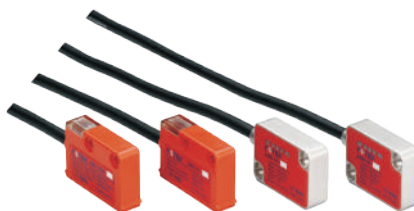


- 高可靠度
- 高抗干擾力
- 最高解析度達1.0μm
- 重複精度達±0.01mm
- 適用於惡劣環境不怕粉塵
- 有效安裝距離0.1~4.0mm
- 最高輸出頻率可達2000kHz



Guiding of model 型號索引

Ex : $\frac{\text{EMS}}{1} - \frac{25}{2} \frac{\text{D}}{3} - \frac{\text{H}}{4} - \frac{5\text{M}}{5}$

- | | |
|--|---|
| <p>1 Product (產品系列) :</p> <p>「EMS」=EMS series (Die-cast Zn)</p> <p>「EMK」=EMK series (Intensive ABS)</p> <p>Resolution (解析度)</p> <p>2 「1」=1μm ; 「5」=5μm ; 「10」=10μm</p> <p>「25」=25μm ; 「50」=50μm ; 「100」=100μm</p> <p>「250」=250μm ; 「500」=500μm ; 「1K」=1Kμm</p> <p>5 Length of lead wire(出線長度) : 「Non」=3m ; 「5M」=5m ; 「10M」=10M</p> | <p>3 Output method(輸出方式)</p> <p>「Non」=NPN+PNP (Push-Pull)</p> <p>「D」=Line driver</p> <p>Max. output frequency (最高輸出頻率)</p> <p>4 「H」=250 KHz ; 「SH」=2000 KHz</p> <p>「Non」=16 KHz</p> |
|--|---|

Electrical Specification 電氣規格

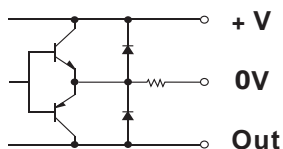
Output model	輸出型式	Push - Pull	Line Driver
Operating voltage	工作電壓	10 ~ 30VDC	5 VDC±10%
Output method	輸出方式	A/B/Z	A/B/Ā/B̄
Ripple of power	電源漣波	10 % peak to peak	
Current consumption	耗電流	30 mA max.	
Output current	輸出電流	50mA max. (each)	
Protection circuit	保護回路	Short circuit & polarity reversed	
Voltage drop	輸出壓降	0.8V max.	
Residual voltage	殘餘電壓	0.1V max.	
Leakage current	洩漏電流	0.1mA max.	
Noise resistance	抗干擾	2kv / 1μs	
EMC Immunity		ESD : 8 KV Air Discharge (Level3) / EN-61000-4-2 RF Interference : 10V / M / ENV-50140 Burst test : 2KV / EN61000-4-4	
EMC Interference		IEC 61000-6-4	
Dielectric strength	電介強度	2.5kv / 1 minute min.	
Insulation strength	絕緣強度	100 MΩ / 500vdc	
Approval	安規	CE / RoHS	

Mechanical Data 機械規格

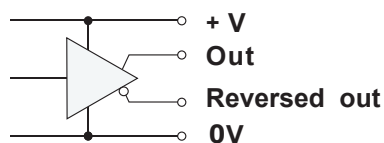
Resolution	解析度	1μm	5μm	10μm	25μm	50μm	100μm	250μm	500μm	1Kμm
Travel speed (m/s)	SH 2000KHz	8.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
	H 250kHz	1.0	5.0	10.0	25.0	25.0	25.0	25.0	25.0	25.0
	Non 16KHz	0.06	0.30	0.60	1.50	3.00	6.00	15.0	25.0	25.0
Setting distance	安裝距離	0.1 ~ 4.0 (mm)								
Pole width	磁距	5.0mm								
System accuracy	系統精度	±(0.025 + 0.015 x L) mm, (L= Length of magnetic tape ; Unit : meter)								
Repeat accuracy	重複精度	± 0.01 mm max.								
Measuring length	可量測長度	Infinite (Limitless)								
Vibration resistance	抗振動	300m / (55 ~ 2000 Hz) (IEC-60068-2-6)								
Shock resistance	抗衝擊	300m / with 11ms (IEC-60068-2-27)								
Lead wire	出線方式	5.2Φ shielded cable								
Housing material	外殼材質	EMS : Die-cast Zn ; EMK : Intensive ABS								
Operating circum.	工作環境	-25℃ ~ +85℃ ; 100%RH max. (Condensation permitted)								
Protection class	保護等級	IP-67 (IEC-60529)								

Output circuit 輸出回路

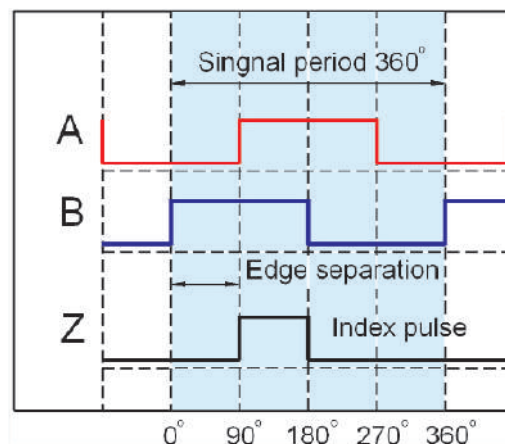
Push-Pull



Line driver



Output timing chart 輸出時序圖



Connections 接線圖

Push-Pull (推拉式)

Connector No.	Color	Description
# 1	Brown	+ V (1)
# 3	Blue	0 V (3)
# 4	Black	Phase A (4)
# 2	White	Phase B (2)
# 5	Yellow	Phase Z (5)

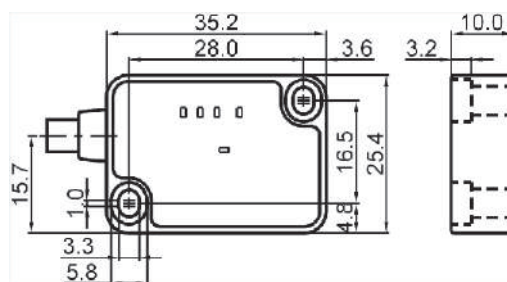
Line driver (差動式)

Color	Description	Color	Description
Brown	+V	Blue	0 V
Black	Phase A	Yellow	Phase $\bar{A}$
White	Phase B	Grey	Phase $\bar{B}$

Outline dimension 外形圖

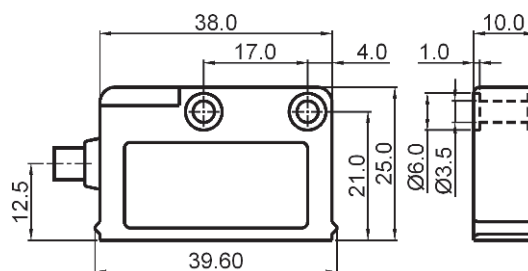
Die-cast (Zn)

EMS-□□

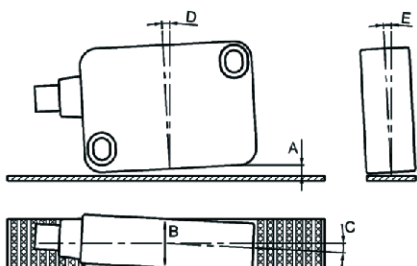


Plastic (ABS)

EMK-□□



Mounting instruction 安裝注意事項



Please ensure the correct alignment of the sensor and magnetic band (see diagram).

※ Allowance of tolerances

- A : Setting distance : 4.0mm max.
- B : Lateral offset : ± 2.0 mm max.
- C : Misalignment (Yaw) : $< \pm 3^\circ$ max.
- D : Longitudinal tilt (Pitch) : $< \pm 3^\circ$ max.
- E : Lateral tilt (Roll) : $< \pm 3^\circ$ max.