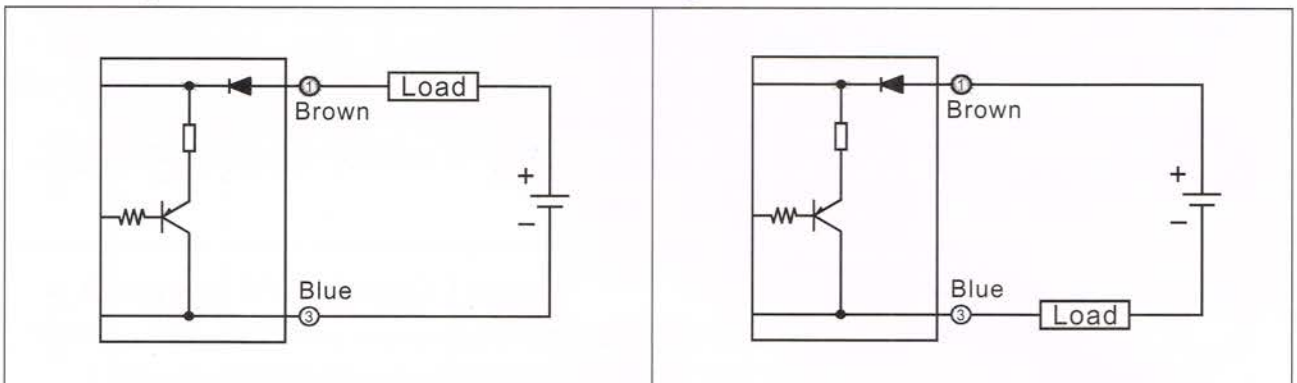


- ❖ High reliability with 「short-circuit」 & 「Polarity reversed」 protection circuit.  
全機種附「短路保護」及「極性保護」回路
- ❖ Low leakage current : 0.8mA max.  
洩漏電流小於「0.8mA」
- ❖ Protection class : IP-67  
防水等級：「IP-67」
- ❖ Positive or Negative connection are available  
可適用「正輸出」或「負輸出」接線法

## ◆ General data / 共同規格

Specification 規格	Data
Operating voltage 工作電壓	10 ~ 30 VDC
Power ripple 電源漣波	< 20% of Vp-p
Hysteresis 應差	< 10% of sensing distance
Leakage current 洩漏電流	0.8mA max.
Residual voltage 殘留電壓	4.0V max.
Output current 輸出電流	5.0 ~ 150 mA max.
Protection circuit 保護電路	Short-circuit & Polarity reversed protection circuit.
Connection method 接線方式	2cores/4φ x 2m、M12 connector or M8 lead wire
Housing material 外殼材質	Cu plated Ni or PBT
Protection class 保護等級	IP-67
Operating temperature 工作溫度	- 25°C ~ +80°C
Operating humidity 工作濕度	35% ~ 95% RH

## ◆ Output circuit & connection diagram / 輸出回路及接線圖



◆ Specification / 規格

Outline	Model	Output status	Sensing distance	Mounting method	Response frequency	Operating voltage	Connection method	Housing material
	TW08-01C	NO	1.0 mm	Flushed	2.0kHz	10~30 VDC	Lead wire	Cu plated Ni
	TW08-01CB	NC						
	TW08-02C	NO	2.0 mm	Non-flushed	2.0kHz	10~30 VDC	Lead wire	Cu plated Ni
	TW08-02CB	NC						
	TW12-02C	NO	2.0 mm	Flushed	1.0kHz	10~30 VDC	Lead wire	Cu plated Ni
	TW12-02CB	NC						
	TW12-04C	NO	4.0 mm	Non-flushed	800Hz	10~30 VDC	Lead wire	Cu plated Ni
	TW12-04CB	NC						
	TW12-02C-M12	NO	2.0 mm	Flushed	1.0kHz	10~30 VDC	M12 connector	Cu plated Ni
	TW12-02CB-M12	NC						
	TW12-04C-M12	NO	4.0 mm	Non-flushed	800Hz	10~30 VDC	M12 connector	Cu plated Ni
	TW12-04CB-M12	NC						
	TW18-05C	NO	5.0 mm	Flushed	500Hz	10~30 VDC	Lead wire	Cu plated Ni
	TW18-05CB	NC						
	TW18-08C	NO	8.0 mm	Non-flushed	400Hz	10~30 VDC	Lead wire	Cu plated Ni
	TW18-08CB	NC						
	TW18-05C-M12	NO	5.0 mm	Flushed	500Hz	10~30 VDC	M12 connector	Cu plated Ni
	TW18-05CB-M12	NC						
	TW18-08C-M12	NO	8.0 mm	Non-flushed	400Hz	10~30 VDC	M12 connector	Cu plated Ni
	TW18-08CB-M12	NC						