

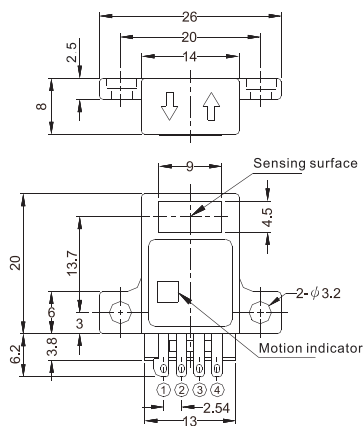


Appearance			
Detection surface	Front		Head
Sensing type	Diffuse reflection		
Sensing distance	40mm (50 × 50 white matte paper)		
Return difference	< 20%		
Output type	NPN/PNP Open-collector		
Switch type	Selectable L.on/D.on		
Response time	< 1 ms		
Light source	Infrared light LED		
Operating voltage	12~24V DC		
Current consumption	< 25mA		
Voltage drop	< 2.5V (load current is 100mA)		
Load current	< 100mA(24V DC)		
Ambient temperature	1000 V DC 50/60Hz 1min		
Ambient humidity	Operation: -20°C~+55°C, Storage: -25°C~+80°C(No freezing)		
Voltage withstandability	Operation: 45%~+85%RH, Storage: 35%~90%RH (No condensation)		
Insulation resistance	> 20MΩ/500V DC		
Ambient brightness	Incandescent lamp ≤ 3000Lux, Sunlight ≤ 10000Lux		
Degree of protection	IP50		
Material	PC		
Connection method	connector		
Model No.	NPN	<b>MP2-410N-E</b> (HOT)	<b>MP2-412N-E</b>
	PNP	<b>MP2-410P-E</b>	<b>MP2-412P-E</b>

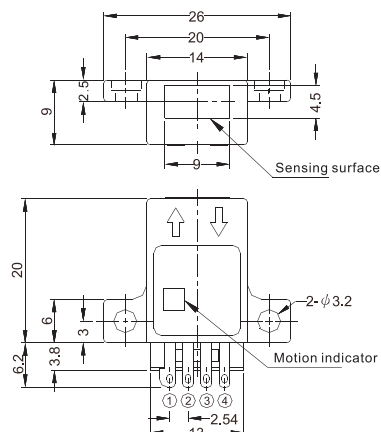
**Dimensions**

Unit: mm

**MP2-410N(P)-E**



**MP2-412N(P)-E**

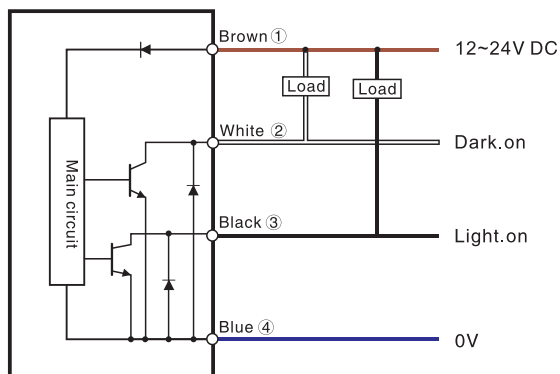


- ①: ⊕ Brown
- ②: ⊖ White
- ③: ⊖ Black
- ④: ⊖ Blue

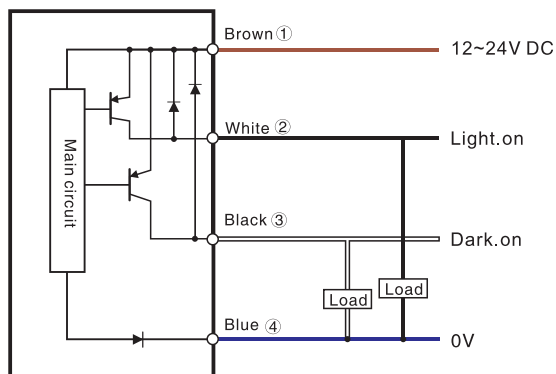
Connection cable: ME-1007 (To M-08)

**Circuit diagram**

**NPN Output**

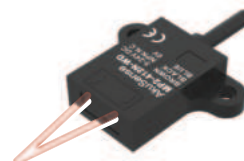


**PNP Output**



# Flat Type

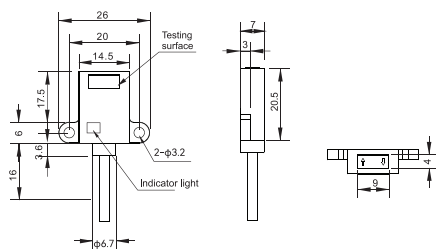
## MP2 Series Pre-wired Type



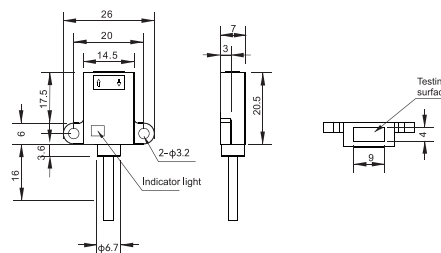
Appearance	Front	Head
Detection surface	Diffuse reflection	
Sensing type	2.5~8mm(black object 3mm)	
Sensing distance	<20%	
Return difference	Infrared light LED(880nm)	
Light source	≤0.8s	
Response time	12~24V DC	
Operating voltage	<1ms	
Response frequency	<2.5V (load current is 100mA)	
Voltage drop	Below 3V (load current 100mA/ 2m cable)	
Residual voltage	RedLED	
Indicator	L.on/D.on model selectable	
Switching action	Surge protection, reverse polarity protection	
Protective circuit	Operation: -10°C~55°C, Storage: -25°C~80°C(No freezing)	
Storage temperature	Operation: 45%~85% RH, Storage: 35%~90% RH (No condensation)	
Storage humidity	≤3500Lux	
Ambient brightness	When the rated power supply voltage range fluctuates within ±15%, the sensing distance will be changed within ±1%.	
Voltage influence	>50MΩ/500V DC	
Dielectric strength	AC1000V, 50/60Hz, 1min	
Voltage withstandability	10~50Hz, Upper and lower amplitude 1.5mm, 2 hours in X, Y, Z direction	
Vibration resistance	500m/s <sup>2</sup> 10 times in X,Y,Z	
Impact resistance	IP50	
Degree of protection	PC	
Housing Material	2m 3 core cable	
Connection method	NPN D.on <b>MP2-410N-WD</b> <b>MP2-412N-WD</b>	
Model No.	NPN L.on	<b>MP2-410N-WL</b> <b>MP2-412N-WL</b>
	PNP D.on	<b>MP2-410P-WD</b> <b>MP2-412P-WD</b>
	PNP L.on	<b>MP2-410P-WL</b> <b>MP2-412P-WL</b>

### Dimensions

MP2-410□-W□



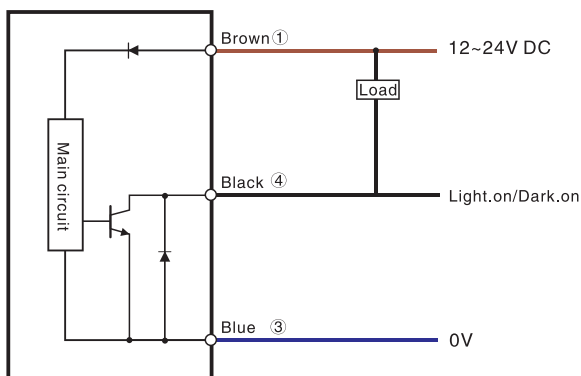
MP2-412□-W□



Unit: mm

### Circuit diagram

#### NPN Output



#### PNP Output

