



FOTEK

Magnetic Incremental Rotary Encoder

電磁式增量譯碼器

CE

RoHS

- * High Reliability
- * High Noise Resistance
- * Wild operating voltage
- * Low current consumption
- * Harsh circumstances suitable

- * 高可靠度
- * 高抗干擾力
- * 廣泛工作電壓範圍
- * 低耗電高效能
- * 適用於惡劣環境不怕粉塵

Guiding of model 【Incremental type】 / 型號索引

Ex : MES - 2500 D - T			
	1	2 3 4	
1	Product (產品代號): 「MES」 = 40Φ Magnetic Encoder 「MET」 = 50Φ Magnetic Encoder		Output method (輸出方式): 「Non」 = NPN+PNP (Push-Pull) 「D」 = Line driver
2	Resolution (解析度): 10PPR ~ 2500PPR 「10」 = 10 PPR 「500」 = 500 PPR 「2500」 = 2500 PPR		Option (附加功能): 「T」 = 「Phase T」 output appended 「PG」 = M12 Lead wire 「M12」 = M12 connection (MET only)
Note	1 > Pulse per Revolution (PPR) 10,20,30,40,50,60,100,120,150,180,200,250,300,360,400, 500,512,600,720,800,1000,1024,1200,1500,1800,2000,2048,2500 2 > It is accepted to manufacture for special resolution.可接受訂製非規格的解析度。		

Electrical Specification / 電氣規格

Output model 輸出型式	Push - Pull	Line Driver
Operating voltage 工作電壓	5 ~ 30VDC	5VDC ±10%
Output method 輸出方式	NPN + PNP	Line driver IC
Response frequency 響應頻率	30K Hz min..	
Current consumption 耗電流	40 mA max.	
Ripple of power 電源漣波	10 % peak to peak	
Output current 輸出電流	100mA max.	20mA max.
Protection circuit 保護回路	Short circuit & polarity reversed	Polarity reversed
Voltage drop 輸出壓降	0.6V 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	
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	

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)
# 6	Grey	Phase T (6)

Line driver (差動式)			
Color	Description	Color	Description
Brown	+ V (1)	Blue	0 V (3)
Black	Phase A (4)	Blue/Red	Phase \bar{A} (9)
White	Phase B (2)	White/Red	Phase \bar{B} (10)
Yellow	Phase Z (5)	Yellow/Red	Phase \bar{Z} (11)

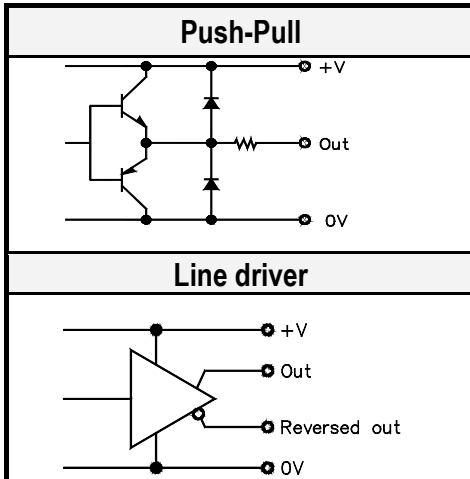
Mechanical Data / 機械規格

Specification	規格	Data
Starting torque	起動力矩	0.098 kg-m
Shaft moment of inertial	慣性力矩	1x10 ⁻⁶ kg-m ²
Shaft loading	轉軸負載	Radial < 300 kg ; Axial < 200kg
Rotational speed max.	最大轉速	6000 RPM
Housing material	外殼材質	Intensive PPS
Shaft material	轉軸材質	SUS-316

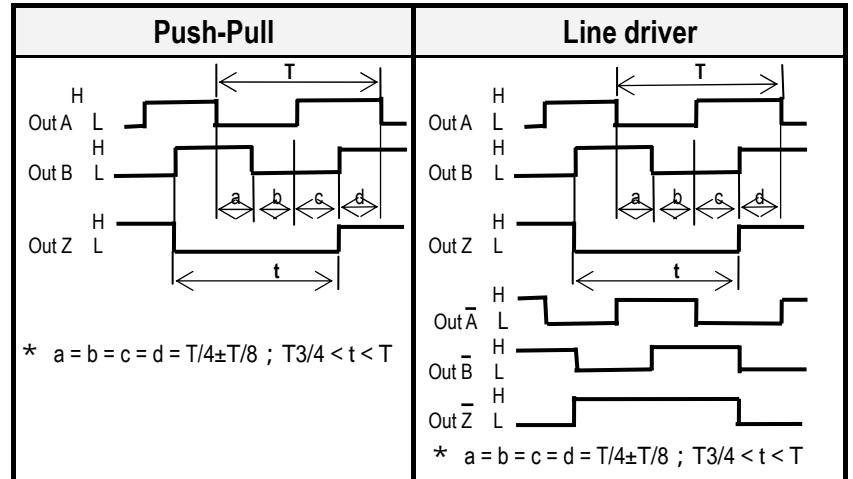
Environment Data / 環境規格

Specification	規格	Data
Operating circumstance	工作環境	-25 ~ +70 ; 85%RH max.
Vibration resistance	抗振動	10 ~ 55 Hz / 1.5 mm ; 2 Hr / X.Y.Z direction each
Shock resistance	抗沖擊	490m/s ² with 11ms in X.Y.Z direction 3times each
Protection class	保護等級	IP-64

Output circuit / 輸出回路



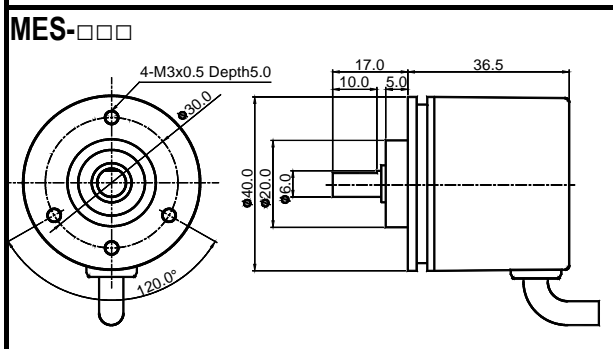
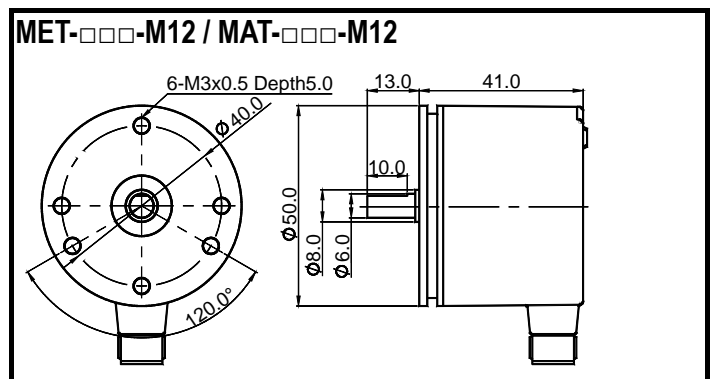
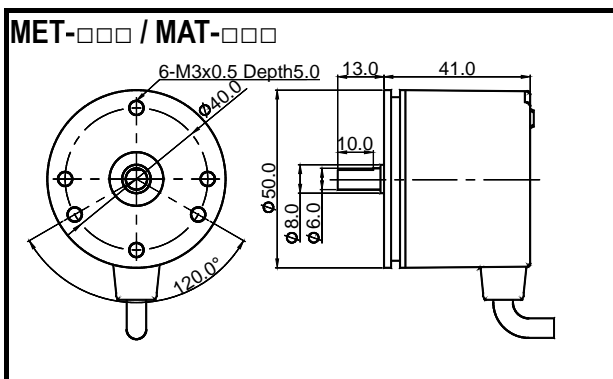
Output timing chart / 輸出時序圖



Coupling / 聯軸器

Model	型號	G2J - 66	G2J - 68
Diameter (d1)	軸徑	6.0mm	6.0mm
Diameter (d2)	軸徑	6.0mm	8.0mm
Outline diameter	外徑	18.0mm	
Outline length	長度	23.0mm	
Set screw	固定螺絲	M3 x 4	
Material	材質	Intensive Polyimide	

Outline dimension / 外形圖



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Specification may be modified without notice in advance
規格變更恕不事先通知

FOTEK CONTROLS CO., LTD.



FOTEK

Magnetic Absolute Rotary Encoder

電磁式絕對值譯碼器

CE

RoHS

- * High Reliability
- * High Noise Resistance
- * Wild operating voltage
- * Electronic zero point settable
- * Harsh circumstances suitable
- * Several output code optional

- * 高可靠度
- * 高抗干擾力
- * 廣泛工作電壓範圍
- * 電氣零點可設定
- * 適用於惡劣環境不怕粉塵
- * 多種輸出碼可選擇

Guiding of model 【Absolute】 / 絕對值型號索引

Ex : MAT - 1024 P - M12 - BCD					
	1	2	3	4	
1	Product (產品代號): 「MAT」 = 50Φ Magnetic Absolute Encoder		3	Output method (輸出方式): 「Non」 = NPN 「p」 = PNP	
2	Resolution (解析度): 256PPR ~ 1024PPR 「256」 = 256 PPR (8 bits) 「360」 = 360 PPR (9 bits) 「1024」 = 1024 PPR (10 bits)		4	Connection method (出線方式): 「Non」 = Lead wire 「PG」 = M12 Lead wire 「M12」 = M12 connection	
Note	1 >	Pulse per Revolution (PPR) 64 / 128 / 256 / 360 / 512 / 720 / 1024		5	Output code (輸出碼) 「GC」 = Gray code 「Non」 = Binary code 「BCD」 = BCD code
	2 >	It is accepted to manufacture for special resolution. 可接受訂製非規格的解析度。			

Electrical Specification / 電氣規格

Output method 輸出方式	NPN	PNP
Operating voltage 工作電壓	5 ~ 30VDC	
Output code 輸出碼	Gray code	
Response frequency 響應頻率	20K Hz min..	
Current consumption 耗電流	60 mA max.	
Ripple of power 電源漣波	10 % peak to peak	
Output current 輸出電流	100mA max.	
Protection circuit 保護回路	Short circuit & polarity reversed	
Voltage drop 輸出壓降	0.6V 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	
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	

Connections / 接線圖

Connector No.	Wire color	Description
# 1	Brown	+ V
# 3	Blue	0 V
# 4	Black	2 ⁰
# 2	White	2 ¹
# 5	Yellow	2 ²
# 6	Grey	2 ³
# 7	Green	2 ⁴
# 8	Blue/Red	2 ⁵
# 9	Grey/Red	2 ⁶
# 10	White/Red	2 ⁷
# 11	Yellow/Red	2 ⁸
# 12	Green/Red	2 ⁹
# 13	Orange	Zero in

