

## Guide to swapping your **KT5G-2P1111** (RS Stock No. **263-8405**)

After a long period of continuous availability, SICK is phasing out the KT5G-2P1111 and to help you select a replacement sensor we have provided the following information;

The KT5 series has been replaced by the vastly superior KTX and KTS contrast sensors. They offer better performance, greater flexibility and are easier to use.

If you want to use the same mechanical mounting points then you can use one of these two KTX sensors as a direct replacement. Your choice depends on which optical exit you were using in your existing KT5 configuration.

**To replace long side exit configuration**



**KTX-WP91141242ZZZZ**  
RS Stock No: **180-6339**

**To replace short side exit configuration**







**KTX-WP91142242ZZZZ**  
RS Stock No: **180-6338**

**If you would like to add IO-Link capability** to be able to control the sensors from a PLC or capture performance data for remote monitoring or cloud storage then we recommend you look at this sensor. Please remember to verify its correct operation for your application.



**KTS-WB9114115AZZZZ**  
RS Stock No: **180-6344**

	KT5G-2P1111	KTX-WP91141242ZZZZ	KTX-WP91142242ZZZZ	KTS-WB9114115AZZZZ
				
RS Stock No.	263-8504	<a href="#">180-6339</a>	<a href="#">180-6338</a>	<a href="#">180-6344</a>
FEATURES				
Special applications		Standard		Standard
Dimensions (W x H x D)	30.4 mm x 53 mm x 80 mm	30 mm x 53 mm x 78.5 mm		26 mm x 62 mm x 47.5 mm
Sensing distance	10 mm (From front edge of lens)	13 mm		13 mm
Device type		Standard		Standard
Sensing distance tolerance		± 5 mm		± 5 mm
Housing design (light emission)	Rectangular	Rectangular		Rectangular
Light source	LED, green (Average service life: 100,000 h at TU = +25 °C)	LED, RGB (Average service life: 100,000 h at TU = +25 °C)		LED, RGB (Average service life: 100,000 h at TU = +25 °C)
Wave length	520 nm	470 nm, 525 nm, 625 nm		470 nm, 525 nm, 625 nm
Light spot size	1.2 mm x 4.2 mm	0.9 mm x 3.8 mm		0.9 mm x 3.8 mm
Light spot direction	Horizontal (in relation to long side of housing)	Vertical (in relation to long side of housing)		Vertical (in relation to long side of housing)
Light emission	Long and short side of housing, exchangeable	Long side of housing	Short device side	Long side of housing
Adjustment	Potentiometer			
Teach-in mode		1-point teach-in, 2-point teach-in, teach-in dynamic, auto mode		1-point teach-in, 2-point teach-in, teach-in dynamic, auto mode
Receiving filters		None		None
Special features		-		-



## Feature comparison

Output function	Light/dark switching			Light/dark switching
Delay time		Adjustable		Adjustable
Delivery status		2-point teach-in		2-point teach-in
Parameter presettings		None		None
MECHANICS/ELECTRONICS				
Supply voltage	10 V DC ... 30 V DC (Limit values when operated in short-circuit protected network: max. 8 A)	10.8 V DC ... 28.8 V DC (limit values: DC 12 V (–10 %) ... DC 24 V (+20 %). Operation in short-circuit protected network max. 8 A)		10.8 V DC ... 28.8 V DC (limit values: DC 12 V (–10 %) ... DC 24 V (+20 %). Operation in short-circuit protected network max. 8 A)
Ripple	≤ 5 Vpp (May not exceed or fall below Uv tolerances)	≤ 5 Vpp (May not exceed or fall below Uv tolerances)		≤ 5 Vpp (May not exceed or fall below Uv tolerances)
Current consumption	< 80 mA (without load)	< 100 mA (without load)		< 100 mA (without load)
Switching frequency	10 kHz (with light/dark ratio 1:1)	50 kHz (with light/dark ratio 1:1) (1-point teach-in (color mode): 16 kHz)		50 kHz (with light/dark ratio 1:1) (1-point teach-in (color mode): 8 kHz)
Response time	50 μs (Signal transit time with resistive load)	10 μs (Signal transit time with resistive load) (1-point teach-in (color mode): 30 μs)		10 μs (Signal transit time with resistive load) (1-point teach-in (color mode): 60 μs)
Jitter		5 μs (1-point teach-in (color mode): 15 μs)		5 μs (1-point teach-in (color mode): 30 μs)
Switching output	PNP			PUSH/PULL
Switching output (voltage)	PNP: HIGH = VS– ≤ 2 V / LOW approx. 0 V	PNP: HIGH = VS - 3 V / LOW = 0 V		Push/Pull: HIGH = VS - 3 V / LOW ≤ 3 V
Switching mode	Light/dark switching	Light/dark switching	Light/dark switching	Light/dark switching
Output current Imax.	100 mA (Short-circuit-proof)	100 mA (Total current of all Outputs)		100 mA (Total current of all Outputs)
Input, teach-in (ET)		Teach: U = 10 V ... < VS		Teach: U = 10 V ... < VS
Input, blanking input (AT)		Blanked: U = 10 V ... < Uv		Blanked: U = 10 V ... < Uv
Connection type	Male connector M12, 4-pin			Male connector M12, 5-pin
Input, fine/coarse (F/C)		Coarse: U = 10 V ... < Uv		Coarse: U = 10 V ... < Uv



## Feature comparison

Protection class	II (Reference voltage DC 50 V)	III		III
Input, light/dark (L/D)		Light: U = 10 V ... < U <sub>v</sub>		Light: U = 10 V ... < U <sub>v</sub>
Circuit protection	UV connections, reverse polarity protected	UV connections, reverse polarity protected		UV connections, reverse polarity protected
	Output Q short-circuit protected	Output Q short-circuit protected		Output Q short-circuit protected
	Interference pulse suppression	Interference pulse suppression		Interference pulse suppression
Retention time (ET)		25 ms, non-volatile memory		25 ms, non-volatile memory
Enclosure rating	IP67	IP67		IP67
Weight	400 g	94 g		68 g
Housing material	Metal, zinc diecast	Plastic, VISTAL®		Plastic, VISTAL®
Optics material		Plastic, PMMA		Plastic, PMMA
<b>COMMUNICATION INTERFACE</b>				
IO-Link				yes , IO-Link
IO-Link (VendorID)				26
IO-Link (DeviceID HEX)				8000A4
IO-Link (DeviceID DEC)				8388772
Process data structure				Bit 0 = switching signal QL1
Digital output				Bit 1 = empty
Digital output (Number)				Bit 2 = Quality of Run Alarm
Digital input				Bit 3 ... 5 = Emission Color
Digital input (Number)				Bit 6 ... 15 = Measurement Value Emission Color



## Feature comparison

				Q1, Q2
				2
				In1, In2
				2
AMBIENT DATA				
Ambient operating temperature	−10 °C ... +55 °C	−20 °C ... +60 °C		−20 °C ... +60 °C
Ambient storage temperature	−25 °C ... +75 °C			−25 °C ... +75 °C
Shock load	According to IEC 60068	According to IEC 60068-2-27 (30 g/11 ms)		According to IEC 60068-2-27 (30 g/11 ms)
UL File No.	NRKH.E181493 & NRKH7.E181493	E181493		E181493