




# PHOTO SENSORS

## KPS-Z SERIES



### CLASSIFICATION

KPS - Z

MODEL	Type	Sensing Distance	Protection
DNS	Diffuse - Reflective 	0.5m	-
2DN		1m	IP65
RNS	Retro - Reflective 	3m	-
RN			IP65
TS	Through - Beam 	15m	-
TNS			Emitter
T			Receiver
TN			Emitter

### I/O Circuit Diagram

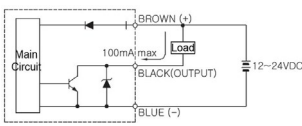
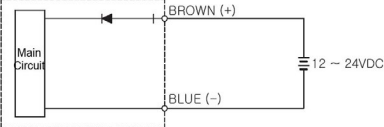
Model	Operation mode	Timing chart	Operation selector	Output Circuit
KPS - ZDNS	LIGHT NO	Incident light: ON (High), OFF (Low) No incident light: OFF (Low) Operation indicator: ON (High), OFF (Low) Output TR: ON (High), OFF (Low) Load: Operate (High), Reset (Low)	LIGHT NO	
KPS - Z2DN				
KPS - ZRNS				
KPS - ZRN	DARK NO	Incident light: ON (High), OFF (Low) No incident light: OFF (Low) Operation indicator: ON (High), OFF (Low) Output TR: ON (High), OFF (Low) Load: Operate (High), Reset (Low)	DARK NO	
KPS - ZTS				
KPS - ZTNS				
KPS - ZT	Through - beam emitter			
KPZ - ZRN				

PHOTO SENSOR

PROXIMITY SENSOR

WATER LEVEL CONTROLLER

PID TEMP. CONTROLLER



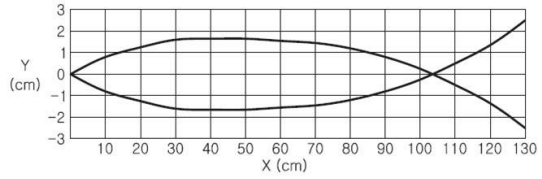
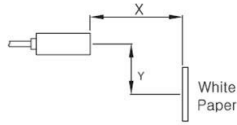
# PHOTO SENSORS

## Specification

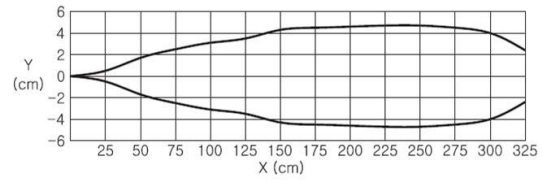
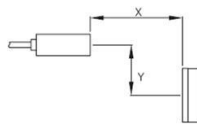
Type	Diffuse Reflective		Retro - reflective		Through - beam	
Model	KPS - ZDNS	KPS - Z2DN	KPS - ZRNS	KPS - ZRN	KPS - ZTS KPS - ZTNS	KPS - ZT KPS - ZTN
Detecting Distance	0.5m	1m	3m		15m	
Standard detecting object	20(cm)X20(cm) white paper		OPAQUE OBJECT, MINIMUM 75 DIAMETER		OPAQUE OBJECT, MINIMUM 12 DIAMETER	
Hysteresis	20% of detecting distance		-		-	
Light Source	IR LED(850nm)		IR LED(660nm)		IR LED(850nm)	
Voltage	12~24VDC ± 10%					
Power consumption	25mA				Emitter: 20mA receiver: 17mA	
Output	NPN open collector					
Operation Mode	Light ON/Dark ON switching					
Response time	1ms					
External light interference	incandescent light 2,000 lx					
Ambient temperature	- 20~ +60					
Ambient humidity	35~85% RH					
Insulation resistance	min. 20MΩ(DC500V)					
Dielectric strength	50/60Hz 500VAC for 1 minute					
Vibration resistance	10~55Hz at double amplitude: 1.5mm(X,Y,Z directions) for 1 hour					
Shock resistance	50G					
Protection	None	IP65	None	IP65	None	IP65
Indicator	Receiver: Operation (Red), Safe (Green) Transmitter: Power (Green)					
Weight	50g					
Material	Case: PBT, Lens: PC					

Parallel Operating Range

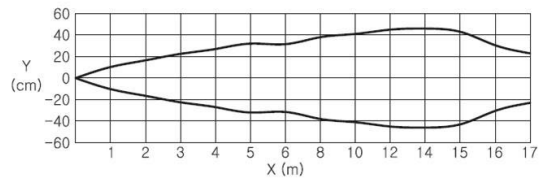
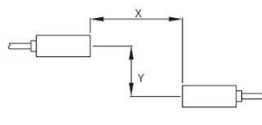
KPS-Z2DN



KPS-ZRN

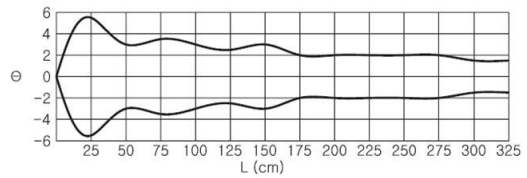
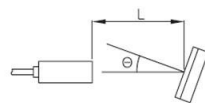


KPS-ZT/ZTN

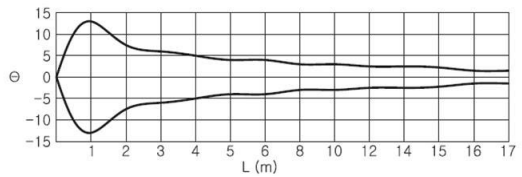
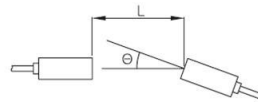


Parallel Operating Range

KPS-ZRN



KPS-ZT/ZTN

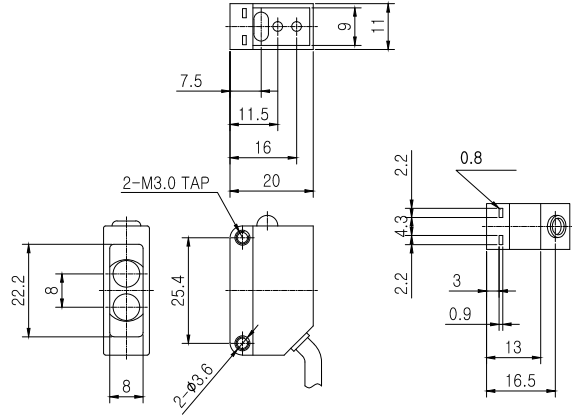




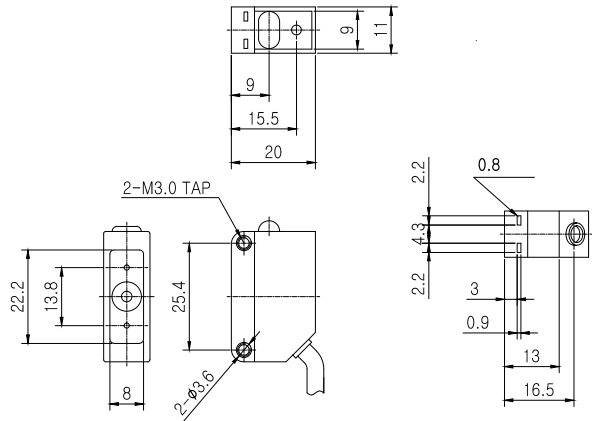
# PHOTO SENSORS

## Dimensions

KPS-ZRN, KPS-ZRNS  
KPS-Z2DN, KPS-ZDNS



KPS-ZT, KPS-ZTN  
KPS-ZTS, KPS-ZTNS



Bracket

