



HD-***-G03-DL-**-AC(单头)



HD-***-G03-LW-**-DC(双头)

型号说明 Description of Model

HD - 3C2 - G03 - LW - B - S - A

HD	-	3C2	-	G03	-	LW
HD		***		G03		LW/DL
方向切换阀 Direction conversion valve		轴心回路种类 Spool Type		阀体口径尺寸 Valve size		接现形式代号 Wiring Connection type
油浸式电磁方向阀 Flow oil Dipping Solenoid Directional control valve (plug-in board type)		请参阅轴心表 Refer to The List Of Spool Function		G03 3/8" (D05)(NG10)		LW : 接线盒形式 Box type DL : 插头式 Din type

B	-	S	-	A
*		*		*
设计代号 Design No.		切换频率代号 Conversion Frequency		手动切换定位调整型 Adjustment Type
B : 高效率低电流 电磁方向阀 High efficiency and Low current Solenoid Directional control valve	E : 大流量 电磁方向阀 Standard High Flow Wet Pin design valve	无 : 标准型 No Mark : Standard type	S : 无冲击型 S : Soft shift type	RF : 交直流转换型 RF : Rectified coil type
				A : A边定位型 A : A Port Adjustment type
				B : B边定位型 B : B Port Adjustment type
				AB : AB边定位型 AB : A&B Port Adjustment type



高效率低电流值电磁方向阀

型號 Model 参数 Specification		AC				DC		RF	
		HD-G03				HD-G03		HD-G03	
使用电压(V) Voltage(V)		110		220		12	24	110	220
		50	60	50	60				
保持电流(A) Holding Current(A)	新B型 New B-type	0.62	0.69	0.27	0.33	2.03	1.48	0.54	0.27
	旧F型 Older F-type	0.72	0.83	0.32	0.41	3.80	1.90		
启动电流(A) Start Current(A)	新B型 New B-type	3.41	4.14	1.58	1.95				
	旧F型 Older F-type	2.42	4.55	1.75	2.51				
防护等级 Protection Class		IP65							
线圈使用铜线等级 Insulation Class		PEWH級 PEWH class							
线圈耐温程度 Maxlimum Tolerable Temperature		180℃							

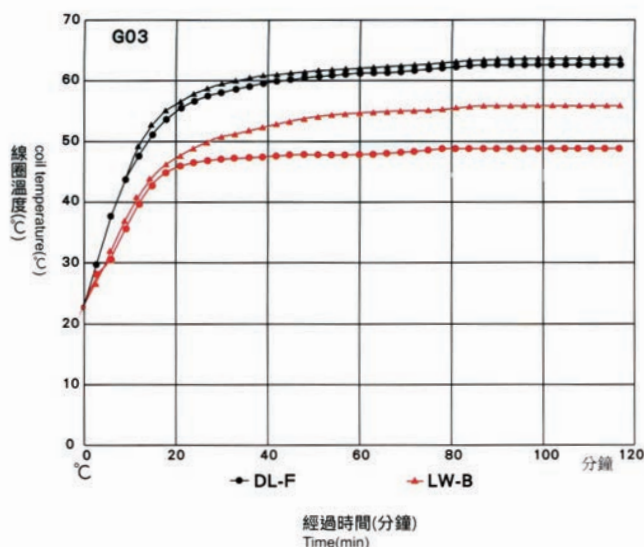
附注：

- 1.使用电压有±10%的操作范围。
- 2.本公司线圈备有其他电压提供。

Notes：

- 1.Within ±10% application of rated voltage.
- 2.If you have special voltage requirements,please contact with us.

新B型VS.F型电磁线圈温升表现 New B type VS.Old F type temperature rise performance



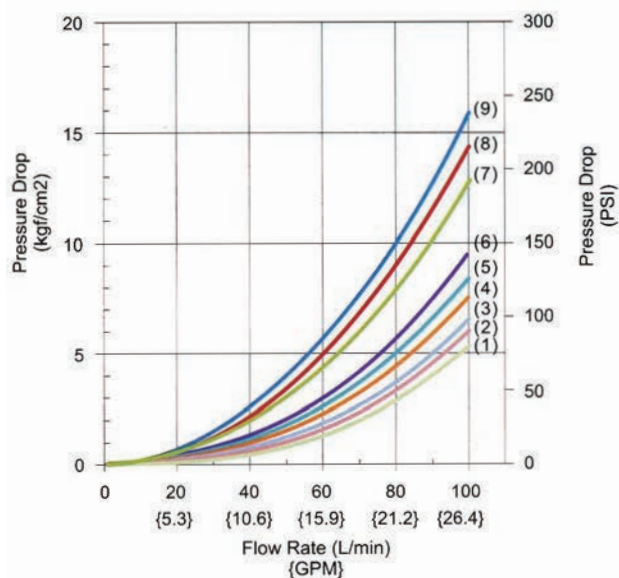
1. 线圈温度测试时之操作压力为100gf/cm²。
2. 此线圈温度侧是在实验室恒温22°C。
3. 以AC220V型线圈为例。

1. The operational pressure in the test of the coil temperature is 100kgf/cm²
2. The coil temperature test at a constant temperature of 22 degrees in the laboratory.
3. of 22 degrees in the laboratory.
AC220V coil type,example.

B型系列，E型系列电磁阀之优点 B-type,E-type Valve Feature

1. 本体采双回油沟设计，将各油沟加大，使其通往流量增加并提升高使用压力。
 2. 新加装防及衬垫能使本体承受更高的压力，让本体不易变形。
 3. 采用最新型的电磁线圈与电磁管组合，电磁阀在运作过程中之线圈能有效降低温升，以符合使用者的需求。
 4. 线圈采用最新型特殊设计，能有效达到低耗能、高效率并且降低电流值，能提供与F型的电磁阀相同的大出力与使用压力。
 5. 产品特性与外观尺寸与F型电磁阀皆相同，能可与F型电磁阀皆可替换性。
 6. 新B型电磁阀各项产品特性及数据，皆优于F型电磁阀，固可完整取代F型。
 7. 本公司以新B型电磁阀提论，不仅让贵公司水平提升，产品质量及竞争力优质首选。
1. Dual line tank design reduces the pressure drop resulting in better flow characteristics.
 2. The installation of anti-shock gasket enables the main body to withstand higher pressure and the main body will not deformation easily.
 3. New type of magnetic coil and tube combination,enable the solenoid valve can lower the temperature effectively during operation.
 4. New special design type of coil can lower current and temperature effectively,even energy-saving.
Can reach the high flow and pressure as the same as F-type.
 5. The valve's feature and dimension are as the same as F-type and totally interchangeable with F-type solenoid valves.
 6. New B-type solenoid valve will totally interchangeable with F-type solenoid valve in the future.
 7. The new B-type solenoid valve will improve your product quality and increase the company's competitiveness.

高效率低電流值電磁方向閥

壓力曲線表 Pressure drop curve(measured at $v=38\text{mm}^2/\text{s}$ and $\text{temp.}=50^\circ\text{C}$)

Model Numbers	Pressure Drop Curve Number				
	P→A	B→T	P→B	A→T	P→T
HD-2B2-G03	(8)	(9)	(3)	(3)	-
HD-2B3-G03	(7)	(8)	(1)	(1)	-
HD-2B8-G03	(4)	-	(5)	-	-
HD-3C2-G03	(3)	(3)	(3)	(3)	-
HD-3C3-G03	(1)	(1)	(1)	(1)	(5)
HD-3C4-G03	(3)	(2)	(3)	(2)	-
HD-3C40-G03	(3)	(3)	(3)	(3)	-
HD-3C60-G03	(4)	(5)	(4)	(5)	(9)
HD-3C9-G03	(1)	(3)	(1)	(3)	-
HD-3C10-G03	(3)	(2)	(3)	(3)	-
HD-3C11-G03	(1)	(3)	(3)	(3)	-
HD-3C12-G03	(3)	(3)	(3)	(2)	-
HD-2D2-G03	(6)	(7)	(4)	(4)	-

產品特性表 Description of feature

閥尺寸 Model	HD-G03					
參數 Specification	最高使用壓力 (kgf/cm ²) Max. Pressure	容許背壓 (kgf/cm ²) Allowable Back pressure	最大流量 (L/min) Max flow	切換頻率(回/分) Conversion frequency (Cycle/min)	液壓油 溫度範圍 (°C) Hydraulic oil temperature range	液壓油 黏度範圍 (cst) Hydraulic oil viscosity range
	315	70~160	100	AC、DC型：240 RC型：120 RS型：120 AC、DC type：240 RC type：120 RD type：120	-15~+70	10~400 (ISO VG46、68)

附註：

最大流量、最大壓力、容許背壓隨回路而異。

Notes：

Max.flow,max.pressure&allowable back pressure will be varied to different circuits.

高效率低電流值電磁方向閥

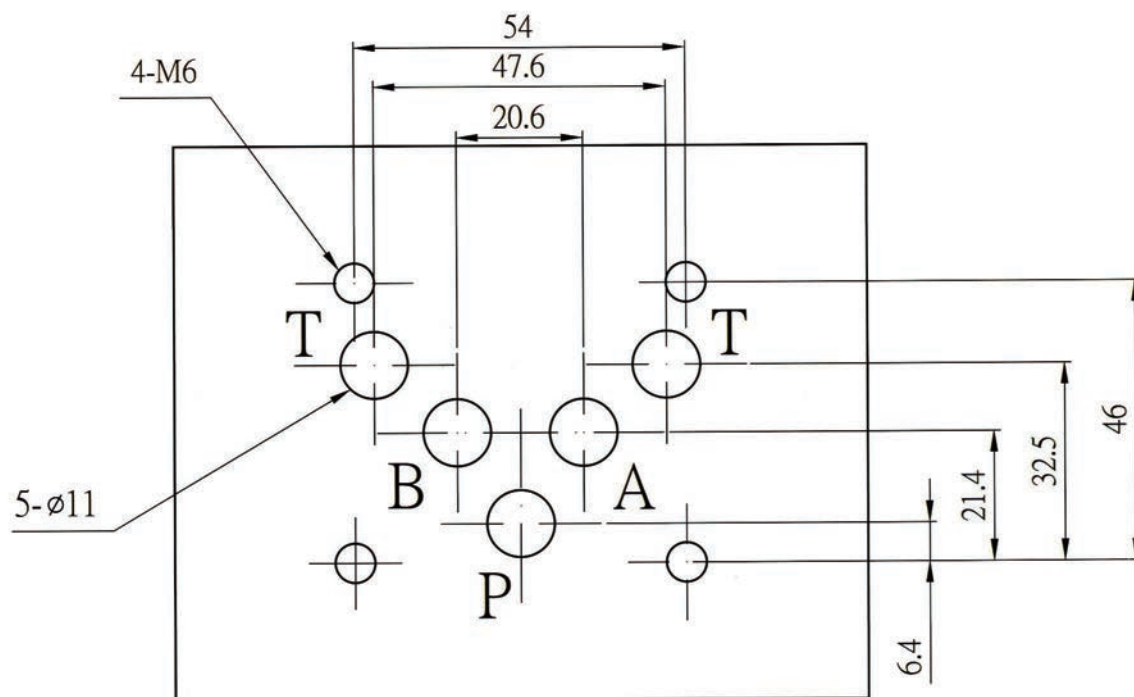
注意事項 Notice

1. 無彈簧複歸型以水準安裝為佳。
 2. 安裝面請保持3.2z的表面粗度以下。
 3. F型電磁管與新B、E行不建議互換。
 4. 軸心尺寸不同，不可互換。
1. Springless type valve should be installed horizontally.
 2. Installation surface and valve surface should be keep under 3.2z surface roughness.
 3. F-type tube are not interchangeable with the new B,E-type.
 4. If the spool's sizes are different, that can not interchangeable.

附件 Accessories

1. G03：閥本體固定內六角螺絲M6x35x4支。
 2. DL型線圈接頭皆附保護蓋。
 3. 閥本體附上保護底板。
1. G03：Screw of main body M6x35L.....4pcs.
 2. DL-type coil socket with protective cover.
 3. Main body with sub plate.

外觀尺寸圖及產品結構圖 View&Component

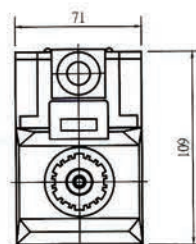
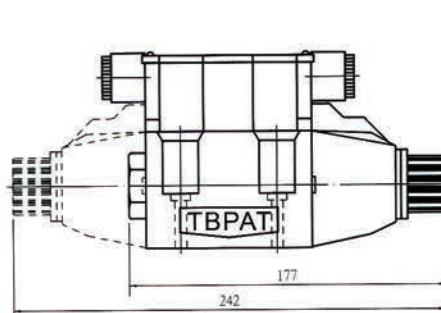


高效率低電流值電磁方向閥

外觀尺寸圖 (CAD) Notice

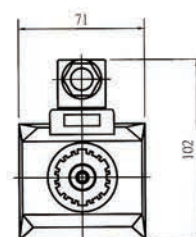
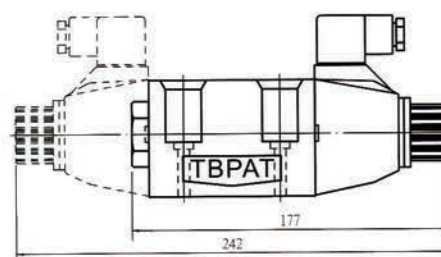
03LW-AC

LW-AC-單頭：重量(Weight) 3.6 kg
LW-AC-雙頭：重量(Weight) 4.4 kg



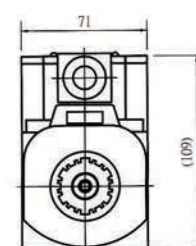
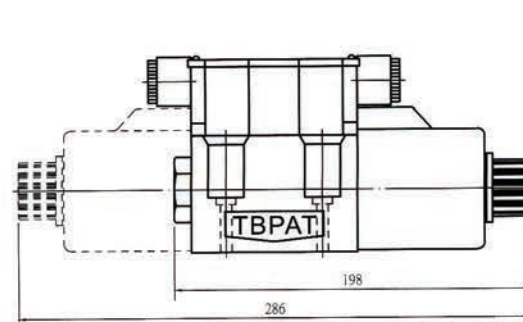
03DL-AC

DL-AC-單頭：重量(Weight) 3.4 kg
DL-AC-雙頭：重量(Weight) 4.3 kg



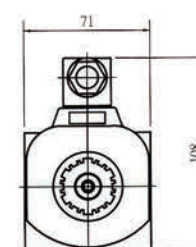
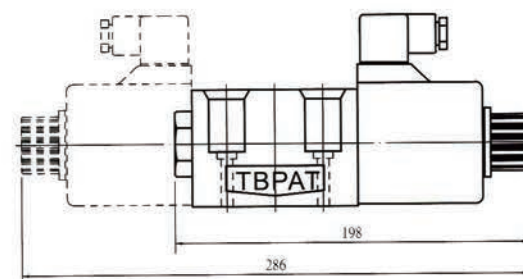
03LW-DC

LW-DC-單頭：重量(Weight) 4.0 kg
LW-DC-雙頭：重量(Weight) 5.4 kg

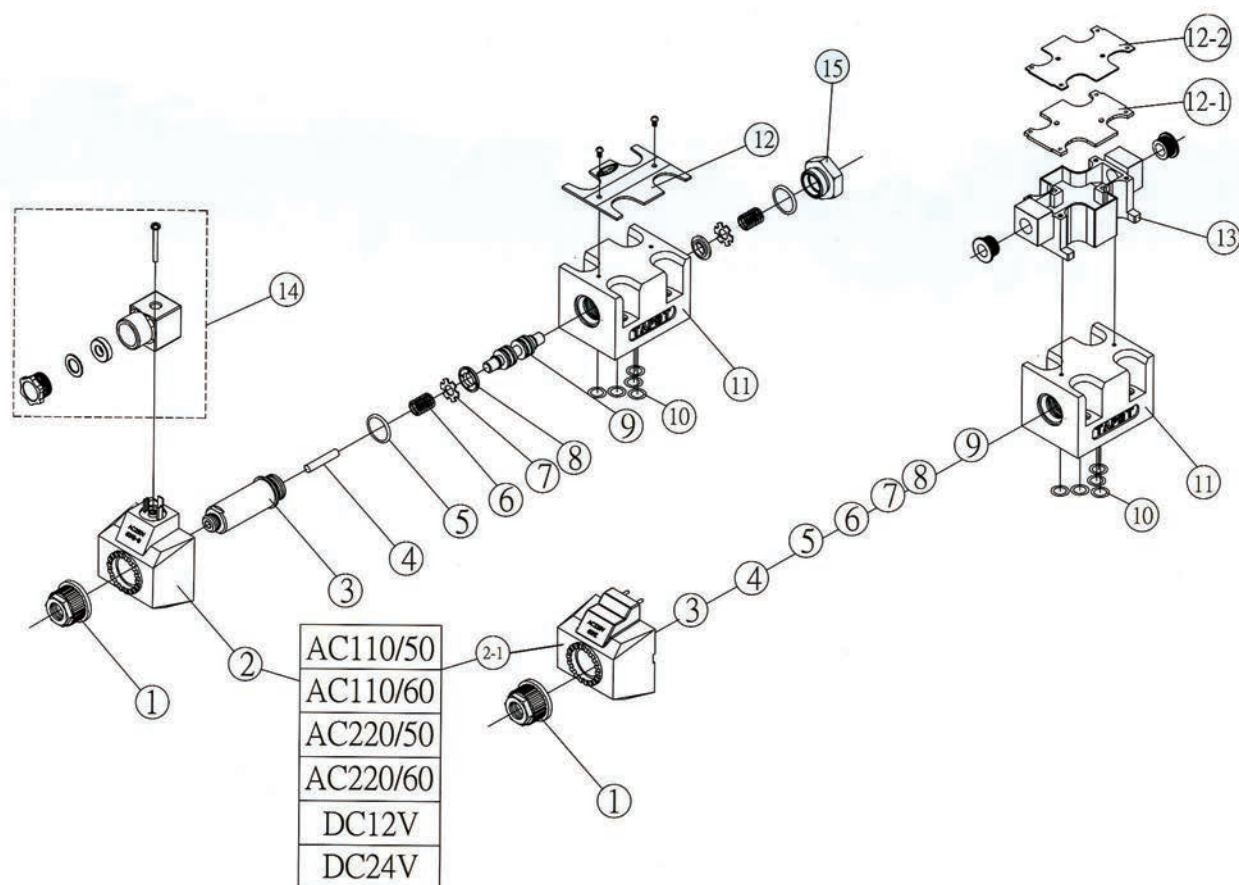


03DL-DC

DL-DC-單頭：重量(Weight) 4.1 kg
DL-DC-雙頭：重量(Weight) 5.2 kg



產品結構圖 (CAD)



- | | |
|--------------|---------------|
| 1. 塑膠螺帽 | Screw Nut |
| 2. DL線圈 | DL Coil |
| 2-1 LW線圈 | LW Coil |
| 3. 電磁管 | Tube |
| 4. 撞擊桿 | Hitting Staff |
| 5. N-119 O型環 | N-119 O-ring |
| 6. 彈簧 | Spring |
| 7. 彈簧座 | Spring Set |
| 8. 防衝擊襯墊 | Body Washer |

- | | |
|----------------|------------------------|
| 9. 軸心 | Spool |
| 10. 本體P-12 O型環 | Body P-12 O-ring |
| 11. 閥體 | Main Body |
| 12. DL銘板 | DL Nameplate |
| 12-1 透明上蓋 | Transparent Panel |
| 12-2 LW銘板 | LW Nameplate |
| 13. BOX接線盒 | Plug-in pilot light |
| 14. DIN接頭指示燈 | Terminal box connector |
| 15. 本體螺帽 | Body Screw Nut |

G02、G03各種軸心功能明細表



G02、G03各種軸心功能明細表 LIST OF SPOOL FUNCTIONS FOR G02、G03

彈簧偏心 3位置 Spring off set 3 Position	圖形符號 Graphic Symbols 標準組立 Standard
3C2	
3C3	
3C4	
3C40	
3C5	
3C6	
3C60	
3C7	
3C8	
3C9	
3C10	
3C11	
3C12	
3C25	
3C29	
3C48	
3C62	
3C64	
3C67	
3C89	

彈簧偏心 3位置 Spring off set 3 Position	圖形符號 Graphic Symbols 標準組立 Standard
3C94	
3C94B	
彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols 標準組立 Standard
2A2	
2A3	
2A14	
2A2L	
2A3L	
2A14L	
2B2	
2B2L	
2B3	
2B3L	
2B8	
2B8L	
2B27	
2B28	
2B29	
2B29L	

彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols 標準組立 Standard
2D2	
2D3	
2D4	
2D40	
2D7	
2D2A	
2D3A	
2D4A	
2D40A	
2D5A	
2D6A	
2D60A	
2D7A	
2D9A	
2D10A	
2D11A	
2D12A	

G02、G03各種軸心功能明細表

G02、G03各種軸心功能明細表 LIST OF SPOOL FUNCTIONS FOR G02、03

彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols	
	標準組立 Standard	反向組立 Standard
2B2A		
2B3A		
2B4A		
2B40A		
2B5A		
2B6A		
2B60A		
2B7A		
2B8A		
2B9A		
2B10A		
2B11A		
2B12A		
2B25A		
2B29A		
2B48A		

彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols	
	標準組立 Standard	反向組立 Standard
2B2B		
2B3B		
2B4B		
2B40B		
2B5B		
2B6B		
2B60B		
2B7B		
2B8B		
2B9B		
2B10B		
2B11B		
2B12B		
2B25B		
2B29B		
2B48B		



無衝擊型電磁方向閥

型號說明 Description of Model

HD - 3C2 - G03 - LW - B - RF - A

HD	-	3C2	-	G03	-	LW
HD		***		G03		LW/DL
方向切換閥 Direction conversion valve		軸心回路種類 Spool Type		閥體口徑尺寸 Valve size		接現形式代號 Wiring Connection type
油浸式電磁方向閥 Flow oil Dipping Solenoid Directional control valve (plug-in board type)		請參閱軸心表 Refer to The List Of Spool Function		G03 3/8" (D05)(NG10)	LW : 接線盒形式 Box type	DL : 插頭式 Din type

B	-	RF	-	A
*		*		*
設計代號 Design No.		切換頻率代號 Conversion Frequency		手動切換定位調整型 Adjustment Type
B : 高效率低電流 電磁方向閥 High efficiency and Low current Solenoid Directional control valve	E : 大流量 電磁方向閥 Standard High Flow Wet Pin design valve	RF : 交直流轉換型 RF : Rectified coil type	A : A邊定位型 A : A Port Adjustment type	B : B邊定位型 B : B Port Adjustment type AB : AB邊定位型 AB : A&B Port Adjustment type

產品特色 Feature

1. 采流量控制及機械式雙阻尼特殊設計。
2. 減少衝擊減少震動，使機器操作時更加平順。
3. 線圈加裝保護電路，提高使用壽命。
4. 線圈及RF指示燈接線盒采分離式設計，可獨立更換。

1. The special design of the dual flow control and mechanical damping.
2. Reducing shock and vibration to mark machine running smoothly.
3. The coil with protection circuit to improve life time.
4. Coil and RF connector with pilot light are separate design, can be replaced individually.

注意事項 Notice

1. 無衝擊型僅提供於DC、RF型線圈。
2. AC電壓無提供此型號。
3. 無衝擊型之電磁管不可與一般型互換。
4. RFN型線圈需搭配RF專用電器接頭，否則無整流效果，且有啟動不良及線圈燒毀之現象。

1. The soft shift only applies to DC, RF type coil.
2. In this type without AC voltage.
3. The soft shift type's coil and tube can't interchange with the general type.
4. RFN coil need RF dedicated connector. Otherwise, would has a poor rectify efficiency, a poor start function and coil burnt.

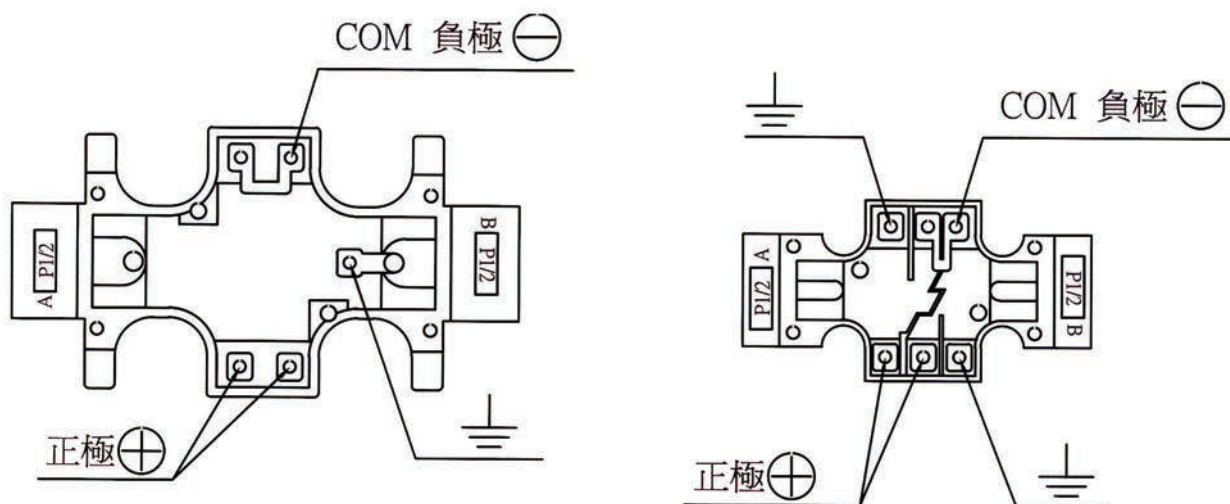
接線盒及指示燈使用說明

盒式 (BOX) 接線盒 Terminal Box connector

1. 如為雙動閥，本接線盒內之共線COM均以並聯免除再自行共線，簡單容易使用。
2. 接線盒同時具有LED指示燈，且PC板與指示燈均采插入式設計，方便更換。
3. 電壓DC12V-DC100V
電壓AC24V-AC380V
4. 接線盒備有RF型，電壓RF110V、RF220V。

1. As Dual coil solenoid valve, its contact COM are connected in parallel to avoid additional wiring, it is simple easy to use.
2. Connector with LED pilot lights and the PC board with lights plug-in design. If the lights burned out ,the replacement is easy and simple.
3. Voltage DC12V-DC100V ; AC24V-AC380V
4. The connectors with RF type : Voltage RF 110V , RF220V.

盒式 (BOX) 接線盒配置圖

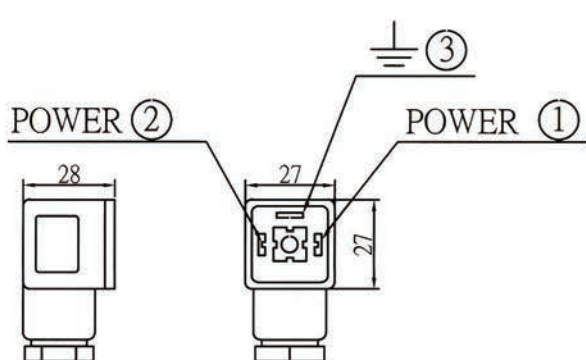


接線盒及指示燈使用說明

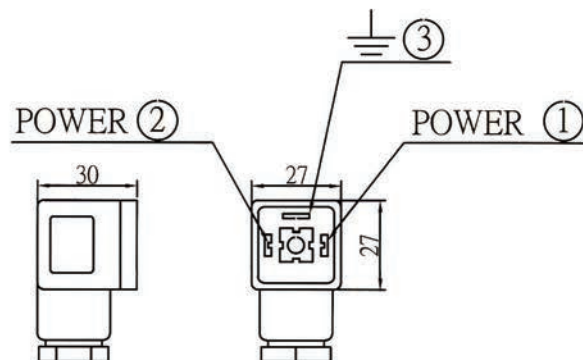
插头式(DIN)接線盒 Plug-in connector

1. 本插頭是根據DIN43650規格，並且達到IP65的保護等級。IP65的意義是完全的保護能力，如灰塵及低壓水柱。雖然線圈各方面均防水但不能直接安裝于水中或保持在水面下，或有爆炸危險、潮濕、腐蝕劑、發黴等工作環境。
 2. 接線盒為透明外殼同時具有LED指示燈。
 3. 電壓DC12V-DC100V
電壓AC24V-AC380V
1. The connector is base on DIN43650 specifications and achieving IP65 protection IP65 means complete protection, such as dust and lower-pressure water column. Although the coil is waterproof but can not be installed in the water or kept below the water surface,even explosion hazard,wet,corrosive,moldy working environment.
 2. The connector is transparent with LED pilot lights.
 3. Voltage DC12V-DC100V ; AC24V-AC380V

頭式(DIN)接線盒指示燈配線圖



一般AC、DC用指示燈

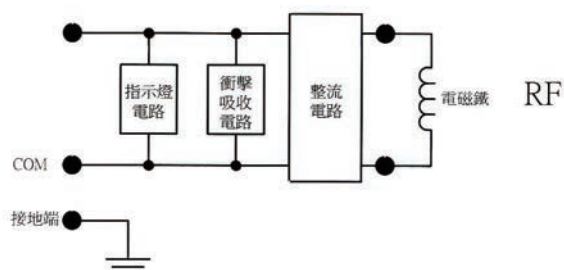
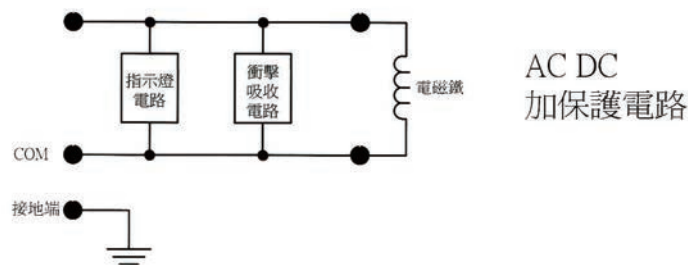
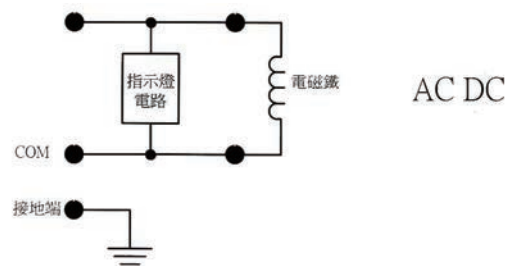


RF用指示燈

RF型插頭式 (DIN) 接線盒 RF Type Plug-in connector

1. 本插頭是根據DIN43650規格，並且達到IP65的保護等級。IP65的意義是完全的保護能力，如灰塵及低壓水柱。雖然線圈各方面均防水但不能直接安裝于水中或保持在水面下，或有爆炸危險、潮濕、腐蝕劑、發黴等工作環境。
 2. 接線盒為透明外殼同時具有LED指示燈。
 3. 電壓RF110V、RF220V。
 4. 本接線盒內含整流與保護電路。
 5. 本接線盒符合ROHS規範。
1. The connector is base on DIN43650 specifications and achieving IP65 protection IP65 means complete protection, such as dust and lower-pressure water column. Although the coil is waterproof but can not be installed in the water or kept below the water surface,even explosion hazard,wet,corrosive,moldy working environment.
 2. The connector is transparent with LED pilot lights.
 3. Voltage RF110V,RF220V
 4. The connector containing rectifier and protection circuit.
 5. The connectors are conform to standard ROHS.

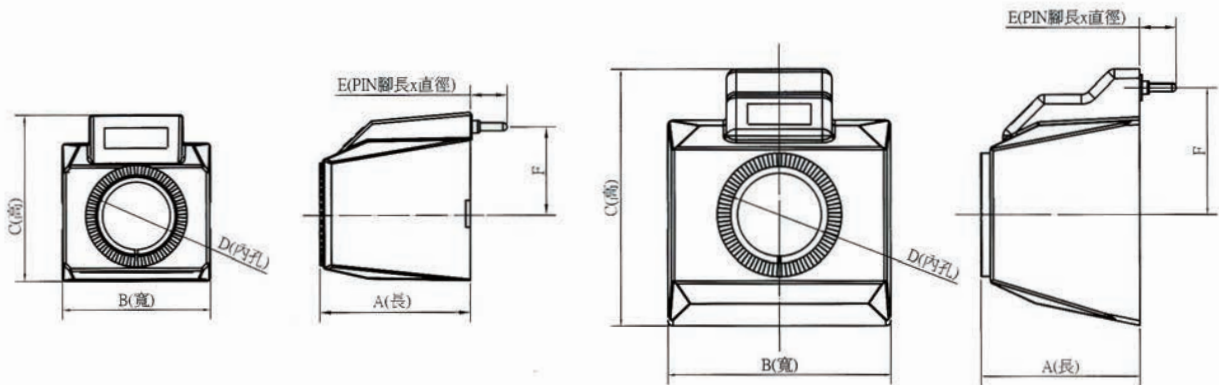
配電圖、配線圖 Power Distribution and Wiring Diagram



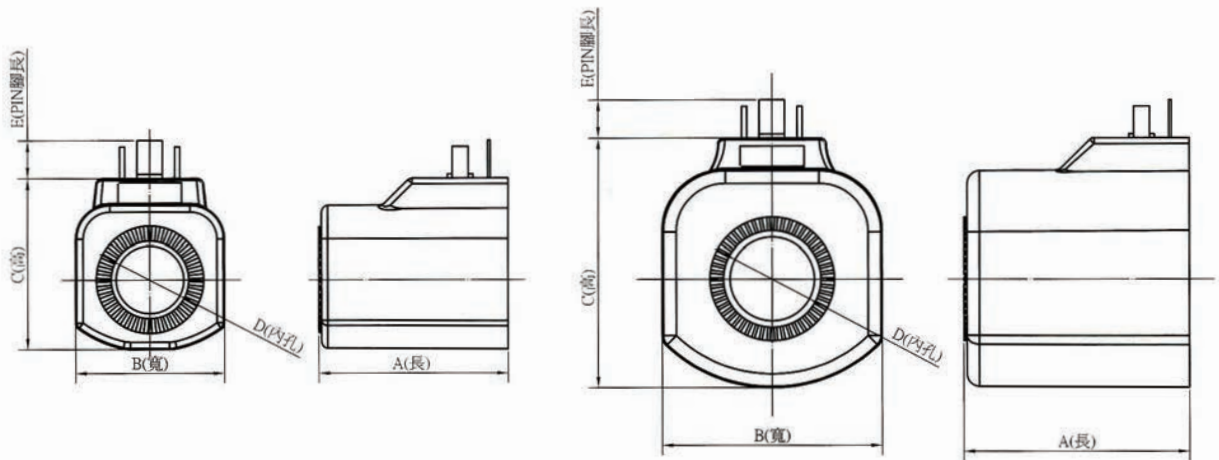
接線盒及指示燈使用說明



線圈 外觀尺寸圖 Terminal Box contactor



	A(長)	B(寬)	C(高)	D(內孔)	E(PIN腳長x直徑)	F
G02AC- LW	47.2	46.8	53.15	21.3	11.5x2.5	28
G02DC- LW	59.3	47	54	21.3	11.5x2.5	28
G03AC- LW	50	69.8	81	26.3	11.5x2.5	40.15
G03DC- LW	71	69	80.52	26.3	11.5x2.5	40.15



	A(長)	B(寬)	C(高)	D(內孔)	E(PIN腳長)
G02AC- DL	47.5	46.8	52.5	21.3	12.5
G02DC- DL	59.3	47	54	21.3	12.5
G03AC- DL	50	69.8	73	26.3	12.5
G03DC- DL	71	69	79	26.3	12.5