



特點 Features

- 輸入電壓逆向保護設計，抗電磁干擾設計，IP67保護等級
- 人體工學設計，操作順手，內置永久磁鐵，使用方便
- 有標準型、專業型及功能性供選
- 編碼方式有點對點、二進制、反二進制及灰碼
- 適用三菱、發那科和西門子等數控系統及自動化設備
- 刻度盤有塑膠(黑色)及金屬(鍍銀)材質供選用
- 有電源指示燈，3米彈簧綫和安裝托架(選購品)
- Input voltage protection circuit, EMC ESD and IP67 ingress protection
- Ergonomical design with magnet for handy operation
- Standard、Professional and Functional types available
- Point to Point、Binary、Complement-binary and Gray codings
- Apply to MITSUBISHI、FANUC and SIEMENS CNC systems and FA Equipment
- Choice of plastic (black) and metal (Nickel-plated) dials
- LED power indication, 3m spiral-shaped cable and optional holder

訂購編號 Ordering Information

MPS1 - **1D5** - **E3** - **1** - **C**

① ② ③ ④ ⑤

① 系列 Series

產品系列 Series	產品分類 Types	刻度盤 Dial
MPS1	標準型/專業型 Standard/Professional	塑膠 Plastic
MPS2		金屬 Metal

② 系統及軸數代碼 System & Axis Code

系統 System	代碼 Code	脈衝數 Pulse	電源電壓 Input Volt.	輸出電壓 Output Volt.	軸數 Axis	倍率 Override
FANUC	155	1 (100PPR)	5 (5V)	5V	3/4/5/6/7 (With OFF)	1/10/100
MITSUBISHI	215	2 (25PPR)	1 (12V)	5V		
SIEMENS	1D5	1 (100PPR)	D (5V)	5V		
General	1R5	1 (100PPR)	R (5~24V)	5~24V		

第三位數根據軸數要求由2~7變化;銘板標識可訂制
Special axis and increment marking is on request

③ 功能選配代碼 Function Type Code

代碼 Code	急停開關 E-Stop	使能開關 Enabling Switches	形式 Type
Blank	None	None	標準型 Standard
E3	2N/C	1N/O x 2 pcs	專業型 Professional

■ 技術參數 Technical Data

System	FANUC	MITSUBISHI	SIEMENS	General
MPG	1R5	2R5	1D5	1R5/145
Pulse/Revolution	100PPR	25PPR	100PPR	100PPR
Input Voltage	DC5V	DC12V	DC5V (DIFF)	DC5~24V
Distribution Volt.	A,B	A,B	A,B/A/B	A,B
Current(No-Load)	$\leq 60\text{mA}$		$\leq 160\text{mA}$	$\leq 160\text{mA}$
Output Voltage	High $\geq V_{cc}-1\text{V}$ Low $\leq 0.5\text{V}$		$\geq 2.5\text{V}$ $\leq 0.5\text{V}$	$\geq V_{cc}-1\text{V}$ $\leq 0.5\text{V}$
Signal Circuit	R Type		D Type	O Type
Frequency Max.	5KHz			
Rise/Fall Time	1us以下		200ns 以下	1us 以下
Power Indicator	DC24V LED			
Operating Temp.	-10~60 °C			
Storage Temp.	-20~70 °C			

④ 波段開關 (左為軸選開關,右為倍率開關)選配編號 Code Switches (Left for Axis,Right for Override selection)

Override Axis	Point to Point	Binary	Gray	Complement Binary
Point to Point	1	4	5	11
Binary	6	2	7	12
Gray	8	9	3	13
Complement Binary	14	15	16	10

⑤ 連接器 Connectors

代碼 Code	綫端 Connectors
空白 Blank	無連接器 Without Connector
C	附連接器 Connectors Attached

軸選編碼表 (1為導通) Axis Selector Code Table

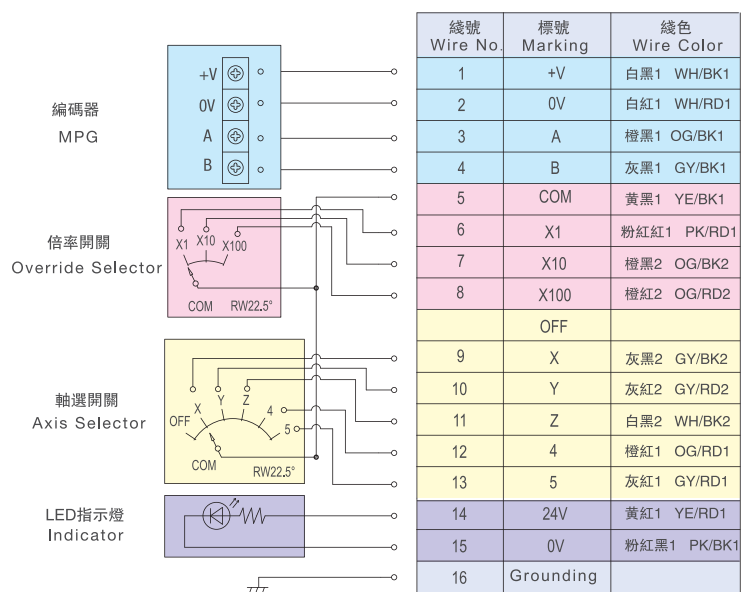
軸選 Axis	Binary			Gray			Point To Point						
	D2	D1	D0	D2	D1	D0	D6	D5	D4	D3	D2	D1	D0
OFF	0	0	0	0	0	0	0	0	0	0	0	0	0
X	0	0	1	0	0	1	0	0	0	0	0	0	1
Y	0	1	0	0	1	1	0	0	0	0	0	1	0
Z	0	1	1	0	1	0	0	0	0	0	1	0	0
4	1	0	0	1	1	0	0	0	0	1	0	0	0
5	1	0	1	1	1	1	0	0	1	0	0	0	0
6	1	1	0	1	0	1	0	1	0	0	0	0	0
7	1	1	1	1	0	0	1	0	0	0	0	0	0

倍率編碼表 (1為導通) Override Selector Code Table

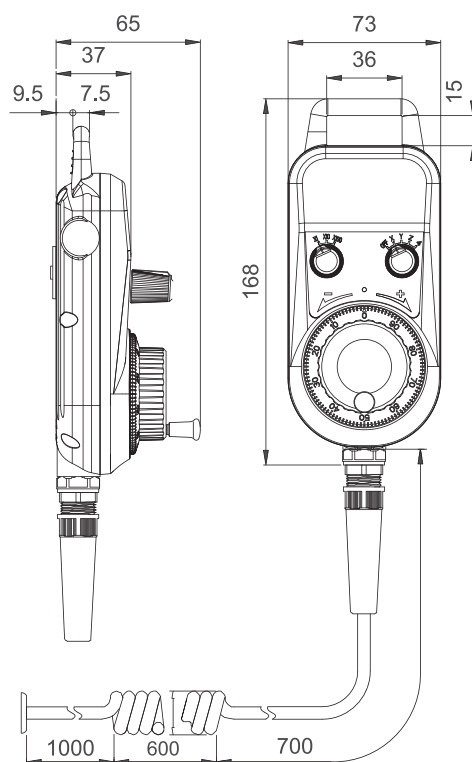
倍率 Increment	Binary		Gray		Point To Point			
	C1	C0	C1	C0	C3	C2	C1	C0
X1	0	0	0	0	0	0	0	1
X10	0	1	0	1	0	0	1	0
X100	1	0	1	1	0	1	0	0
X1000	1	1	1	0	1	0	0	0

接線說明 Circuit Plan

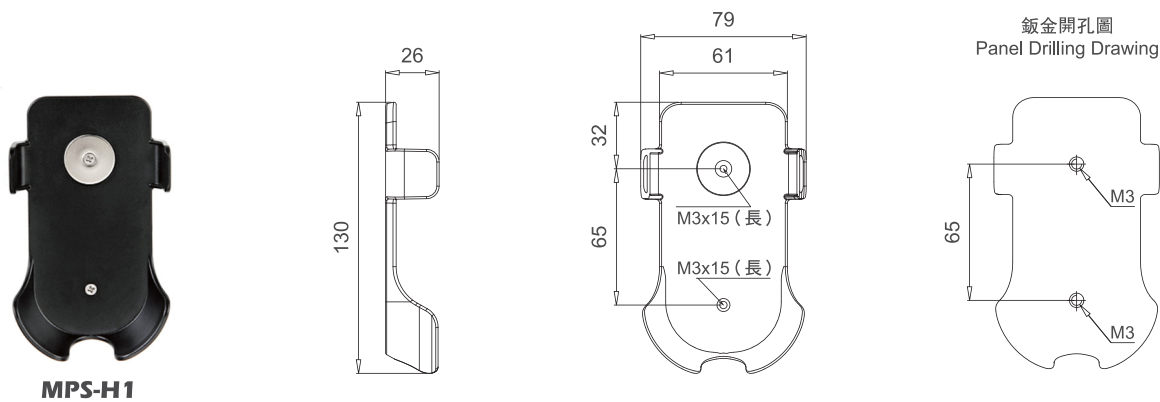
MPS1-155-1 接線圖示例:
MPS1-155-1 Wiring Table



外形尺寸圖 Dimension Drawing



MPS-H1 安裝托架尺寸圖 Holder Dimension Drawing





特點 Features

- 輸入電壓逆向保護設計，抗電磁干擾設計，IP67保護等級
- 人體工學設計，操作順手，內置永久磁鐵，使用方便
- 有標準型、專業型及功能性供選
- 編碼方式有點對點、二進制、反二進制及灰碼
- 適用三菱、發那科和西門子等數控系統及自動化設備
- 刻度盤有塑膠(黑色)及鍍銀塑膠(金屬色)材質供選用
- 有電源指示燈，3米彈簧線和安裝托架(選購品)
- Input voltage protection circuit, EMC ESD and IP67 ingress protection
- Ergonomical design with magnet for handy operation
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- Point to Point, Binary, Complement-binary and Gray codings
- Apply to MITSUBISHI, FANUC and SIEMENS CNC systems and FA Equipment
- Choice of plastic (black) and metallized plastic (Nickel-plated) dials
- LED power indication, 3m spiral-shaped cable and optional holder

訂購編號 Ordering Information

XPS1 - **1D5** - **E3** - **1** - **C**

① ② ③ ④ ⑤

① 系列 Series

產品系列 Series	產品分類 Types	刻度盤 Dial	薄膜按鍵開關 Membrane Pushbutton
XPS1	標準型/專業型 Standard/Professional	塑膠 Plastic	None
XPS2		鍍銀塑膠 Metallized Plastic	None
XPS3	功能型 Functional	塑膠 Plastic	3
XPS4		鍍銀塑膠 Metallized Plastic	3

② 系統及軸數代碼 System & Axis Code

系統 System	代碼 Code	脈衝數 Pulse	電源電壓 Input Volt.	輸出電壓 Output Volt.	軸數 Axis	倍率 Override
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General	1R5	1 (100PPR)	R (5~24V)	5~24V		

第三位數根據軸數要求由2~7變化;銘板標識可訂制
Special axis and increment marking is on request

③ 功能選配代碼 Function Type No.

代碼 Code	急停開關 E-Stop	使能開關 Enabling Switches	形式 Type
Blank	None	None	標準型 Standard
E1	2N/C	None	專業型 Professional
E2	None	1N/O x 2 pcs	專業型 Professional
E3	2N/C	1N/O x 2 pcs	專業型 Professional

■ 技術參數 Technical Data

System	FANUC	MITSUBISHI	SIEMENS	General
MPG	1R5	2R5	1D5	1R5/145
Pulse/Revolution	100PPR	25PPR	100PPR	100PPR
Input Voltage	DC5V	DC12V	DC5V (DIFF)	DC5~24V
Distribution Volt.	A,B	A,B	A,B/A/B	A,B
Current(No-Load)	$\leq 60\text{mA}$		$\leq 160\text{mA}$	$\leq 160\text{mA}$
Output	High $\geq V_{cc}-1\text{V}$		$\geq 2.5\text{V}$	$\geq V_{cc}-1\text{V}$
Voltage	Low $\leq 0.5\text{V}$		$\leq 0.5\text{V}$	$\leq 0.5\text{V}$
Signal Circuit	R Type		D Type	O Type
Frequency Max.	5KHz			
Rise/Fall Time	1us以下		200ns 以下	1us 以下
Power Indicator	DC24V LED			
Operating Temp.	-10~60 °C			
Storage Temp.	-20~70 °C			

④ 波段開關 (左為軸選開關,右為倍率開關)選用編號 Code Switches (Left for Axis,Right for Override selection)

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⑤ 連接器 Connectors

代碼 Code	線端 Connectors
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軸選編碼表 (1為導通) Axis Selector Code Table

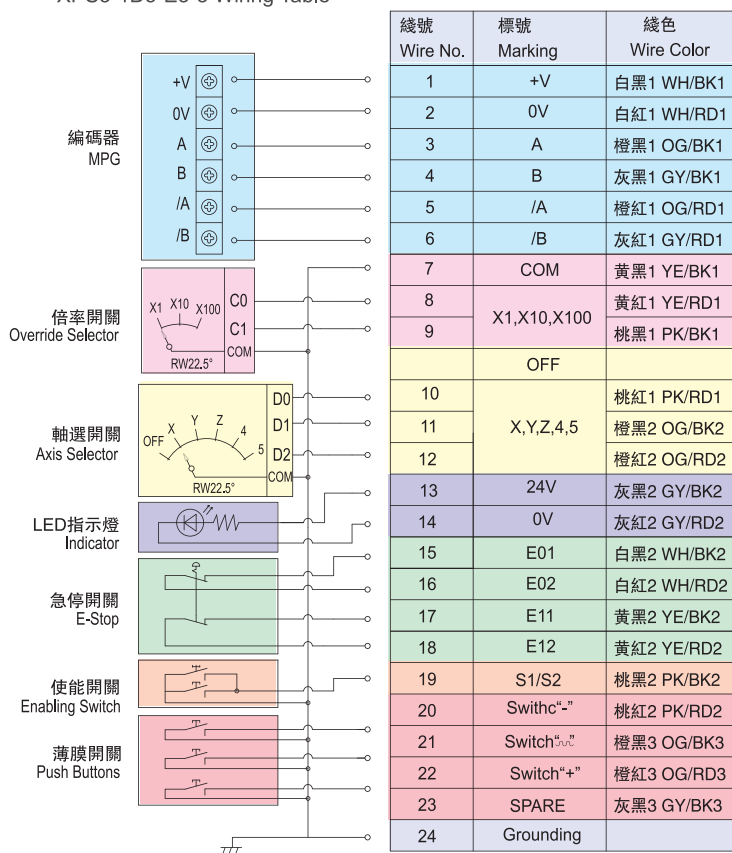
軸選 Axis	Binary			Gray			Point To Point						
	D2	D1	D0	D2	D1	D0	D6	D5	D4	D3	D2	D1	D0
OFF	0	0	0	0	0	0	0	0	0	0	0	0	0
X	0	0	1	0	0	1	0	0	0	0	0	0	1
Y	0	1	0	0	1	1	0	0	0	0	0	1	0
Z	0	1	1	0	1	0	0	0	0	0	1	0	0
4	1	0	0	1	1	0	0	0	0	1	0	0	0
5	1	0	1	1	1	1	0	0	1	0	0	0	0
6	1	1	0	1	0	1	0	1	0	0	0	0	0
7	1	1	1	1	0	0	1	0	0	0	0	0	0

倍率編碼表 (1為導通) Override Selector Code Table

倍率 Override	Binary		Gray		Point To Point			
	C1	C0	C1	C0	C3	C2	C1	C0
X1	0	0	0	0	0	0	0	1
X10	0	1	0	1	0	0	1	0
X100	1	0	1	1	0	1	0	0
X1000	1	1	1	0	1	0	0	0

接線說明 Circuit Plan

XPS3-1D5-E3-3 接線圖示例:
XPS3-1D5-E3-3 Wiring Table

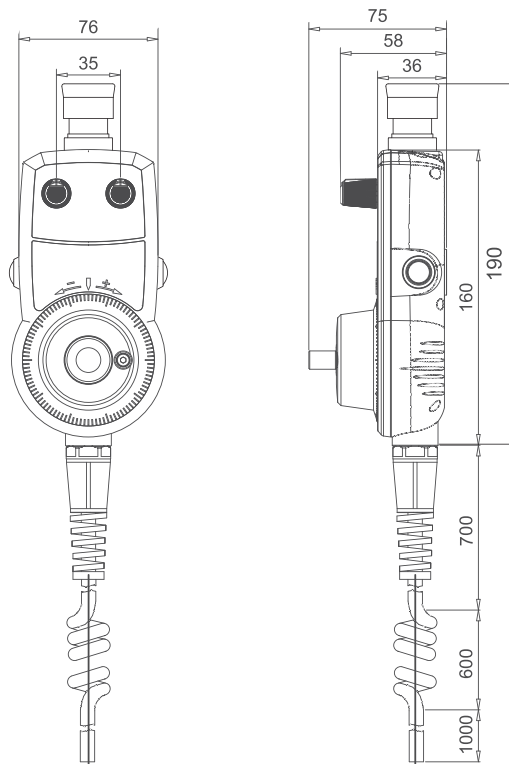


卷線 Spiral-Shaped Cable

型號 P/N	規格說明 Description
HPRS-15C-28-U-D	15芯PU卷線 28AWG 3米長 15C PU Spiral Cable 28AWG 3m
HPRS-19C-28-U-D	19芯PU卷線 28AWG 3米長 19C PU Spiral Cable 28AWG 3m
HPRS-23C-28-U-D	23芯PU卷線 28AWG 3米長 23C PU Spiral Cable 28AWG 3m



外形尺寸圖 Dimension Drawing



XPS-H1 安裝托架尺寸圖 Holder Dimension Drawing

