



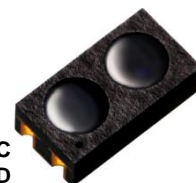
Stanley Electric's Photoreflector Sensor

**Long lifetime, high reliability
enabled through contactless sensing**

Suitable for high operating temperature (Max. 100 °C) usage

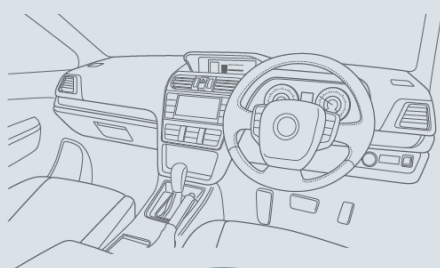
Two types available, depending on the detection distance and reflective object

KUA0121C
KUA0121D



◆ Applications

Automotive interior equipment



Rotary dial switches

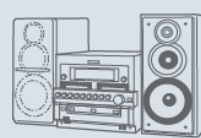


Scroll switches

Home appliances



Microwaves



Audio components

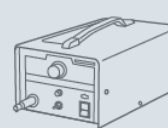


Washing machines

Industrial equipment



Factory automation
control panels



Control devices



Card readers

◆ Features

● Contactless sensing

Increased flexibility of design compared to mechanical sensors
Sensing through IR LED emission and photodetector detection
Short range detection (max. 1 to 2 mm)

● Compact size (1.1 mm height)

Downsizing of final unit
Component cost reduction

● Compatible with JEDEC MSL 2a

◆ Specifications



Part name		KUA0121C	KUA0121D	Units
Peak wavelength	λ_p	940	855	nm
Photocurrent ($V_{CE}=5V, I = 5mA, d=1mm$)	I_C	300	1,450	μA
Leakage current ($V_{CE}=5V, I = 5mA, \text{no reflector}$)	I_{LEAK}	Max. 2	Max. 5	μA
Response time ($V_{CE}=10V, R_L=100\Omega$)	tr/tf	10 / 10	6 / 8	μsec
Operating temperature	T_{opr}	-40~+100		$^{\circ}C$
Storage temperature	T_{stg}	-40~+120		$^{\circ}C$
Size	L×W×H	3.6 × 1.9 × 1.1		mm
JEDEC MSL	—	2a		—

Conditions : $T_a=25^{\circ}C$

