

Air & Oil Hydraulic Solenoid Valves



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The Power Valve of Passion

Air & Oil Hydraulic Solenoid Valves
AC/DC Professional Maker

空油壓電磁方向閥 AC/DC 專業製造



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Based on its mature technology,
Tai-Huei has become the only one
in Taiwan
to receive the CE certificate in 1999 & 2012.



All you need is
Tai-Huei !
We're the best choice !

INDEX

全系列產品特色----- PRODUCT FEATURES	1
高效率低電流值電磁方向閥 HD-G02-B/E系列----- HIGH EFFICIENCY AND LOW CURRENT SOLENOID DIRECTIONAL CONTROL VALVE HD-G02-B/E SERIES	3
高效率低溫昇低電流值直流專用電磁方向閥HD-G02-DC-Y/YV系列----- HIGH EFFICIENCY AND LOW TEMPERATURE LOW CURRENT FOR DC SOLENOID DIRECTIONAL CONTROL VALVE HD-G02-DC-Y/YV SERIES	10
高效率低電流值電磁方向閥 HD-G03-B/E系列----- HIGH EFFICIENCY AND LOW CURRENT SOLENOID DIRECTIONAL CONTROL VALVE HD-G03-B/E SERIES	12
G02、G03各種軸心功能明細表----- LIST OF SPOOL FUNCTIONS FOR G02,G03	19
無衝擊型電磁方向閥 HD-G02/G03-S系列----- SOFT SHIFT SOLENOID DIRECTIONAL CONTROL VALVE HD-G02/G03-S SERIES	21
接線盒及指示燈使用說明----- INSTRUCTIONS OF CONNECTORS	22
電磁控制引導方向閥 HD-G04 HD-G06----- SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE HD-G04 HD-G06	26
G04、G06各種軸心功能明細表----- LIST OF SPOOL FUNCTIONS HD-G04 HD-G06	33
線性位移感測器式電磁換向安全閥----- DIRECTIONAL CONTROL VALVE WITH LINEAR VARIABLE DIFFEERENTIAL(LVDT)- INDUCTIVE POSITION CONTROL	34
各式電磁方向閥附手動定位開關及流量調整型----- SOLENOID DIRECTIONAL CONTROL VALVE WITH MANUAL SWITCH TYPE AND SOLENOID DIRECTIONAL CONTROL VALVE WITH ADJUSTMENT TYPE	38
直動式空壓電磁閥----- PNEUMATIC DIRECTIONAL MAGNETIC VALVE	41
各國頻率與電壓參考表----- INTERNATIONAL FREQUENCY(Hz) AND VOLTAGE(Volts) LIST	45

PRODUCT FEATURES

◎ 全系列產品



HD-***-G03-LW-**-B-AC(單頭)



HD-***-G03-LW-**-DC(單頭)



HD-***-G02-LW-**-AB-DC(雙頭)



HD-***-G02-DL-**-AC(雙頭)



AD35-30*



AD25-30*



AD15-30*



HD-***-G03-DL-**-AB-DC(雙頭)



HD-***-G03-LW-**-AC(雙頭)



HD-***-G02-LW-**-AC(雙頭)



HD-***-G02-LW-**-DC(單頭)



AS35-30*



AS25-30*



AS15-30*



HD-***-G03-DL-**-AC(單頭)



HD-***-G03-DL-**-DC(單頭)



HD-***-G02-DL-**-DC(雙頭)



HD-***-G02-LW-**-AC(單頭)



HD-***-G06-P-D



HD-***-G06-P-D-AB



HD-***-G02-DL-YV-**-DC(雙頭)



HD-***-G03-DL-**-AC(雙頭)



HD-***-G03-LW-**-DC(雙頭)



HD-***-G02-DL-**-DC(單頭)



HD-***-G02-DL-**-B-AC(單頭)



HD-***-G04-P-D-AB



HD-***-G04-P-D



HD-***-G02-DL-B-P

■ 全系列產品特色

1. 全系列產品已通過CE認證。
2. 閥本體採雙迴油溝設計，且各油溝加大，使其通過流量增加並提高使用壓力。
3. 高容許背壓及高內部抵抗。
4. 採油浸式電磁閥設計，動作平穩，噪音小。
5. 軸心種類齊全，能提供超過100種以上的軸心迴路，可充分滿足客戶在各種油路上的設計與應用。
6. 線圈供應電壓範圍廣泛，可滿足客戶在各種電壓上的需求。
7. 接線盒均附LED指示燈，可明確顯示動作方向。
8. 插頭式接線盒(DIN CONNECTOR)符合DIN43650規範，並且達到IP65防水、防塵等級要求。
9. 本公司產品出貨前均測試合格始准出貨，測試比例為100%。
10. 本公司電磁閥安裝尺寸均符合ISO-4401國際標準與其他廠牌的電磁閥具有互換性。

■ PRODUCT FEATURES

1. Our products have passed the CE certification.
2. Dual line tank design reduces the pressure drop resulting in better flow characteristics.
3. High increase of back-pressure allowable and lower internal resistance.
4. Wet pin design, moving smoothly and noiseless.
5. Over 100 different spool configurations available for a variety of design application choices.
6. All worldwide voltages offered standard to support the engineering need.
7. LED indicator lights on both DIN and Conduit box design.
8. DIN CONNECTORS conform to the standard DIN43650 and qualified waterproof and dustproof class of IP65.
9. 100% valve testing and QC checking.
10. Our solenoid valves conform to ISO4401. They are totally interchangeable with other manufacturers.

高效率低電流值電磁方向閥 HD-G02-B/E 系列

HIGH EFFICIENCY AND LOW CURRENT SOLENOID DIRECTIONAL CONTROL VALVE HD-G02-B/E SERIES



HD-***-G02-DL-*-DC(單頭)



HD-***-G02-LW-*-AC(雙頭)

Description of Model 型號說明

HD-3C2-G02-LW-B-AC

HD	***	G02	LW/DL	
方向切換閥 Directional control valve	軸心迴路種類 Spool Type	閥體口徑尺寸 Valve size	接線型式代號 Wiring Connection type	
油浸式電磁方向閥 High flow wet pin Solenoid Directional control valve (plug-in board type)	請參閱P19、P20軸心表 Refer to P19, P20 The List Of Spool Function	G02 1/4" (D03)(NG06)	LW: 接線盒形式 Box type	DL: 插頭式 Din type

B/E		AC/DC/RF							
系列代碼 SERIES NO.		使用電壓 Voltage(V)							
B系列 高效率低電流電磁方向閥 High efficiency and Low current Solenoid Directional control valve	E系列 大流量電磁方向閥 Standard High Flow Wet Pin design valve	AC110		AC220		DC12	DC24	RF110	RF220
		頻率(Frequency)HZ							
		50	60	50/60					



附註：

1. 電磁線圈電壓種類請參考以下「電磁線圈常用機種特性表」。
2. 油路孔節流阻子選購時請註明節流孔的孔徑大小(mm)。
3. A、B手動定位調整型選購時請參考P38附表及說明。
4. B型閥能有效降低電流值、低耗能、高效率，符合經濟效益。
5. B型閥能保持與E型相同的出力與使用壓力。
6. B型閥低溫升，符合機器，油壓系統使用要求。
7. 全系列加大原有孔徑尺寸，大大提高原有孔徑的通過流量。
8. B型與E型安裝尺寸均符合國際標準，有絕對互換性。

Notes:

1. The variety of the magnetic coil voltage, please refer to the Coil Specifications.
2. When selecting the O-RING-plug, please indicate the port size(mm).
3. When selecting A.or B. adjustment type, please refer to the table and description in P38.
4. B-type valve can reduce current effectively, even energy-saving.
5. B-type valve can reach the high flow and pressure as the same as E-type.
6. Low temperature rise and can increase life time of hydraulic components.
7. All types valve increased the port size to improve the flow greatly.
8. The B and E type solenoid valves size conform to the international standard and totally interchangeable.

Coil Specifications 電磁線圈常用機種特性表

參數 Specification		型號 Model	AC				DC		RF	
			HD-G02				HD-G02		HD-G02	
使用電壓(V) Voltage(V)		110		220		12	24	110	220	
		50	60	50	60					
保持電流(A) Holding Current (A)	B型 B-type	0.43	0.43	0.22	0.22	1.72	1.05	0.38	0.19	
	E型 E-type	0.60	0.60	0.30	0.30	2.60	1.30			
啟動電流(A) Start Current (A)	B型 B-type	1.45	1.47	0.89	1.01					
	E型 E-type	2.36	2.26	1.33	1.23					
防護等級 Protection Class		IP65								
線圈銅線使用等級 Insulation Class		PEWH級 PEWH class								
線圈耐溫程度 Maximum Tolerable Temperature		180°C								

附註：

1. 全系列使用電壓有±10%的操作範圍。
2. 本公司線圈備有其他電壓提供。

Notes:

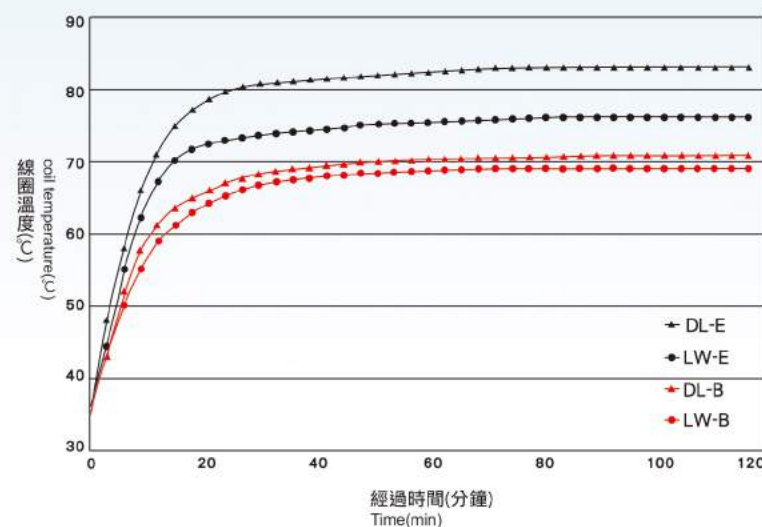
1. Within ±10% application of rated voltage.
2. If you have special voltage requirements, please contact us.

■ B Type VS. E type temperature rise performance

B 型 VS. E 型電磁線圈溫昇表現

1. 線圈溫度測試時之操作壓力為100kgf/cm²。
2. 此線圈溫度測試在實驗室恆溫約25°。
3. 以AC220V型線圈為例。

1. The operational pressure in the test of the coil temperature is 100kgf/cm².
2. The coil temperature test at a constant temperature of 25° degrees in the laboratory.
3. AC220V coil type, for example.



■ B-type, E-type Valve Feature

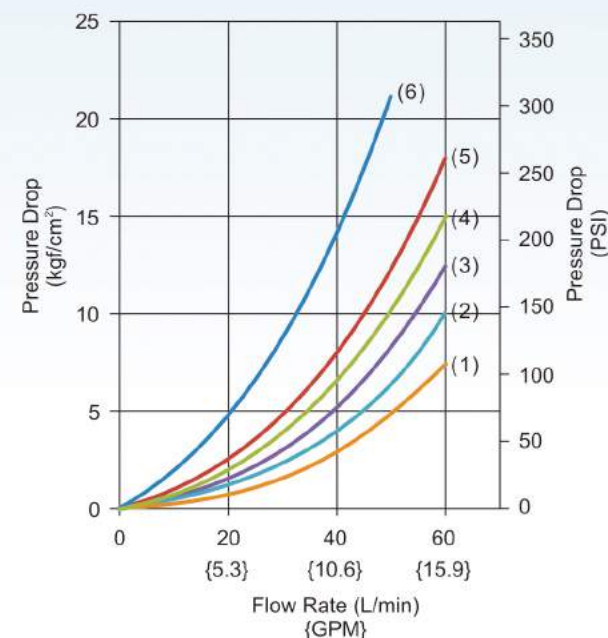
B型系列、E型系列電磁閥之優點

1. 本體採雙迴油溝設計，將各油溝加大，使其通過流量增加並提高使用壓力。
2. 軸心採加大設計，增加軸孔通過流量，減少內部抵抗，增加容許背壓。
3. 線圈採用最新型特殊設計，能有效達到低耗能、高效率並且降低電流值，能提供與E型的電磁閥相同的出力與使用壓力，請參閱附表P6。
4. 安裝尺寸與外觀尺寸皆與E型電磁閥皆相同。
5. 本公司以B型電磁閥提論，不僅讓貴公司提升產品品質及水準，更是提高競爭力的優質首選。

1. Dual line tank design reduces the pressure drop resulting in better flow characteristics.
2. The spool's design is the increased size and can improve the better flow characteristics Huge increasing of back-pressure allowable and lower internal resistance.
3. New special design type of coil can lower current effectively, even energy-saving.
Can reach the high flow and pressure as the same as E-type.
※Please refer to the table P6.
4. The valve's feature and dimensions are as the same as E-type.
5. The B-type solenoid valve will improve your product quality and increase the company's competitiveness.

■ Pressure drop curve (measured at v=38mm²/s and temp.=50°C)

壓力曲線表



Model Numbers	Pressure Drop Curve Number					Max Allowable Back Pressure 最高容許背壓(kgf/cm ²)
	P→A	B→T	P→B	A→T	P→T	
HD-2B2-G02	(5)	(5)	(2)	(2)	-	120
HD-2B3-G02	(4)	(4)	(2)	(1)	-	120
HD-2B8-G02	(2)	-	(2)	-	-	100
HD-3C2-G02	(2)	(2)	(2)	(2)	-	110
HD-3C3-G02	(1)	(1)	(1)	(1)	(3)	130
HD-3C4-G02	(2)	(1)	(2)	(1)	-	100
HD-3C40-G02	(2)	(2)	(2)	(2)	-	80
HD-3C60-G02	(6)	(6)	(6)	(6)	(3)	90
HD-3C9-G02	(1)	(2)	(1)	(2)	-	100
HD-3C10-G02	(2)	(1)	(2)	(2)	-	100
HD-3C11-G02	(1)	(2)	(2)	(2)	-	100
HD-3C12-G02	(2)	(2)	(2)	(1)	-	100
HD-2D2-G02	(2)	(5)	(2)	(5)	-	110

■ Description of feature

產品特性表

閥尺寸 model	HD-G02					
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	60	AC、DC型:240 RF-N-S型:120 AC、DC type:240 RF-N-S type:120	-15~+70	10~400 (ISO VG46,68)

附註：

最大流量、最大壓力、容許背壓隨迴路而異。

Notes:

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



Notes

注意事項

1. 無彈簧復歸型(2D2及2D2D型)以水平安裝為佳。
2. 安裝面請保持3.2z的表面粗度以下。
3. 本公司所有產品不建議自行更換零件。
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. Please do not change the parts of solenoid valve by yourself.
4. If the spool's sizes are different, that can not interchangeable.

Accessories

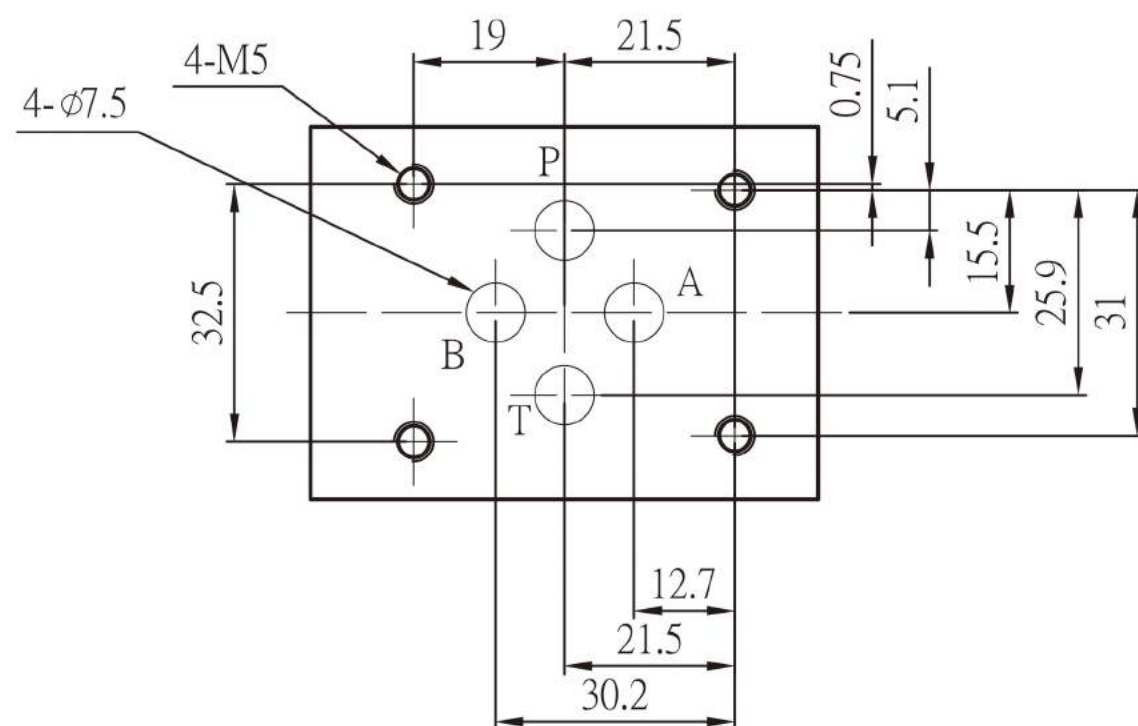
附件

1. G02:閥本體固定內六角螺絲M5x45Lx4支。
 2. DL型線圈接頭皆附保護蓋。
 3. 閥本體附上保護底板。
1. G02:Screw of main body M5 x 45L.....4pcs.
 2. DL-type coil socket with protective cover.
 3. Main body with sub plate.

View & Component

外觀尺寸圖及產品結構圖

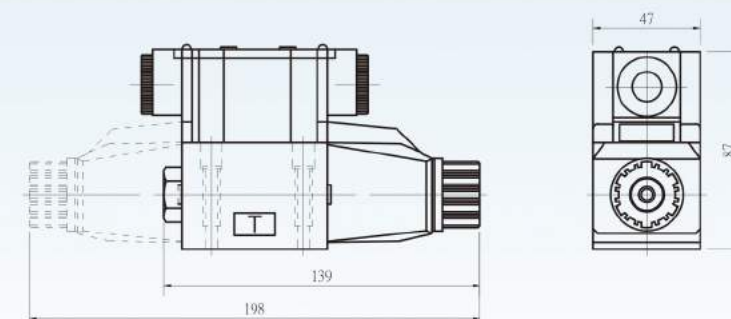
底板安裝尺寸圖(CAD)



外觀尺寸圖(CAD)

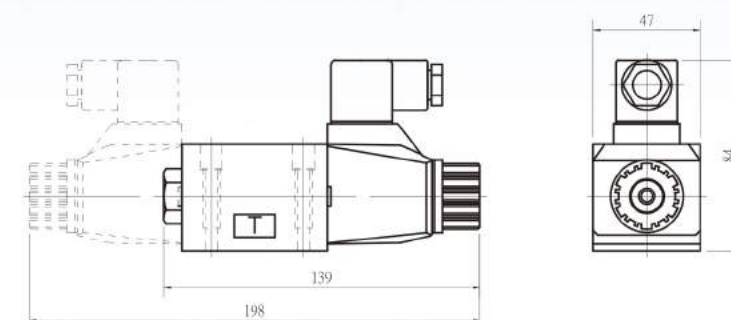
02LW-AC

LW-AC-單頭:重量(Weight) 1.4 kg
LW-AC-雙頭:重量(Weight) 1.8 kg



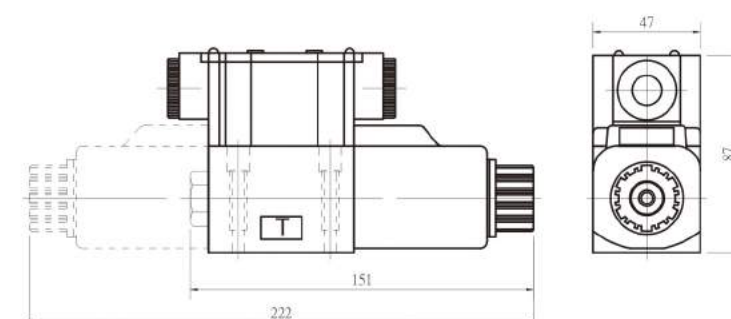
02DL-AC

DL-AC-單頭:重量(Weight) 1.3 kg
DL-AC-雙頭:重量(Weight) 1.7 kg



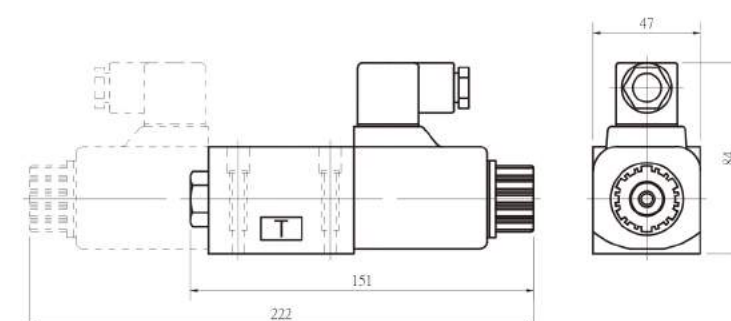
02LW-DC

LW-DC-單頭:重量(Weight) 1.5 kg
LW-DC-雙頭:重量(Weight) 2.0 kg



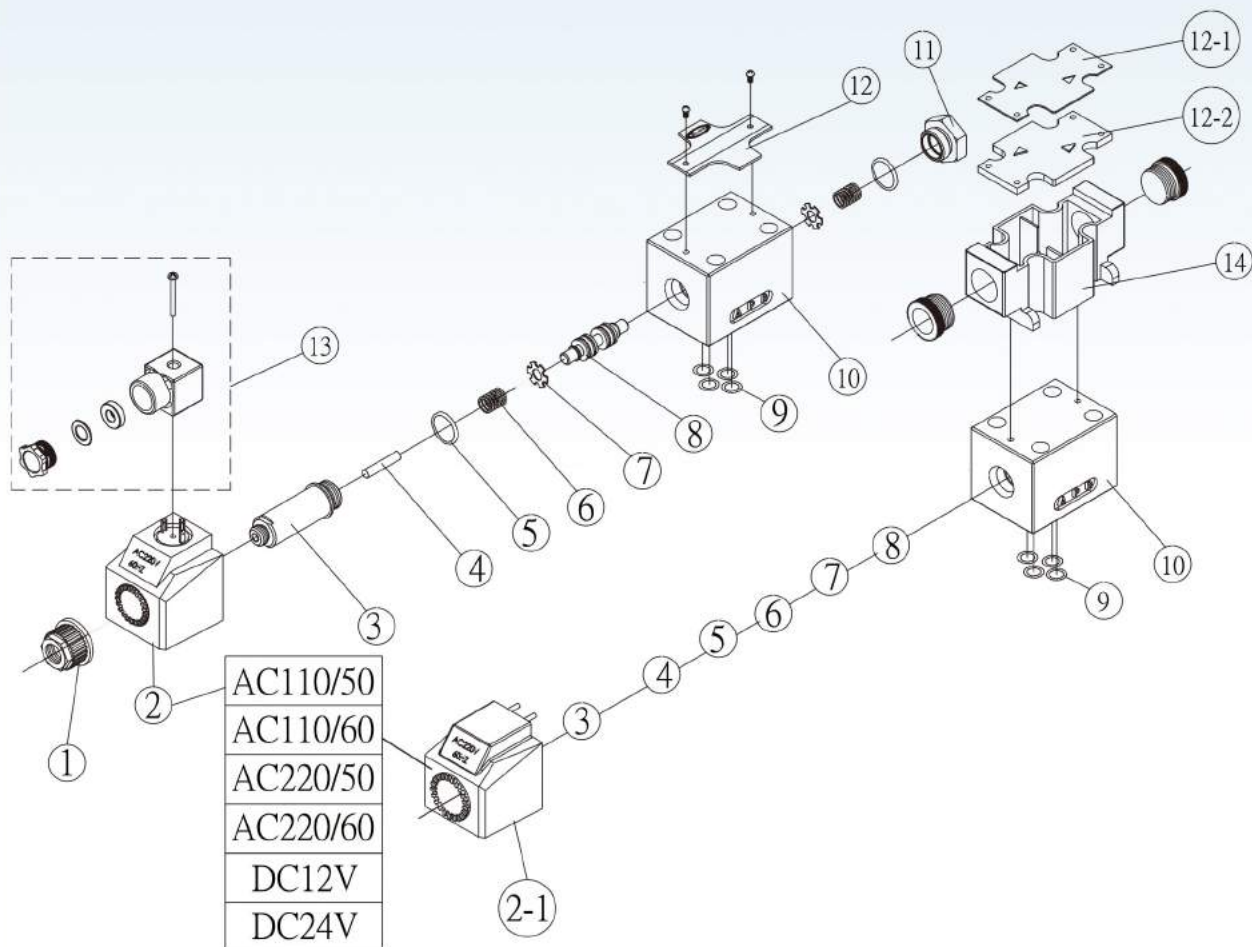
02DL-DC

DL-DC-單頭:重量(Weight) 1.4 kg
DL-DC-雙頭:重量(Weight) 2.0 kg





產品結構圖(CAD)



- | | | | |
|-------------|---------------|--------------|------------------------|
| 1. 塑膠螺帽 | Screw Nut | 9. 本體P-9 O型環 | Body P-9 O-ring |
| 2. DL線圈 | DL Coil | 10. 閥體 | Main Body |
| 2-1 LW線圈 | LW Coil | 11. 本體螺帽 | Body Screw Nut |
| 3. 電磁管 | Tube | 12. DL銘板 | DL Nameplate |
| 4. 撞擊桿 | Hitting Staff | 12-1 LW銘板 | LW Nameplate |
| 5. P-15 O型環 | P-15 O-ring | 12-2 透明上蓋 | Transparent Panel |
| 6. 彈簧 | Spring | 13. DIN接頭指示燈 | DIN Plug connector |
| 7. 彈簧座 | Spring Set | 14. BOX接線盒 | Terminal box connector |
| 8. 軸心D13 | Spool | | |

高效率低溫昇低電流值直流專用電磁方向閥HD-G02-DC-Y/YV系列

HIGH EFFICIENCY AND LOW TEMPERATURE LOW CURRENT FOR DC SOLENOID DIRECTIONAL CONTROL VALVE HD-G02-DC-Y/YV



HD-***-G02-DL-YV-DC(雙頭)



HD-***-G02-LW-Y-DC(單頭)

■ Description of Model

型號說明

HD	***	G02	LW/DL	
方向切換閥 Directional control valve	軸心迴路種類 Spool Type	閥體口徑尺寸 Valve size	接線型式代號 Wiring connection type	
油浸式電磁方向閥 High flow wet pin Solenoid Directional control valve (plug-in board type)	請參閱P19、P20軸心表 Refer to P19, P20 The List Of Spool Function	G02 1/4" (D03)(NG06)	LW: 接線盒形式 Box type	DL: 插頭式 Din type

Y/YV	V	產品特性表		
系列代碼 SERIES NO.	電壓(V) Voltage(V)	型號 Model 參數 Specification		
Y系列 高效率低電流值直流專用電磁方向閥 High efficiency and low current for DC solenoid directional Control valve HD-G02-Y-DC	DC12 DC24	使用電壓(V) Voltage(V)	12	24
		保持電流(A) Holding Current(A)	1.68	1.16
YV系列 高效率低溫昇低電流值直流專用電磁方向閥 High efficiency and low temperature low current for DC solenoid directional Control valve HD-G02-YV-DC	DC24	建議使用壓力範圍 Pressure range(KG)	70~250	70~250
				< 70

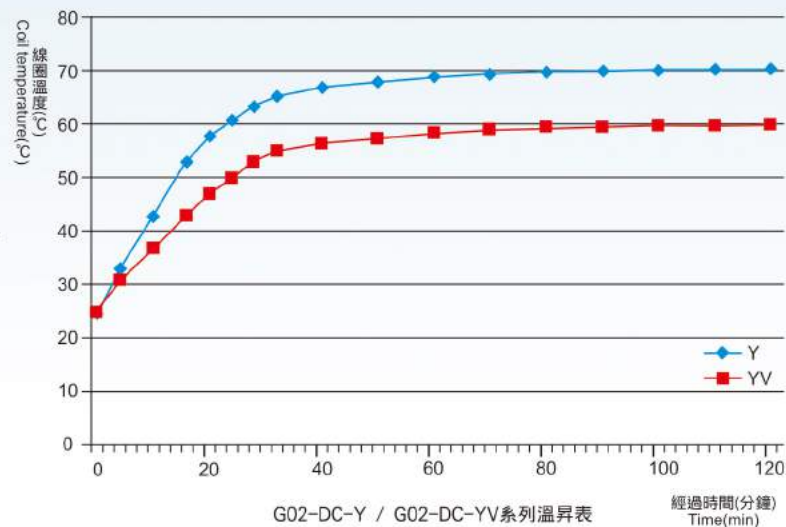




Y Type & YV Type temperature rise performance Y型及YV型電磁線圈溫昇表現

1. 線圈溫度測試時之操作壓力為70kgf/cm²。
2. 此線圈溫度測試在實驗室恆溫約25°C。
3. 以DC24型線圈為例。

1. The operational pressure in the test of the coil temperature is 70kgf/cm².
2. The coil temperature test at a constant temperature of 25°C degrees in the laboratory.
3. DC24 coil type, for example.



Y Type & YV Type Valve Feature Y型系列及YV型系列電磁閥之優點

1. 本體採雙迴油溝設計，將各油溝加大，使其通過流量增加並提高使用壓力。
2. 軸心採加大設計，增加軸孔通過流量，減少內部抵抗，增加容許背壓。
3. 採用最新型的電磁線圈與電磁管組合，電磁閥在運作過程中之線圈能有效降低溫升，以符合使用者的要求。
4. 線圈採用最新型特殊設計，能有效達到低耗能、高效率並且降低電流值，能提供與E型的電磁閥相同的出力與使用壓力。
5. Y及YV系列電磁閥可啟動於極低電壓(20V)。
6. YV系列在使用過程中線圈溫度及消耗電流皆保持在低溫及低電流狀態。

1. Dual line tank design reduces the pressure drop resulting in better flow characteristics.
2. The spool's design is the increased size and can improve the better flow characteristics Huge increasing of back-pressure allowable and lower internal resistance.
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 effectively, even energy-saving.
Can reach the high flow and pressure as the same as E-type.
5. Y and YV series solenoid valves can start with 20VDC.
6. YV series will maintain a low coil temperature and a low current usage.

附註：

- Y/YV系列特性及功能僅提供G02直流通電磁閥使用。
- Y/YV顏色區分
藍色線圈為YV系列
黑色線圈為Y系列

Notes:

- The feature and function of Y & YV series coils are only for the G02 DC solenoid valve series.
- The Y & YV Coil color difference is that the YV coil is BLUE and the Y coil is BLACK.



高效率低電流值電磁方向閥HD-G03-B/E系列

HIGH EFFICIENCY AND LOW CURRENT SOLENOID DIRECTIONAL CONTROL VALVE HD-G03-B/E SERIES



HD-***-G03-DL-*-AC(單頭)



HD-***-G03-LW-*-DC(雙頭)

Description of Model 型號說明

HD-3C2-G03-LW-B-AC

HD	***	G03	LW/DL	
方向切換閥 Directional control valve	軸心迴路種類 Spool Type	閥體口徑尺寸 Valve size	接線型式代號 Wiring Connection type	
油浸式電磁方向閥 High flow wet pin Solenoid Directional control valve (plug-in board type)	請參閱P19 - P20軸心表 Refer to P19, P20 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/E		AC/DC/RF							
系列代碼 SERIES NO.		使用電壓 Voltage(V)							
B系列 高效率低電流電磁方向閥 High efficiency and Low current Solenoid Directional control valve	E系列 大流量電磁方向閥 Standard High Flow Wet Pin design valve	AC110		AC220		DC12	DC24	RF110	RF220
		頻率(Frequency)HZ							
		50	60	50/60					



附註：

1. 電磁線圈電壓種類請參考以下「電磁線圈常用機種特性表」。
2. 出油孔節流阻力選購時請註明節流孔的孔徑大小(mm)。
3. A、B手動定位調整型選購時請參考P38附表及說明。
4. B型閥能有效降低電流值、耗能。
電磁閥能保持與E型相同的出力與使用壓力。
5. B型閥和E型閥加大原有孔徑尺寸大大提高原有孔徑的通過流量。
6. B型與E型安裝尺寸均符合國際標準，故有絕對互換性。

Notes:

1. The variety of the magnetic coil voltage, please refer to the page.
2. When selecting the O-RING-plug ,please indicate the port size(mm).
3. When selecting A.or B. adjustment type, please refer to the table and description in P38.
4. B-type valve can lower the current effectively, even energy-saving.
B-type valve can reach the high flow and pressure as the same as E-type.
5. B type & E type valve increased the port size to improve the flow greatly.
6. The B and E type solenoid valves size conform to the international standard and totally interchangeable.

Coil Specifications

電磁線圈常用機種特性表

參數 Specification		型號 Model		AC		DC		RF	
		HD-G03				HD-G03		HD-G03	
使用電壓(V) Voltage(V)		110		220		12	24	110	220
		50	60	50	60				
保持電流(A) Holding Current (A)	B型 B-type	0.62	0.69	0.27	0.33	2.03	1.48	0.54	0.27
	E型 E-type	0.72	0.83	0.32	0.41	3.80	1.90		
啟動電流(A) Start Current (A)	B型 B-type	3.41	4.14	1.58	1.95				
	E型 E-type	4.12	4.55	1.75	2.51				
防護等級 Protection Class		IP65							
線圈銅線使用等級 Insulation Class		PEWH級 PEWH class							
線圈耐溫程度 Maximum Tolerable Temperature		180°C							

附註：

1. 全系列使用電壓有±10%的操作範圍。
2. 本公司線圈備有其他電壓提供。

Notes:

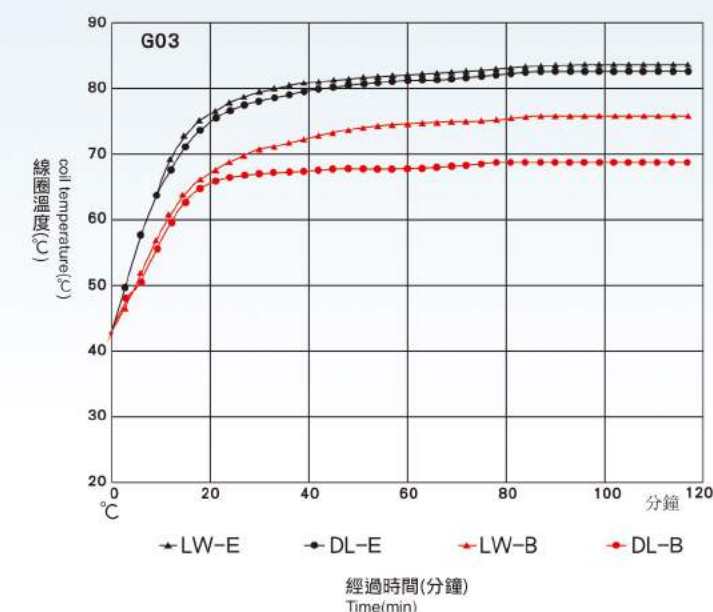
1. Within ±10% application of rated voltage.
2. If you have special voltage requirements, please contact us.

B type VS. E type temperature performance

B 型及 VS. E 型電磁線圈溫昇表現

1. 線圈溫度測試時之操作壓力為100kgf/cm²。
2. 此線圈溫度測試在實驗室恆溫25°C。
3. 以AC220V型線圈為例。

1. The operational pressure in the test of the coil temperature is 100kgf/cm².
2. The coil temperature test at a constant temperature of 25°C degrees in the laboratory.
3. AC220V coil type, for example.



B-type, E-type Valve Feature

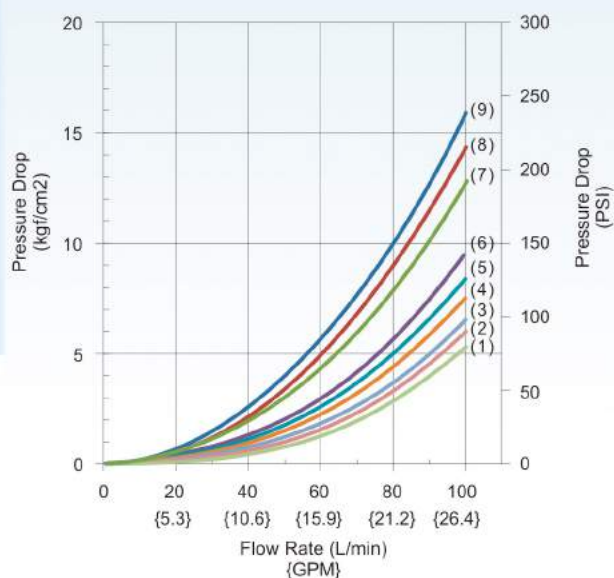
B型系列、E型系列電磁閥之優點

1. 本體採雙迴油溝設計，此時各油溝加大，使其通過流量增加並提高使用壓力。
2. 新加裝防擊襯墊能使本體承受更高的壓力，讓本體不易變形。
3. 採用最新型的電磁線圈與電磁管組合，且電磁閥在運作過程中之線圈能有效降低溫升，以符合使用者的要求。
4. 採用最新型特殊設計，能有效達到低耗能、高效率並且降低電流值，此並能提供與B型電磁閥相同的大出力與使用壓力
請參閱附表P15。
5. 產品特性與外觀尺寸與E型電磁閥皆相同。
6. 本公司以B型電磁閥提論，不僅讓貴公司水準提升，產品品質及競爭力的優質首選。

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 to lower the temperature effectively during operation.
4. New special design type of coil can lower current effectively, even energy-saving.
Can reach the high flow and pressure as the same as E-type.
※Please refer to the table P15.
5. The valve's feature and dimensions are as the same as E-type.
6. The B-type solenoid valve will improve your product quality and increase the company's competitiveness.



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



Model Numbers	Pressure Drop Curve Number					Max Allowable Back Pressure (kgf/cm²)
	P→A	B→T	P→B	A→T	P→T	
HD-2B2-G03	(8)	(9)	(3)	(3)	-	100
HD-2B3-G03	(7)	(8)	(1)	(1)	-	100
HD-2B8-G03	(4)	-	(5)	-	-	80
HD-3C2-G03	(3)	(3)	(3)	(3)	-	130
HD-3C3-G03	(1)	(1)	(1)	(1)	(5)	150
HD-3C4-G03	(3)	(2)	(3)	(2)	-	100
HD-3C40-G03	(3)	(3)	(3)	(3)	-	90
HD-3C60-G03	(4)	(5)	(4)	(5)	(9)	100
HD-3C9-G03	(1)	(3)	(1)	(3)	-	100
HD-3C10-G03	(3)	(2)	(3)	(3)	-	110
HD-3C11-G03	(1)	(3)	(3)	(3)	-	110
HD-3C12-G03	(3)	(3)	(3)	(2)	-	110
HD-2D2-G03	(6)	(7)	(4)	(4)	-	120

Description of feature 產品特性表

閥尺寸 model	HD-G03					
參數 Specification	最高使用壓力 (kgf/cm²) Max. Pressure	容許背壓 (kgf/cm²) 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 RF-N-S型:120 AC、DC type:240 RF-N-S type:120	-15~+70	10~400 (ISO VG46、68)

附註：

最大流量、最大壓力、容許背壓隨迴路而異。

Notes:

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

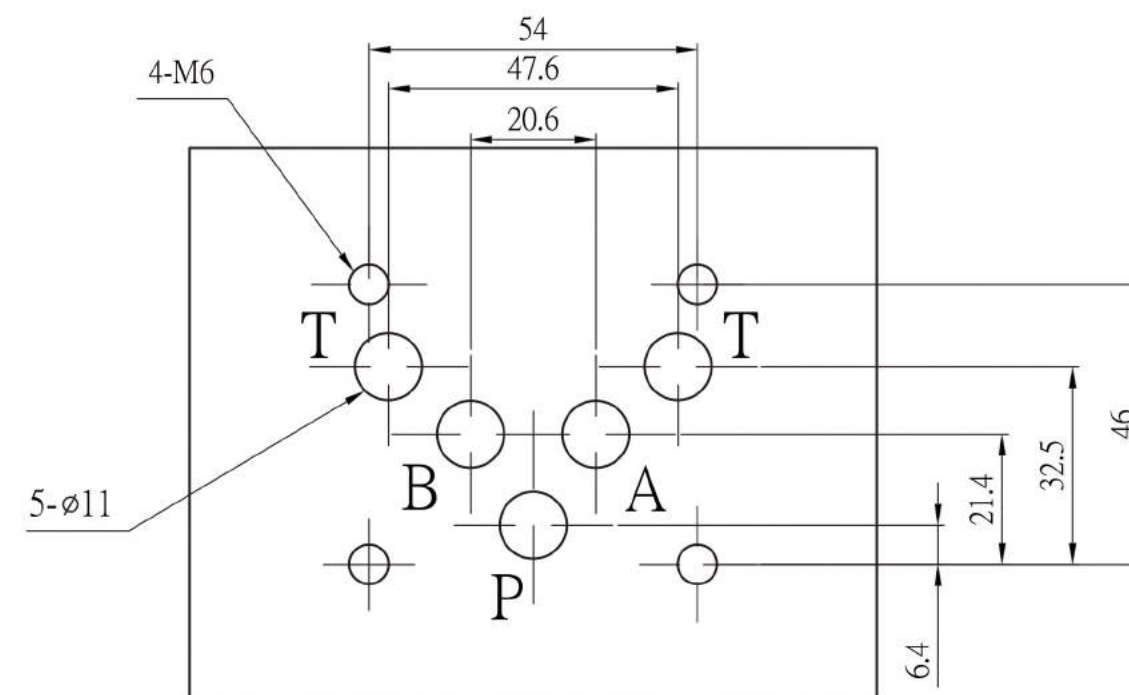
Notes 注意事項

1. 無彈簧復歸型以水平安裝為佳。
2. 安裝面請保持3.2z的表面粗度以下。
3. 本公司所有產品不建議自行更換零件。

1. Springless type valve should be installed horizontally.
2. Installation surface and valve surface should be keep under 3.2z surface roughness.
3. Please do not change the parts of solenoid valve by yourself.

View & Component 外觀尺寸圖及產品結構圖

底板安裝尺寸圖(CAD)



Accessories 附件

1. G03:閥本體固定內六角螺絲M6x35Lx4支。
2. DL型線圈接頭皆附保護蓋。
3. 閥本體皆附保護底板。

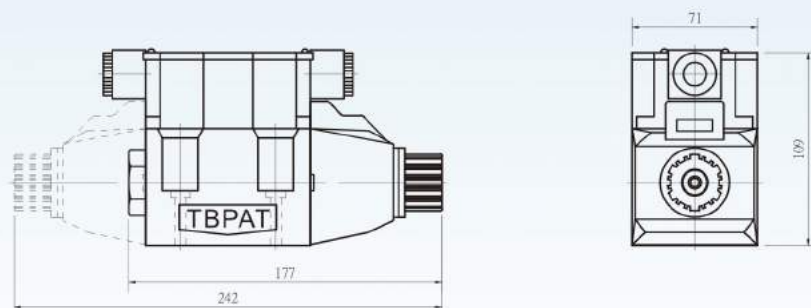
1. G03:Screw of main body M6 x 35L.....4pcs.
2. DL-type coil socket with protective cover.
3. Main body with sub plate.



外觀尺寸圖(CAD)

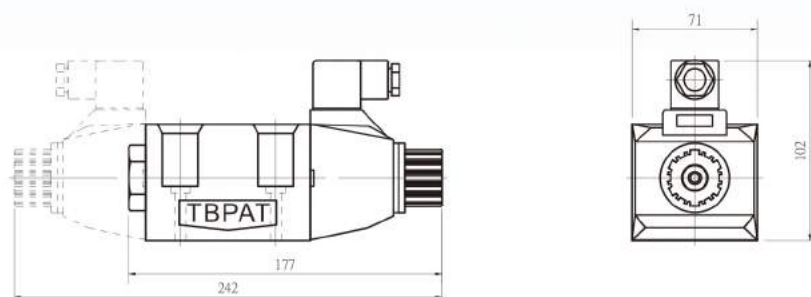
03LW-AC

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



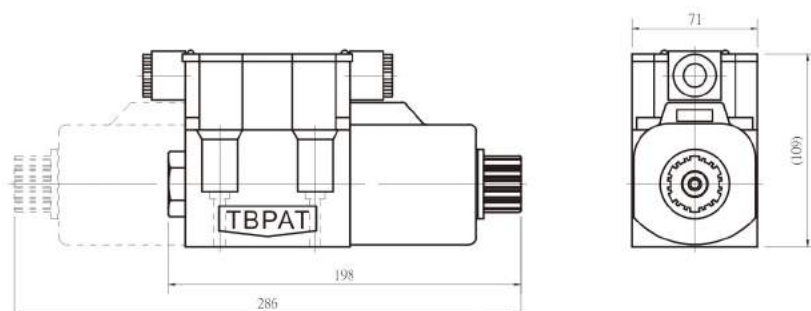
03DL-AC

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



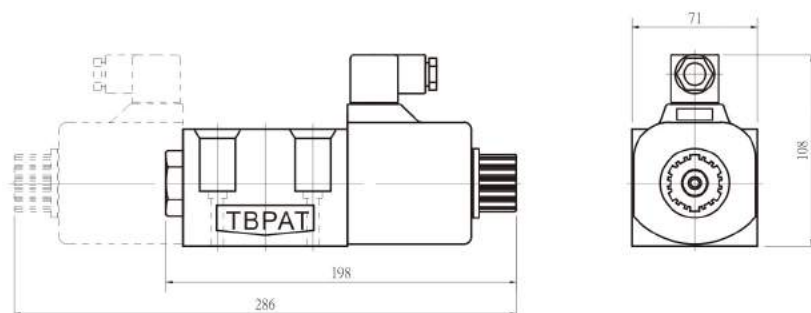
03LW-DC

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

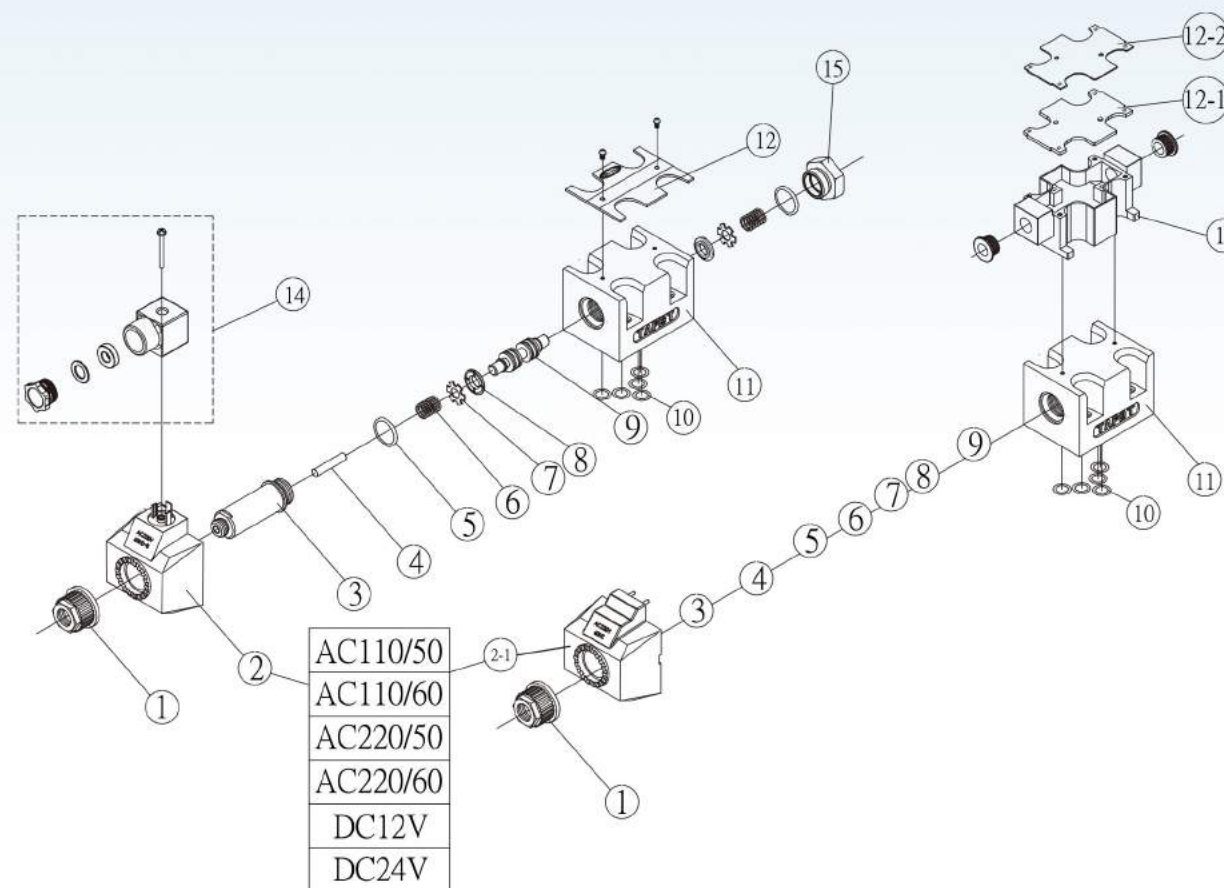


03DL-DC

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 | 9.軸心D18 | Spool |
| 2.DL線圈 | DL Coil | 10.本體P-12 O型環 | Body P-12 O-ring |
| 2-1 LW線圈 | LW Coil | 11.閥體 | Main Body |
| 3.電磁管 | Tube | 12.DL銘板 | DL Nameplate |
| 4.撞擊桿 | Hitting Staff | 12-1透明上蓋 | Transparent Panel |
| 5.N-119 O型環 | N-119 O-ring | 12-2LW銘板 | LW Nameplate |
| 6.彈簧 | Spring | 13.BOX接線盒 | Terminal Box Connector |
| 7.彈簧座 | Spring Set | 14.DIN接頭指示燈 | DIN Plug connector |
| 8.防衝擊襯墊 | Body Washer | 15.本體螺帽 | Body Screw Nut |



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	彈簧偏心 3位置 Spring off set 3 Position	圖形符號 Graphic Symbols 標準組立 Standard	彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols 標準組立 Standard
3C2		3C67		2D2D	
3C3		3C89		2D2	
3C4		彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols 標準組立 Standard	2D3	
3C40		2A2		2D4	
3C5		2A3		2D40	
3C6		2A14		2D7	
3C60		2A2L		2D2A	
3C7		2A3L		2D3A	
3C8		2A14L		2D4A	
3C9		2B2		2D40A	
3C10		2B2L		2D5A	
3C11		2B3		2D6A	
3C12		2B3L		2D60A	
3C25		2B8		2D7A	
3C29		2B8L		2D9A	
3C48		2B27		2D10A	
3C62		2B28		2D11A	
3C64		2B29		2D12A	



LIST OF SPOOL FUNCTIONS FOR G02,G03

彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols		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 Reversed		標準組立 Standard	反向組立 Reversed
2B2A			2B2B		
2B3A			2B3B		
2B4A			2B4B		
2B40A			2B40B		
2B5A			2B5B		
2B6A			2B6B		
2B60A			2B60B		
2B7A			2B7B		
2B8A			2B8B		
2B9A			2B9B		
2B10A			2B10B		
2B11A			2B11B		
2B12A			2B12B		
2B25A			2B25B		
2B29A			2B29B		
2B48A			2B48B		

■ 本公司另有提供特殊軸心迴路設計，如有需要敬請來電。
For special requirements, please contact us.



無衝擊型電磁方向閥 HD-G02/G03-S 系列

SOFT SHIFT SOLENOID DIRECTIONAL CONTROL VALVE HD-G02/G03-S SERIES

■ Description of Model

型號說明

HD-3C2-G0*-LW-B-S-RF

HD	***	G02/G03	LW/DL	
方向切換閥 Directional control valve	軸心迴路種類 Spool Type	閥體口徑尺寸 Valve size	接線型式代號 Wiring Connection type	
油浸式電磁方向閥 High flow wet pin Solenoid Direction valve (plug-in board type)	請參閱P19、P20軸心表 Refer to P19, P20 The List Of Spool Function	G02 1/4" (D03)(NG06) G03 3/8" (D05)(NG10)	LW: 接線盒形式 Box type	DL: 插頭式 Din type

B/E		S	DC/RF			
系列代碼 SERIES NO.		特殊型號代碼 Special type NO.	使用電壓 Voltage(V)			
B系列 高效率低電流電磁方向閥 High efficiency and Low current Solenoid Directional control valve	E系列 大流量電磁方向閥 Standard High Flow Wet Pin design valve	S 無衝擊型 Soft shift type	DC12	DC24	RF110	RF220

■ Feature

產品特色

- 採流量控制及機械式雙阻尼特殊設計。
- 減少衝擊減少震動，使機器操作時更加平順。
- 線圈加裝保護電路，提高使用壽命。
- 線圈及RF指示燈接線盒採分離式設計，可獨立更換。
- DC接線盒皆可加裝突波接收器。

- The special design of the dual flow control and mechanical damping.
- Reducing shock and vibration to make machine running smoothly .
- The coil with protection circuit to improve life time.
- Coil and RF connector with pilot light are separate design, can be replaced individually.
- The DC electric connector contains a surge protector.

■ Notes

注意事項

- 無衝擊型僅提供於DC、RF型線圈。
- AC電壓無提供此型號。
- 無衝擊型之電磁管不可與一般型互換。
- 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。

- The soft shift type only applies to DC, RF type coil .
- In this type without AC voltage.
- The soft shift type's tube can't interchange with the general type.
- 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

INSTRUCTIONS OF CONNECTOR AND PILOT LIGHT

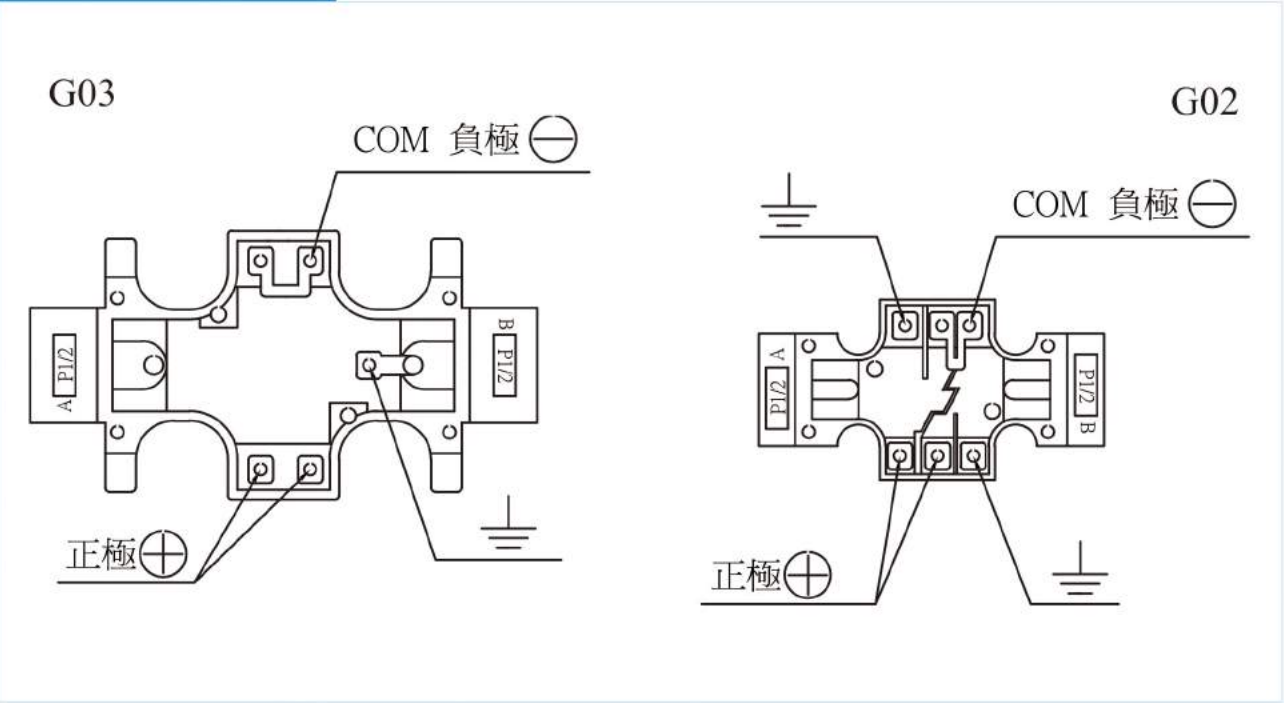
■ Terminal Box connector

盒式(BOX)接線盒

- 如為雙動閥，本接線盒內之共線COM均已並聯免除再自行共線，簡單容易使用。
- 接線盒同時具有LED指示燈，且PC板與指示燈均採插入式設計，方便更換。
- 電壓DC12V-DC100V
電壓AC24V-AC380V
- 接線盒備有RF型，電壓RF110V、RF220V。
- 本公司DC接線盒皆加裝突波保護電路。

- As Dual coil solenoid valve, its connector's contact COM are connected in parallel to avoid additional wiring, it is simple and easy to use.
- 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.
- Voltage DC12V-DC100V ; AC24V-AC380V
- The connectors with RF type : Voltage RF110V, RF220V.
- The DC electric connector contains a surge protector.

盒式 (BOX) 接線盒配線圖

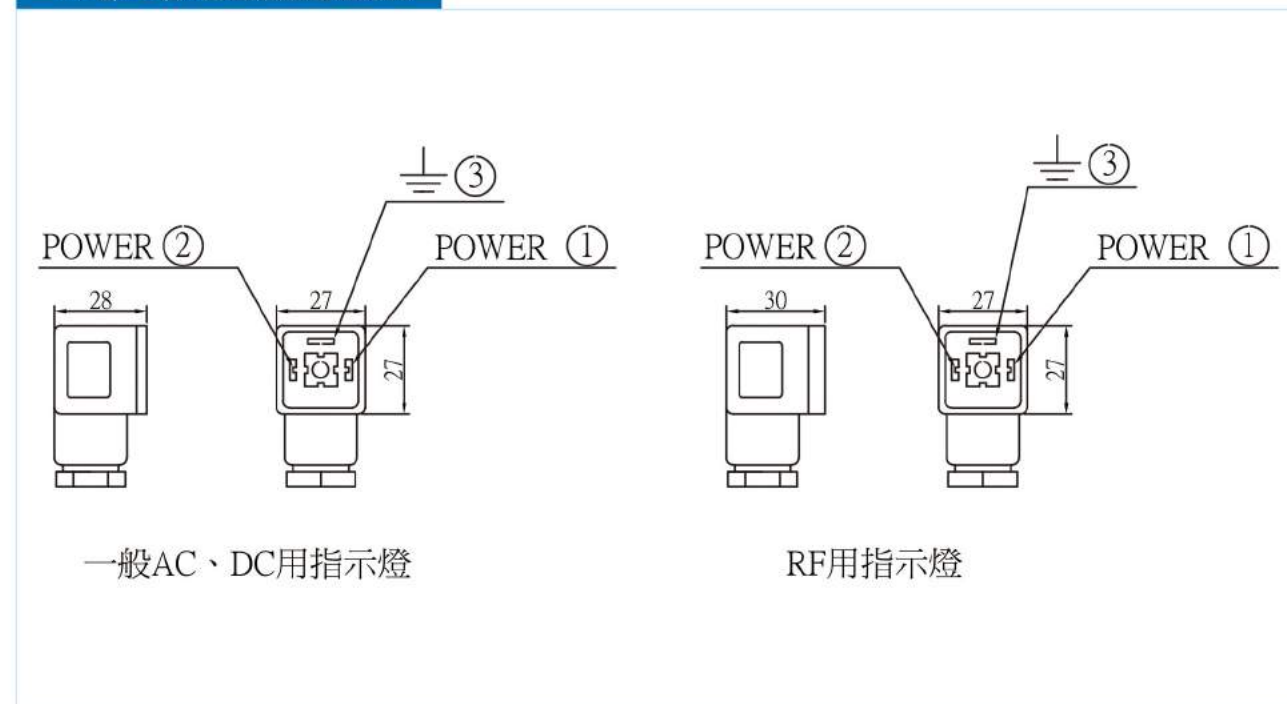


■ DIN Plug connector 插頭式(DIN)接線盒

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於水中或保持在水面下，或有爆炸危險、潮濕、腐蝕劑、發霉等工作環境。
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
4. 本公司DC指示燈皆加裝突波保護電路。

1. The connector is base on DIN43650 specifications and achieving IP65 protection class. IP65 means complete protection, such as dust and lower-pressure water column. Although the coil is waterproof but can not be installed directly in the water or kept below the water surface, even explosion hazard, wet, corrosive, moldy working environment.
2. The connector is transparent with the LED pilot lights.
3. Voltage DC12V-DC100V ; AC24V-AC380V
4. The DC DIN connector contains a surge protector.

插頭式(DIN)接線盒指示燈配線圖

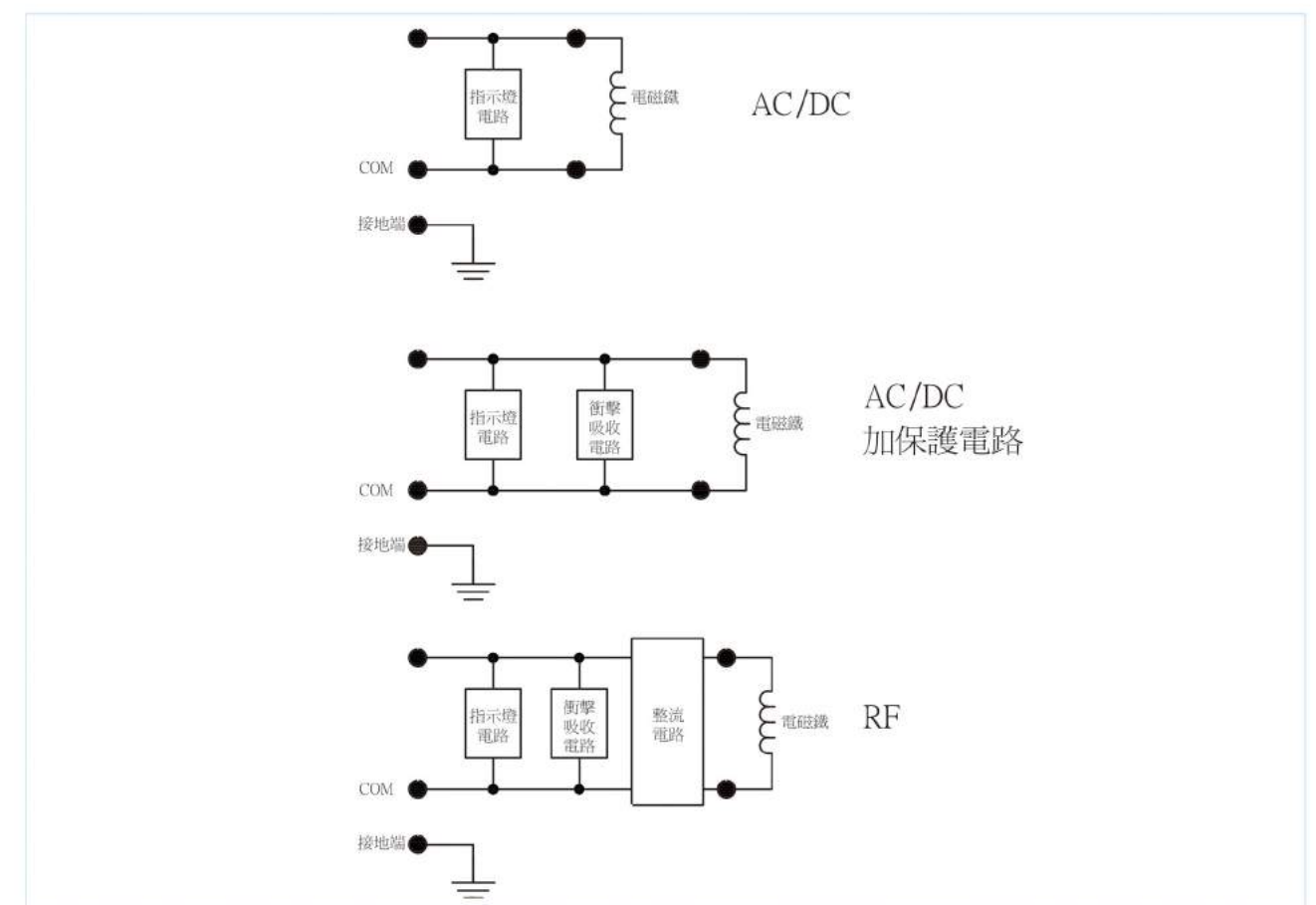


■ RF Type Plug-in connector RF型插頭式(DIN)接線盒

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於水中或保持在水面下，或有爆炸危險、潮濕、腐蝕劑、發霉等工作環境。
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突波保護電路。
5. 本接線盒符合ROHS規範。

1. The connector is base on DIN43650 specifications and achieving IP65 protection class. IP65 means complete protection, such as dust and lower-pressure water column. Although the coil is waterproof but can not be installed directly in the water or kept below the the water surface, even explosion hazard, wet, corrosive, moldy working environment.
2. The connector is transparent with the LED pilot lights.
3. Voltage RF110V, RF220V
4. The connector containing rectifier and protection circuit.
5. The connectors are conform to the standard ROHS.

■ Power Distribution and Wiring Diagram 配電圖、配線圖

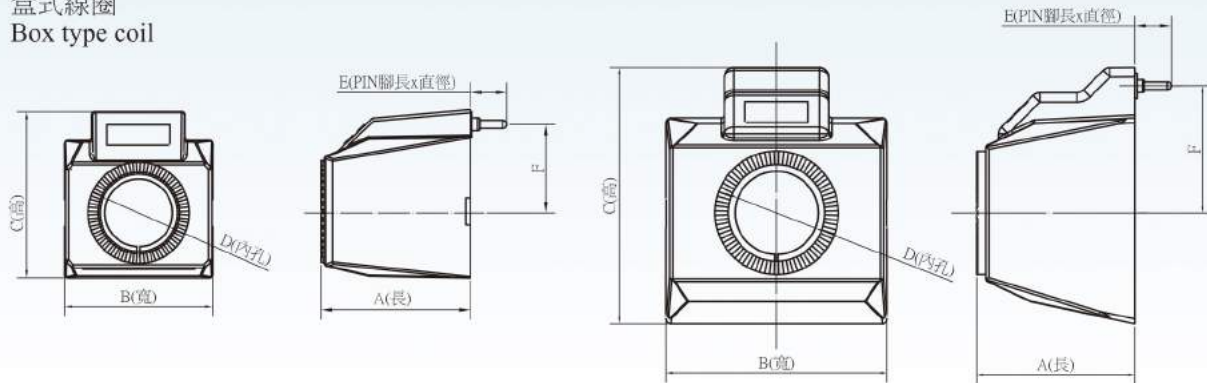




Coil Sizes

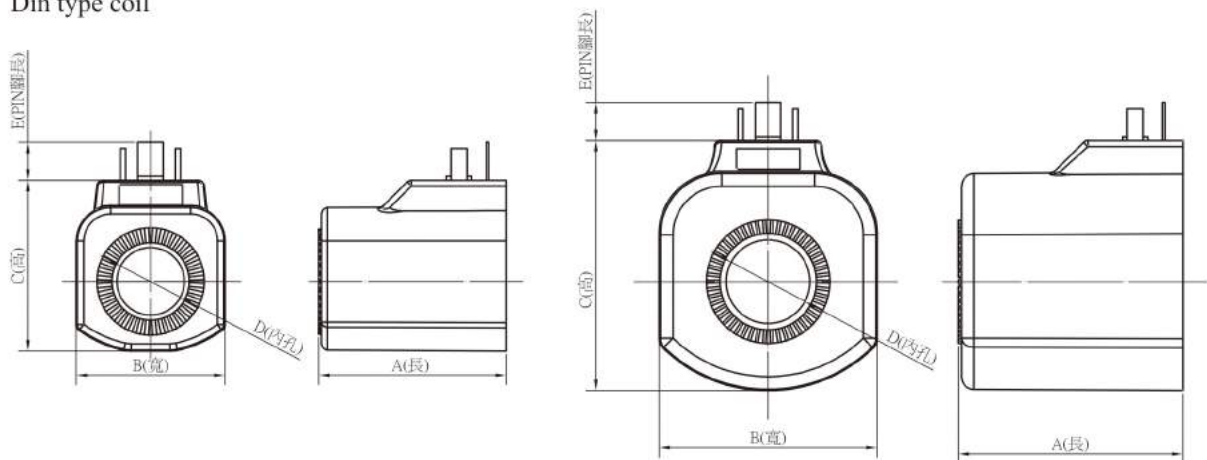
線圈外觀尺寸圖

盒式線圈
Box type coil



	A(長)	B(寬)	C(高)	D(內孔)	E(PIN腳長x直徑)	F
G02-AC-LW	47.2	46.8	53.15	21.3	11.5x2.5	28
G02-DC-LW	59.3	47	54	21.3	11.5x2.5	28
G02-DC-Y-LW	59.3	47	54	19.3	11.5x2.5	28
G03-AC-LW	50	69.8	81	26.3	11.5x2.5	40.15
G03-DC-LW	71	69	80.52	26.3	11.5x2.5	40.15

插頭式線圈
Din type coil

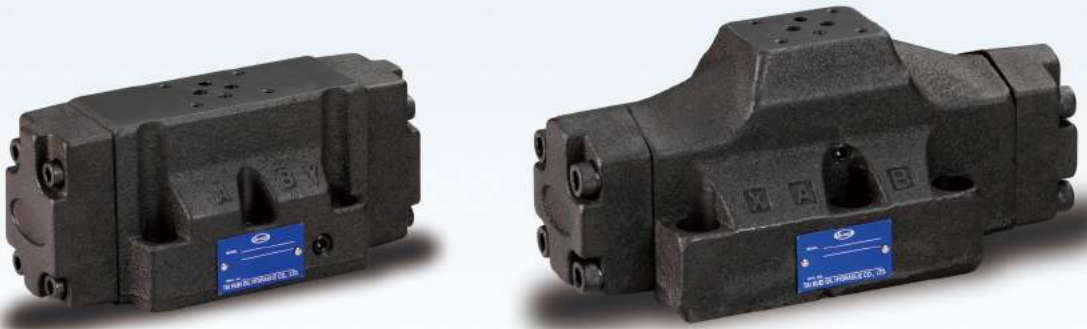


	A(長)	B(寬)	C(高)	D(內孔)	E(PIN腳長x直徑)
G02-AC-DL	47.5	46.8	52.5	21.3	12.5
G02-DC-DL	59.3	47	54	21.3	12.5
G02-DC-Y-DL	59.3	47	54	19.3	12.5
G03-AC-DL	50	69.8	73	26.3	12.5
G03-DC-DL	71	69	79	26.3	12.5



電磁控制引導方向閥 HD-G04 HD-G06

SOLENOID CONTROLLED PILOT OPERATED DIRECTIONAL VALVE HD-G04 HD-G06



HD-***-G04-P-D

HD-***-G06-P-D

(G04 Pilot Operated Slave Valve) (G06 Pilot Operated Slave Valve)
G04 G06

(Pilot Operated Slave Valve Composed With a Single Coil Type Solenoid Valve)
G04 G06

(Pilot Operated Slave Valve Composed With a Double Coil Type Solenoid Valve)

Description of Model

型號說明

HD - *** - G0* - * - *

HD	***	G04 G06		P	D
方向控制閥 Directional control valve	迴路種類 Spool Type	G04: 1/2	G06: 3/4	P:內部導引 *P:外部導引	D:內部迴油 *D:外部迴油
電磁控制導引 控制閥 Solenoid Controlled Pilot Operated Directional valve	請參照閥心機能表 *please refer to the List of spool function	16通徑 (DN16 nominal diameter)	25通徑 (DN25 nominal diameter)	P: Internal Pilot *P: External Pilot	D: Internal Drain *D: External Drain



■ Description of feature 產品規格說明

型號 Model	最大流量 Max. Flow	最高壓力 Max. Pressure	最高導引壓 Maximum Piloting Pressure	最低導引壓 Minimum Piloting Pressure	最大容許背壓 Max. Allowable Back pressure		最高切換速率 Max. Change Over Frequency Cycle/min		
					外部泄流 Ext. Drain	內部泄流 Ini. Drain	AC	DC	RF
HD-3C*-G04	300	315 kgf/cm ²	250 kgf/cm ²	5 kgf/cm ²	210 kgf/cm ²	140 kgf/cm ²	120	120	120
HD-2D*-G04									
HD-2B*-G04									
HD-3C*-G06	500	315 kgf/cm ²	250 kgf/cm ²	5 kgf/cm ²	210 kgf/cm ²	140 kgf/cm ²	120	120	120
HD-2D*-G06									
HD-2B*-G06									

附註：

通過流量視軸心而異。

Notes:

The through flow is depended on the spool type.

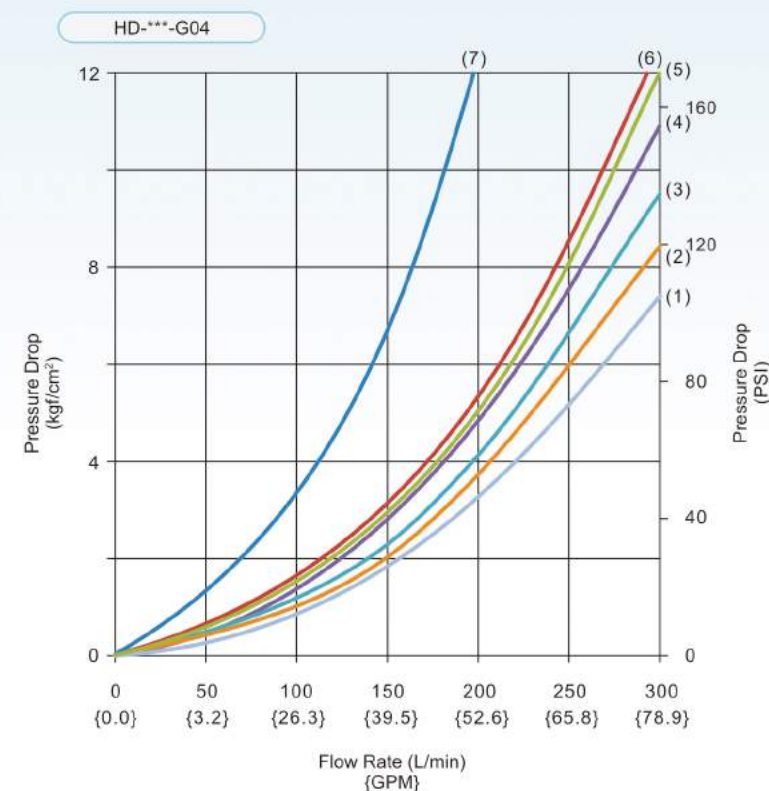
■ Notes 注意事項

1. 本系列電磁控制導引方向控制閥，必須與電磁閥配合使用，G04單頭用2B2 (G06用2A2)，雙頭共用3C4。
2. 內泄油必須保持比油管壓力高5kgf/cm²以上，為防止油管背壓過高，請選用外部引導型(*D)，以確保電磁控制導引方向閥動作準確。
3. 最大流量隨閥的型式不同而異，中立時P孔與T孔相通的3C6 3C60 3C5流量最小。
4. 外部引導型所使用的外導引壓力須超過5kgf/cm²以上。
5. G04/G06閥體內並無止逆閥功能，請自行加裝。

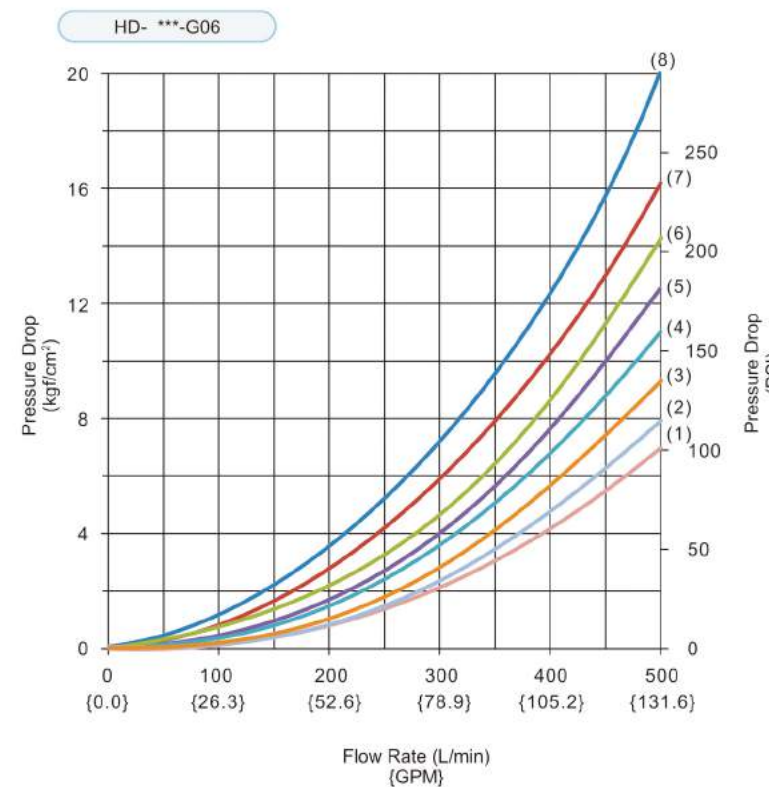
1. The series of solenoid controlled pilot operated directional valve must combine with the hydraulic solenoid directional valve for using. Using the G04 (Single Coil Type Solenoid Valve), please chose 2B2[G06, please chose 2A2];Using Double Coil Type Solenoid Valve, please chose 3C4.
2. The internal drain pressure must be kept 5kgf/cm² higher than the tank line. Please choose external drain type to insure proper pilot operated shifting.
3. The maximum flow varies with the type of the valve. If don't magnetize, the flow rate of 3C6'3C60or3C5 spool type is smaller when the P hole and T hole interlinked.
4. The external pilot pressure of the external pilot type must exceed 5kgf/cm² or more.
5. The G04 & G06 valves do not contain a back pressure check valve. For open center spools, please install at time of plumbing.



■ Pressure drop curve (measured at v=38mm²/s and temp.=50°C) 壓力曲線表



Model Numbers	Pressure Drop Curve Number				
	P→A	B→T	P→B	A→T	P→T
HD-2B2-G04	(3)	(4)	(3)	(2)	-
HD-2B3-G04	(3)	(5)	(3)	(3)	(1)
HD-2B4-G04	(3)	(5)	(3)	(3)	-
HD-2B40-G04	(3)	(4)	(3)	(2)	-
HD-3C2-G04	(3)	(4)	(3)	(2)	-
HD-3C3-G04	(3)	(5)	(3)	(3)	(1)
HD-3C4-G04	(3)	(5)	(3)	(3)	-
HD-3C40-G04	(3)	(4)	(3)	(2)	-
HD-3C5-G04	(1)	(4)	(3)	(3)	(3)
HD-3C6-G04	(3)	(5)	(3)	(2)	(7)
HD-3C60-G04	(1)	(3)	(1)	(1)	(6)
HD-3C9-G04	(3)	(4)	(3)	(2)	-
HD-3C10-G04	(3)	(6)	(3)	(2)	-
HD-3C11-G04	(2)	(4)	(3)	(2)	-
HD-3C12-G04	(3)	(4)	(3)	(3)	-



Model Numbers	Pressure Drop Curve Number				
	P→A	B→T	P→B	A→T	P→T
HD-2B2-G06	(1)	(4)	(6)	(2)	-
HD-2B3-G06	(3)	(5)	(3)	(2)	(5)
HD-2B4-G06	(1)	(4)	(1)	(2)	-
HD-2B40-G06	(1)	(4)	(1)	(2)	-
HD-3C2-G06	(1)	(4)	(6)	(2)	-
HD-3C3-G06	(3)	(5)	(3)	(2)	(5)
HD-3C4-G06	(1)	(4)	(1)	(2)	-
HD-3C40-G06	(1)	(4)	(1)	(2)	-
HD-3C5-G06	(1)	(5)	(4)	(2)	(8)
HD-3C6-G06	(4)	(6)	(4)	(5)	(8)
HD-3C60-G06	(3)	(4)	(3)	(2)	(8)
HD-3C9-G06	(3)	(4)	(3)	(2)	-
HD-3C10-G06	(1)	(4)	(1)	(2)	-
HD-3C11-G06	(1)	(5)	(4)	(2)	-
HD-3C12-G06	(1)	(4)	(1)	(2)	-



Feature 基本特性

1. 使用G02油浸式電磁閥控制，油壓導引切換動作。
2. 可簡易更改內、外部導引及洩流動作，只需一般工具即可更改。
3. 本控制閥適用於3.2Z以下之安裝面。
4. 可選配手動調整流量型控制閥。
5. 磷酸鹽防鏽表面處理，閥體外觀為黑色。
6. 閥體內所使用的軸心尺寸：
G04：軸直徑 25mm
G06：軸直徑 32mm

1. G02 wet pin solenoid pilot valve will control the slave valve.
2. For internal or external pilot or drain, a simple plug conversion is required.
3. The solenoid controlled pilot operated directional valves are suitable for the installation of surface should be keep under 3.2z surface.
4. Solenoid directional control valve with Adjustment type is available for selection.
5. Anti-rust by the phosphate on the surface, and the body appearance of the valve is black.
6. The size of spool, G04 type :Φ25mm; G06 type :Φ32mm.

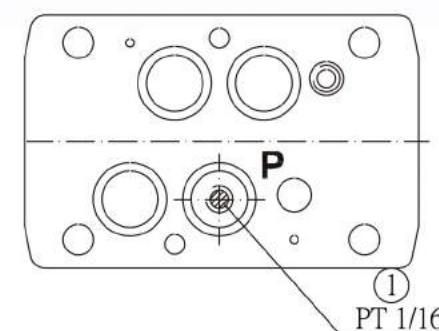
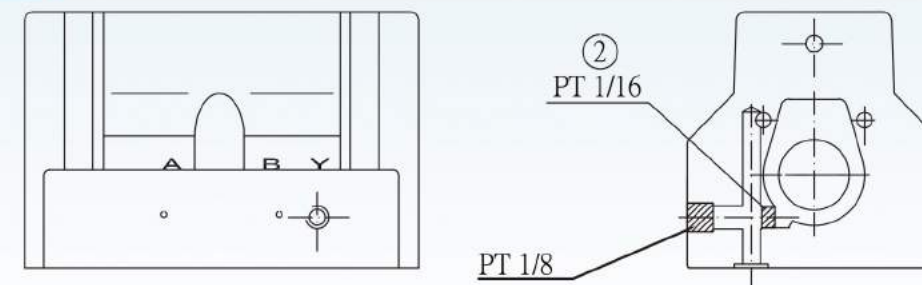
How to use 使用說明

1. 選擇內洩型，必須使控制壓力比迴油壓力高5kgf/cm²，當回油壓力比較高時，請選擇外洩型。
2. 選擇外導型，必須使控制壓力比迴油壓力高5kgf/cm²。
3. 軸心為3C3、3C5、3C6、3C60等之類迴油軸心，請選擇外控型，並加裝止逆閥。
4. 如下圖所示，可更改控制和洩漏方式。

1. If you using the interior draining type, must keep the pressure of brake is higher than the pressure of reflux and over 5kgf/cm²;
When the pressure of reflux is higher than the pressure of brake, please choose the exterior draining type.
2. If you using the exterior draining type, must keep the pressure of brake is higher than the pressure of reflux and over 5kgf/cm². And please installing the check valve.
3. Please select the external pilot type, if the spool types of the slave valve will be 3C3, 3C5, 3C6 or 3C60.
4. The valve can change the type of piloting and draining, as the Diagrams below.

Pilot and Drain 引導及洩載 介紹圖

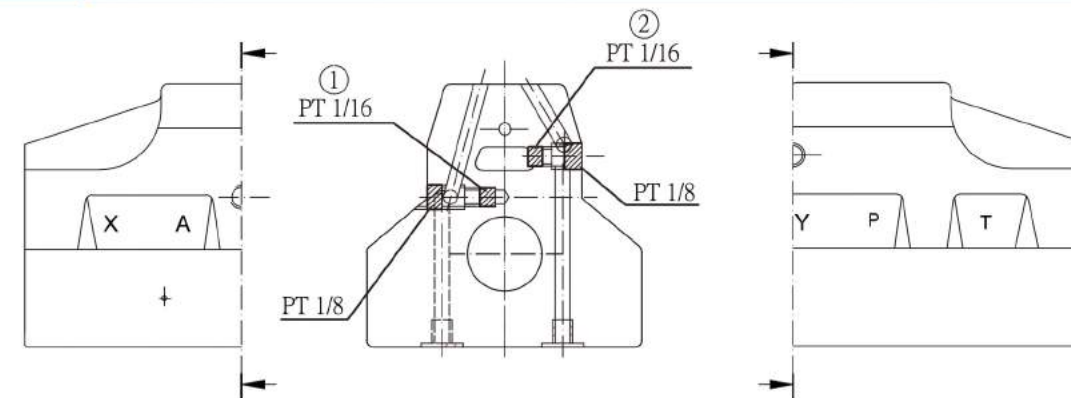
HD-G04



- ① 內六角油塞頭(PT 1/16)用於外控型，內控型須拆去。
② 內六角油塞頭(PT 1/16)用於外洩型，內洩型須拆去。

- Y = Drain line port
X = Pilot line port
- For external pilot, the internal plug (1/16") must be installed, and the external 1/8" port must be plugged.
 - For internal pilot, the internal plug (1/16") must be removed, and the external 1/8" port must be plugged.
 - For external drain, the internal plug (1/16") must be installed, and the external 1/8" port must be plugged.
 - For internal drain, the internal plug (1/16") must be removed, and the external 1/8" port must be plugged.

HD-G06



- ① 內六角油塞頭(PT 1/16)用於外控型，內控型須拆去。
② 內六角油塞頭(PT 1/16)用於外洩型，內洩型須拆去。

- Y = Drain line port
X = Pilot line port
- For external pilot, the internal plug (1/16") must be installed, and the external 1/8" port must be plugged.
 - For internal pilot, the internal plug (1/16") must be removed, and the external 1/8" port must be plugged.
 - For external drain, the internal plug (1/16") must be installed, and the external 1/8" port must be plugged.
 - For internal drain, the internal plug (1/16") must be removed, and the external 1/8" port must be plugged.

Accessories 附件

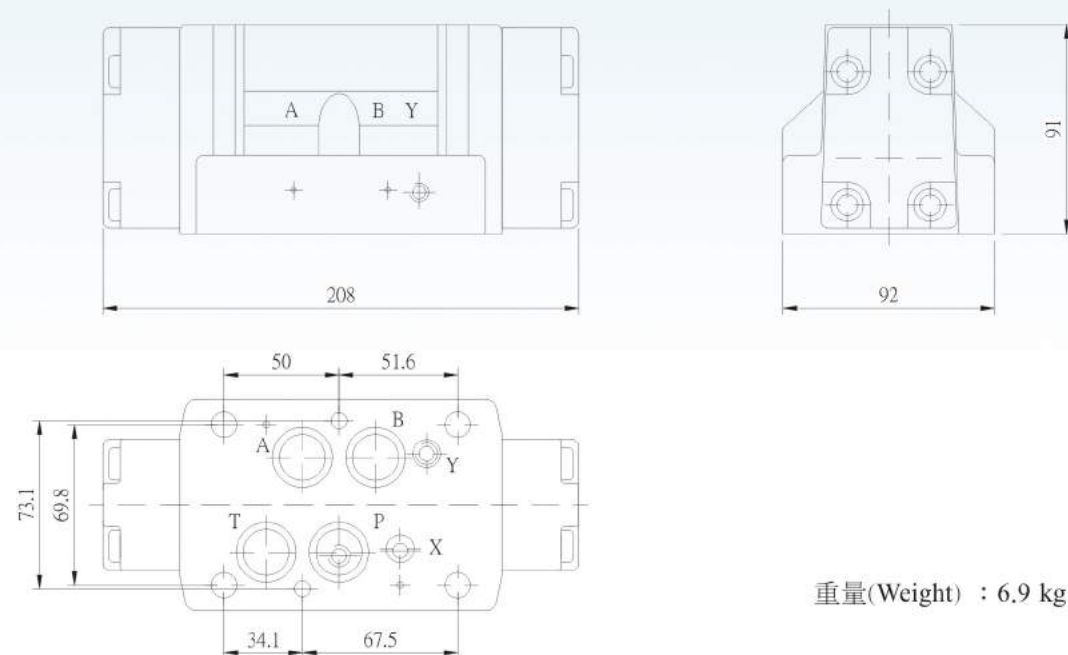
- 04 固定螺絲 M6x45x2 M10x45x4 1/16x2
06 固定螺絲 M12x45x6 1/16x2
04 Socket screw M6x45x2 M10x45x4 1/16x2
06 Socket screw M12x45x6 1/16x2



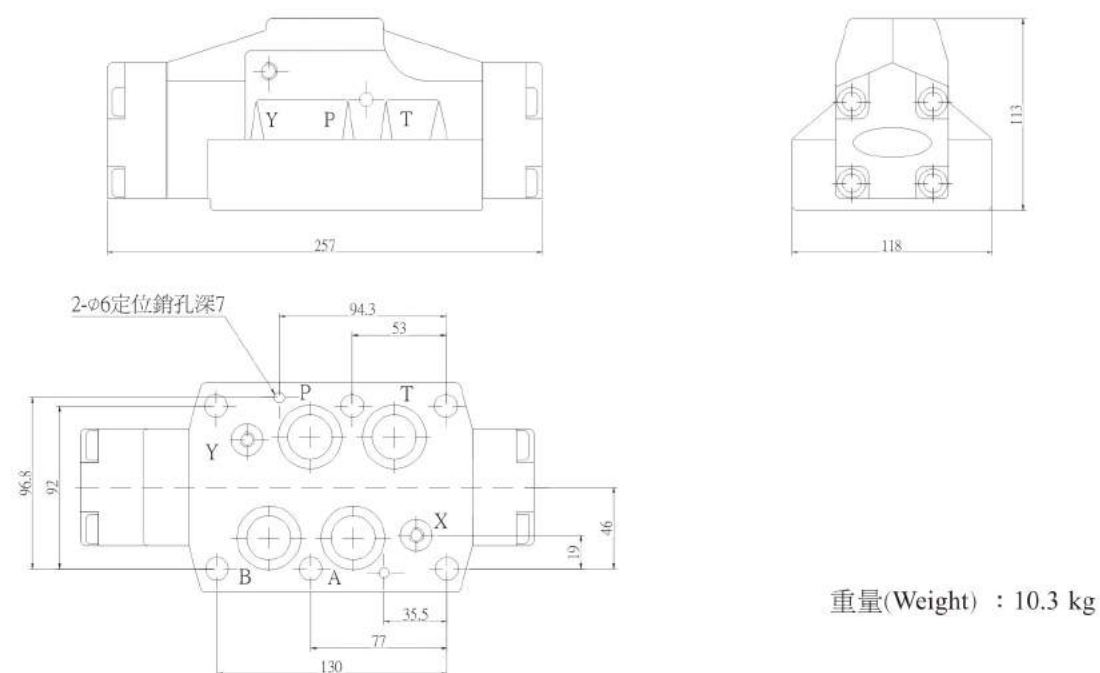
View & Component

外觀尺寸圖及產品結構圖

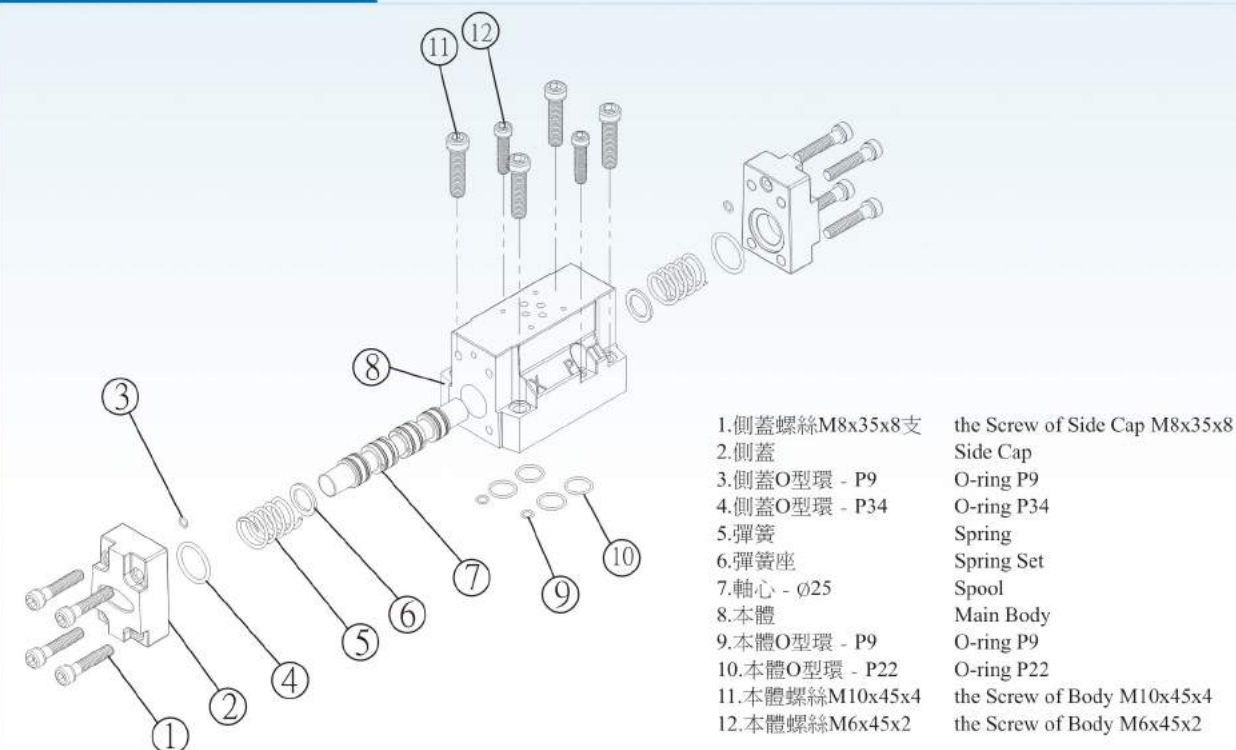
HD-G04外觀圖(CAD)



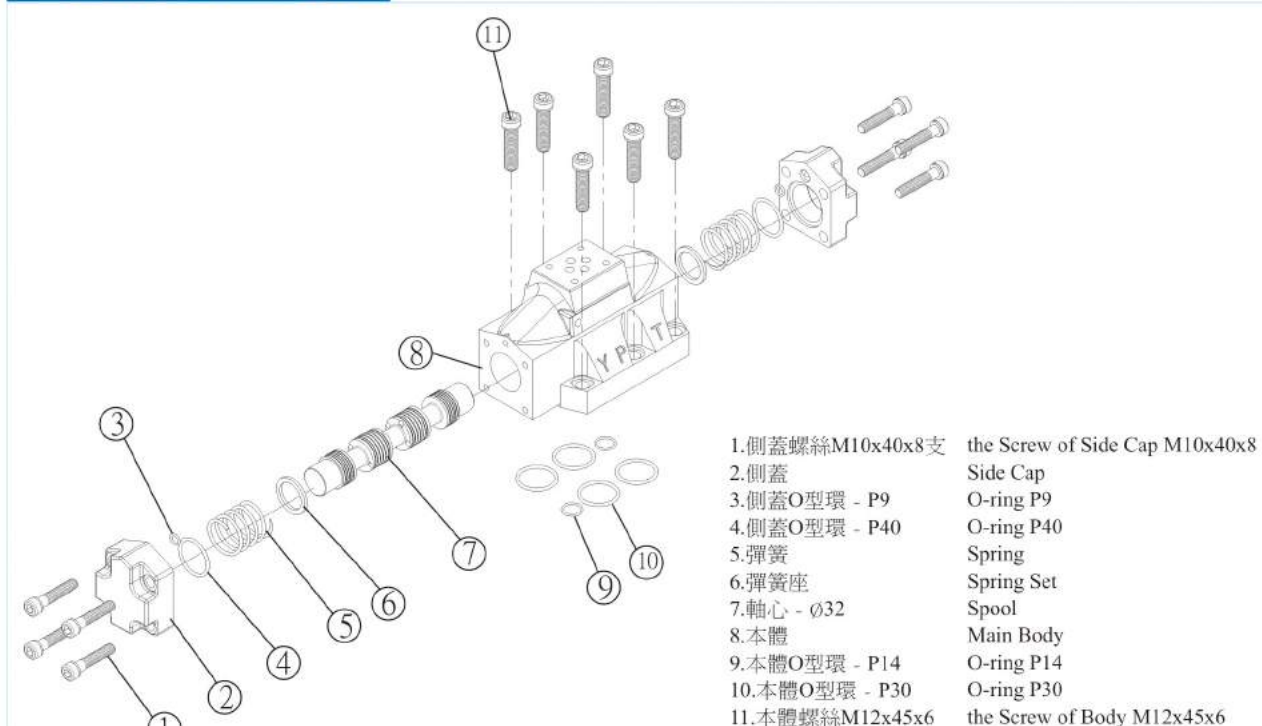
HD-G06外觀圖(CAD)



HD-G04產品結構圖(CAD)



HD-G06產品結構圖(CAD)



G04、G06各種軸心功能明細表

LIST OF SPOOL FUNCTIONS HD-G04 HD-G06

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		
3C5		
3C6		
3C60		
3C9		
3C10		
3C11		
3C12		
彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols	
	標準組立 Standard	
2B2		
2B3		
2B4		
2B6		

彈簧偏心 2位置 Spring off set 2 Position	圖形符號 Graphic Symbols	
	標準組立 Standard	逆組立 Reverse
2D2		
2D3		
2D4		
2D6		
	正組立 Standard	逆組立 Reverse
2B2B		
2B3B		
2B4B		
2B5B		
2B6B		
2B60B		
2B9B		
2B10B		
2B11B		
2B12B		



線性位移感測器式電磁換向安全閥

Directional Control Valve with Linear Variable Differential Transformer (LVDT)-Inductive Position Control



HD-***-G02-DL-*-P-AC/DC



HD-***-G03-DL-*-P-AC/DC



HD-***-G04-P-D-P



HD-***-G06-P-D-P

線性位移感測式安全閥主要針對塑料機械、壓鑄機械等使用液壓動力單元之產業開發，其作用為在確保機械設備在安全門完全關閉的情形下方可正常運作，避免操作人員在未完全關閉安全門時之不當操作，造成人員及機械設備之損壞，以達到安全控制之目的。

線性位移感測器式電磁換向安全閥，以下簡稱安全閥。

The directional control valve with linear variable differential transformer (LVDT) is mainly used for plastic machinery, die casting machinery industry's hydraulic power unit. The function is to ensure that the mechanical device in the case of security door is fully closed can be normal operation. To avoid improper operation of the operator in the safety door is not fully closed and even cause the damages to personnel and mechanical equipment. In order to the purpose of the security controls.

Directional Control Valve with Linear Variable Differential Transformer (LVDT)-G0*-P Inductive Position Control, in the following referred to as a "safety valve".



■ Operation principle 工作原理

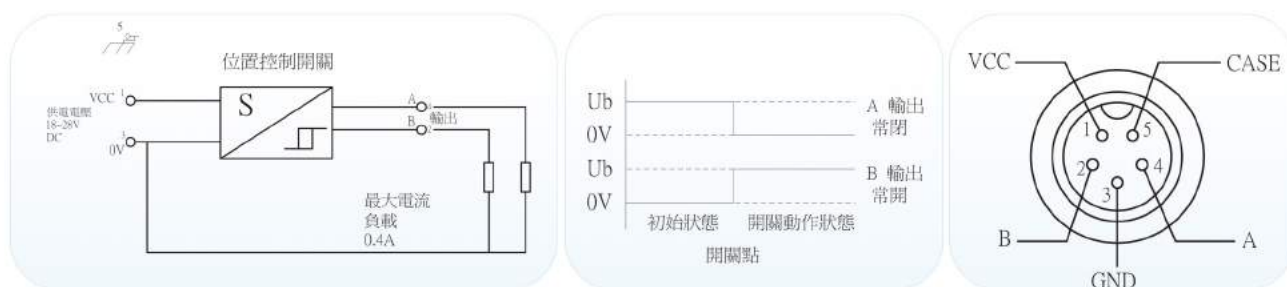
- 安全閥是藉由磁場的移動，通斷及感測器中內置的位置傳感器感測點，精確地達到對閥心位置的檢測。
- The safety valves enables accurate spool positioning by the movement' on and off of the magnetic field and the position sensing point which built into LVDT(Linear variable differential transformer).
- 該檢出之訊號由感測器輸出訊號並輸入工業計算機運算，藉由此運算數據以控制或驅動液壓組件及其他機械結構。
- The output signals from the sensors and entering the industrial computer, by this operator data computing to control or drive hydraulic components and other mechanical structures.

■ Features 功能特色規格

- A. 安全閥備有四種尺寸G02、G03、G04、G06可配合不同流量之液壓元件使用。
A. The safety valves have 4 sizes: G02, G03, G04, G06 suitable for the use of the different flows of hydraulic components.
- B. 防水等級達IP67，不鏽鋼外殼堅固美觀。
B. Protection class reaches IP67, stainless steel housing is strong with beautiful.
- C. 電器規格 Electronic specification

工作電壓範圍 Input supply voltage	18~24 VCD(±10%)
建議輸出電流/每通道 Recommended output current per channel	≤50mA
最大輸出電流/每通道 Max. output current per channel	400mA
負載輸出最大壓差值 Max. output drop	≤6V
開關點誤差 Switch point deviation	≤0.5mmc
環境溫度範圍 Ambient temperature	0~50°C
保護等級 Protection class	IP 67

- D. 連接器和電纜接線說明 Statement of connector and wiring



1. VCC(18~28V DC)，紅色線
2. 輸出 B，白色線
3. GND，黑色線
4. 輸出 A，藍色線
5. 接外殼屏蔽線

此開關專門用於行程點的監控。到達觸發點時，輸出端A(4引腳)不導電－常閉開關；同時輸出端B(2引腳)導電－常開開關。開關動作時的距離利用外管在內管上移動位置或鐵芯的螺紋進行調節。

1. VCC(18~28V DC)-Red wire
2. Output B-White wire
3. GND-Black wire
4. Output A-Blue wire
5. The shield wire connected with the junction box

This switch is dedicated to the process of monitoring. When the trigger point is reached, output A (4pin) non-conductive - normally closed; output B (2pin) conductive-normally opened. The distance of switching operation is due to the inner tube from the outer tube on the moving position or spool's thread to adjust.



■ Description of Model

型號說明

HD-3C2-G0*-DL-B-P-AC/DC

HD-3C2-G04-P-D-P

HD	***	G0*	DL
方向切換閥 Directional control valve	軸心迴路種類 Spool type	閥體口徑尺寸 Valve size	接線型式代號 Wiring connection type
油浸式電磁方向閥 High flow wet pin Solenoid Directional control valve (plug-in board type)	請參閱 P19、P20軸心表 Refer to P19、P20 List of Spool Function	G02:1/4"(D03)(NG06) G03:3/8" (D05)(NG10)	DL: 插頭式 Din type
電磁控制導引控制閥 Solenoid Controlled Pilot Operated Directional Valve	請參閱P33軸心表 Refer to P33 List of Spool Function	G04:1/2 16通徑(DN16 nominal diameter) G06:3/4 25通徑(DN25 nominal diameter)	

B/E/P-D		P	AC/DC/RF							
系列代碼 Series NO.		型號代碼 type NO.	使用電壓 Voltage(V)							
B系列 高效率低電流電磁方向閥 High efficiency and Low current Solenoid Directional control valve	E系列 大流量電磁方向閥 Standard High Flow Wet Pin design valve	P 位置感知器 Position	AC110		AC220		DC12	DC24	RF110	RF220
			頻率(Frequency)HZ							
			50	60	50/60					
P:內部導引 *P:外部導引 P: Internal Pilot *P: External Pilot			D:內部迴油 *D:外部迴油 D: Internal Drain *D: External Drain							

■ Notes 使用注意事項

1. 當感測器用於電感性負載，例如電動機，繼電器線圈等，其接觸點在(負載電路)觸點開路時將產生高感生電壓，這種(瞬間)高感生電壓的衝擊可能會損壞感測器或明顯降低位移感測器式電磁換向閥使用壽命。建議客戶端採用突波接收保護電路。
2. 嚴禁私自拆解安全閥體。
嚴禁私自更換安全閥內外部零組件。
嚴禁私自更換或改裝安全閥內節流器。
3. 安全閥的位置檢測器必須經由閥的原廠製造者來設定及檢測。
4. 液壓系統必須保證不得使安全閥軸心產生衝擊或震盪。
5. 避免安全閥從高於30cm處掉落至堅硬表面，否則內置傳感器的工作效能可能因此而故障。
6. 控制液壓油之污染，否則會減損安全閥壽命或損壞，過濾器應選用過濾比為 $\Delta X=75\mu m$ ， $X=25\mu m$ 之精度等級。
7. 液壓油應相當於ISO VG32 或 ISO VG45等級之液壓油或乙二醇液。

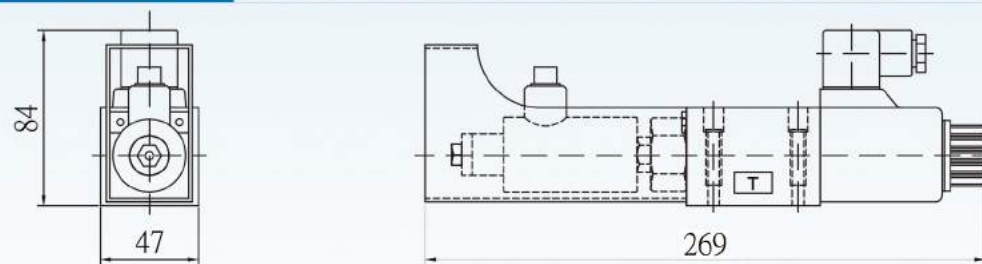
1. When the LVDT (Linear variable differential transformer) is used in the inductive load, such as the motor, the relay coil, etc. If the contact point's contacts open (load circuits) will produce high induced voltage and the impact (Instantaneous) of the high induced voltage may damage the LVDT (Linear variable differential transformer) or significantly reduce the safety valve life. For this reason, recommend that the client use a surge protection device.
2. Do not re-adjust the safety valve main body.
Do not transfer the internal and external components of the safety valve.
Do not change or transfer the throttle body of the safety valve.
3. The LVDT(Linear variable differential transformer) of the safety valve can only be set and checked by the manufacturer.
4. The hydraulic system must ensure that the spools to avoid shock or vibration.
5. Please avoid the safety valve fall to the hard ground from higher than 30cm.
6. Please avoid the pollution of the hydraulic oils, otherwise, it will reduce the safety valve life even damage. Filters should use the filtration: $\Delta X=75\mu m$, $X=25\mu m$ class.
7. The hydraulic oils should use the ISO VG32 or ISO VG45 degree's hydraulic oils and hydraulic fluid.





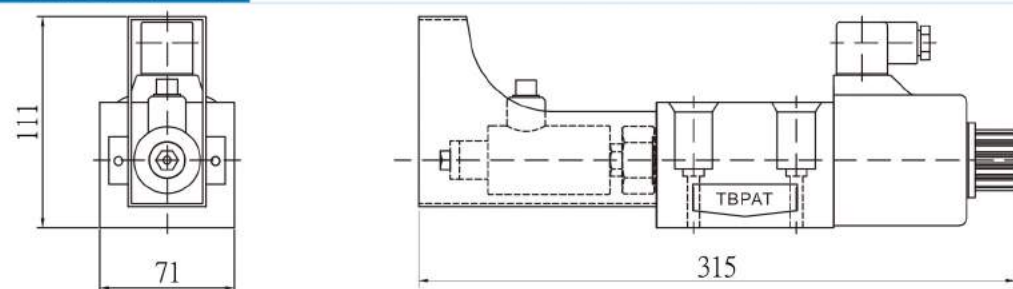
View 外觀尺寸圖

HD-G02 外觀尺寸圖(CAD)



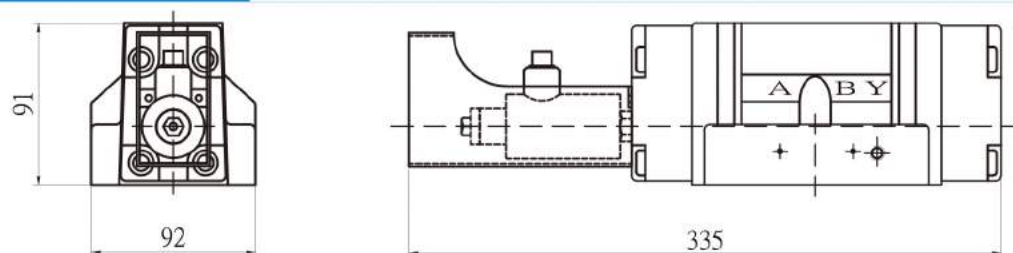
G02線性位移感測器式電磁換向安全閥

HD-G03 外觀尺寸圖(CAD)



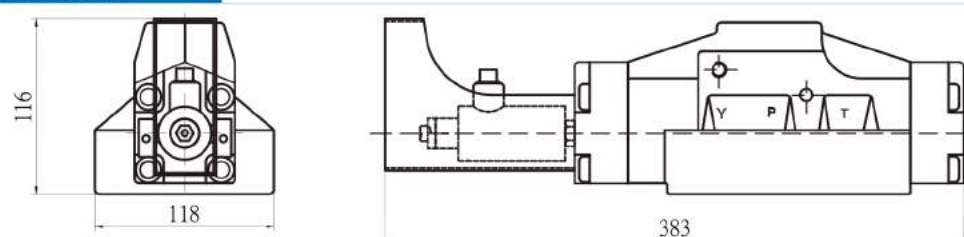
G03線性位移感測器式電磁換向安全閥

HD-G04 外觀尺寸圖(CAD)



G04線性位移感測器式電磁換向安全閥

HD-G06 外觀尺寸圖(CAD)



G06線性位移感測器式電磁換向安全閥



DO NOT RE-ADJUST DEVICE IS FACTORY-ADJUSTED !
非原廠技術人員請勿自行拆卸 !
(Replacement and repairs can only be undertaken by the manufacturer!)

各式電磁方向閥附手動定位開關及流量調整型

SOLENOID DIRECTIONAL CONTROL VALVE WITH MANUAL SWITCH TYPE AND SOLENOID DIRECTIONAL CONTROL VALVE WITH ADJUSTMENT TYPE

HD-G02 HD-G03

電磁方向閥附手動定位開關型



HD-***-G02-DL-**-B-AC(單頭)



HD-***-G03-DL-**-AB-DC(雙頭)

Description of Model

型號說明

HD - *** - G0* - LW - * - * - AC

HD	***	G02/G03	LW/DL	*	*
方向切換閥 Directional control valve	軸心迴路種類 Spool Type	閥體口徑尺寸 Valve size	接線型式代號 Wiring Connection type	系列代碼 Design No.	手動切換定位調整型 Adjustment Type
油浸式電磁方向閥 High flow wet pin Solenoid Directional control valve (plug-in board type)	請參閱 P19、P20 軸心表 Refer to P19, P20 List Of Spool Function	G02 1/4" (D03) (NG06) G03 3/8" (D05) (NG10)	LW 接線盒形式 Box type DL 插頭式 Din 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 High Flow oil Dipping Solenoid Directional control valve	A: A邊調節 A: A Port Adjustment type B: B邊調節 B: B Port Adjustment Type AB: AB邊調節 AB: A & BPort Adjustment type

Feature

特性說明

- 調整螺帽為鋁合金經陽極處理，防塵防鏽不影響磁力輸出。
 - 調節螺絲可迅速調整至定位。
 - 不需任何工具徒手即可輕鬆調整。
- ※G02、G03 AB定位型，不可做為調節流量時使用。
- Adjustment nuts are aluminum alloy and anodized to make become dustproof and anti-rust that will not affect the magnetic.
 - Adjustment screw can be quickly adjusted to the positioning.
 - Can be easily adjusted without tools.
- ※G02, G03 AB Port Adjustment type, are not recommended to use to regulate the flow.



■ HD-G04 HD-G06 中座附流量調整型



HD- ***-G04-P-D-AB

HD-G04 AB手動調整：重量(Weight) 7.2 kg



HD- ***-G06-P-D-AB

HD-G06 AB手動調整：重量(Weight) 10.7 kg

■ Description of Model 型號說明

HD- *** - G0* - P - D - *

HD	***	G04/G06		P	D	*		
方向切換閥 Directional control valve	軸心迴路 種類 Spool Type	閥體口徑 尺寸 Valve size		Piloting type	Draining type	手動切換定位調整型 Adjustment Type		
電磁控制 導引控制閥 Solenoid Controlled Pilot Operated Directional Valve	請參閱P33 軸心表 Refer to P33 The List Of Spool Function	G04: 1/2 16通徑 (DN16 nominal diameter)	G06: 3/4 25通徑 (DN25 nominal diameter)	請參閱G04、G06 Refer to G04,G06	請參閱G04、G06 Refer to G04,G06	A: A邊調節 A: A Port Adjustment type	B: B邊調節 B: B Port Adjustment Type	AB: AB邊調節 AB: A & BPort Adjustment type

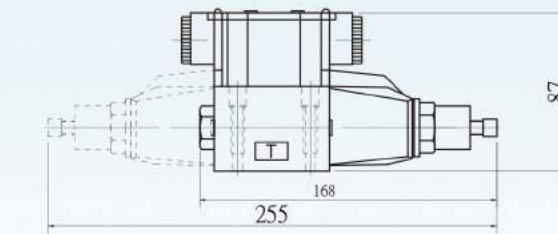
■ Feature 特性說明

1. 調節螺絲採特殊牙紋設計，可做精細調整。
2. 調節螺絲採特殊鋼材經高週波處理。
3. 調節螺絲末端採四角形設計，只需一般工具就可調節。
4. 可做為流量調整時使用。

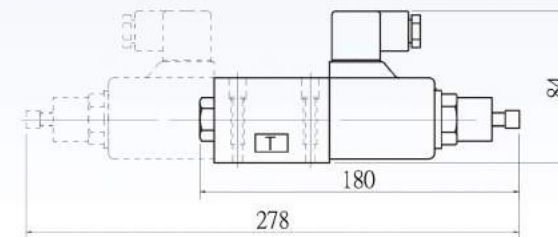
1. Adjustment screw by special exquisite design, can be fine adjustment .
2. Adjustment screw made by special steel and treated with induction hardening.
3. The end of adjustment is quadrangle design, can be easy adjustment.
4. Can be use to regulate the flow.



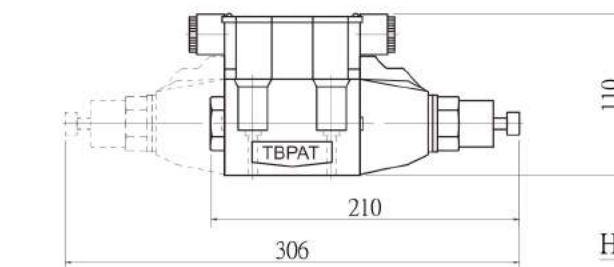
AB外觀圖(CAD)



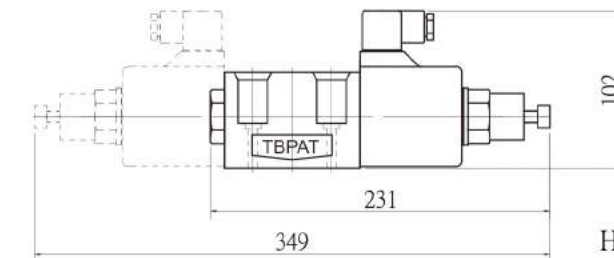
HD-***-G02-LW-***-AB-AC



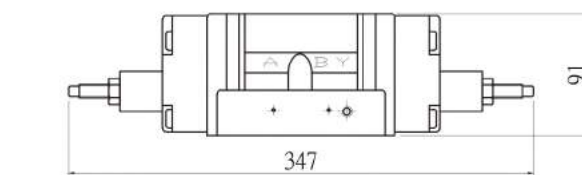
HD-***-G02-DL-***-AB-DC



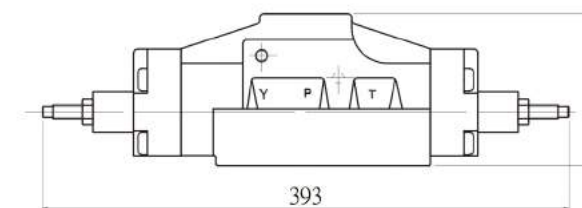
HD-***-G03-LW-***-AB-AC



HD-***-G03-DL-***-AB-DC



HD-***-G04-P-D-AB



HD-***-G06-P-D-AB



直動式空壓電磁閥

PNEUMATIC DIRECTIONAL MAGNETIC VALVE



AD35-30*



AS35-30*



AD25-30*



AS25-30*



AD15-30*



AS15-30*

■ Description of Model

型號說明

直動式空壓電磁閥 Pneumatic directional magnetic valve	AD*5 AS*5	AD15/AS15	AD25/AS25	AD35/AS35
	位置數 Position	單頭兩位置 One-way 2-Position	雙頭兩位置 Two-way 2-Position	雙頭三位置 Two-way 3-Position
	口徑 Valve Size	1/4"	3/8"	1/2"
	提供電壓 Voltage	AC110/50 AC110/60 AC220/50 AC220/60 暫無提供DC電壓 No DC voltage		

■ Coil Specifications

電磁線圈特性

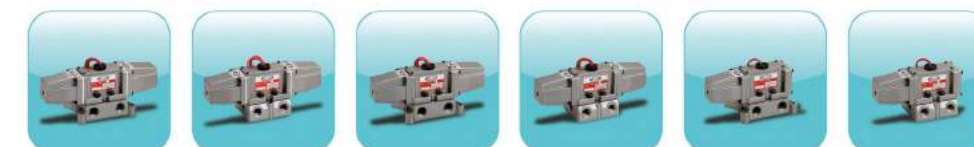
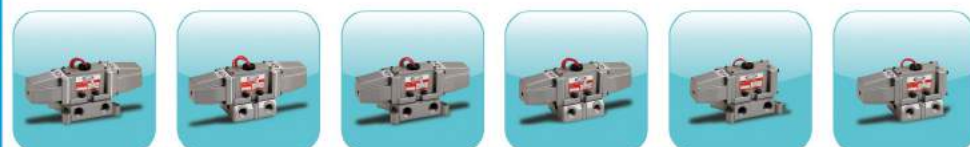
使用電壓 Applied Voltage	啟動電流 Start Current (A)	保持電流 Holding Current (A)	電壓容許範圍 Allowable Voltage
AC110V50Hz/60Hz	0.65/0.6(A)	0.34A	±10%
AC220V50Hz/60Hz	0.35/0.3(A)	0.16A	±10%

■ Description of feature

產品特性表

口徑 Valve Size	302/PT 1/4	303/PT 3/8	304/PT 1/2
有效斷面積 Effective Area	31mm ²	40mm ²	42mm ²
使用壓力 Applied Pressure	0-10kg/cm ²		
使用溫度 Applied Temp	5-60 °C		
應答速度 Response Speed	0.03秒以下 Under 0.03sec		
動作頻率 Frequency of the action	360 次/分 360 times/min		

型號 Model	AD15	AS15	AD25	AS25	AD35	AS35
位置數 Position	單頭兩位置 One-way 2-Position		雙頭兩位置 Two-way 2-Position		雙頭三位置 Two-way 3-Position	
重量(kg) Weight(kg)	1.4	1.3	1.8	1.7	1.8	1.7
符號 Mark						



Features 產品特性

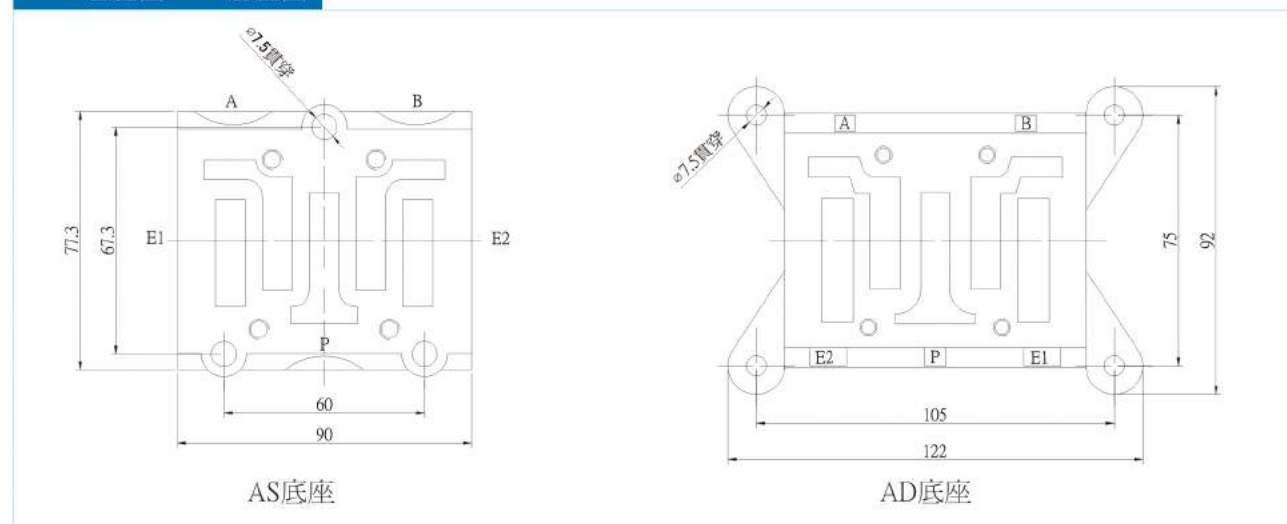
1. 採用特殊設計，使得啟動及保持電流極小。
2. 電磁式直接啟動，應答速度快，通過流量大。
3. 直接啟動切換無須引導壓力。
4. 整體均使用高級鋁合金材質，外形美觀、重量輕。
5. 閥體與底座採分離式設計，故配管及安裝極為容易，與他牌互換性高。
6. 獨特加工技術，軸心運作順暢不易卡心。

1. Special design makes start and maintain current minimum.
2. Magnetic direct start makes the fast response speed and high flow through.
3. Direct start switching without piloting pressure.
4. Whole made of high-class aluminum alloy die-casting products, it is pleasing in appearance, light weight, small size.
5. The main body and sub plate are separate assembly design, so the piping and installation easily.
6. Unique processing technology, prompting spools operation smoothly and not easy to get stuck.

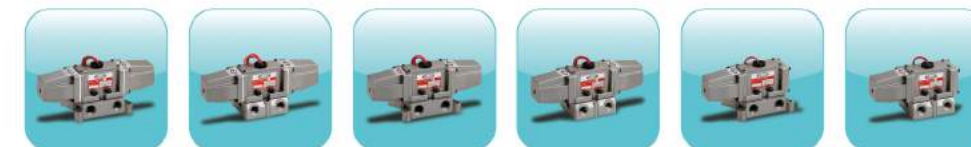
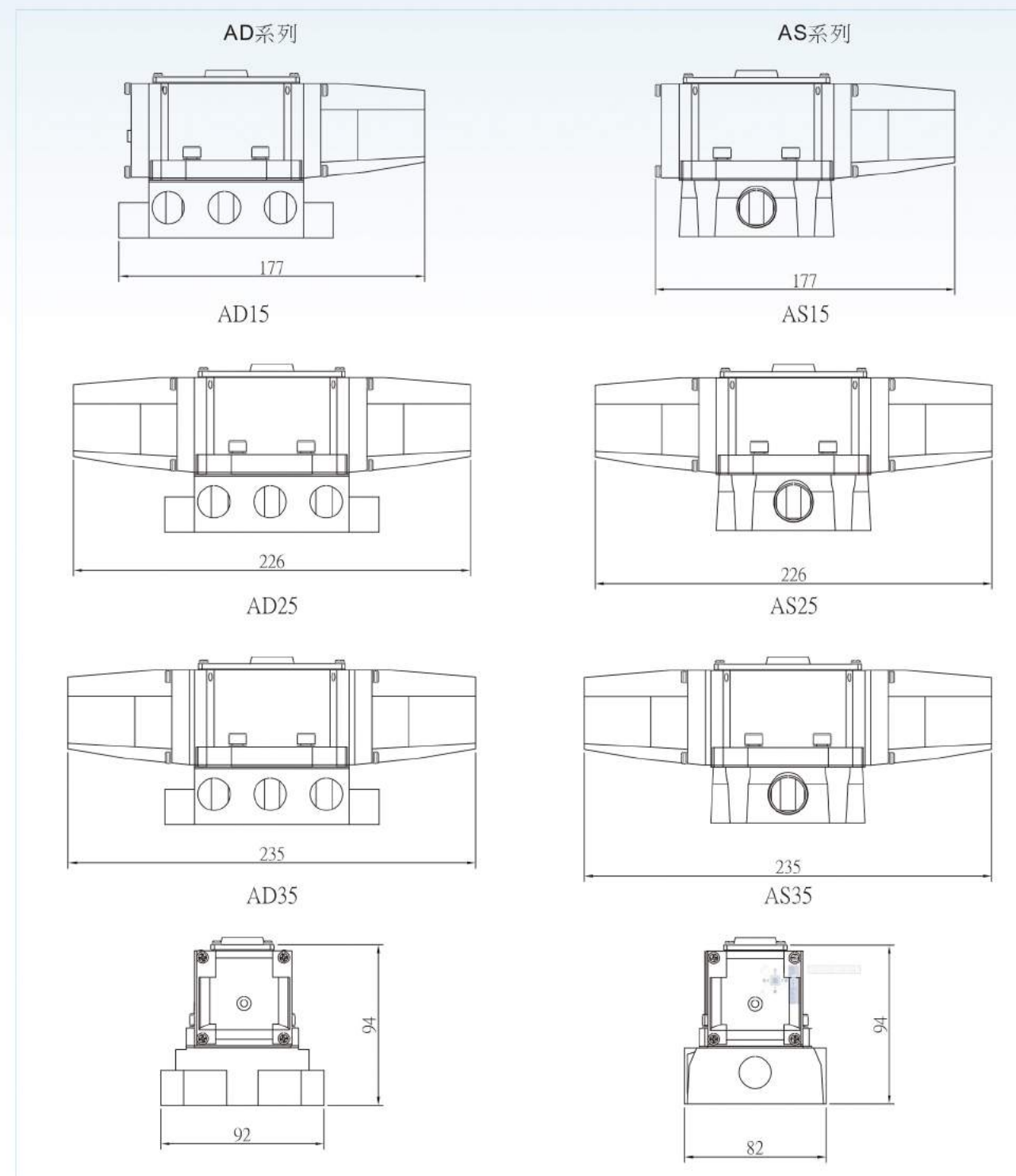
Notes 注意事項

1. 電磁線圈只提供AC110V、AC220V。
 2. 電磁線圈導線長度為200mm。
 3. 裝配時須保持水平安裝為佳。
 4. 請使用空壓三點組合濾水及工作溫度:5-50°C。
 5. 潤滑油建議使用ISO VG32為佳。(勿使用於其他產品，避免油封受損及動作不良，確保使用壽命增長)。
 6. 為保護閥體正常使用，請選擇40um以下之過濾器使用。
1. The magnetic coil only provide AC110V, AC220V.
 2. The length of lead wire of magnetic coil is 200mm.
 3. Be sure to maintain the level of installation.
 4. Needing collocate with the F.R.C. connection. Temp. Applied:5-50°C.
 5. Using of ISO VG32 for lubrication. (Don't use other oil to avoid the tubes and spools are damaged even malfunction.)
 6. In order to protect the valve using normally, please use of filtered below 40u.

AD底座圖、AS底座圖



View 外觀尺寸圖



INTERNATIONAL FREQUENCY(Hz) AND VOLTAGE(Volts) LIST

MEMO

MEMO

MEMO