

GP1A200HRS/GP1A201HRS Photointerrupter

Pachinko Ball (Pinball) Sensor with a Connector

General Description

The **GP1A200HRS/GP1A201HRS** is a pachinko ball sensor with a connector.

Features

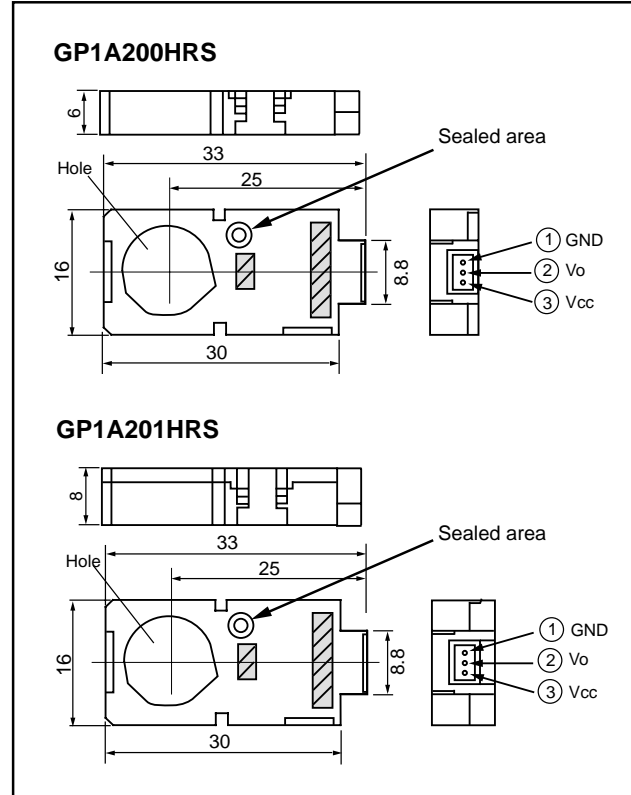
- (1) Resists malfunction due to an optical system.
- (2) Connector output type (tamperproof)
- (3) Heat-sealed back cover (tamperproof)
- (4) Thin type (6mm): **GP1A200HRS**
For chukker gate: **GP1A201HRS**

Applications

- (1) Pachinko machines

Outline Dimensions

(Unit: mm)



Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Ratings	Unit
Supply voltage	V _{CC}	-0.5 to +16	V
Output voltage	V _{OUT}	-0.5 to +16	V
Low level output current	I _{OL}	50	mA
Operating temperature	T _{opr}	0 to +60	°C
Storage temperature	T _{stg}	-25 to +80	°C

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(Internet) • Data for Sharp's optoelectronic/power devices is provided on internet. (Address <http://www.sharp.co.jp/ecg/>)

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■ Electro-optical Characteristics

(Ta=25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Operating supply voltage	V _{CC}	Ta=Topr	4.5	–	16	V	
Dissipation current	I _{CC}	V _{CC} =5V±10%, smoothing value	–	–	15	mA	
		V _{CC} =12V±20%, smoothing value	–	–	15	mA	
Dissipation current	I _{CCP}	V _{CC} =5V±10%, emitter value	–	–	85	mA	
		V _{CC} =12V±20%, emitter value	–	–	85	mA	
High level output voltage	V _{OH}	V _{CC} =4.5 to 16V light beam uninterrupted, no load	V _{CC} ×0.9	–	–	V	
High level output current	I _{OH}	V _{CC} =V _O =12V±20% light beam uninterrupted	–	–	50	μA	
Low level output voltage	V _{OL}	V _{CC} =5V±10%, I _{OL} =16mA light beam interrupted	–	–	0.4	V	
		V _{CC} =12V±20%, I _{OL} =16mA light beam interrupted	–	–	0.4	V	
*1 Permissible illuminance of interference level from other lights	E _{VDX}	V _{CC} =4.5 to 16V	2 000	–	–	lx	
Response characteristics	Minimum light-shielding time	T _H	V _{CC} =4.5 to 16V	1	0.4	–	ms
	Minimum light-through time	T _L		1	0.4	–	ms
Response frequency	f		–	–	500	Hz	
Pull-up resistance range	R	–	5	–	20	kΩ	

*1 Maximum illuminance value for normal operation when a CIE standard light source A is applied around the photointerrupter.

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