

PS - R11 L . PS - R11D

The PS - R11 photo switches are composed of a modulated infrared emitting diode at the light - emitting side and a modulated photo IC (in which a photodiode, signal processing circuit, constant voltage circuit and modulation circuit are integrated) at the light receiving side.

PS - R11L : High level output at shielding

PS - R11D : Low level output at shielding

**FEATURES**

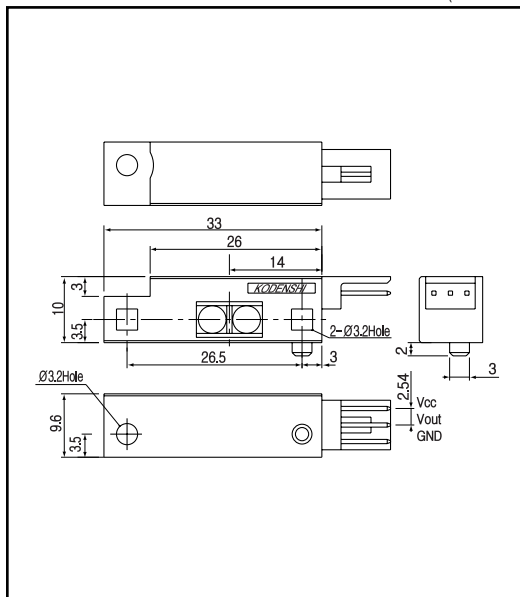
- High - speed response(0.5m sec.)
- Adjustable of detecting distance
- Resistible to exterior light because of composed of modulate

**APPLICATIONS**

- Copiers
- Facsimiles

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Supply voltage	V <sub>CC</sub>	8.0	V
Output voltage <sup>*1</sup>	V <sub>O</sub>	12	V
Low level output current <sup>*2</sup>	I <sub>OL</sub>	30	mA
Output transistor power dissipation	P <sub>O</sub>	30	mW
Operating temp. <sup>*3,4</sup>	Topr.	- 10 + 60	
Storage temp. <sup>*3,4</sup>	Tstg.	- 20 + 70	

\*1. Output transistor : V<sub>E</sub> \*2. Output transistor : I<sub>E</sub> \*3. No icebound or dew  
 \*4. The connector shall be inserted or pulled out at normal temperature.

**ELECTRO-OPTICAL CHARACTERISTICS**

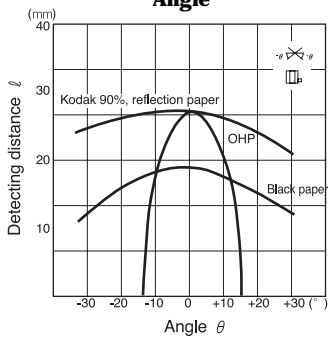
( Ta=25 )

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Supply voltage	V <sub>CC</sub>		4.75		5.25	V
Low level output voltage	V <sub>OL</sub>	V <sub>CC</sub> =5V, I <sub>OL</sub> =10mA			0.4	V
High level output voltage	V <sub>OH</sub>	V <sub>CC</sub> =5V, R <sub>L</sub> =1k	4.0			V
Supply current	I <sub>CC</sub>	V <sub>CC</sub> =5V		16		mA
Minimum detecting distance	L <sub>DS</sub>	V <sub>CC</sub> =5V, R <sub>L</sub> =1k			5	mm
Maximum detecting distance	L <sub>DL</sub>			10		mm
Non - detecting distance	L <sub>NS</sub>				60	mm
Response speed	t <sub>PLH</sub> /t <sub>PHL</sub>	V <sub>CC</sub> =5V, R <sub>L</sub> =1k			0.5	ms
Exterior light endure	E <sub>V</sub>	V <sub>CC</sub> =5V, R <sub>L</sub> =1k	3,000			lx
Output state			NPN open collector			

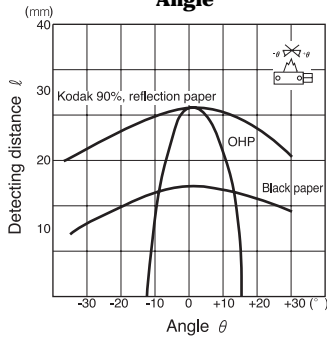
Paper sensors

PS - R11L/D

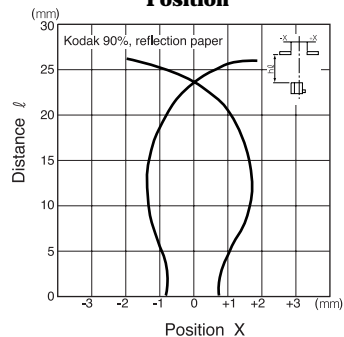
**Detecting distance Vs. Angle**



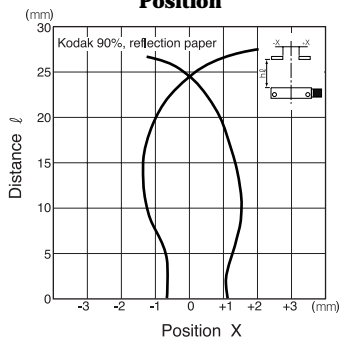
**Detecting distance Vs. Angle**



**Distance Vs. Position**



**Distance Vs. Position**



**Relative distance Vs. Ambient temperature**

