

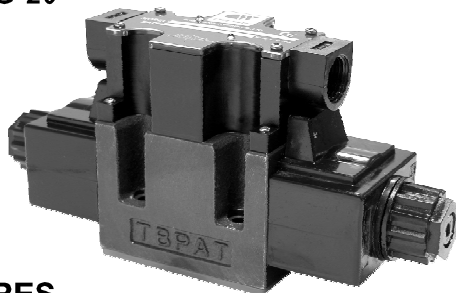
SOLENOID OPERATED DIRECTIONAL VALVES

WE SERIES

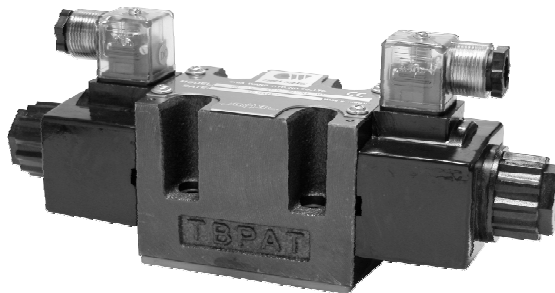
電磁換向閥

◆ MODEL 型 式

WE-03G-20



WE-03G-30



FEATURES

- Casting iron valve bodies are provided strength and durability for longer life.
- ◆ Internal hardened steel components also provide durable life.

特 點

- 閥本體鑄鐵強度夠且耐久性，壽命長。
- 內部硬鋼原件提高產品壽命。

◆ SPECIFICATIONS 規 格

Model Number 型式號碼	Maximum Pressure 最大壓力 bar	Maximum tank line back pressue 最大容許背壓 bar	Maximum tank frequencies of operation 最高切換頻率 CPM	Maximum Flow 最大流量 lpm	Weight 重量 Kg
WE- *C*-03G-**-20	315 (4500 psi)	160 (2320 psi)	240 CPM	120 (31.70 gpm)	5.4 (11.9 lbs)
WE- *B*-03G-**-20					4.5 (9.9 lbs)
WE- *C*-03G-**-30					5.4 (11.9 lbs)
WE- *B*-03G-**-30					4.5 (9.9 lbs)
Fluid Type 流體型式			ISO VG 32, 46, 68		
Viscosity 黏性 cSt			10~400 (59~1854 SSU)		
Operating Temperature 操作溫度 °C			-30~100 (-22~212°F)		
Contamination Level 污染標準			ISO4406. 21/19/16 NAS1638,10		
Surface Treatment 表面處理			Zinc Phosphate Compound 鋅 磷酸鹽 化合物		

- All screws with metric measure , if require inch measure , please contact us.

所附螺絲皆為公制標準規格品，若需英制螺絲請另外備註說明。

◆ HOW TO ORDER 編號說明

1	2	3	4	5	6	7
WE	***	03	G	**	**	20

1 VALVE SERIES 系列名稱

WE=Solenoid Operated Directional Valves

2 SPOOL TYPE 滑柱型式

Detail as next page listed 明細見下頁

3 SUBPLATE MOUNTING SIZE: 稱呼口徑

03 = 3/8"(9mm)
ISO CETOP5
DIN NG 10
NFPA D05

4 CONNECTING TYPE 連接型式

G:TYPE:BASEPLATE MOUNTING TYPE
G: (板式連接)

5 TYPE OF COIL 電磁閥電磁線圈類型

A1 : AC110 60HZ D1: DC12
A115: AC115 50HZ D2: DC24
A230: AC230 50HZ R1: RF110 60HZ/50HZ
A2 : AC220 60HZ R2: RF220 60HZ/50HZ

6 AUXILIARY SYMBOL 輔助記號

NONE : STANDARD 無 : 標準型
F : SHOCKLESS TYPE F : 無衝擊型
(Available with power supply D*,R*) (適用電源類型D*,R*)
AK: A WITH MANUAL PUSH-BUTTON AK: A帶手動按鈕
BK: B WITH MANUAL PUSH-BUTTON BK: B帶手動按鈕
WK: A/B WITH MANUAL PUSH-BUTTON WK: A/B帶手動按鈕

7 WIRING TYPE 接線型式

20 :WIRING BOX TYPE 接線盒式
30 :DIN TYPE (DIN 43650-A/ISO4400) DIN型 (DIN 43650-A/ISO4400)
40P:AMP JUNIOR (APPLICATION FOR DC COIL_ IRON COVER / IP65) AMP連接器 (只適用DC線圈_鐵製外殼 / IP65)
42D:DT04-2P-V TYPE (APPLICATION FOR DC COIL_ IRON COVER / IP65) DT04-2P-V型 (只適用DC線圈_鐵製外殼 / IP65)
45X:DOUBLE LEAD (APPLICATION FOR DC COIL) 雙接線方式 (只適用DC線圈)

- More information of coil please refer our catalogue_ coil, or contact with us.

以上線圈詳細資料請參閱線圈目錄或與本公司聯繫

SOLENOID OPERATED DIRECTIONAL VALVES

電磁換向閥

WE SERIES

A
WE

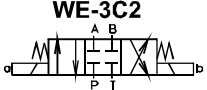


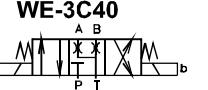

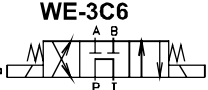
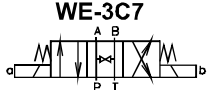
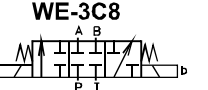


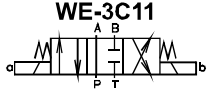

◆ SOLENOID RATINGS: 電磁定率

ELECTRIC SOURCE 電源	COIL TYPE 電磁線圈類型	VOLTAGE(V) 電壓			CURRENT & POWER AT RATED VOLTAGE 最大電壓的電流和電源功率	
		SOURCE RATED 最大值	HZ 頻率	RANGE 範圍	IN-RUSH 啟動電流 CURRENT(A)	HOLDING 固定電流 CURRENT(A)
AC	A1	AC110	50	90~110	4.79	0.86
			60	99~126	4.2	0.74
	A115	AC115	50	99~121	4.29	0.78
			60	108~138	3.99	0.7
	A2	AC220	50	180~220	2.31	0.42
			60	198~242	2.05	0.36
	A230	AC230	50	198~242	2.04	0.37
			60	216~276	1.88	0.33
	R1	AC110	50	99~126	0.47	0.47
			60			
	R2	AC220	50	198~253	0.24	0.24
			60			
DC	D1	DC12	—	10.8~13.2		2.58
	D2	DC24	—	21.6~26.4		1.33

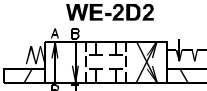

● Above value based on temperature 30°C, electric voltage allowance 15%.
以上數據基礎為溫度30°C，電壓容許度15%。

◆ SPOOL TYPES 滑柱型式

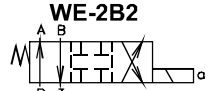
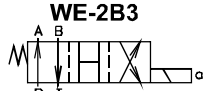
SPRING CENTERED 3 POSITIONS 彈簧中心三位閥

NO SPRING 2 POSITIONS 無彈簧二位閥

	
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SPRING 2 POSITIONS 彈簧二位閥

	
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SOLENOID OPERATED DIRECTIONAL VALVES

WE SERIES

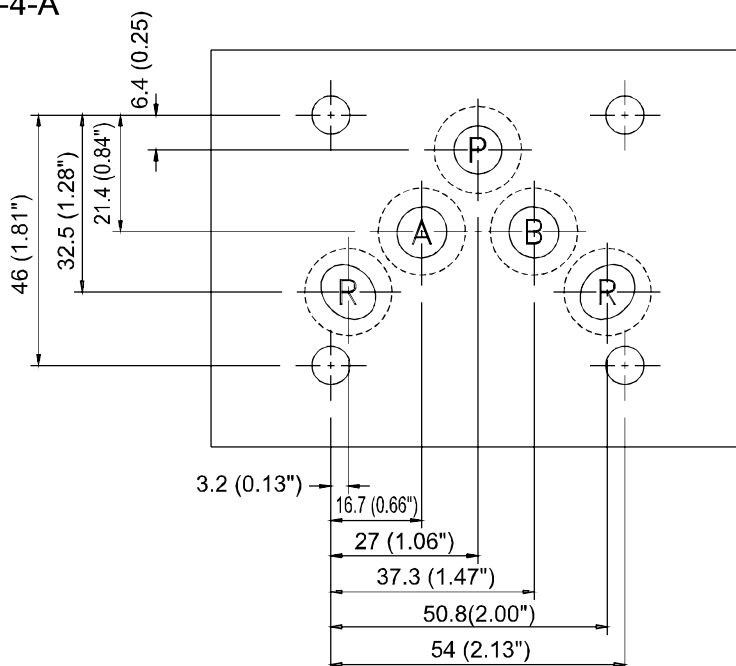
電磁換向閥

2 POSITIONS 二位置

TYPE 類型	GRAPHIC SYMBOLS 圖形符號		TYPE 類型	TYPE 類型	GRAPHIC SYMBOLS 圖形符號		TYPE 類型
	STANDARD ASSEMBLAGE 標準配置	REVERSE ASSEMBLAGE 反向配置			STANDARD ASSEMBLAGE 標準配置	REVERSE ASSEMBLAGE 反向配置	
2B2A			2B2AL	2B2B			2B2BL
2B3A			2B3AL	2B3B			2B3BL
2B4A			2B4AL	2B4B			2B4BL
2B40A			2B40AL	2B40B			2B40BL
2B5A				2B5B			2B5BL
2B6A			2B6AL	2B6B			2B6BL
2B7A			2B7AL	2B7B			2B7BL
2B8A			2B8AL	2B8B			2B8BL
2B9A			2B9AL	2B9B			2B9BL
2B10A			2B10AL	2B10B			2B10BL
2B11A				2B11B			2B11BL
2B12A				2B12B			2B12BL

◆ Mounting Interface 基座尺寸圖

ISO 4401-AC-05-4-A

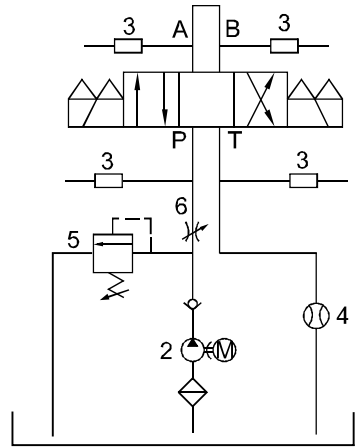


◆ PRESSURE DROP VS FLOW

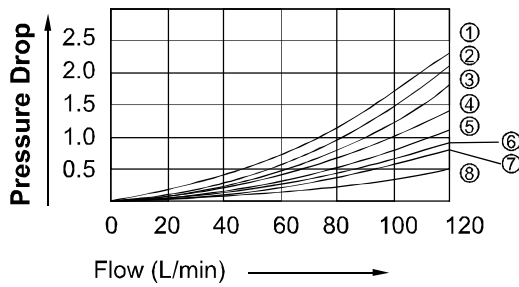
Test Conditions

Pressure: 7.0Mpa (1000 PSI)
Flow Rate: 140L/min (38 GPM)
Viscosity: 35cST

1. Directional Control Valve
2. Hydraulic Pump
3. Pressure sensor
4. Flow sensor
5. Relief
6. Throttle



Performance Curves



Spool Type	Pressure Drop Curve Number				
	P \rightarrow A	B \rightarrow T	P \rightarrow B	A \rightarrow T	P \rightarrow T
C2	6	6	6	6	-
C3	7	7	7	7	5
C4	6	7	6	7	-
C40	6	7	6	7	-
C5	5	2	2	5	8
C6	2	2	2	2	5
C60	1	1	1	1	4
C9	7	6	7	6	-
C12	6	6	6	7	-
C11	7	6	6	6	-
B2	2	2	6	6	-
B3	3	3	6	6	-
B20	5	-	5	-	-
B2L	6	6	2	2	-
B3L	6	6	3	3	-
B20L	5	-	5	-	-

Viscosity Correction Factor

Viscosity	cSt	15	20	30	40	50
	SSU	77	98	141	186	232
Factor(G')		0.81	0.87	0.96	1.03	1.09
Viscosity	cSt	60	70	80	90	100
	SSU	278	324	371	417	464
Factor(G')		1.14	1.19	1.23	1.27	1.30

The pressure drop ($\Delta P'$) can be obtained from the formula: $\Delta P' = \Delta P(G'/0.85)$ for other specific gravity (G').

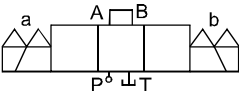
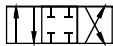








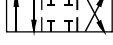

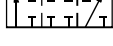

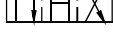
SOLENOID OPERATED DIRECTIONAL VALVES

WE SERIES

電磁換向閥

◆ PERFORMANCE 性能

The Maximum Flow Rate L/min (GPM) Under Different Pressure Mpa (PSI) WE-03G

Spool Type Normal Position	P ₁ → A, B→ T P ₁ → B, A→ T						P ₁ → A	
	5.0Mpa (375)	10.0Mpa (1470)	15.0Mpa (2200)	21.0Mpa (3000)	25.0Mpa (3675)	31.5Mpa (4000)	5.0Mpa (375)	10.0Mpa (1470)
C2 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	54(14.3) 38(10.0)
C3 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)
C4 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	54(14.3) 38(10.0)
C40 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4) 38(10.0)
C5 	88(23.2)	88(23.2)	88(23.2)	88(23.2)	88(23.2)	-	100(26.4)	100(26.4)
	82(21.7)	82(21.7)	82(21.7)	82(21.7)	82(21.7)			
C6 	84(22.2)	84(22.2)	84(22.2)	84(22.2)	84(22.2)	-	100(26.4)	100(26.4)
	75(19.8)	75(19.8)	75(19.8)	75(19.8)	75(19.8)			
C9 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	63(16.6)	63(16.6)
C12 	100(26.4)	100(26.4)	100(26.4)	44(11.6)	30(7.9)	19(5.0)	100(26.4)	100(26.4)
			76(20.1)	28(7.4)	21(5.5)	14(3.7)		53(14.0)
C11 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	57(15.1)	57(15.1)
B2 	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	90(23.8)	63(16.6)	63(16.6)
	72(19.0)	72(19.0)	72(19.0)	72(19.0)	72(19.0)	72(19.0)		
B3 	89(23.5)	89(23.5)	89(23.5)	89(23.5)	89(23.5)	89(23.5)	100(26.4)	100(26.4)
	81(21.4)	81(21.4)	81(21.4)	81(21.4)	81(21.4)	81(21.4)		
B20 	-	-	-	-	-	-	81(21.4)	29(7.7)
D2 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	60(15.9)	40(10.6)
D3 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	70(18.5)	65(15.9)

Note: The figures in the square shows the parameter among pressure & flow under saturated temperature and 90% applied voltage.

SOLENOID OPERATED DIRECTIONAL VALVES

電磁換向閥

WE SERIES

A
WE

The Maximum Flow Rate L/min (GPM) Under Different Pressure Mpa (PSI) WE-03G

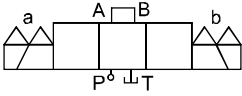
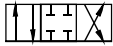






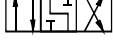
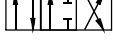
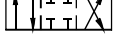
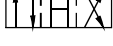
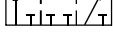
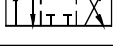

				Pi → B					
15.0Mpa (2200)	21.0Mpa (3000)	25.0Mpa (3675)	31.5Mpa (4500)	5.0Mpa (735)	10.0Mpa (1470)	15.0Mpa (2200)	21.0Mpa (30000)	25.0Mpa (3675)	31.5Mpa (4500)
40(10.6)	28(7.4)	25(6.6)	20(5.5)	100(26.4)	54(14.3)	40(10.6)	28(7.4)	25(6.6)	20(5.3)
27(7.1)	17(4.5)	13(3.4)	10(2.6)		38(10.0)	27(7.1)	17(4.5)	13(3.4)	10(2.6)
100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)
30(17.9)	23(6.1)	18(4.8)	14(3.7)	100(26.4)	54(14.3)	30(17.9)	23(6.1)	18(4.8)	14(3.7)
27(7.1)	16(4.2)	11(2.9)	8(2.1)		42(11.1)	27(7.1)	16(4.2)	11(2.9)	8(2.1)
33(8.7)	28(7.4)	22(5.8)	18(4.8)	100(26.4)	100(26.4)	33(8.7)	28(7.4)	22(5.8)	18(4.8)
23(6.1)	21(5.5)	15(4.0)	12(3.2)		75(19.8)	23(6.1)	21(5.5)	15(4.0)	12(3.2)
100(26.4)	100(26.4)	100(26.4)	—	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)
100(26.4)	100(26.4)	100(26.4)	—	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	—
95(25.1)	95(25.1)	95(25.1)		95(25.1)	95(25.1)	95(25.1)	95(25.1)	95(25.1)	
63(16.6)	63(16.6)	63(16.6)	63(16.6)	63(16.6)	63(16.6)	63(16.6)	63(16.6)	63(16.6)	63(16.6)
37(9.8)	34(9.0)	28(7.4)	20(5.3)	100(26.4)	61(16.1)	33(8.7)	27(7.1)	25(6.6)	20(5.3)
32(8.5)	28(7.4)	21(5.5)	15(4.0)		48(12.7)	27(7.1)	21(5.5)	13(3.4)	10(2.6)
57(15.1)	57(15.1)	57(15.1)	57(15.1)	100(26.4)	53(14.0)	47(12.4)	45(11.9)	40(10.6)	34(9.0)
					40(10.6)	37(9.8)	34(9.0)	29(7.7)	25(6.6)
63(16.6)	63(16.6)	63(16.6)	63(16.6)	100(26.4)	78(20.6)	45(11.9)	43(11.4)	38(10.0)	32(8.5)
					74(19.6)	38(10.0)	36(9.5)	31(8.2)	27(7.1)
100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	95(25.1)	82(21.7)	75(19.8)	65(17.2)
					89(23.5)	84(22.2)	77(20.3)	70(18.5)	62(16.4)
19(5.0)	12(3.2)	9(2.4)	7(1.8)	100(26.4)	80(21.1)	32(8.5)	25(6.6)	20(5.3)	14(3.7)
					42(11.1)	28(7.4)	22(5.8)	17(4.5)	12(3.2)
40(10.6)	40(10.6)	30(7.9)	28(7.4)	60(15.9)	40(10.6)	40(10.6)	40(10.6)	30(7.9)	28(7.4)
60(15.9)	60(15.9)	42(11.1)	36(9.5)	70(18.5)	60(15.9)	60(15.9)	60(15.9)	42(11.1)	36(9.5)

SOLENOID OPERATED DIRECTIONAL VALVES

WE SERIES

電磁換向閥

◆ PERFORMANCE 性能

The Maximum Flow Rate L/min (GPM) Under Different Pressure Mpa (PSI) WE-03G								
Spool Type Normal Position	P _i → A, B→ T P _i → B, A→ T						P _i → A	
	5.0Mpa (375)	10.0Mpa (1470)	15.0Mpa (2200)	21.0Mpa (3000)	25.0Mpa (3675)	31.5Mpa (4000)	5.0Mpa (375)	10.0Mpa (1470)
C2 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7) 100(26.4)
C3 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)
C4 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7) 100(26.4)
C40 	120(31.7)	120(31.7)	120(31.7)	97(25.6)	78(20.6)	60(15.9)	120(31.7)	120(31.7) 115(30.4)
C5 	100(26.4)	100(26.4)	100(26.4) 100(26.4)	75(19.8) 100(26.4)	54(14.3) 100(26.4)	41(10.8) 100(26.4)	100(26.4)	100(26.4)
C6 	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)
C9 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	65(17.2)	65(17.2)
C12 	120(31.7)	120(31.7)	120(31.7) 100(26.4)	97(25.6) 85(22.5)	78(20.6) 54(14.3)	66(17.4) 41(10.8)	120(31.7)	120(31.7)
C11 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	65(17.2)	65(17.2)
B2 	95	95	95	95	95	95	69(18.2)	69(18.2)
B3 	89(23.5)	89(23.5)	89(23.5)	89(23.5)	89(23.5)	89(23.5)	120(31.7)	120(31.7)
B20 	—	—	—	—	—	—	85(22.5)	35(9.2)
D2 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	60(15.9)	40(10.6)
D3 	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	70(18.5)	60(15.9)

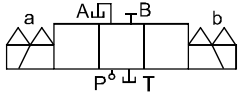
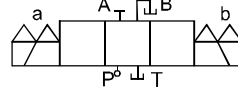
SOLENOID OPERATED DIRECTIONAL VALVES

電磁換向閥

WE SERIES

A
WE

The Maximum Flow Rate L/min (GPM) Under Different Pressure Mpa (PSI) WE-03G

									
15.0Mpa (2200)	21.0Mpa (3000)	25.0Mpa (3675)	31.5Mpa (4500)	5.0Mpa (735)	10.0Mpa (1470)	15.0Mpa (2200)	21.0Mpa (30000)	25.0Mpa (3675)	31.5Mpa (4500)
73(19.3)	63(16.6)	54(14.3)	37(9.8)	120(31.7)	120(31.7)	73(19.3)	63(16.6)	54(14.3)	37(9.8)
55(14.5)	48(12.7)	38(10.0)	29(7.7)		100(26.4)	55(14.5)	48(12.7)	38(10.0)	29(7.7)
120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)	120(31.7)
90(23.8)	73(19.3)	60(15.9)	47(12.4)	120(31.7)	120(31.7)	90(23.8)	73(19.3)	60(15.9)	47(12.4)
78(20.6)	64(16.9)	51(13.5)	39(10.3)		100(26.4)	78(20.6)	64(16.9)	51(13.5)	39(10.3)
75(19.8)	54(14.3)	42(11.1)	37(9.8)	120(31.7)	120(31.7)	75(19.8)	54(14.3)	42(11.1)	37(9.8)
50(13.2)	39(10.3)	30(7.9)	21(5.5)		115(30.4)	50(13.2)	39(10.3)	30(7.9)	21(5.5)
100(26.4)	100(26.4)	100(26.4)	—	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	—
100(26.4)	100(26.4)	100(26.4)	—	100(26.4)	100(26.4)	100(26.4)	100(26.4)	100(26.4)	—
65(17.2)	65(17.2)	65(17.2)	65(17.2)	65(17.2)	65(17.2)	65(17.2)	65(17.2)	65(17.2)	65(17.2)
68(18.0)	51(13.5)	37(9.8)	27(7.1)	120(31.7)	85(22.5)	50(13.2)	36(9.5)	25(6.6)	19(5.0)
52(13.7)	39(10.3)	28(7.4)	18(4.8)		65(17.2)	40(10.6)	28(7.4)	05(4.0)	12(3.2)
65(17.2)	65(17.2)	65(17.2)	65(17.2)	120(31.7)	100(26.4)	94(24.8)	85(22.5)	76(20.1)	70(18.5)
					85(22.5)	80(21.1)	74(19.6)	54(14.3)	49(12.9)
69(18.2)	69(18.2)	69(18.2)	69(18.2)	120(31.7)	120(31.7)	77(20.3)	63(16.6)	57(15.1)	45(11.9)
					66(17.4)	55(14.5)	44(11.6)	38(10.0)	
120(31.7)	120(31.7)	120(31.7)	120(31.7)	100(26.4)	100(26.4)	95(25.1)	82(21.7)	75(19.8)	65(17.2)
					89(23.5)	84(22.2)	77(20.3)	70(18.5)	62(16.4)
28(7.4)	19(5.0)	15(4.0)	10(2.6)	120(31.7)	120(31.7)	95(25.1)	74(19.6)	61(16.1)	43(11.4)
					95(25.1)	84(22.2)	63(16.6)	50(13.2)	34(9.0)
40(10.6)	40(10.6)	30(7.9)	28(7.4)	60(15.9)	40(10.6)	40(10.6)	40(10.6)	30(7.9)	28(7.4)
60(15.9)	60(15.9)	42(11.1)	36(9.5)	70(18.5)	60(15.9)	60(15.9)	60(15.9)	42(11.1)	36(9.5)

SOLENOID OPERATED DIRECTIONAL VALVES

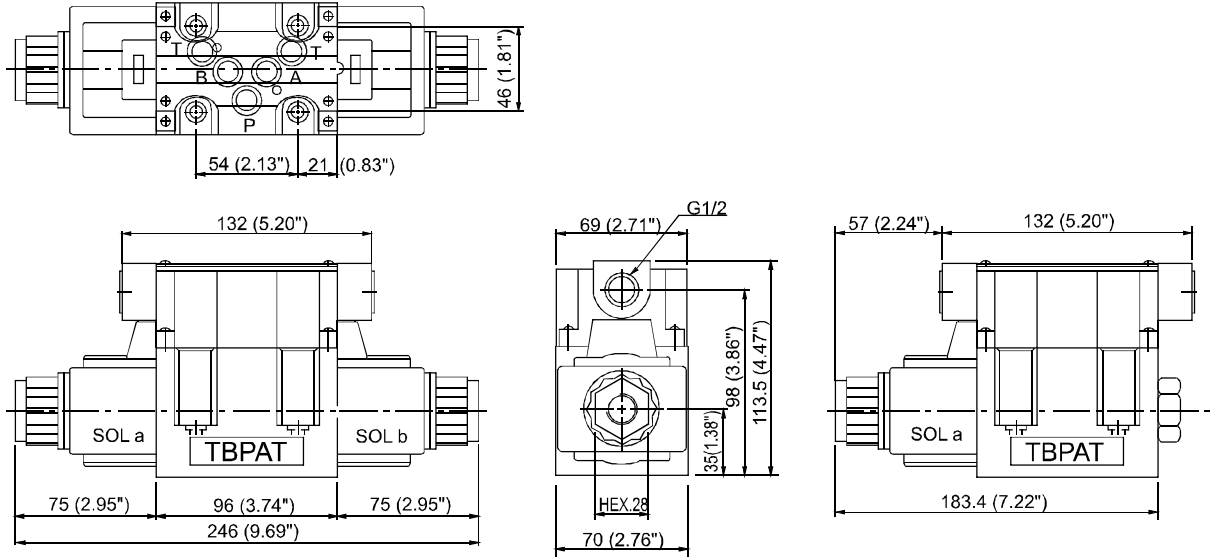
WE SERIES

電磁換向閥

A
WE

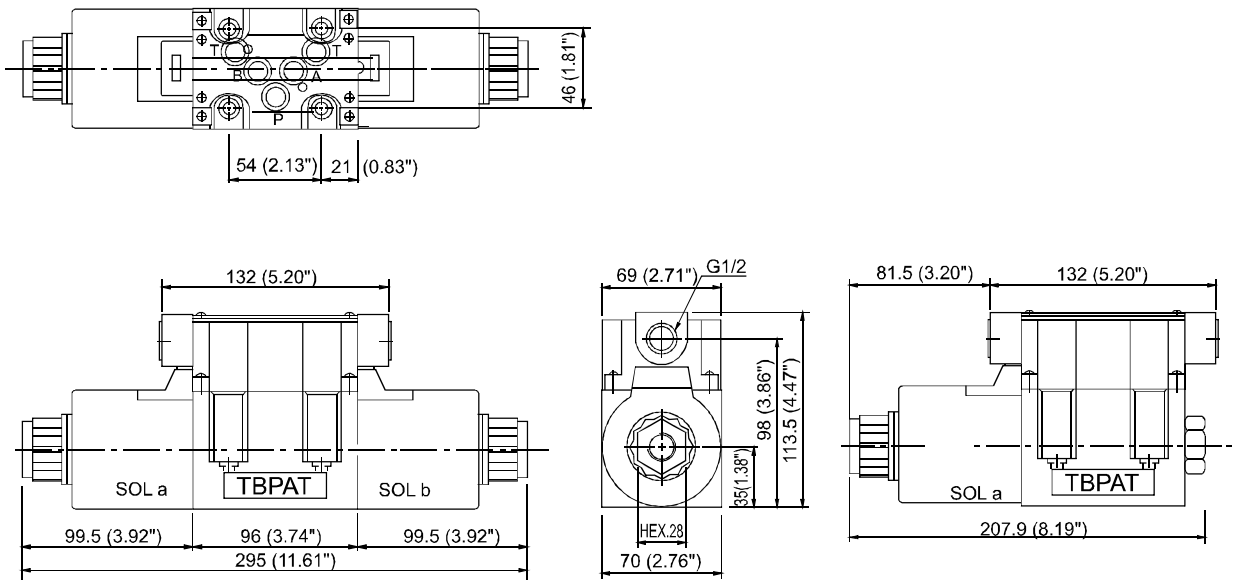
◆ DIMENSIONS 外型尺寸圖 WE-03G-AC-20

◆ Mounting Interface : ISO 4401-AC-05-4-A



WE-03G-DC/RF-20

◆ Mounting Interface : ISO 4401-AC-05-4-A



SOLENOID OPERATED DIRECTIONAL VALVES

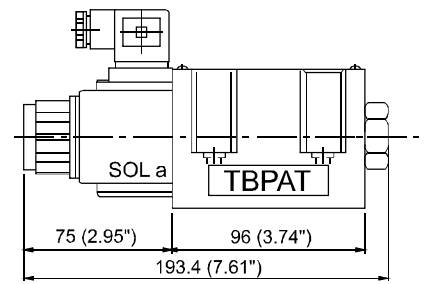
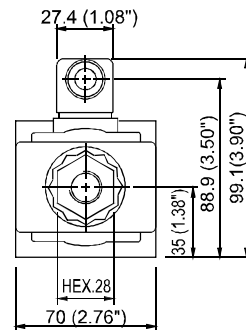
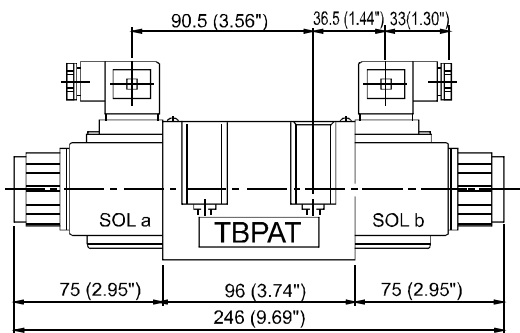
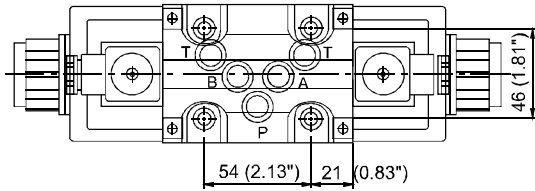
電磁換向閥

WE SERIES

WE-03G-AC-30

Mounting Interface : ISO 4401-AC-05-4-A

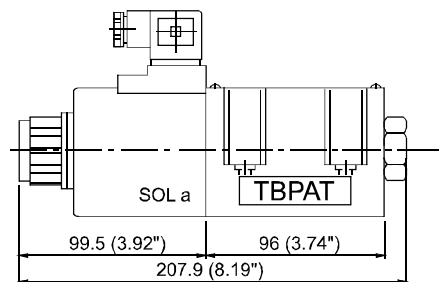
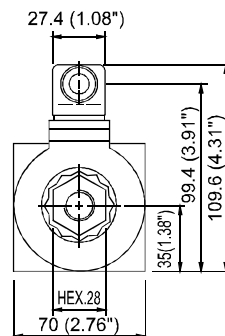
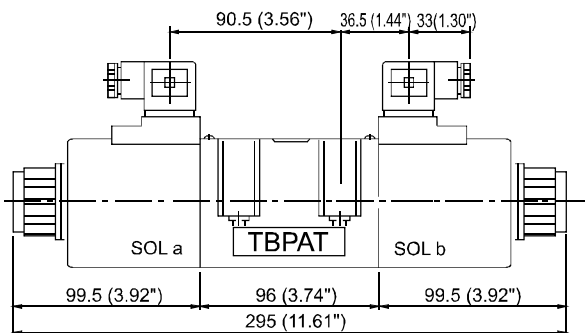
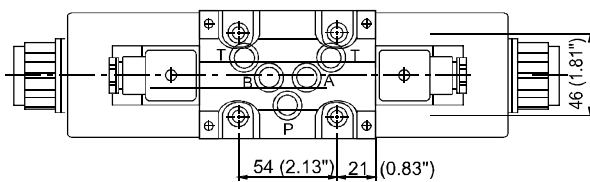
Unit : mm



WE-03G-DC/RF-30

Mounting Interface : ISO 4401-AC-05-4-A

Unit : mm



A
WE