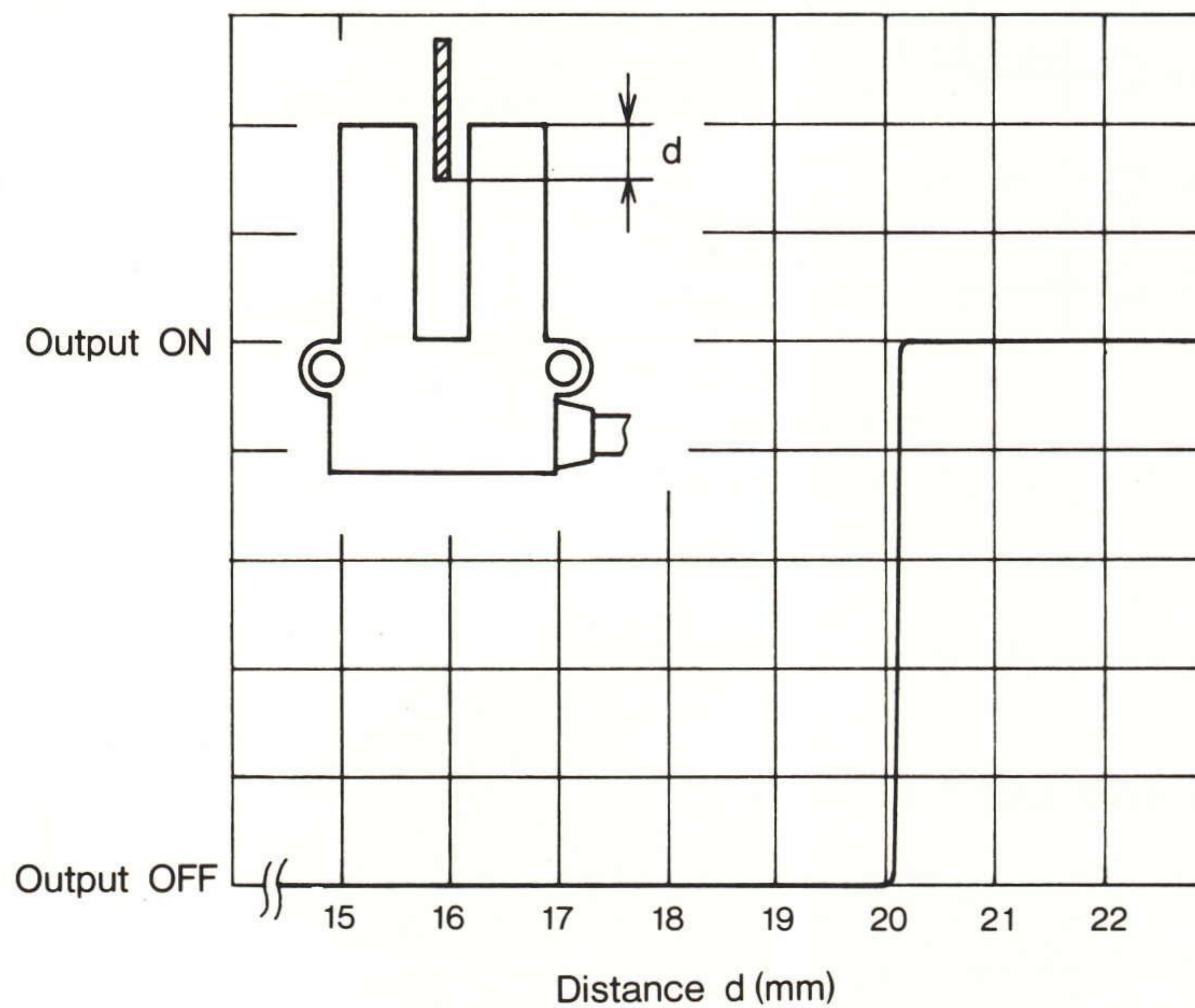
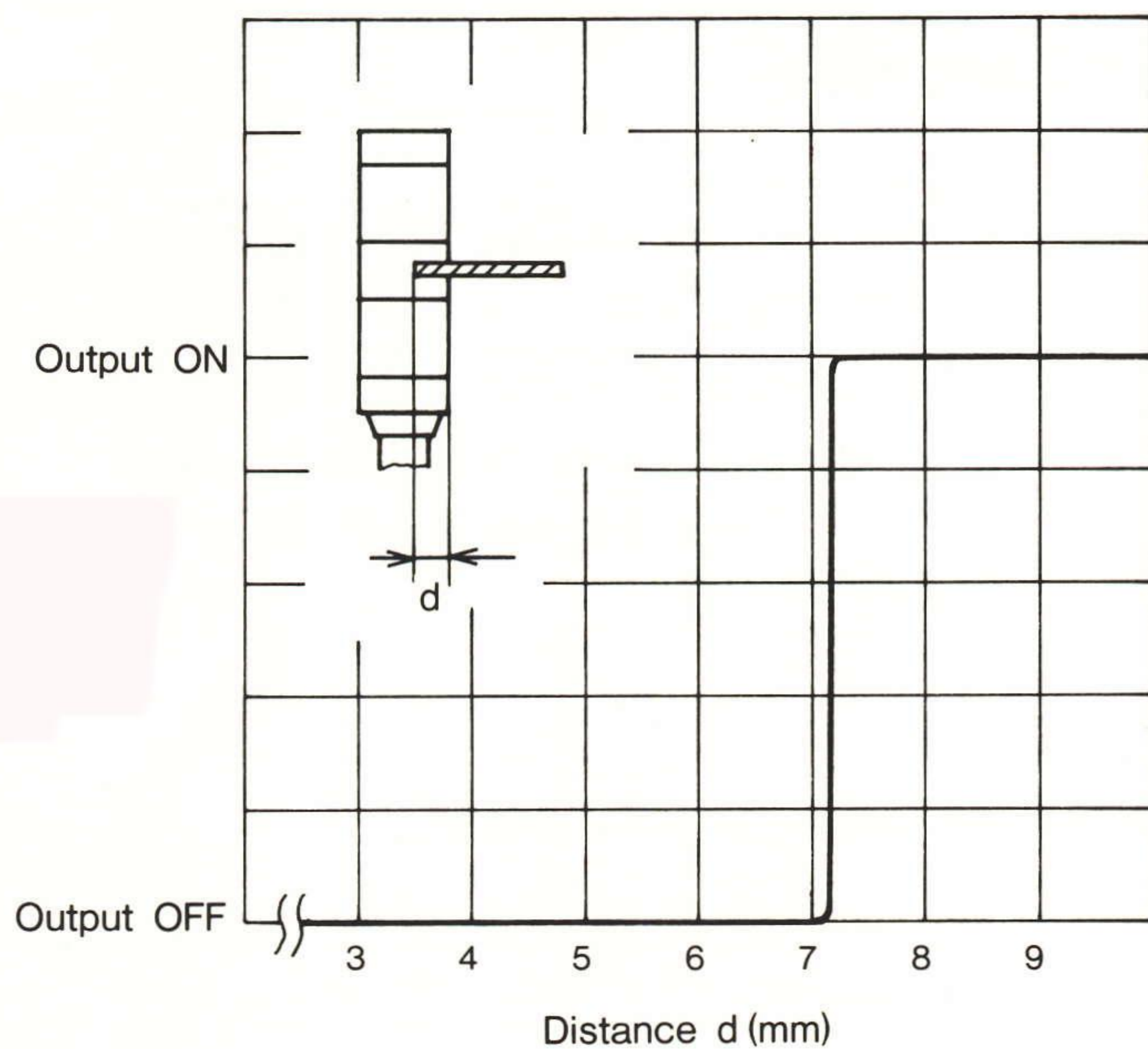


● **Response**



※ Input is switched outside

● **Detective Position**



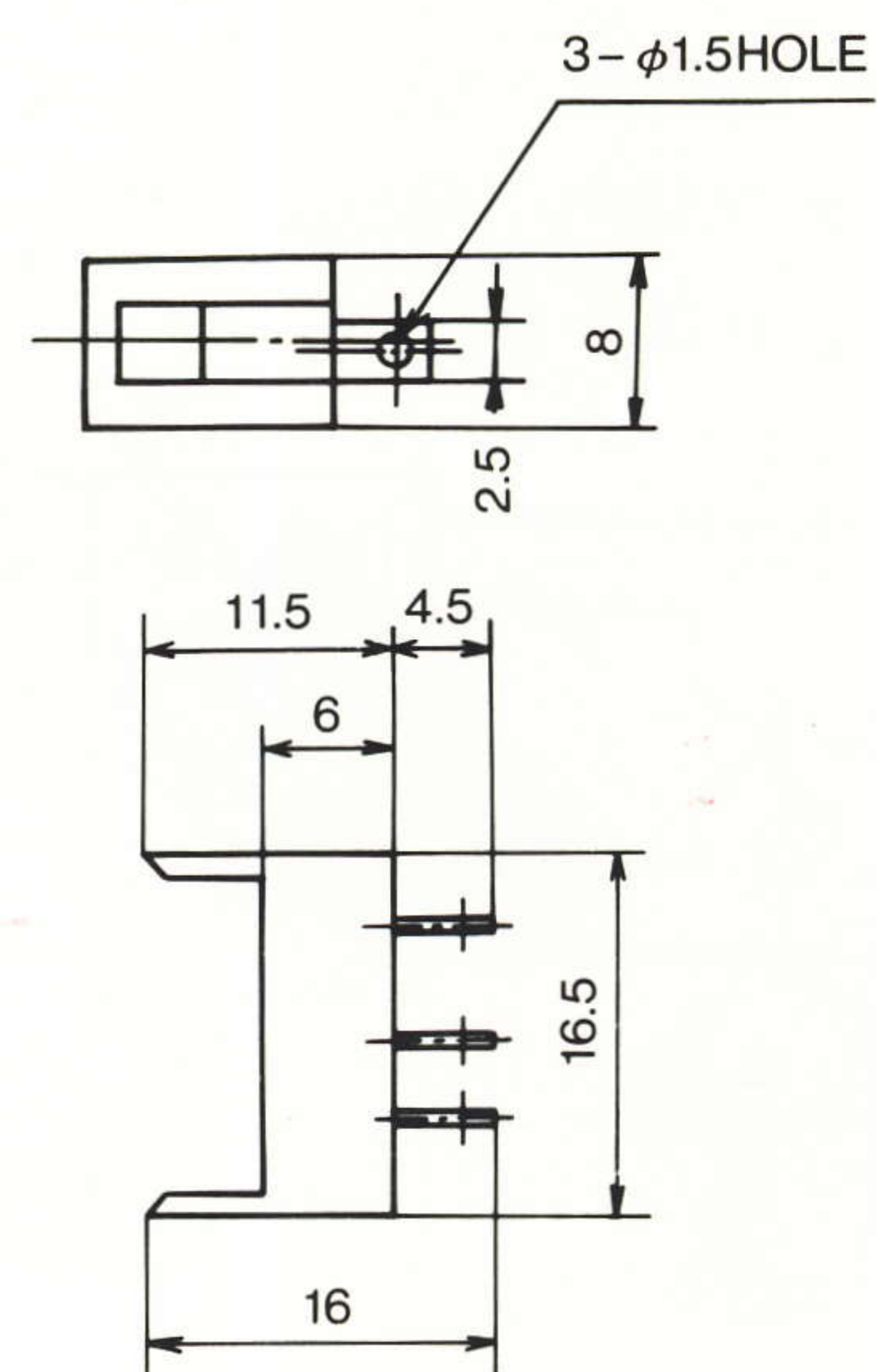
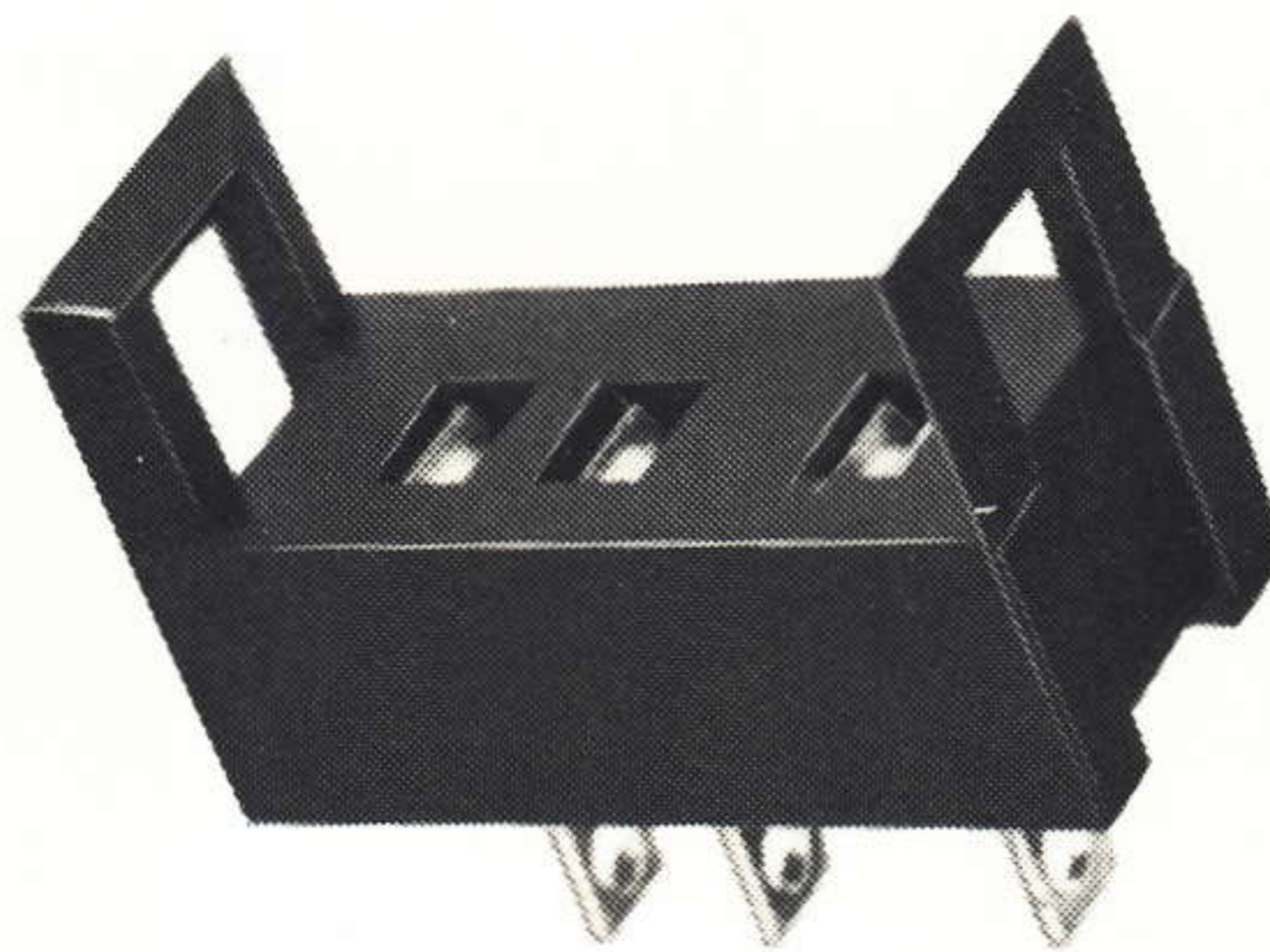


### ACCESSORY

#### ● Socket For LMS-5 (Type LM-019)

One touch mounting socket is available.

When you order, please indicate the type number.

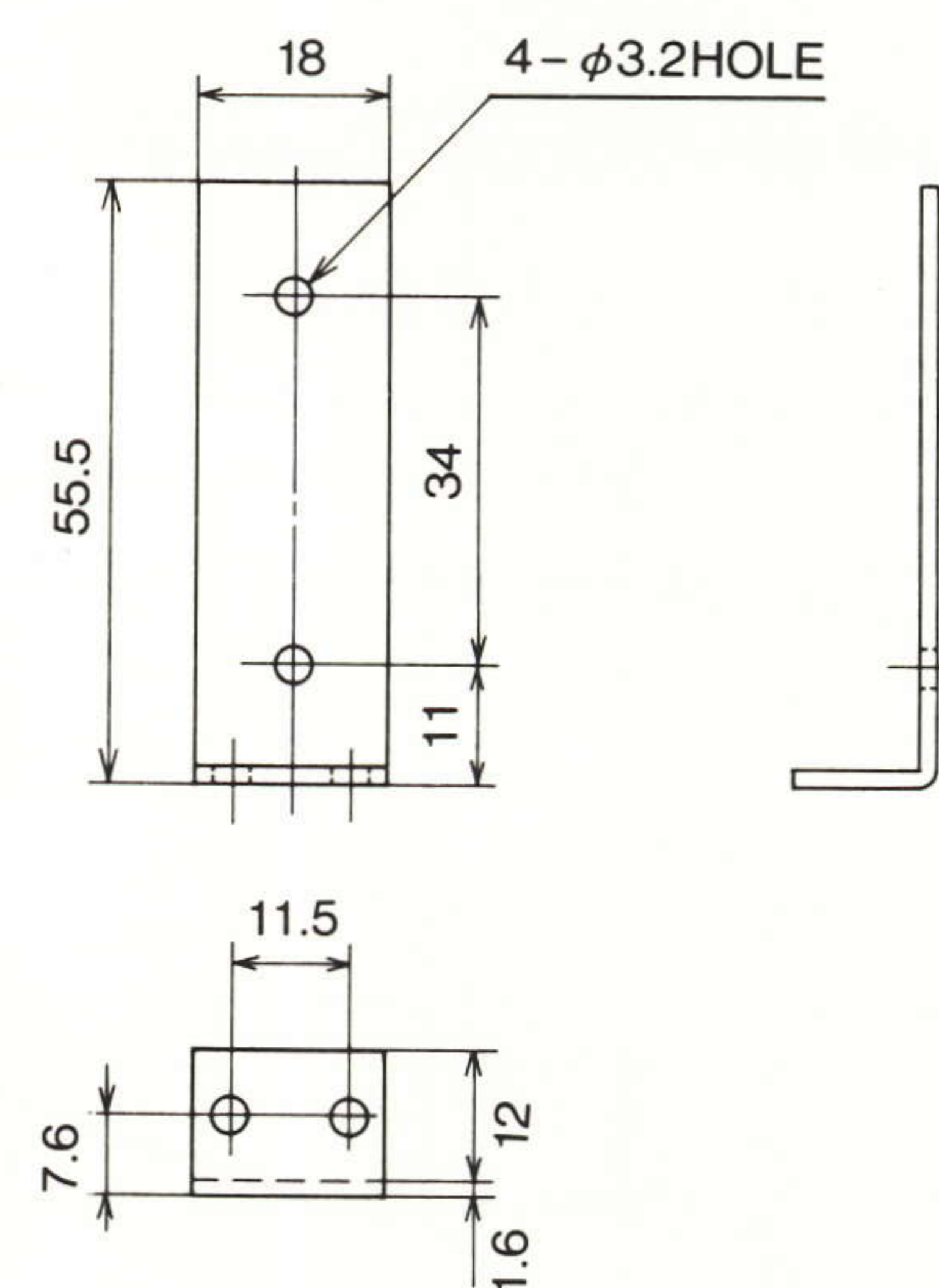


#### ● Bracket For LMS-30 (Type LM-026)

Bracket for vertical mounting is available.

Convenient for detecting an object which is moving horizontal direction against the mounting plate.

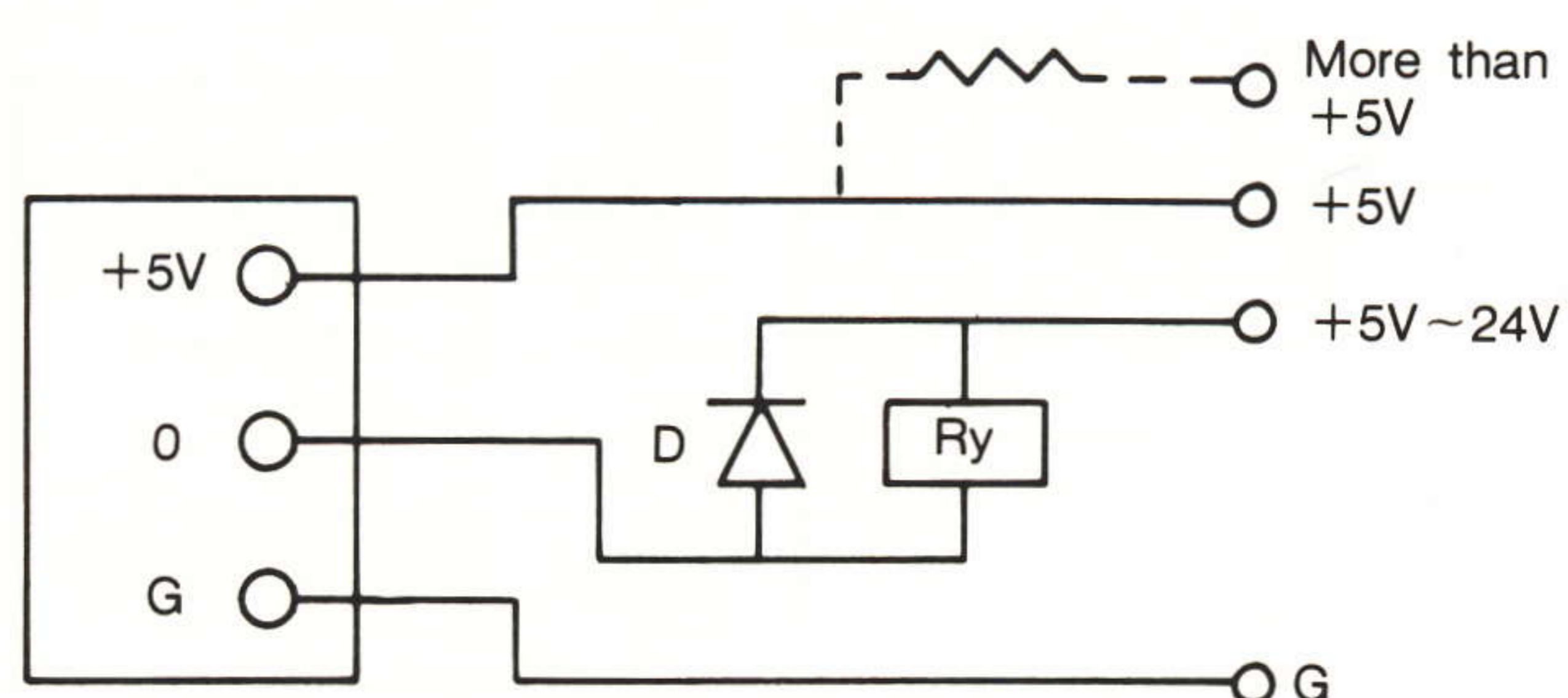
When you order, please indicate the type number.



### APPLICATION CIRCUIT

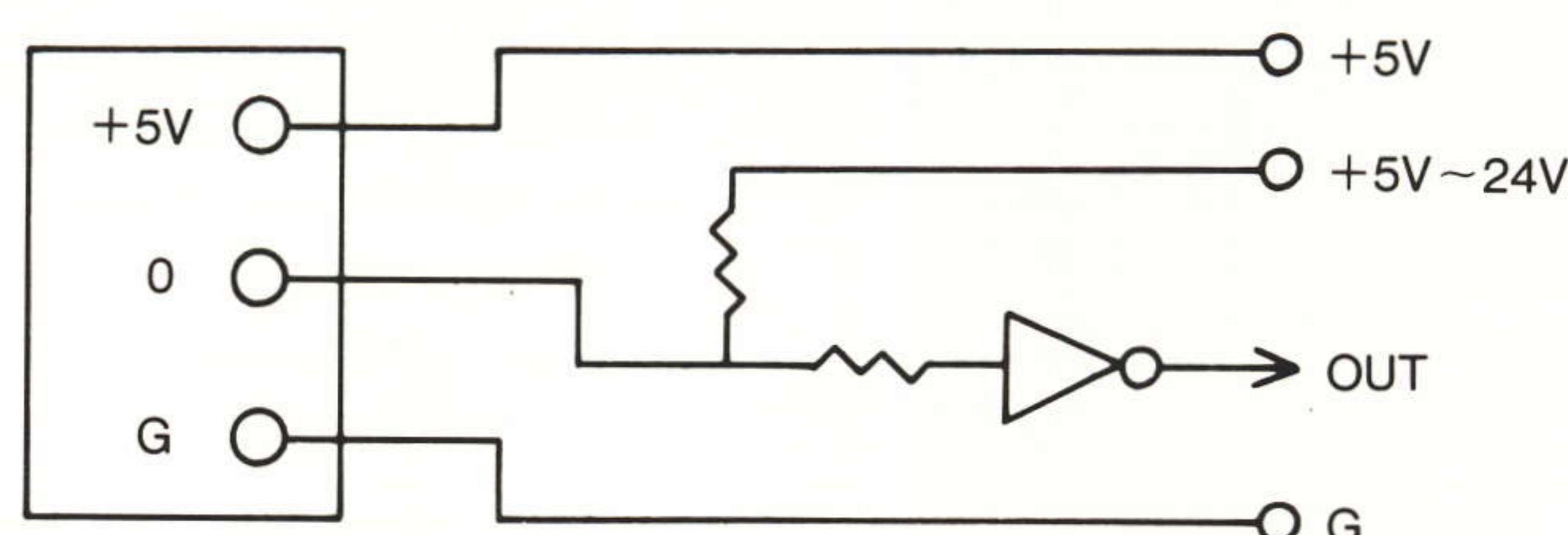
#### LMS-5, LMS-4, LMS-T540H

##### ● Inductive Load Circuit



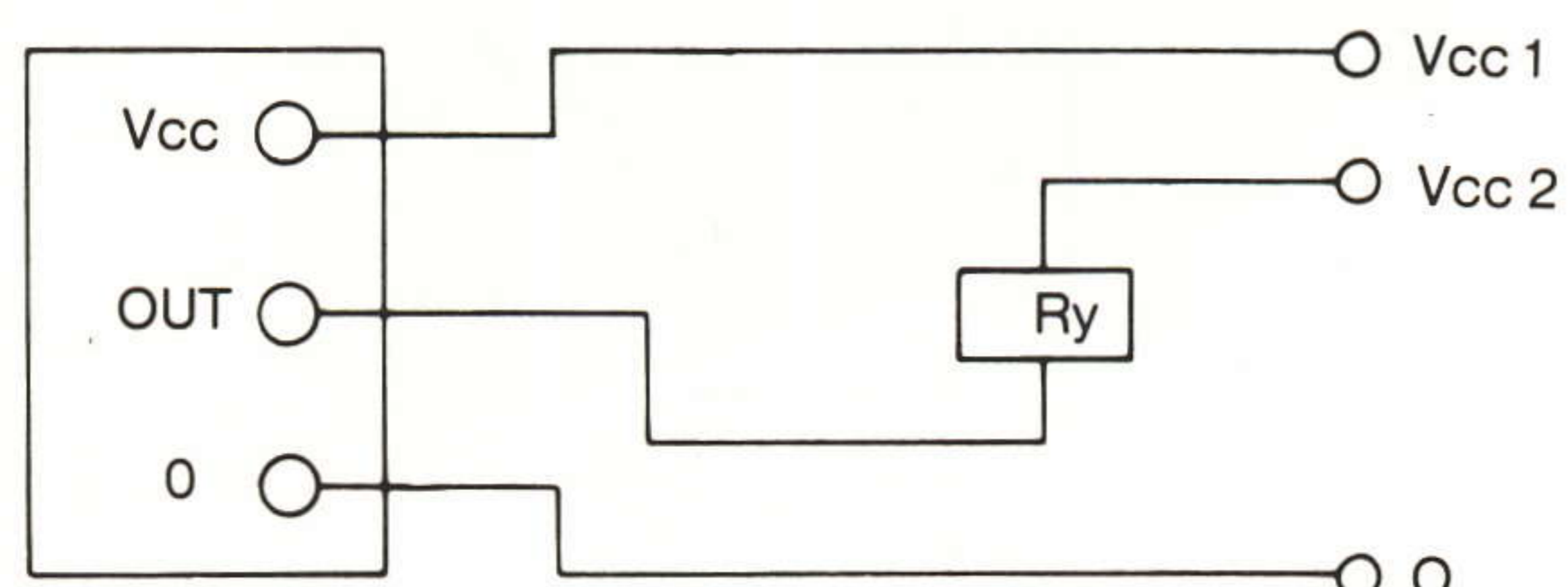
D: Protection Diode

##### ● Non-inductive Load Circuit

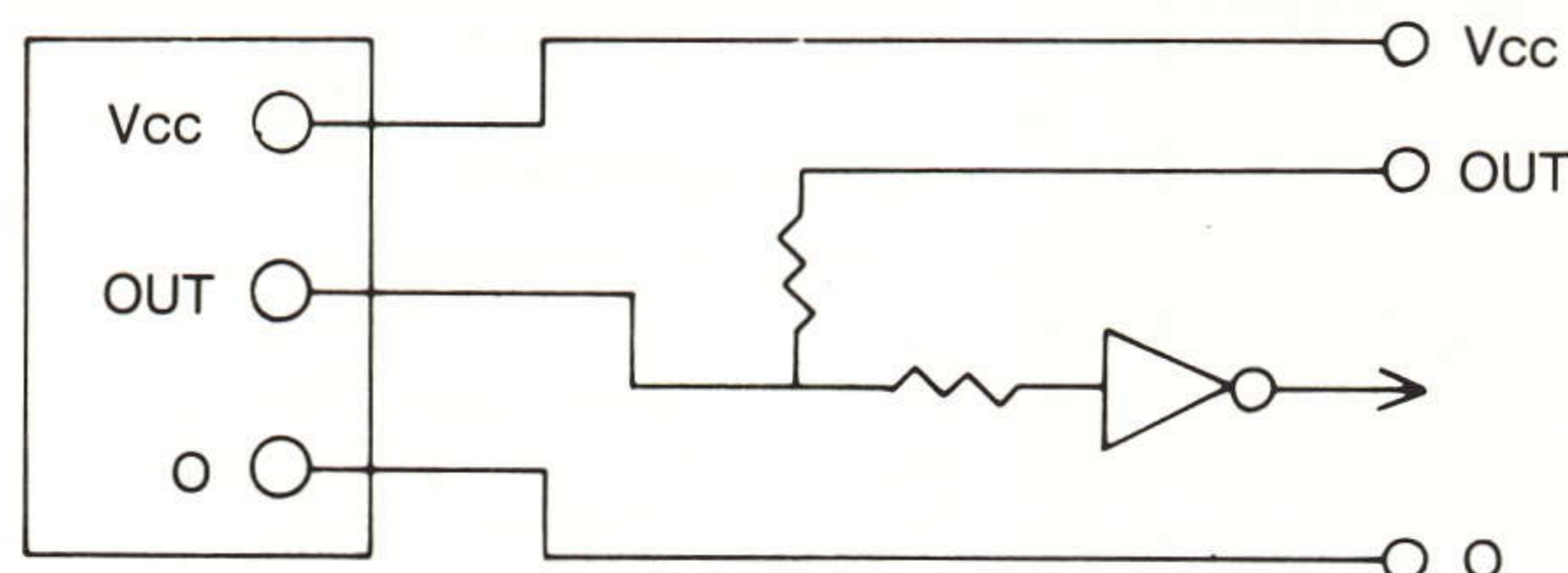


#### LMS-30

##### ● Inductive Load Circuit



##### ● Non-inductive Load Circuit



※ In case of single voltage,  $V_{cc1} = V_{cc2}$



**USE**

- Computer Peripherals (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  $\pm$  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 temperature, 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.