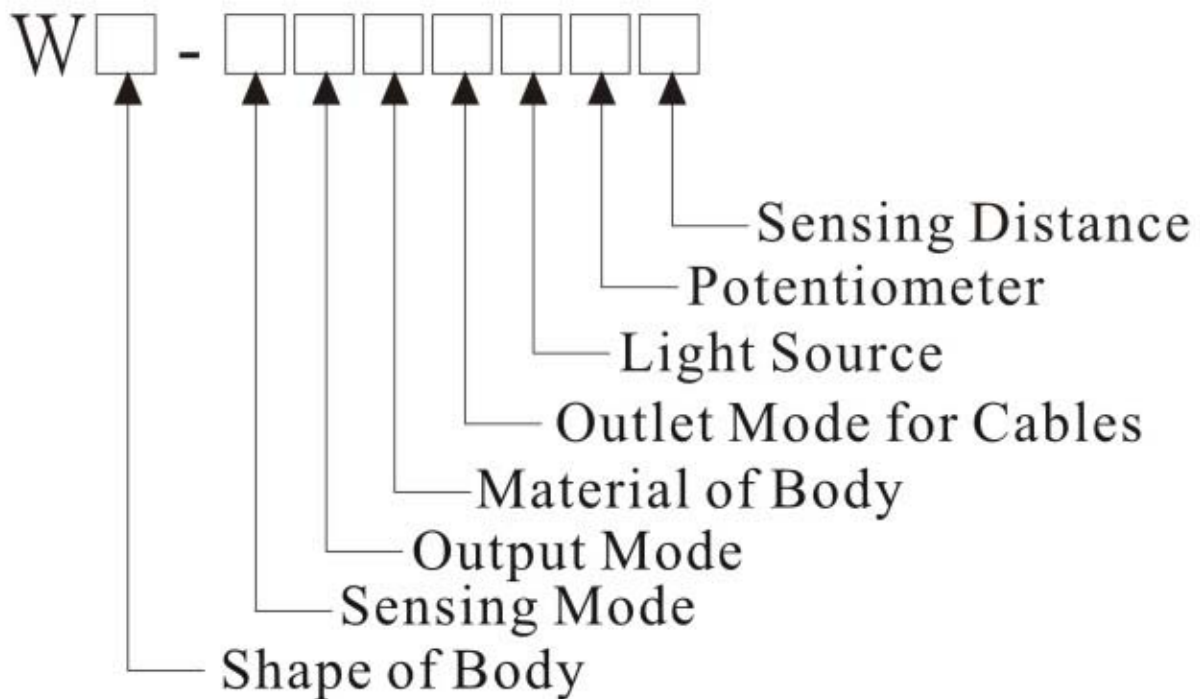


TYPE CODE



1. Shape of Body: O---18mm cylinder , S---square
2. Sensing Mode: D---Diffuse Reflective
R---Retro Reflective
F---Fiber-optics
T---Thru Beam
3. Output Mode: N---NPN OPEN COLLECTOR
P---PNP OPEN COLLECTOR
4. Material of Body: P---Plastic M---Metal
5. Outlet Mode for Cables: W1---Horizontal
W2---Vertical
W3---Connected with Socket
6. Light Source: I---Infra-red Light
R---Visible Red Light
P---Visible Red Light with Polarizer
7. Potentiometer: O---Single-round Potentiometer
D---Double-round Potentiometer
N---Without Potentiometer
8. Sensing Distance: L---Long Distance (within 80CM)
U---Standard Distance (within 40CM),
S---Short Distance (within 20CM)
W---Wide-angled (within 80CM at an angle of 70°)


Advantages:

1. High performance with low cost
2. Quick delivery
3. Easy to use
4. Variety selection
5. International standard
6. Short body

○ : Only for adjustable type

Model	WS-DNPW1(NO, NC) WS-DNPW3(NO, NC) WS-DPPW1(NO, NC) WS-DPPW3(NO, NC)
Detection range	400mm, 20x20cm Kodak white card
Supply Voltage	DC10-30V \pm 20 % , ripple(P--P):10 % Max
Current Consumption	30 mA Max
Max Output Current	100 mA Max
Response Time; Switching Frequency	Less than 3.0 mS(ON+OFF);333 Hz
Circuit Protection	1. Output Over Current Protection 2. Reverse-Polarity protected 3. Interference suppression
Output Type	NPN or PNP open collector
Operation Mode	○ LIGHT-ON, DARK-ON selectable by control cable(White)
Light-on Operation(For NPN Only)	○ Control cable (White wire) connected to V+ (Brown)
Dark-on Operation(For NPN Only)	○ Control cable (White wire) connected to 0V (Blue)
Indicator	Yellow LED on, when Light is received
Ambient Temperature:	Operating Temperature: -25°~55°C
Protection Degree	IP 66
Extraneous Light Immunity	Lamplight:3000Lux;Sunlight:10000Lux Max
Housing Material:Plastic Housing	Housing and Nut:ABS resin, Color:Green, Lens:PMMA
Adjustable Sensitivity:	○ YES--By Potentiometer
Cable	Length:2m, Material:PVC, Color:Gray
Weight:	(1):64g, (3):15g


Advantages:

1. High performance with low cost
2. Quick delivery
3. Easy to use
4. Variety selection
5. International standard
6. Short body

○ : Only for adjustable type

Model	WS-RNPW1(NO, NC) WS-RNPW3(NO, NC) WS-RPPW1(NO, NC) WS-RPPW3(NO, NC)
Detection range	2M (M46 Mirror), 4M(M51 Mirro)
Supply Voltage	DC10-30V \pm 20 % , ripple(P--P):10 % Max
Current Consumption	30 mA Max
Max Output Current	100 mA Max
Response Time; Switching Frequency	Less than 3.0 mS(ON+OFF);333 per secretary
Circuit Protection	1. Output Over Current Protection 2. Reverse-Polarity protected 3. Interference suppression
Output Type	NPN or PNP open collector
Operation Mode	○ LIGHT-ON, DARK-ON selectable by control cable(White)
Light-on Operation(For NPN Only)	○ Control cable (White wire) connected to V+ (Brown)
Dark-on Operation(For NPN Only)	○ Control cable (White wire) connected to 0V (Blue)
Indicator	Yellow LED on, when Light is received
Ambient Temperature:	Operating Temperature: -25°~55°C
Protection Degree	IP 66
Extraneous Light Immunity	Lamplight:3000Lux;Sunlight:10000Lux Max
Housing Material:Plastic Housing	Housing and Nut:ABS resin, Color:Green, Lens:PMMA
Adjustable Sensitivity:	○ YES--By Potentiometer
Cable	Length:2m, Material:PVC, Color:Gray
Weight:	(1):64g, (3):15g, M46:11g, M51:20g


Advantages:

1. High performance with low cost
2. Quick delivery
3. Easy to use
4. Variety selection
5. International standard
6. Short body

○ : Only for adjustable type

Model	WS-TNPW1(NO, NC) WS-TNPW3(NO, NC)
	WS-TPPW1(NO, NC) WS-TPPW3(NO, NC)
Detection range	8M
Supply Voltage	DC10-30V \pm 20 % , ripple(P--P):10 % Max
Current Consumption	40 mA Max
Max Output Current	100 mA Max
Response Time; Switching Frequency	Less than 3.0 mS(ON+OFF);333 per secretary
Circuit Protection	1. Output Over Current Protection 2. Reverse-Polarity protected 3. Interference suppression
Output Type	NPN or PNP open collector
Operation Mode	○ LIGHT-ON, DARK-ON selectable by control cable(White)
Light-on Operation(For NPN Only)	○ Control cable (White wire) connected to V+ (Brown)
Dark-on Operation(For NPN Only)	○ Control cable (White wire) connected to 0V (Blue)
Indicator	Yellow LED on, when Light is received
Ambient Temperature:	Operating Temperature: -25°~55°C
Protection Degree	IP 66
Extraneous Light Immunity	Lamplight:3000Lux;Sunlight:10000Lux Max
Housing Material:Plastic Housing	Housing and Nut:ABS resin, Color:Green, Lens:PMMA
Adjustable Sensitivity:	○ YES--By Potentiometer
Cable	Length:2m, Material:PVC, Color:Gray
Weight:	(1):128g, (3):30g

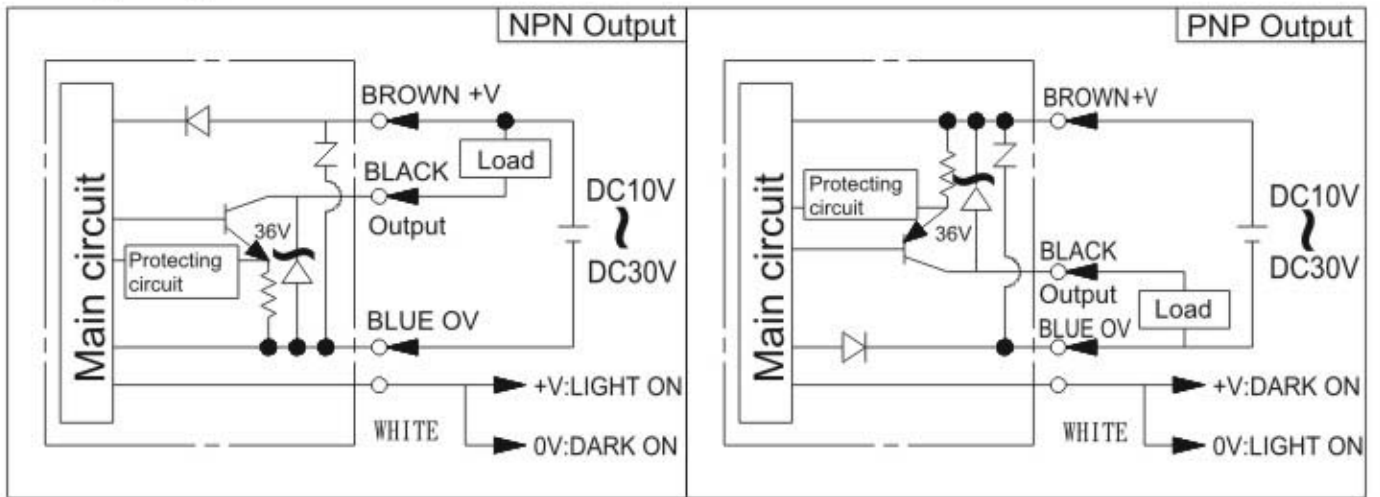

Advantages:

1. High performance with low cost
2. Quick delivery
3. Easy to use
4. Variety selection
5. International standard
6. Short body

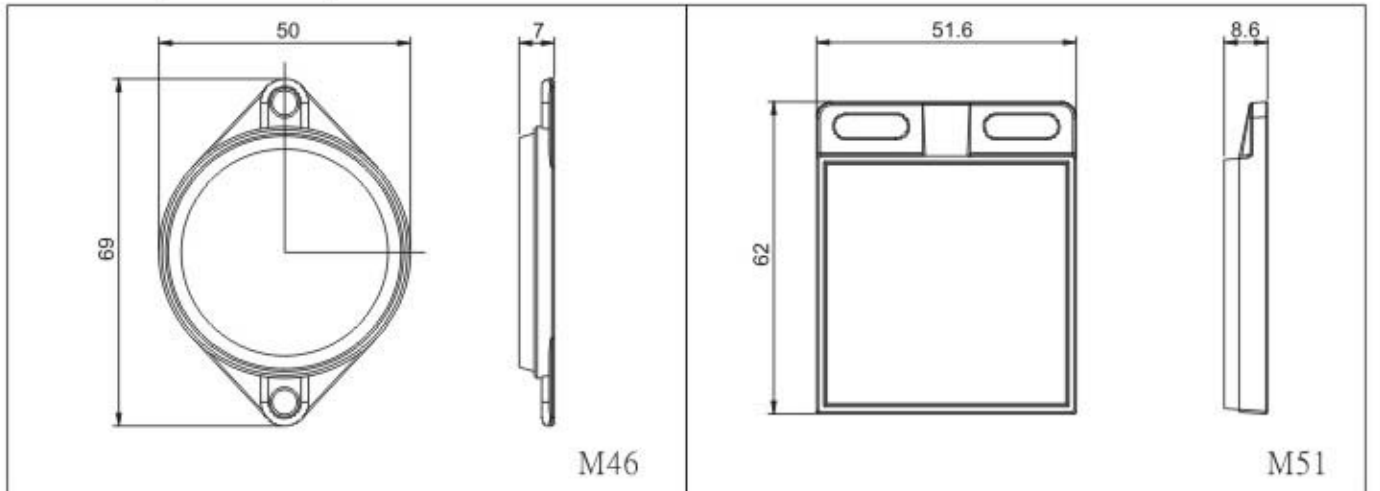
○ : Only for adjustable type

Model	WS-FNPW1(NO, NC) WS-FNPW3(NO, NC) WS-FPPW1(NO, NC) WS-FPPW3(NO, NC)
Detection range	∅1.0 Fiber D:4~5cm T:10cm
Supply Voltage	DC10~30V ± 20 % , ripple(P--P):10 % Max
Current Consumption	30 mA Max
Max Output Current	100 mA Max
Response Time; Switching Frequency	Less than 3.0 mS(ON+OFF);333 per secretary
Circuit Protection	1. Output Over Current Protection 2. Reverse-Polarity protected 3. Interference suppression
Output Type	NPN or PNP open collector
Operation Mode	○ LIGHT-ON, DARK-ON selectable by control cable(White)
Light-on Operation(For NPN Only)	○ Control cable (White wire) connected to V+ (Brown)
Dark-on Operation(For NPN Only)	○ Control cable (White wire) connected to 0V (Blue)
Light Source	Red LED 660nm
Indicator	Yellow LED on, when Light is received
Ambient Temperature:	Operating Temperature: -25°~55°C
Protection Degree	IP 66
Extraneous Light Immunity	Lamplight:3000Lux;Sunlight:10000Lux Max
Housing Material:Plastic Housing	Housing and Nut:ABS resin, Color:Green, Lens:PMMA
Adjustable Sensitivity:	○ YES--By Potentiometer
Cable	Length:2m, Material:PVC, Color:Gray
Weight:	(1):63g, (3):14g

Wiring Diagram



Reflector(Unit in mm)



Dimensions(Unit in mm)

