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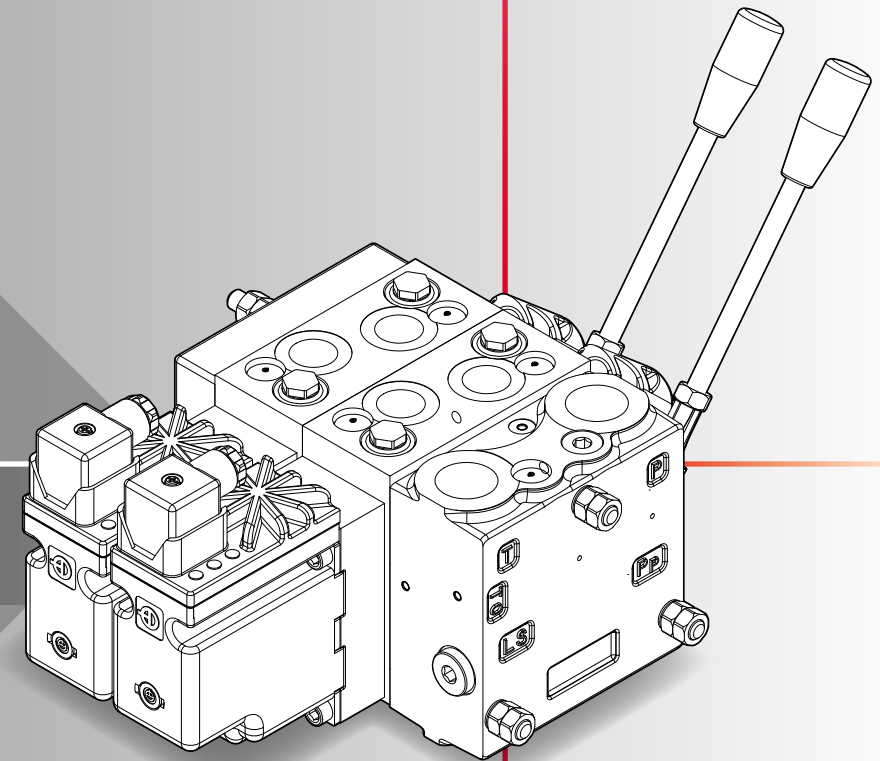
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PV4

Proportional Valves

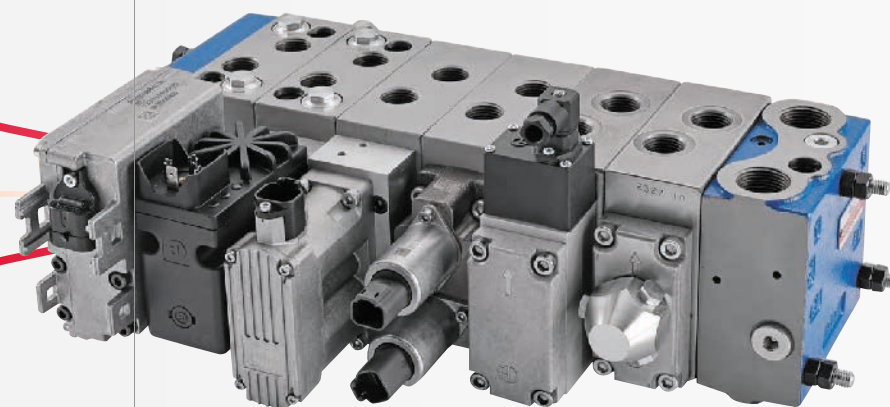
比例式控制閥



技術突破

堅持質量追求穩定增長

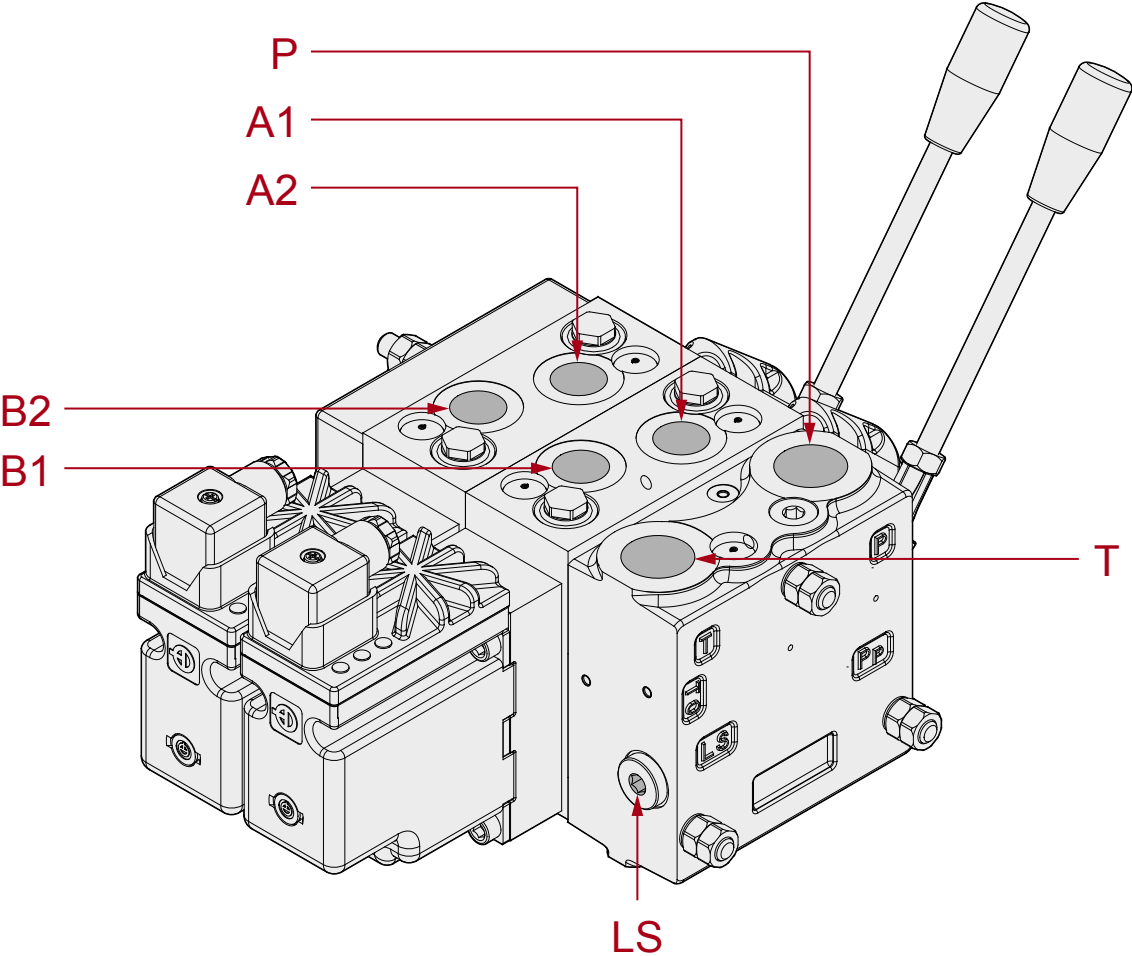
Technological breakthroughs,
adherence to quality, and pursuit of stable growth



PV4

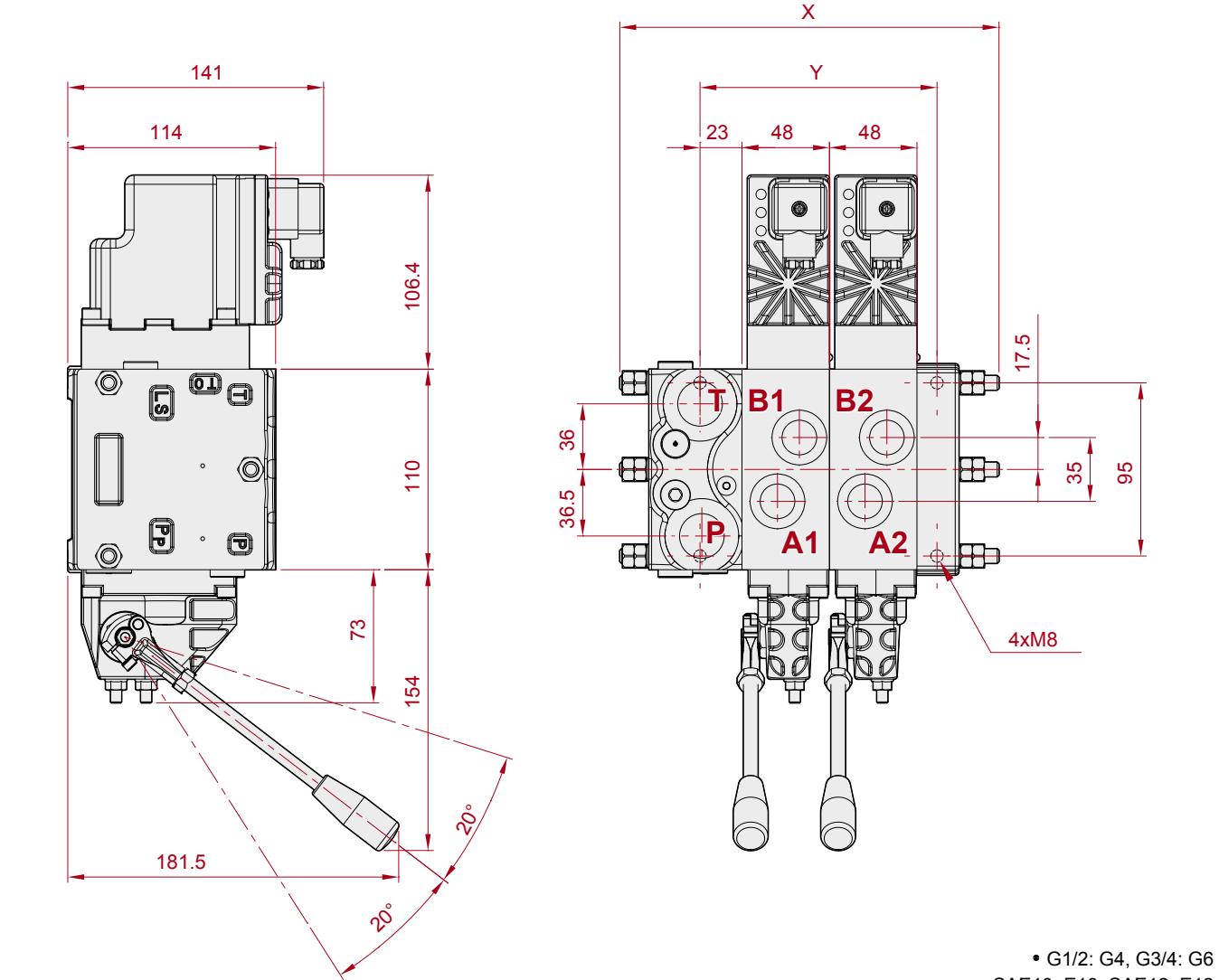
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Specifications 規格

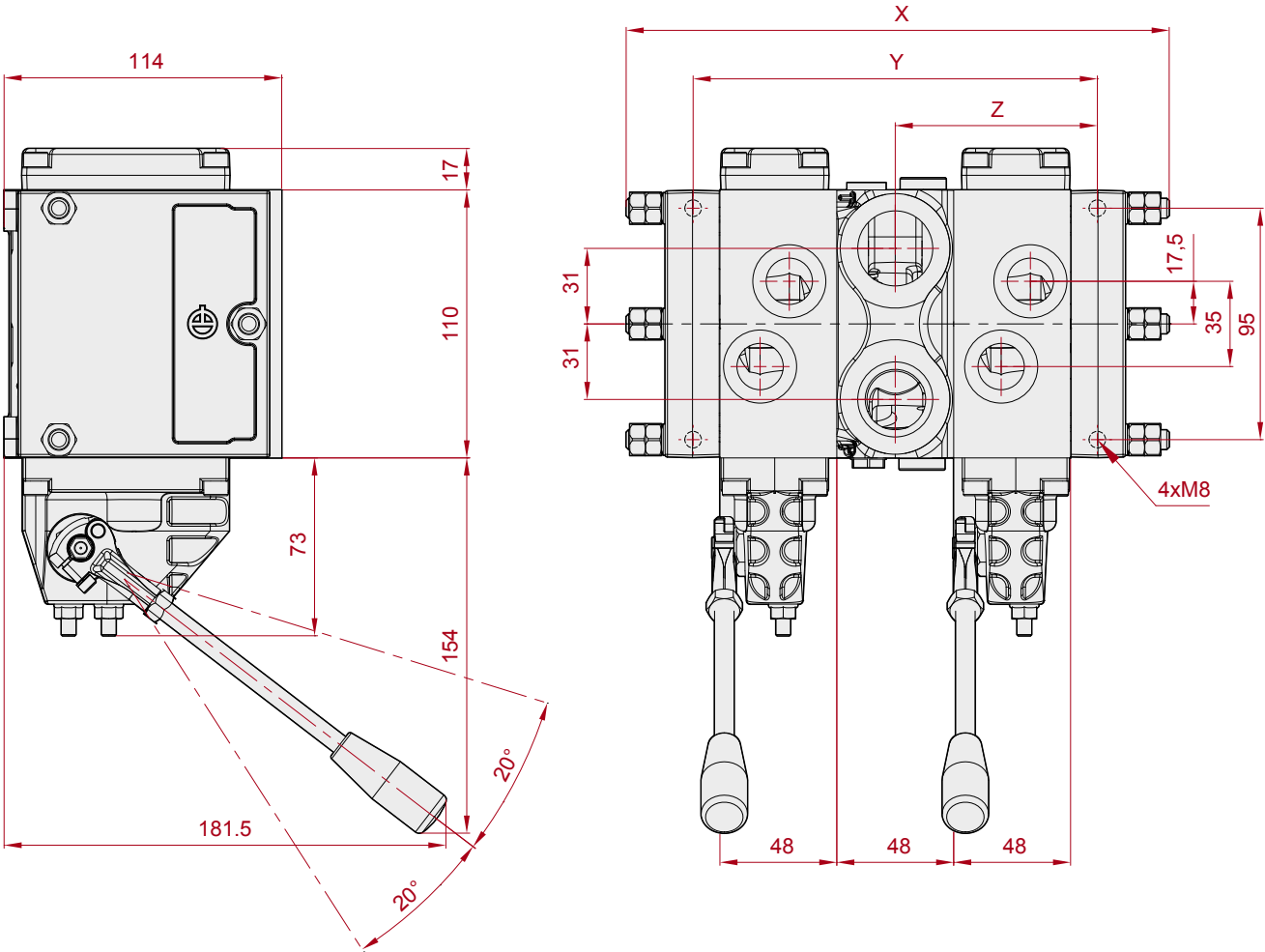
Oil Flow Rated 額定流量	P	140 L/min	37 gal/min
Max. Pressure 最大壓力	P	350 bar	5075 psi
	A/B	350 bar	5075 psi
	T	40 bar	580 psi
Oil Temperature 油溫		from -20 ~ 90°C	from -4 ~ 194°F
Max. Internal Leakage (Pressure 100 bar Oil temperature 50°C) 最大內洩量 (壓力 100 bar，油溫 50°C)	A/B	18 mm³/min	
Oil Viscosity 黏度	Operating Range 工作範圍	from 15 ~ 75 mm²/s	from 15 ~ 75 cst
	min. 最小	12 mm²/s	12 cst
	max. 最大	400 mm²/s	400 cst
Ambient Temperature Range 環境溫度		from -30 ~ 60°C	from -22 ~ 140°F
Max. Contamination 最大汙染		23/19/16 (ISO 4406)	
Filtration 過濾器		10 µm	



• G1/2: G4, G3/4: G6
SAE10: E10, SAE12: E12

Port 口位	P Port P □	A/B Port A/B □	T Port T □
Specifications 規格	G1/2、G3/4 7/8-14 UNF (SAE10)、1" 1/16-12UN (SAE12)	G1/2 7/8-14 UNF (SAE10)	G3/4 1" 1/16-12UN (SAE12)

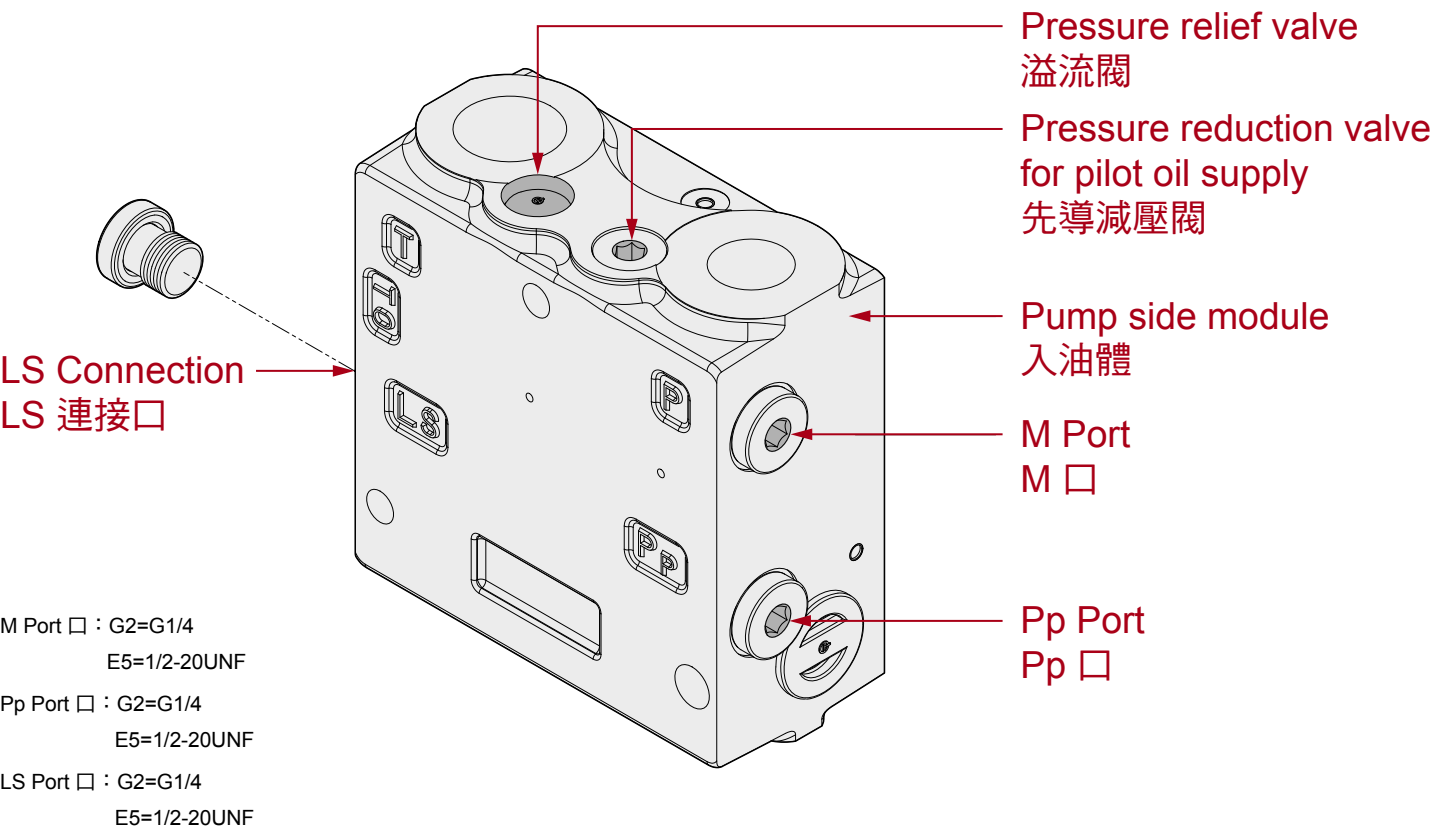
TYPE 聯數	X		Y	
	mm	in	mm	in
PV4/1S	160	6.30	82	3.23
PV4/2S	208	8.19	130	5.12
PV4/3S	256	10.08	178	7.01
PV4/4S	304	11.97	226	8.90
PV4/5S	352	13.86	274	10.79
PV4/6S	400	15.75	322	12.68
PV4/7S	443	17.44	370	14.57
PV4/8S	491	19.33	418	16.46
PV4/9S	539	21.22	466	18.35
PV4/10S	587	23.11	514	20.24
PV4/11S	635	25.00	562	22.13
PV4/12S	685	26.97	610	24.02



• G1/2: G4, G1: G8
SAE10: E10, SAE16: E16

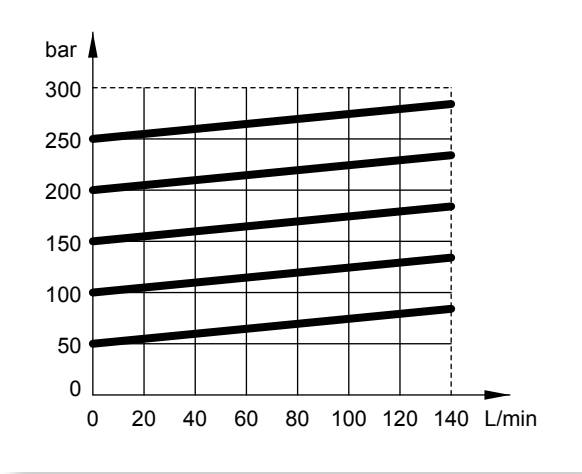
Port 口位	P Port P 口	A/B Port A/B 口	T Port T 口
Specifications 規格	G1 1" 5/16-12 UN (SAE16)	G1/2 7/8-14 UNF (SAE10)	G1 1" 5/16-12 UN (SAE16)

TYPE 聯數	X		Y		Z	
	mm	in	mm	in	mm	in
PV4/1S	175	6.90	116	4.57	83	3.27
PV4/2S	223	8.78	166	6.54	131	5.16
PV4/3S	271	10.67	214	8.43	179	7.05
PV4/4S	319	12.56	262	10.31	227	8.94
PV4/5S	367	14.45	310	12.2	275	10.83
PV4/6S	415	16.34	358	14.09	323	12.72
PV4/7S	463	18.23	406	16	371	14.61
PV4/8S	511	20.12	454	17.87	419	16.5
PV4/9S	559	22.01	502	19.76	467	18.39
PV4/10S	607	23.90	550	21.65	515	20.28
PV4/11S	655	25.79	598	23.54	563	22.17
PV4/12S	705	27.76	646	25.43	611	24.06

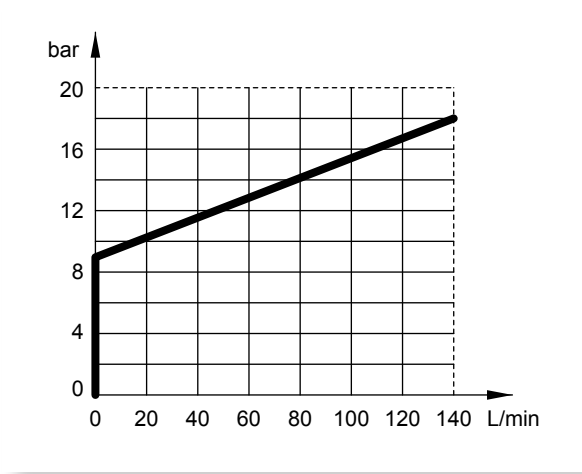


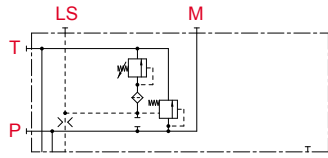
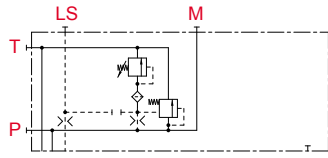
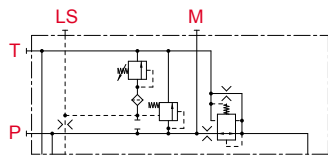
Parameters 入油體參數

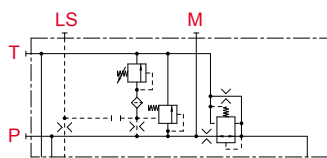
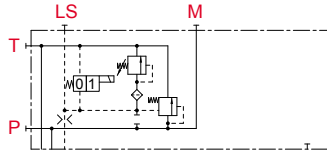
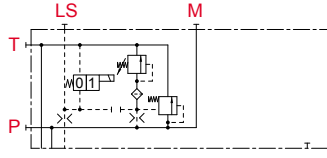
Pressure Relief Valve Characteristic 溢流閥特性

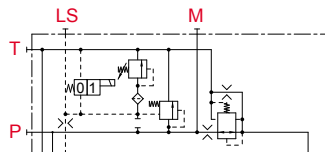
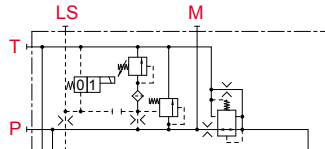


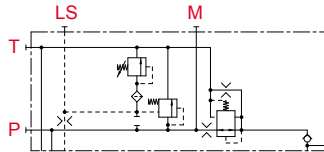
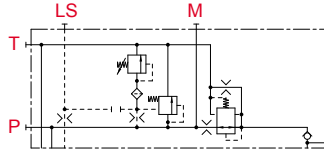
Initial Data 初始狀態 Pressure Flow Characteristics 壓力流量特性

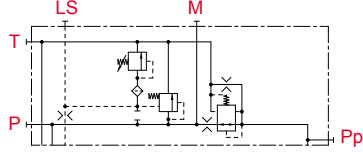
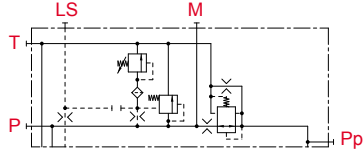


PV4P1101		
For mechanically actuated valves. Open center pump side module for pumps with fixed displacement. 開迴路模塊 配合定量泵 用於機械驅動	PV4P1101-G4	P□：G1/2
	PV4P1101-E10	P□：7/8-14 UNF
	PV4P1101-G6	P□：G3/4
	PV4P1101-E12	P□：1-1/16 UN
		
PV4P1201		
For mechanically actuated valves. Closed center pump side module for pumps with variable displacement. 閉迴路模塊 配合變量泵 用於機械驅動	PV4P1201-G4	P□：G1/2
	PV4P1201-E10	P□：7/8-14 UNF
	PV4P1201-G6	P□：G3/4
	PV4P1201-E12	P□：1-1/16 UN
		
PV4P1102		
Open center pump side module for pumps with fixed displacement. With pilot oil supply for electrically actuated valves. 開迴路模塊 配合定量泵 提供電控先導油	PV4P1102-G4	P□：G1/2
	PV4P1102-E10	P□：7/8-14 UNF
	PV4P1102-G6	P□：G3/4
	PV4P1102-E12	P□：1-1/16 UN
		
PV4P1102H		
Open center pump side module for fixed displacement pumps. Provides a higher pressure pilot oil supply for electrically actuated valves. 開迴路模塊 配合定量泵 提供較高壓力先導油源	PV4P1102H-G4	P□：G1/2
	PV4P1102H-E10	P□：7/8-14 UNF
	PV4P1102H-G6	P□：G3/4
	PV4P1102H-E12	P□：1-1/16 UN

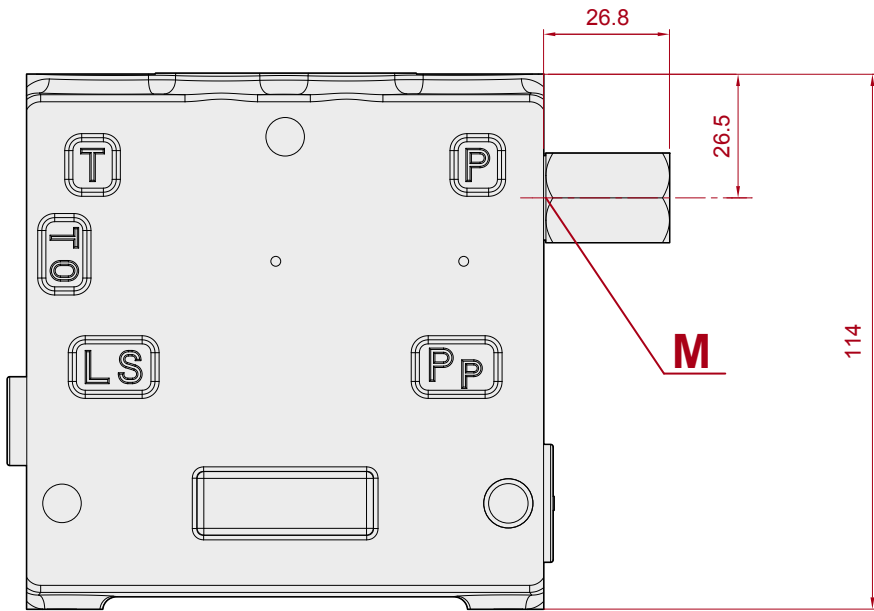
PV4P1202		
Closed center pump side module for pumps with variable displacement. With pilot oil supply for electrically actuated valves. 閉迴路模塊 配合變量泵 提供電控先導油	PV4P1202-G4	P□：G1/2
	PV4P1202-E10	P□：7/8-14 UNF
	PV4P1202-G6	P□：G3/4
	PV4P1202-E12	P□：1-1/16 UN
		
PV4P1202H		
Closed center pump side module for variable displacement pumps. Provides a higher pressure pilot oil supply for electrically actuated valves. 閉迴路模塊 配合變量泵 提供較高壓力先導油源	PV4P1202H-G4	P□：G1/2
	PV4P1202H-E10	P□：7/8-14 UNF
	PV4P1202H-G6	P□：G3/4
	PV4P1202H-E12	P□：1-1/16 UN
PV4P1103		
For mechanically actuated valves. Connection for LS unloading valves. Open center pump side module for pumps with fixed displacement. 開迴路模塊 配合定量泵 用於機械驅動 可連接電控 LS 卸載閥	PV4P1103-G4	P□：G1/2
	PV4P1103-E10	P□：7/8-14 UNF
	PV4P1103-G6	P□：G3/4
	PV4P1103-E12	P□：1-1/16 UN
		
PV4P1203		
For mechanically actuated valves. Connection for LS unloading valves. Closed center pump side module for pumps with variable displacement. 閉迴路模塊 配合變量泵 用於機械驅動 可連接電控 LS 卸載閥	PV4P1203-G4	P□：G1/2
	PV4P1203-E10	P□：7/8-14 UNF
	PV4P1203-G6	P□：G3/4
	PV4P1203-E12	P□：1-1/16 UN
		

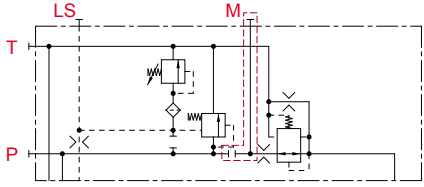
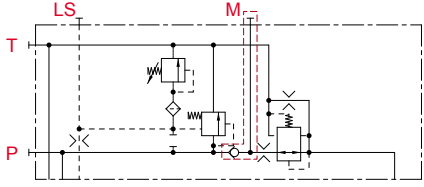
PV4P1104		
Open center pump side module for fixed-displacement pumps. Provides electrically controlled pilot oil supply and supports connection to an electrically controlled LS unloading valve. 開迴路模塊 配合定量泵 提供電控先導油 可連接電控 LS 卸載閥	PV4P1104-G4 P□ : G1/2 PV4P1104-E10 P□ : 7/8-14 UNF PV4P1104-G6 P□ : G3/4 PV4P1104-E12 P□ : 1-1/16 UN	
PV4P1104H		
Open center pump side module for fixed-displacement pumps. Provides a higher-pressure pilot oil supply, supports connection to an electrically controlled LS unloading valve. 開迴路模塊 配合定量泵 提供較高壓力先導油源 可連接電控 LS 卸載閥	PV4P1104H-G4 P□ : G1/2 PV4P1104H-E10 P□ : 7/8-14 UNF PV4P1104H-G6 P□ : G3/4 PV4P1104H-E12 P□ : 1-1/16 UN	
PV4P1204		
Closed center pump side module for variable displacement pumps. Provides electrically controlled pilot oil supply and supports connection to an electrically controlled LS unloading valve. 閉迴路模塊 配合變量泵 提供電控先導油 可連接電控 LS 卸載閥	PV4P1204-G4 P□ : G1/2 PV4P1204-E10 P□ : 7/8-14 UNF PV4P1204-G6 P□ : G3/4 PV4P1204-E12 P□ : 1-1/16 UN	
PV4P1204H		
Closed center pump side module for variable displacement pumps. Provides a higher-pressure pilot oil supply, supports connection to an electrically controlled LS unloading valve. 閉迴路模塊 配合變量泵 提供較高壓力先導油源 可連接電控 LS 卸載閥	PV4P1204H-G4 P□ : G1/2 PV4P1204H-E10 P□ : 7/8-14 UNF PV4P1204H-G6 P□ : G3/4 PV4P1204H-E12 P□ : 1-1/16 UN	

PV4P1105		
Open center pump side module for fixed displacement pumps. Provides electrically controlled pilot oil supply and a pilot oil outlet. 開迴路模塊 配合定量泵 提供電控先導油 並有先導油輸出口	PV4P1105-G4 P□ : G1/2 PV4P1105-E10 P□ : 7/8-14 UNF PV4P1105-G6 P□ : G3/4 PV4P1105-E12 P□ : 1-1/16 UN	
PV4P1105H		
Open center pump-side module for fixed-displacement pumps. Provides a higher-pressure pilot oil supply with a pilot oil outlet. 開迴路模塊 配合定量泵 提供較高壓力先導油源 並有先導油輸出口	PV4P1105H-G4 P□ : G1/2 PV4P1105H-E10 P□ : 7/8-14 UNF PV4P1105H-G6 P□ : G3/4 PV4P1105H-E12 P□ : 1-1/16 UN	
PV4P1205		
Closed center pump side module for variable displacement pumps. Provides electrically controlled pilot oil supply and a pilot oil outlet. 閉迴路模塊 配合變量泵 提供電控先導油 並有先導油輸出口	PV4P1205-G4 P□ : G1/2 PV4P1205-E10 P□ : 7/8-14 UNF PV4P1205-G6 P□ : G3/4 PV4P1205-E12 P□ : 1-1/16 UN	
PV4P1205H		
Closed center pump side module for variable displacement pumps. Provides a high-pressure pilot oil supply and a pilot oil outlet. 閉迴路模塊 配合變量泵 提供較高壓力先導油源 並有先導油輸出口	PV4P1205H-G4 P□ : G1/2 HPV4P1205-E10 P□ : 7/8-14 UNF PV4P1205H-G6 P□ : G3/4 PV4P1205H-E12 P□ : 1-1/16 UN	

PV4P1106H		
Open center pump side module for fixed-displacement pumps. Provides a higher-pressure pilot oil supply and a pilot oil outlet. Supports connection to hydraulic control components. (e.g.,JHP) 開迴路模塊 配合定量泵 提供較高壓力先導油源 並有先導油輸出口 可連接液控元件 例如：JHP	PV4P1106H-G4	P□：G1/2
	PV4P1106H-E10	P□：7/8-14 UNF
	PV4P1106H-G6	P□：G3/4
	PV4P1106H-E12	P□：1-1/16 UN
		
PV4P1206H		
Closed center pump side module for variable displacement pumps. Provides a higher-pressure pilot oil supply and a pilot oil outlet. Supports connection to hydraulic control components. (e.g.,JHP) 閉迴路模塊 配合變量泵 提供較高壓力先導油源 並有先導油輸出口 可連接液控元件 例如：JHP	PV4P1206H-G4	P□：G1/2
	PV4P1206H-E10	P□：7/8-14 UNF
	PV4P1206H-G6	P□：G3/4
	PV4P1206H-E12	P□：1-1/16 UN
		

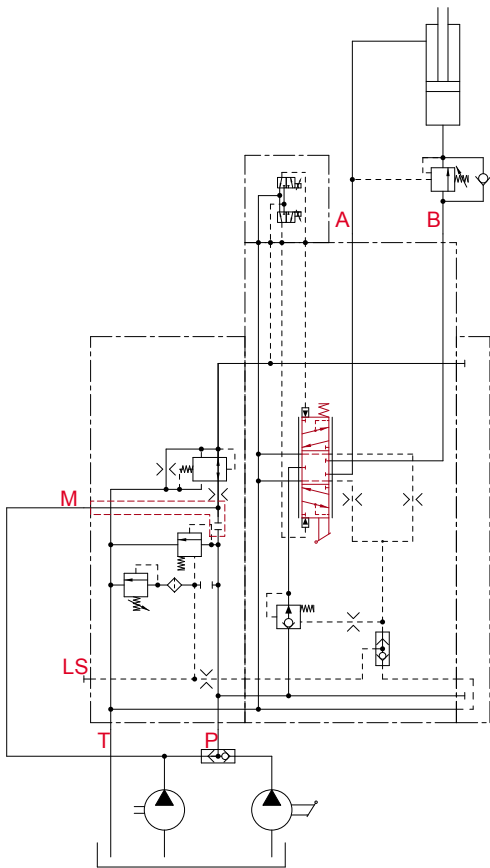
Dimension 外觀尺寸



Code 編號	Symbol 符號
PV4-POG 牙口：G1/4 PV4-POE 牙口：1/2-20 UNF	 Plug for external pilot oil supply, suitable for fixed- and variable displacement modules. 外部先導油接頭 用於定量與變量模塊
PV4-PCG 牙口：G1/4 PV4-PCE 牙口：1/2-20 UNF	 Plug for external pilot oil supply with check valve, suitable for fixed-displacement modules. 外部先導油接頭 帶單向閥，用於定量模塊

Application Circuit 應用迴路

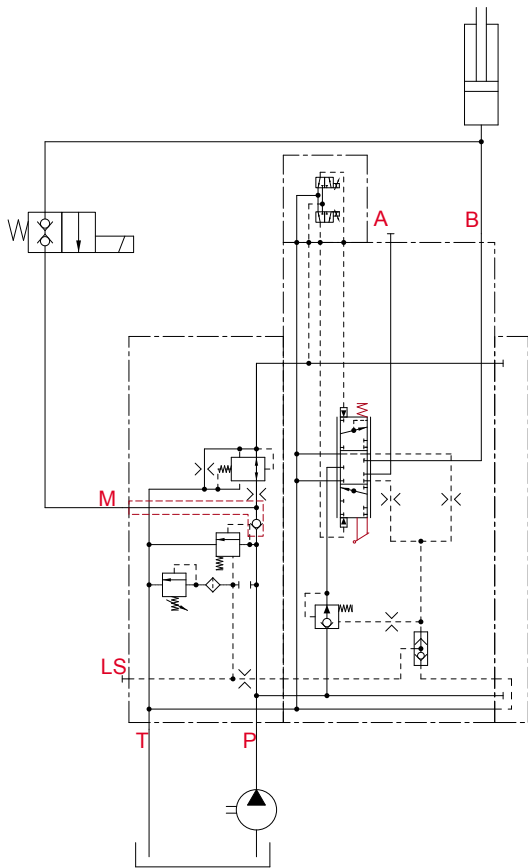
PV4-PO



Used when a manual emergency pump is required. In the event of main pump failure, the manual emergency pump is operated via the PV handle.

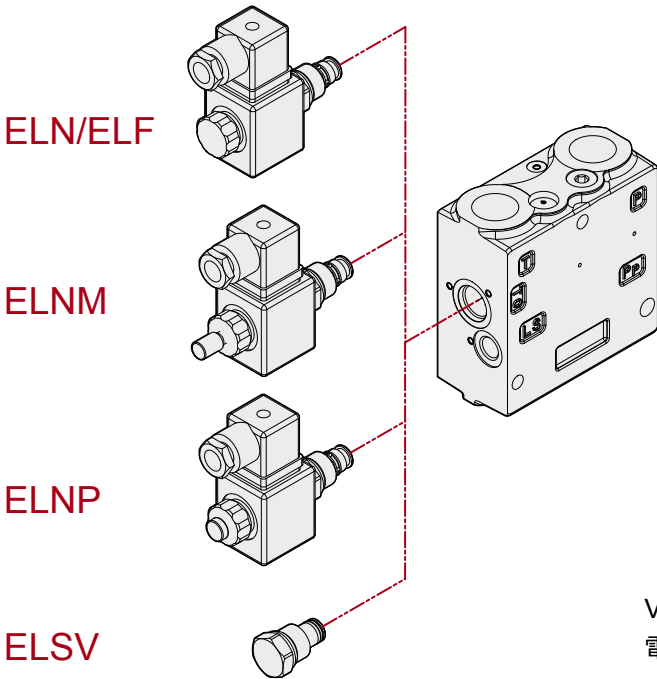
用於需要連接手動應急泵時，主泵失效時使用手動應急泵，並操作 PV 手柄控制

PV4-PC



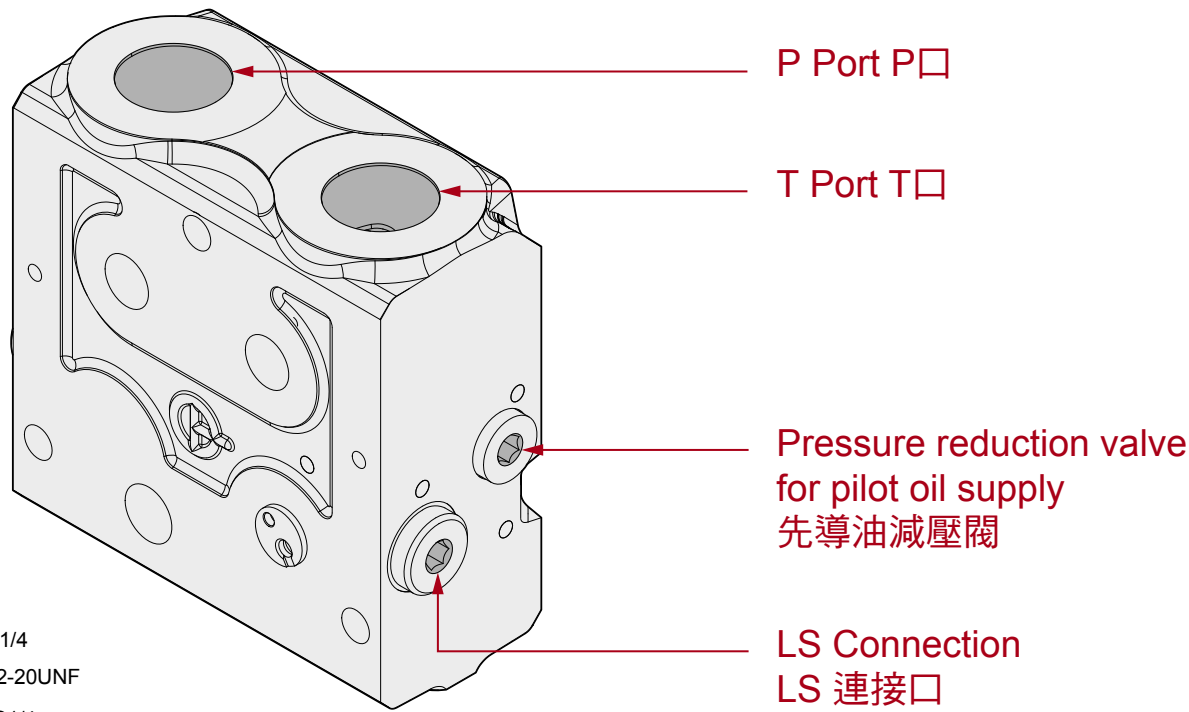
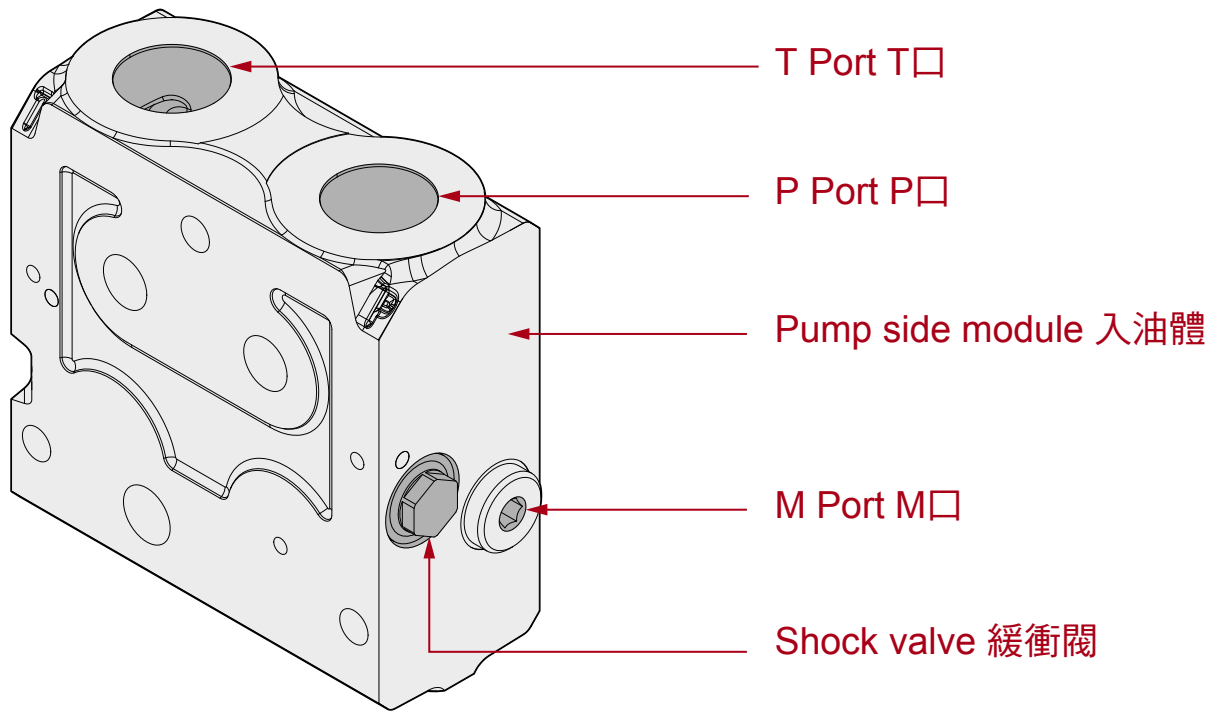
Enables solenoid valve control without using pump flow. Utilizes the pressure drop from the hydraulic cylinder to supply oil to the solenoid valve.

用於不需使用泵的流量來控制電磁閥，利用油壓缸下降壓力，提供電磁閥油源



Voltage Range $\pm 10\%$
電壓波動 $\pm 10\%$

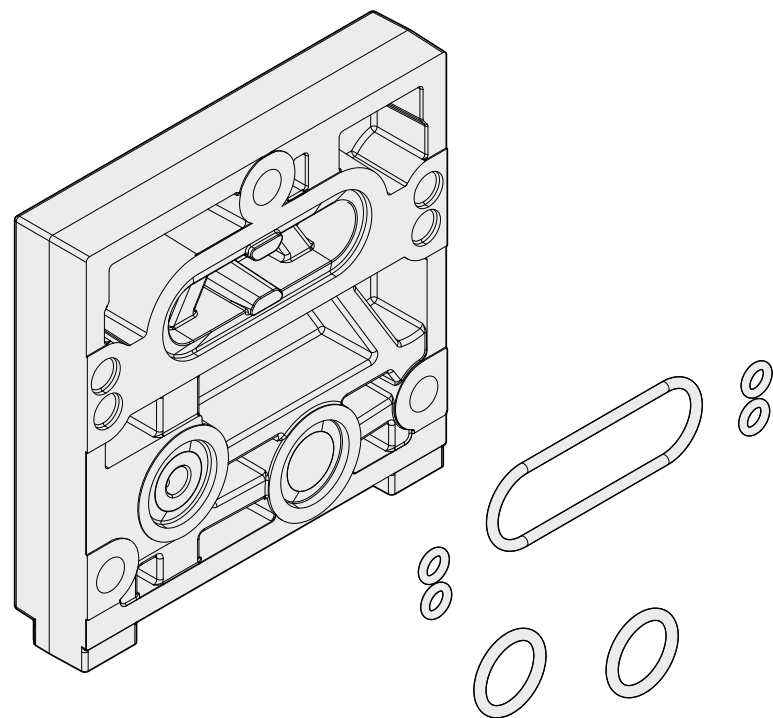
Code 編號	Symbol 符號	Dimensions 尺寸
PV4-ELN12 Rated Voltage 額定電壓：12 VDC Resistance 電阻：7.5 $\Omega \pm 7\%$	Normally Open (NO) 常開型	
PV4-ELN24 Rated Voltage 額定電壓：24 VDC Resistance 電阻：28.6 $\Omega \pm 7\%$		
PV4-ELF12 Rated Voltage 額定電壓：12 VDC Resistance 電阻：7.5 $\Omega \pm 7\%$	Normally Closed (NC) 常閉型	
PV4-ELF24 Rated Voltage 額定電壓：24 VDC Resistance 電阻：28.6 $\Omega \pm 7\%$		
PV4-ELNM12 Rated Voltage 額定電壓：12 VDC Resistance 電阻：7.5 $\Omega \pm 7\%$	Normally Open Push-to-Lock Button 常開型帶推式鎖定按鈕	
PV4-ELNM24 Rated Voltage 額定電壓：24 VDC Resistance 電阻：28.6 $\Omega \pm 7\%$		
PV4-ELNP12 Rated Voltage 額定電壓 12 VDC Resistance 電阻：7.5 $\Omega \pm 7\%$	Normally Open Push Button 常開型帶推式按鈕	
PV4-ELNP24 Rated Voltage 額定電壓 24 VDC Resistance 電阻：28.6 $\Omega \pm 7\%$		
PV4-ELSV	Plug 塞頭	



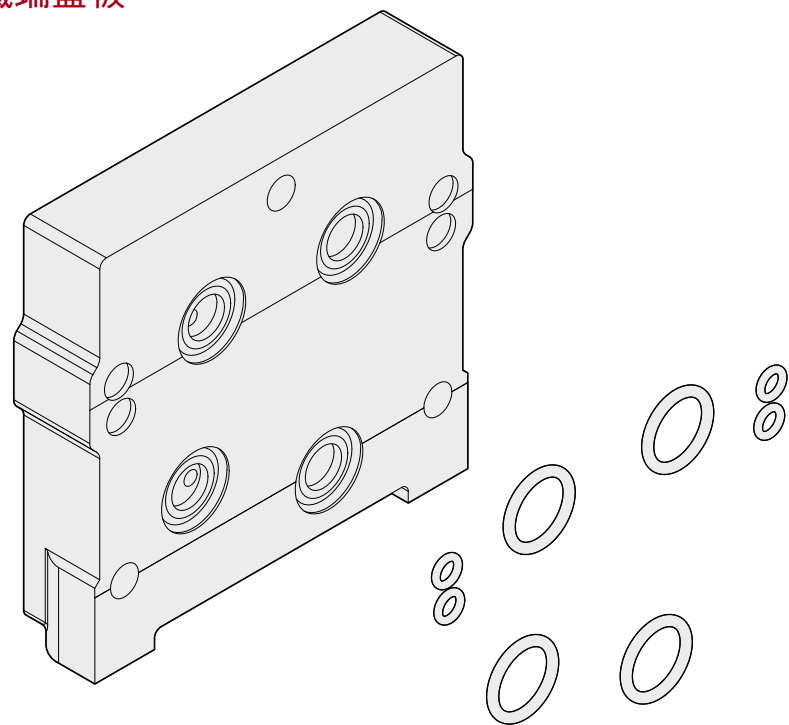
M Port □ : G2=G1/4
E5=1/2-20UNF
LS Port □ : G2=G1/4
E5=1/2-20UNF

PV4P0301		
Closed center pump side module for variable displacement pumps. Provides electrically controlled pilot oil supply. Maximum pump flow: 150 L/min. 閉迴路模塊 配合變量泵 提供電控先導油 最大泵流量 150 L/min	PV4P0301-G8 P, T□ : G1 PV4P0301-E16 P, T□ : 1-5/16 UN	
PV4P0302		
Closed center pump side module for variable displacement pumps. Provides electrically controlled pilot oil supply and is equipped with a shock and suction valve. Maximum pump flow: 150 L/min. 閉迴路模塊 配合變量泵 提供電控先導油 搭配緩衝閥 最大泵流量 150 L/min	PV4P0302-G8 P, T□ : G1 PV4P0302-E16 P, T□ : 1-5/16 UN	
PV4P0303		
Closed center pump side module for variable displacement pumps, with mid inlet. Provides electrically controlled pilot oil supply. Maximum pump flow: 230 L/min. 閉迴路模塊 配合變量泵 中間入油 提供電控先導油 最大泵流量 230 L/min	PV4P0303-G8 P, T□ : G1 PV4P0303-E16 P, T□ : 1-5/16 UN	
PV4P0304		
Closed center pump side module for variable displacement pumps, with mid inlet. Provides electrically controlled pilot oil supply and is equipped with a shock and suction valve. Maximum pump flow: 230 L/min. 閉迴路模塊 配合變量泵 中間入油 提供電控先導油 搭配緩衝閥 最大泵流量 230 L/min	PV4P0304-G8 P, T□ : G1 PV4P0304-E16 P, T□ : 1-5/16 UN	

Aluminum Casting 鑄鋁端蓋板



Iron Casting 鑄鐵端蓋板



PV4C0101	
Aluminum casting, No connection. Max. pressure: 300 bar (4351 psi) 鑄鋁，無外接油口 最大壓力 300 bar (4351 psi)	
PV4C0102	
Aluminum casting, LS G1/8 X port for external connection. Max. pressure: 250 bar (3625 psi) 鑄鋁，帶 LS 外接油口，X口為 G1/8 最大壓力 250 bar (3625 psi)	
PV4C0103	
Aluminum casting, LS 3/8-24 UNF X port for external connection. Max. pressure: 250 bar (3625 psi) 鑄鋁，帶 LS 外接油口，X口為 3/8-24 UNF 最大壓力 250 bar (3625 psi)	
PV4C0201	
Iron casting, No external connection. Max. pressure: 350 bar (5075 psi) 鑄鐵，無外接油口 最大壓力 350 bar (5075 psi)	
PV4C0202	
Iron casting, LS G1/4 X port for external connection. Max. pressure: 350 bar (5075 psi) 鑄鐵，帶 LS 外接油口，X口為 G1/4 最大壓力 350 bar (5075 psi)	
PV4C0203	
Iron casting, LS 1/2-20 UNF X port for external connection. Max. pressure: 350 bar (5075 psi) 鑄鐵，帶 LS 外接油口，X口為 1/2-20 UNF 最大壓力 350 bar (5075 psi)	

Basic module 工作體

Spool 心軸

A Side A邊

B Side B邊

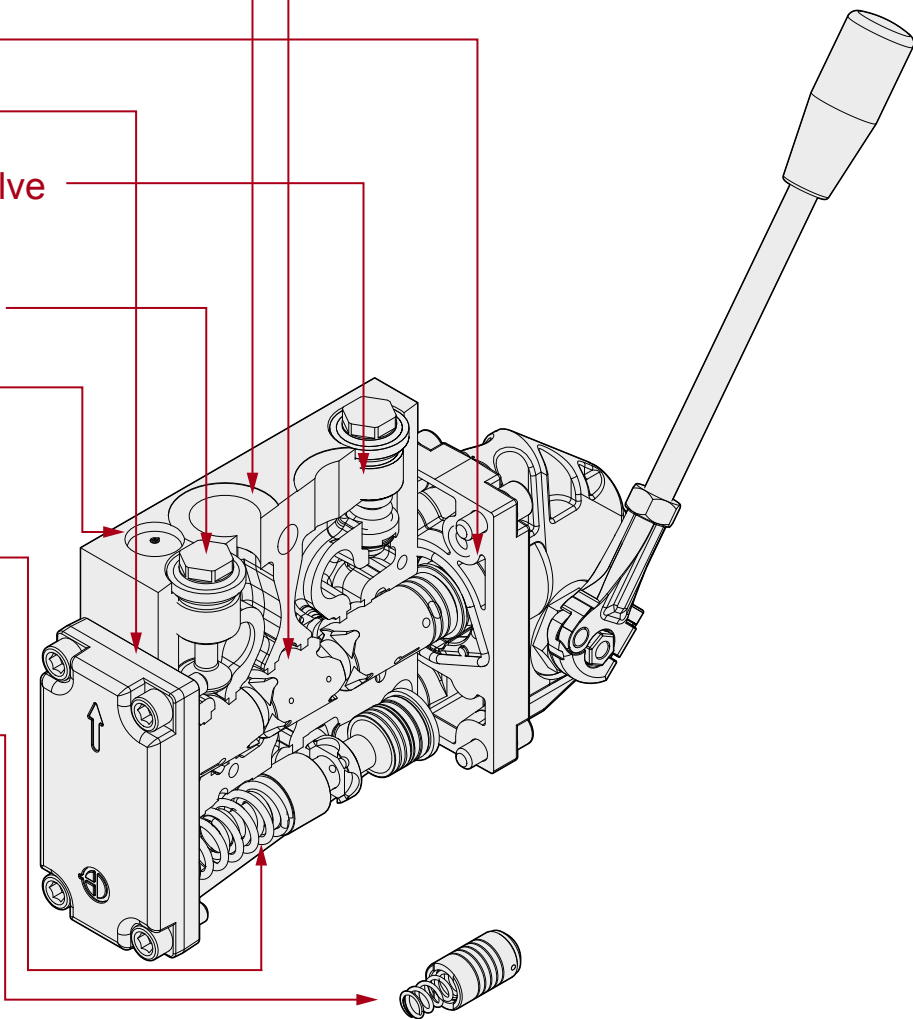
Shock and suction valve
緩衝閥

Suction valve 補油閥

LS Pressure
limiting valve
LS A/B 限壓閥

Pressure
compensator valve
壓力補償閥

Load drop
check valve
負載失效單向閥



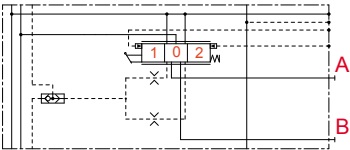
PV4V01

Without load drop check valve and pressure-compensated valve.

無負載失效單向閥
與壓力補償閥

PV4V01-G4 AB Port : G1/2

PV4V01-E10 AB Port : 7/8-14 UNF



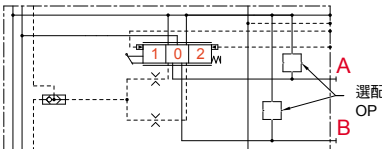
PV4V01U

With ports for suction valve or shock and suction valve. Without load drop check valve and pressure compensated valve.

無負載失效單向閥與壓力補償閥、
有補油閥口可裝補油閥或緩衝閥

PV4V01U-G4 AB Port : G1/2

PV4V01U-E10 AB Port : 7/8-14 UNF



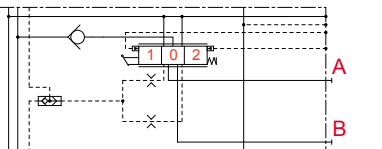
PV4V02

With load drop check valve.

帶負載失效單向閥

PV4V02-G4 AB Port : G1/2

PV4V02-E10 AB Port : 7/8-14 UNF



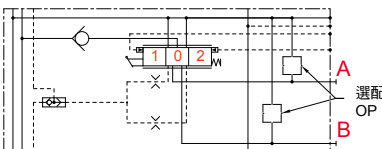
PV4V02U

With ports for suction valve or shock and suction valve. With load drop check valve.

帶負載失效單向閥、有補油閥口可
裝補油閥或緩衝閥

PV4V02U-G4 AB Port : G1/2

PV4V02U-E10 AB Port : 7/8-14 UNF



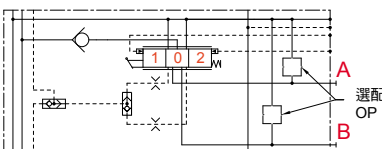
PV4V03U

With ports for suction valve or shock and suction valve. With load drop check valve, LS A/B shuttle valve.

帶負載失效單向閥和 LS A/B 梭動閥、
有補油閥口可裝補油閥或緩衝閥

PV4V03U-G4 AB Port : G1/2

PV4V03U-E10 AB Port : 7/8-14 UNF



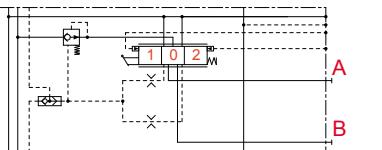
PV4V04

With non-damped pressure compensated valve.

帶壓力補償閥

PV4V04-G4 AB Port : G1/2

PV4V04-E10 AB Port : 7/8-14 UNF



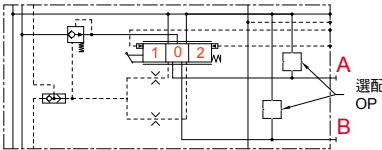
PV4V04U

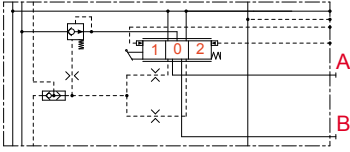
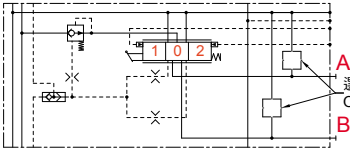
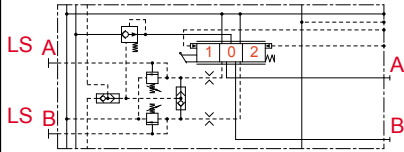
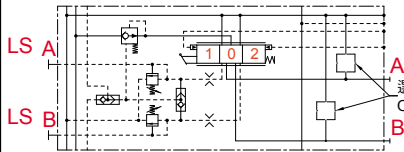
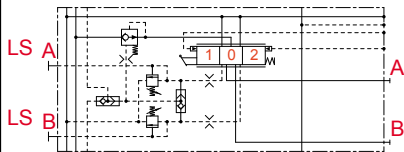
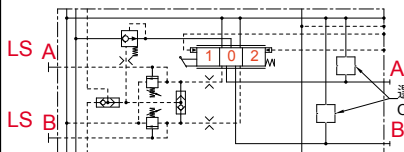
With ports for suction valve or shock and suction valve. With non-damped pressure compensated valve.

帶壓力補償閥、有補油閥口可裝補
油閥或緩衝閥

PV4V04U-G4 AB Port : G1/2

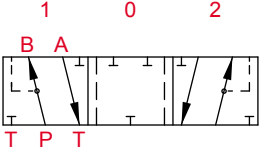
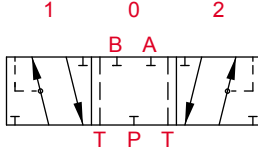
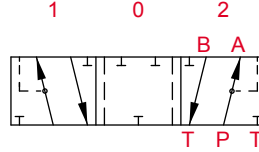
PV4V04U-E10 AB Port : 7/8-14 UNF



PV4V05		
With damped pressure compensated valve. 帶節流壓力補償閥	PV4V05-G4 AB Port : G1/2 PV4V05-E10 AB Port : 7/8-14 UNF	
PV4V05U		
With ports for suction valve or shock and suction valve. With damped pressure compensated valve. 帶節流壓力補償閥、有補油閥口可裝補油閥或緩衝閥	PV4V05U-G4 AB Port : G1/2 PV4V05U-E10 AB Port : 7/8-14 UNF	
PV4V06		
Adjustable LS A/B pressure relief valve. With non-damped pressure compensated valve. 帶壓力補償閥和 LS 限壓閥	PV4V06-G4 AB Port : G1/2 PV4V06-E10 AB Port : 7/8-14 UNF	
PV4V06U		
Adjustable LS A/B pressure relief valve. With non-damped pressure compensated valve. With ports for suction valve or shock and suction valve. 帶壓力補償閥和 LS 限壓閥、有補油閥口可裝補油閥或緩衝閥	PV4V06U-G4 AB Port : G1/2 PV4V06U-E10 AB Port : 7/8-14 UNF	
PV4V07		
Adjustable LS A/B pressure relief valve. With damped pressure compensated valve. 帶節流壓力補償閥和 LS 限壓閥	PV4V07-G4 AB Port : G1/2 PV4V07-E10 AB Port : 7/8-14 UNF	
PV4V07U		
Adjustable LS A/B pressure relief valve. With damped pressure compensated valve. With ports for suction valve or shock and suction valve. 帶節流壓力補償閥和 LS 限壓閥、有補油閥口可裝補油閥或緩衝閥	PV4V07U-G4 AB Port : G1/2 PV4V07U-E10 AB Port : 7/8-14 UNF	

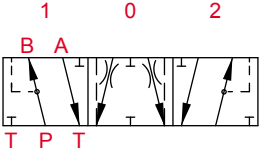
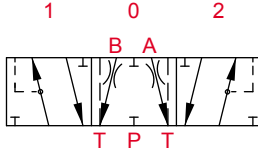
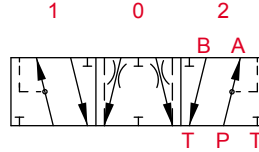
YLWPV42 01 ※※※

01 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 01 ※※※※※							
							
P → B , A → T		P & T & A & B Closed		P → A , B → T			
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	130 (L/min)
Code 編號	YLWPV4201005	YLWPV4201010	YLWPV4201025	YLWPV4201040	YLWPV4201065	YLWPV4201100	YLWPV4201130
	YLWPV4201005AB	YLWPV4201010AB	YLWPV4201025AB	YLWPV4201040AB	YLWPV4201065AB	YLWPV4201100AB	YLWPV4201130AB
	YLWPV4201005HA	YLWPV4201010HA	YLWPV4201025HA	YLWPV4201040HA	YLWPV4201065HA	YLWPV4201100HA	YLWPV4201130HA
	YLWPV4201005ABHA	YLWPV4201010ABHA	YLWPV4201025ABHA	YLWPV4201040ABHA	YLWPV4201065ABHA	YLWPV4201100ABHA	YLWPV4201130ABHA
	YLWPV4201005FD	YLWPV4201010FD	YLWPV4201025FD	YLWPV4201040FD	YLWPV4201065FD	YLWPV4201100FD	YLWPV4201130FD
	YLWPV4201005ABFD	YLWPV4201010ABFD	YLWPV4201025ABFD	YLWPV4201040ABFD	YLWPV4201065ABFD	YLWPV4201100ABFD	YLWPV4201130ABFD

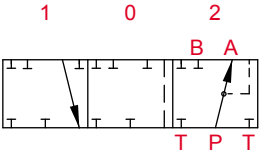
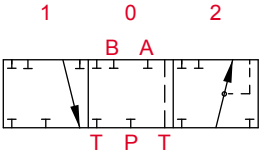
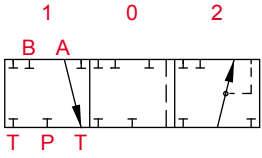
YLWPV42 02 ※※※

02 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 02 ※※※※※							
							
P → B , A → T		A & B → T , P Closed		P → A , B → T			
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	130 (L/min)
Code 編號	YLWPV4202005	YLWPV4202010	YLWPV4202025	YLWPV4202040	YLWPV4202065	YLWPV4202100	YLWPV4202130
	YLWPV4202005AB	YLWPV4202010AB	YLWPV4202025AB	YLWPV4202040AB	YLWPV4202065AB	YLWPV4202100AB	YLWPV4202130AB
	YLWPV4202005HA	YLWPV4202010HA	YLWPV4202025HA	YLWPV4202040HA	YLWPV4202065HA	YLWPV4202100HA	YLWPV4202130HA
	YLWPV4202005ABHA	YLWPV4202010ABHA	YLWPV4202025ABHA	YLWPV4202040ABHA	YLWPV4202065ABHA	YLWPV4202100ABHA	YLWPV4202130ABHA
	YLWPV4202005FD	YLWPV4202010FD	YLWPV4202025FD	YLWPV4202040FD	YLWPV4202065FD	YLWPV4202100FD	YLWPV4202130FD
	YLWPV4202005ABFD	YLWPV4202010ABFD	YLWPV4202025ABFD	YLWPV4202040ABFD	YLWPV4202065ABFD	YLWPV4202100ABFD	YLWPV4202130ABFD

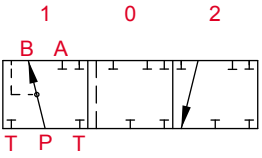
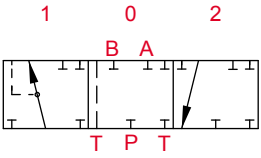
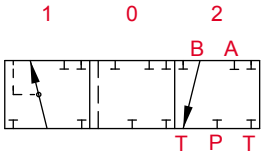
YLWPV42 03 ※※※

03 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 03 ※※※※※					
					
P → A		P & T & A & B Closed		A → T	
Flow 流量	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號	YLWPV4203010	YLWPV4203025	YLWPV4203040	YLWPV4203065	YLWPV4203100

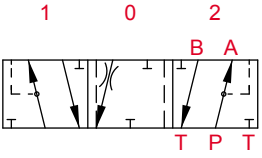
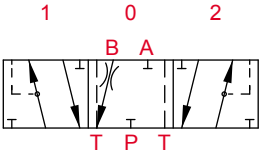
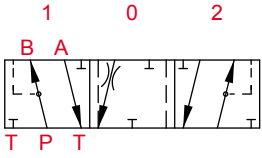
YLWPV42 04 ※※※

04 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 04 ※※※※※					
					
P → B		P & T & A & B Closed		B → T	
Flow 流量	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號	YLWPV4204010	YLWPV4204025	YLWPV4204040	YLWPV4204065	YLWPV4204100

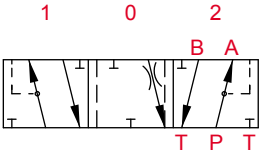
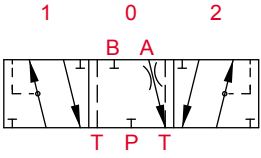
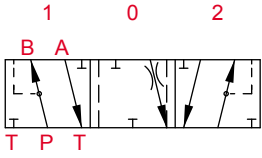
YLWPV42 05 ※※※

05 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 05 ※※※※※					
					
P → A , B → T		B → T , P Closed		P → B , A → T	
Flow 流量	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	130 (L/min)
Code 編號	YLWPV4205025	YLWPV4205040	YLWPV4205065	YLWPV4205100	YLWPV4205130
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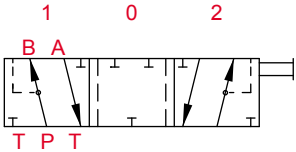
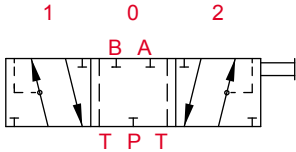
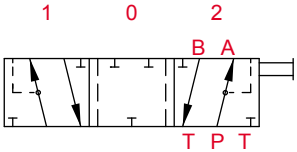
YLWPV42 06 ※※※

06 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 06 ※※※※※					
					
P → A , B → T		A → T , P Closed		P → B , A → T	
Flow 流量	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	130 (L/min)
Code 編號	YLWPV4206025	YLWPV4206040	YLWPV4206065	YLWPV4206100	YLWPV4206130
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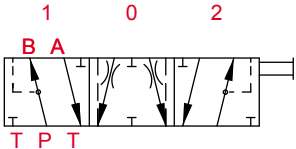
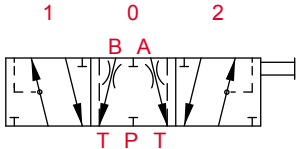
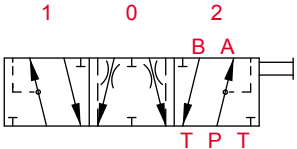
YLWPV42 01 ※※※

01 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 TQ External control spool 外部控制心軸

YLWPV42 01 ※※※※※						
						
P → B , A → T		P & T & A & B Closed			P → A , B → T	
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號	YLWPV4201005TQ	YLWPV4201010TQ	YLWPV4201025TQ	YLWPV4201040TQ	YLWPV4201065TQ	YLWPV4201100TQ
	YLWPV4201005ABTQ	YLWPV4201010ABTQ	YLWPV4201025ABTQ	YLWPV4201040ABTQ	YLWPV4201065ABTQ	YLWPV4201100ABTQ

YLWPV42 02 ※※※

02 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 TQ External control spool 外部控制心軸

YLWPV42 02 ※※※※※						
						
P → B , A → T		A & B→T , P Closed		P → A , B → T		
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號	YLWPV4202005TQ	YLWPV4202010TQ	YLWPV4202025TQ	YLWPV4202040TQ	YLWPV4202065TQ	YLWPV4202100TQ
	YLWPV4202005ABTQ	YLWPV4202010ABTQ	YLWPV4202025ABTQ	YLWPV4202040ABTQ	YLWPV4202065ABTQ	YLWPV4202100ABTQ

YLWPV42 C19 ※※※

C19 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 C19 ※※※※※						
P → B , A → T		P & T & A & B Closed		P → A , B → T		
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	
Code 編號	YLWPV42C19005	YLWPV42C19010	YLWPV42C19025	YLWPV42C19040	YLWPV42C19065	
	YLWPV42C19005AB	YLWPV42C19010AB	YLWPV42C19025AB	YLWPV42C19040AB	YLWPV42C19065AB	

YLWPV42 C20 ※※※

C20 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 C20 ※※※※※						
P → B , A → T		A & B → T , P Closed		P → A , B → T		
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號	YLWPV42C20005	YLWPV42C20010	YLWPV42C20025	YLWPV42C20040	YLWPV42C20065	-
	YLWPV42C20005AB	YLWPV42C20010AB	YLWPV42C20025AB	YLWPV42C20040AB	YLWPV42C20065AB	YLWPV42C20100AB

YLWPV42 A21 ※※※

A21 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 A21 ※※※※※						
P → B , A → T		P & T & A & B Closed		P → A , B → T		
Flow 流量	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	
Code 編號	YLWPV42A21010	YLWPV42A21025	YLWPV42A21040	YLWPV42A21065	YLWPV42A21100	
	-	YLWPV42A21025AB	YLWPV42A21040AB	YLWPV42A21065AB	YLWPV42A21100AB	

YLWPV42 B21 ※※※

B21 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 B21 ※※※※※						
P → B , A → T		P & T & A & B Closed		P → A , B → T		
Flow 流量	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	
Code 編號	YLWPV42B21010	YLWPV42B21025	YLWPV42B21040	YLWPV42B21065	YLWPV42B21100	
	-	YLWPV42B21025AB	YLWPV42B21040AB	YLWPV42B21065AB	YLWPV42B21100AB	

YLWPV42 A22 ※※※

A22 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 A22 ※※※※※						
P → B , A → T		A & B → T , P Closed		P → A , B → T		
Flow 流量	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)		
Code 編號	YLWPV42A22025	YLWPV42A22040	YLWPV42A22065	YLWPV42A22100		
	YLWPV42A22025AB	YLWPV42A22040AB	YLWPV42A22065AB	YLWPV42A22100AB		

YLWPV42 B22 ※※※

B22 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 B22 ※※※※※						
P → B , A → T		A & B → T , P Closed		P → A , B → T		
Flow 流量	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	
Code 編號	YLWPV42B22010	YLWPV42B22025	YLWPV42B22040	YLWPV42B22065	YLWPV42B22100	
	-	YLWPV42B22025AB	YLWPV42B22040AB	YLWPV42B22065AB	YLWPV42B22100AB	

YLWPV42 A23 ※※※

A23 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

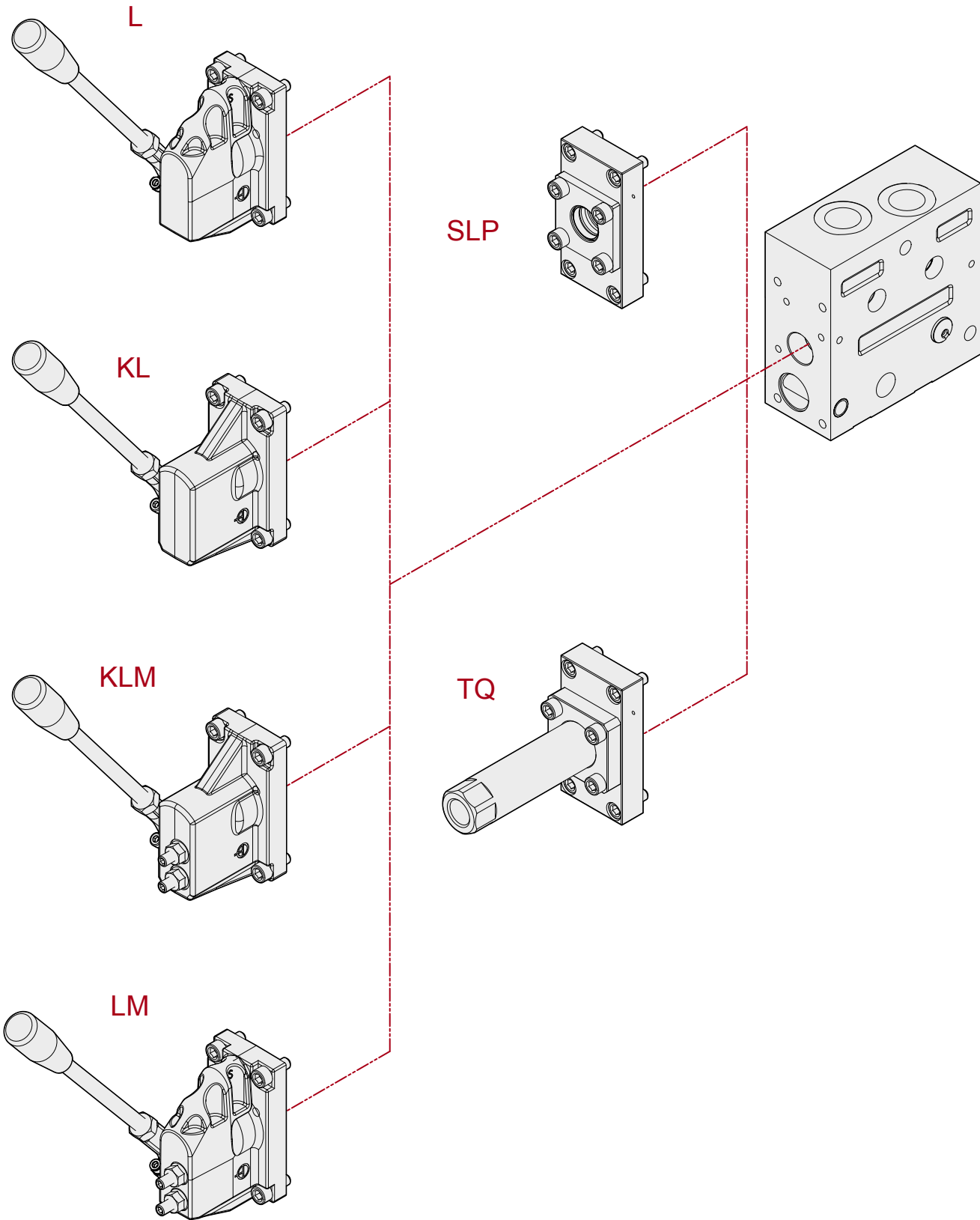
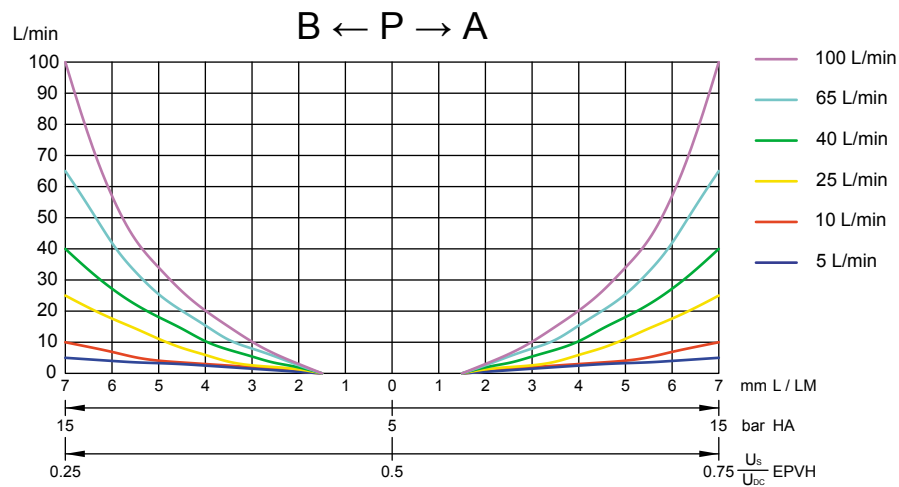
YLWPV42 A23 ※※※※※			
Flow 流量	25 (L/min)	40 (L/min)	65 (L/min)
Codes 編號	YLWPV42A23025	YLWPV42A23040	YLWPV42A23065
	YLWPV42A23025AB	YLWPV42A23040AB	YLWPV42A23065AB

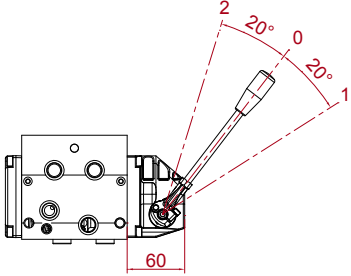
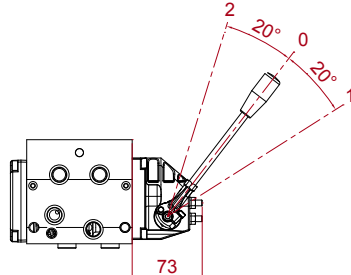
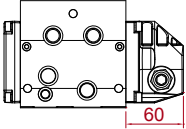
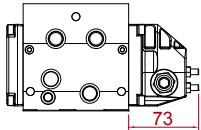
YLWPV42 B23 ※※※

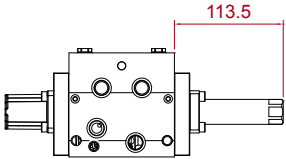
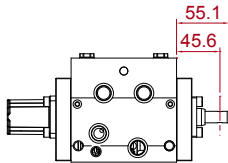
B23 Spool circuit 心軸迴路 ※※※ Spool flow 心軸流量 AB Shuttle valve 梭動閥 FD Friction detent 摩擦定位 HA Hydraulic actuation 液壓驅動

YLWPV42 B23 ※※※※※			
Flow 流量	10 (L/min)	25 (L/min)	40 (L/min)
Codes 編號	-	-	YLWPV42B23040
	YLWPV42B23010AB	YLWPV42B23025AB	YLWPV42B23065AB

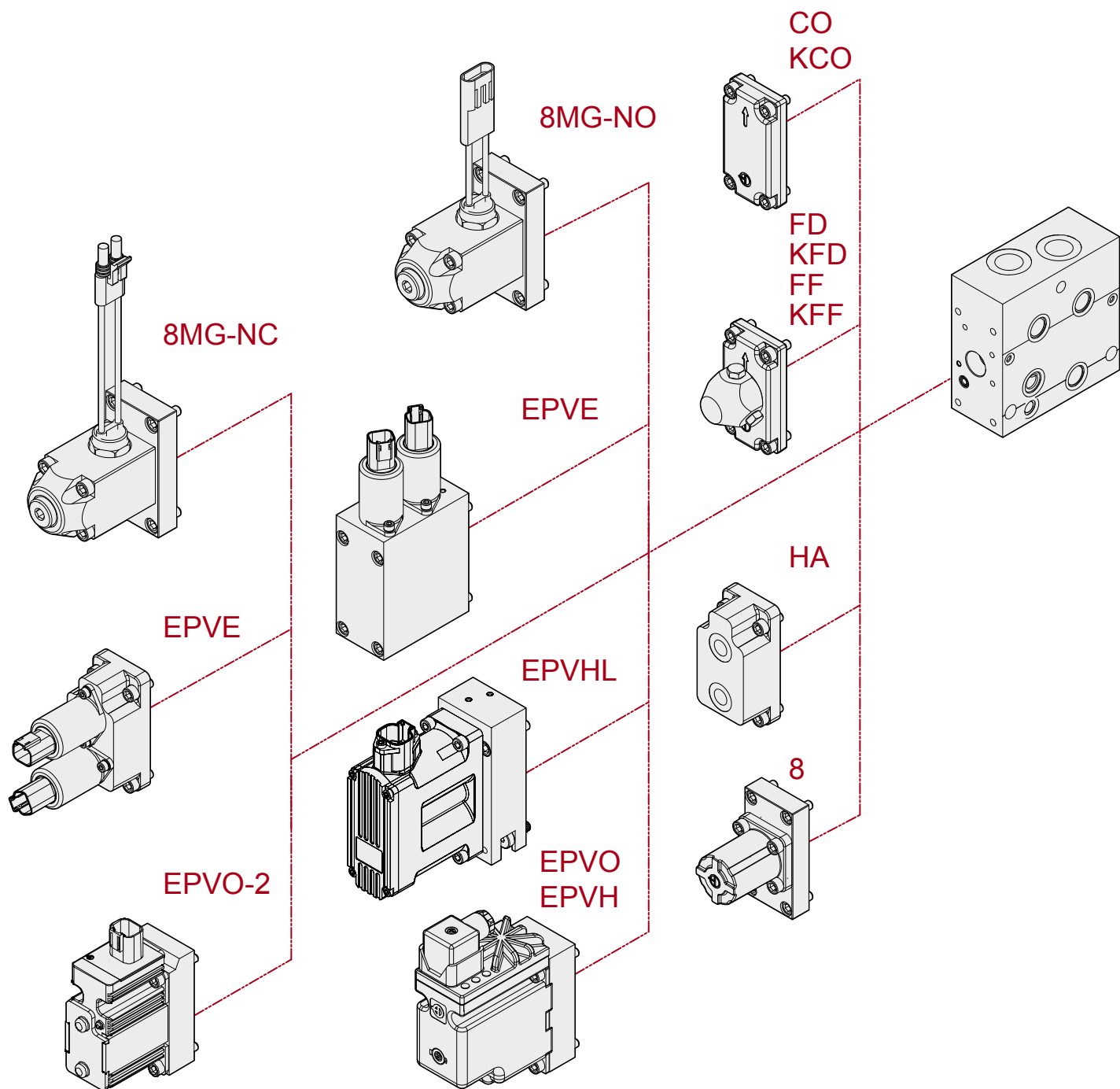
Flow Curve 流量曲線



Code 編號 L	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KL		Iron 鑄鐵
Standard lever 標準把手		
Code 編號 LM	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KLM		Iron 鑄鐵
Standard lever; individual oil flow adjustment to ports A and B. 標準把手 帶 A/B 口最大流量 調節螺絲		
Code 編號 LN	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KLN		Iron 鑄鐵
With standard lever box; without lever. 標準把手蓋 無手把		
Code 編號 LMN	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KLMN		Iron 鑄鐵
With standard lever box, without lever; With individu- al oil flow adjustment to ports A and B. 標準把手蓋 無手把 帶 A/B 口最大流量 調節螺絲		

Code 編號 TQ	Circuit 迴路	
Connection kit does not include cables.(Only applicable when B side option is type 8.) 連接套件不包括纜線 (只能用在 B 邊是 8 的)		
Code 編號 SLP	Circuit 迴路	
Connection kit does not include cables.(Only applicable when B side option is type 8.) 連接套件不包括纜線 (只能用在 B 邊是 8 的)		

PV4 Proportional Valves 比例式控制閥



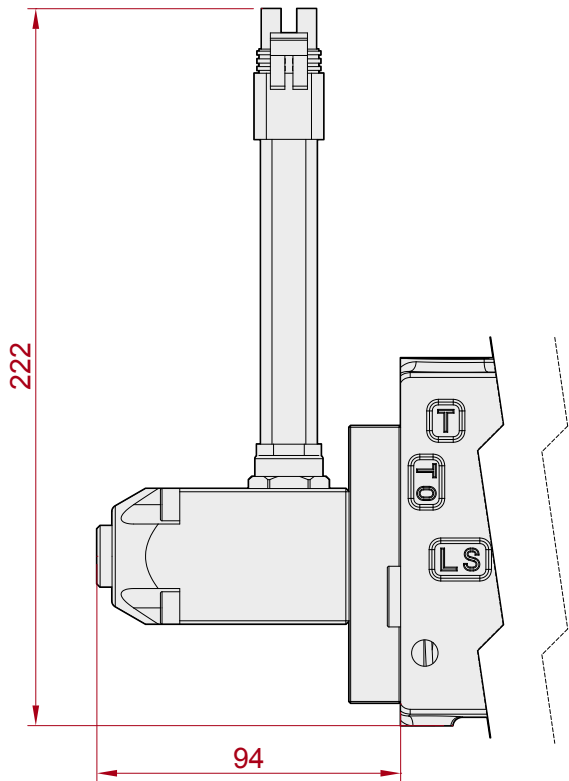
※For EPVHL information, please contact our sales team.
EPVHL 資料請與業務聯絡

PV4 Proportional Valves 比例式控制閥

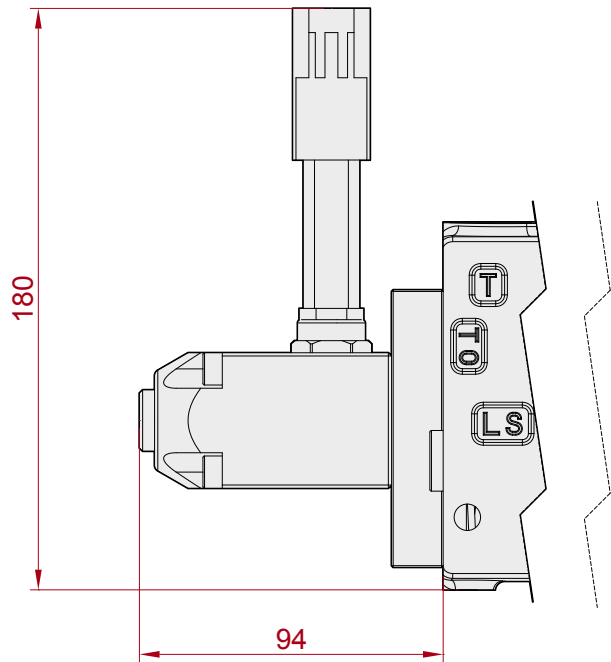
Code 編號 CO	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KCO		Iron 鑄鐵
Standard cover. 標準後蓋		
Code 編號 FD	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KFD		Iron 鑄鐵
Friction detent. 摩擦定位		
Code 編號 HA-G2	Circuit 迴路	Thread Code 牙口 : G1/4
Code 編號 HA-E6		Thread Code 牙口 : 9/16-18UNF
Cover for hydraulic actuation to match HA spool. Control range: 5~15 Bar. ● This type can connect with JHP1 & JHP2. 液壓驅動蓋板須搭配 HA 心軸 調節範圍 : 5~15 bar ● 可搭配 JHP1、JHP2 控制		
CODE 編號 8	Circuit 迴路	
TQ series spring kit TQ 系列復歸蓋組		

8MG1/2/3

Code 編號
8MG1-NC
8MG2-NC
8MG3-NC



Code 編號
8MG1-NO
8MG2-NO
8MG3-NO



Microswitch
Operating Features 操作數據：

Mechanical Life 機構壽命：	Normally closed microswitch (male connector) 常閉型微動開關 (公型插座)
• 5 X 10 ⁵ Operations 500000 作動 Electrical Life (resistive load)	
Electrical control life 電控壽命：	Normally open microswitch (female connector) 常開型微動開關 (母型插座)
• 5 X 10 ⁵ Operations 500000 作動 - 7A / 13.5 VdC • 5 X 10 ⁴ Operations 50000 作動 - 10A / 12 VdC • 5 X 10 ⁴ Operations 50000 作動 - 3A / 28 VdC	

8MG1 Kit : Microswitch with male / female Connector, operated in pos. 1 微動開關，作用位置 1	8MG2 Kit : Microswitch with male / female Connector, operated in pos. 2 微動開關，作用位置 2	8MG3 Kit : Microswitch with male / female Connector, operated in pos. 3 微動開關，作用位置 3
8MG1-NC 	8MG2-NC 	8MG3-NC
8MG1-NO 	8MG2-NO 	8MG3-NO

EPVE

Function 功能：

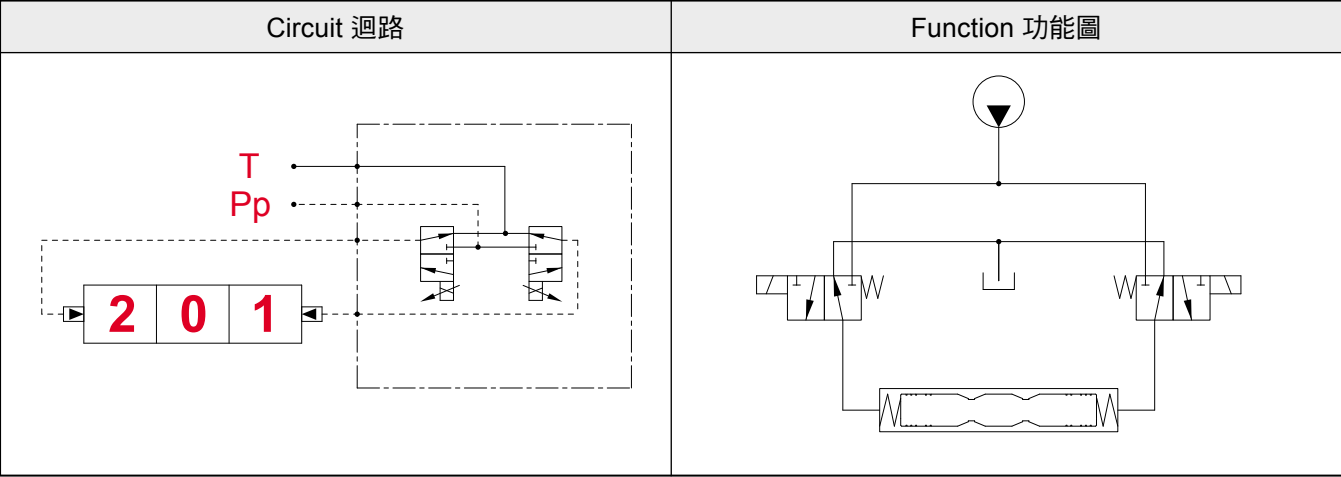
The main spool position is adjusted with the electrical proportional actuation, in this condition, the position corresponds to an electrical control signal.
The control signal is converted into a hydraulic pressure signal that makes the spool move in the valve. This is done by means of two proportional pressure reducing valve. The electrical actuation can be controlled by current amplifier and a programmable micro-controller directly.

- Use with 25 bar pilot pressure, to match with HA spool, cannot combine to use EPVE with EPVO and EPVH.

主閥心位置通過電比例驅動件來調整，完成閥心位置與電控信號，對應控制訊號轉為驅動主閥心的液壓壓力信號，控制訊號的轉化由兩個比例減壓閥完成，電器驅動元件可以由電流放大板或可編程微控制器直接控制。

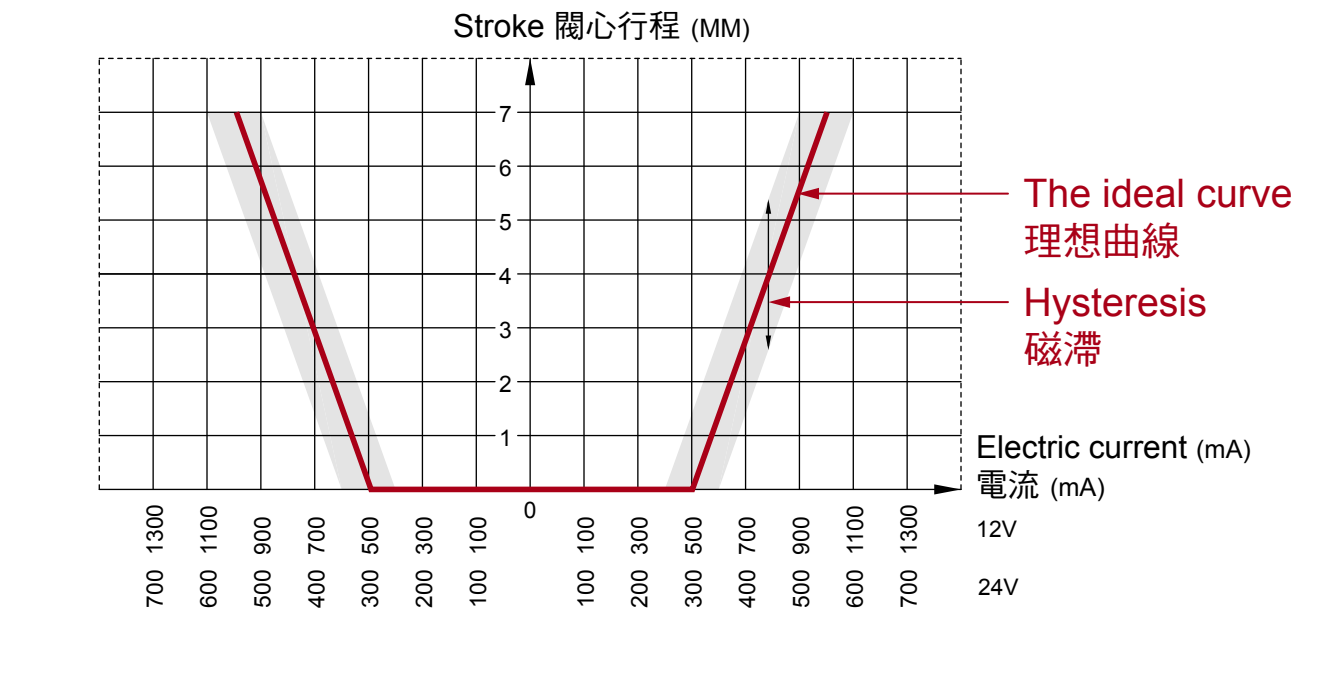
- 使用 25 bar 先導壓力，需搭配 HA 心軸，不可與 EPVO、EPVH 共用。

Code 編號	Description 描述	Connector 接頭	Enclosure to IEC 529 防護等級
EPVE-A1201	Proportional control, rated voltage 12 V, standard type. 比例控制、額定電壓 12 V，標準型	AMP	IP66
EPVE-A1202	Proportional control, rated voltage 12 V, vertical type. 比例控制、額定電壓 12 V，直立型		
EPVE-A2401	Proportional control, rated voltage 24 V, standard type. 比例控制、額定電壓 24 V，標準型		
EPVE-A2402	Proportional control, rated voltage 24 V, vertical type. 比例控制、額定電壓 24 V，直立型		
EPVE-D1201	Proportional control, rated voltage 12 V, standard type. 比例控制、額定電壓 12 V，標準型	Deutsch	IP67
EPVE-D1202	Proportional control, rated voltage 12 V, vertical type. 比例控制、額定電壓 12 V，直立型		
EPVE-D2401	Proportional control, rated voltage 24 V, standard type. 比例控制、額定電壓 24 V，標準型		
EPVE-D2402	Proportional control, rated voltage 24 V, vertical type. 比例控制、額定電壓 24 V，直立型		

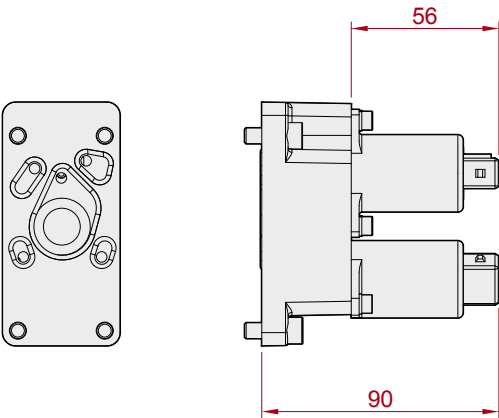


Parameter 參數	12V DC	24V DC	Parameter 參數	12V DC	24V DC
Controller Output Current Range 控制器輸出電流範圍	0 - 1500 mA	0 - 750 mA	Ambient Temperature 環境溫度	-30°C ~ 80°C {-22°F~176°F}	
Resistance 電阻	4.72 Ω ± 5%	20.8 Ω ± 5%	Fluid Temperature 介質溫度	-20°C ~ 80°C {-4°F~176°F}	
Current Consumption 消耗電流	24mA(12V)	20mA(24V)	Hydraulic Oil Viscosity 液壓油黏度	Range 範圍： 12~75 mm²/s {65~350 SUS}	
Control Mode 控制型態	Current control recommended 電流控制推薦 PWM 100HZ			Min. 最小： 4 mm²/s {40 SUS}	
Pilot Pressure 先導壓力	Min. 最小 21 bar {305 psi} Max. 最大 25 bar {636 psi}			Max. 最大： 400 mm²/s {2130 SUS}	
Pressure Control Range 壓力控制範圍	5~15 bar {72.5~217.5 psi}		Hydraulic System Filtration 液壓系統過濾	Max. contamination 最大污染 (ISO 4406)	

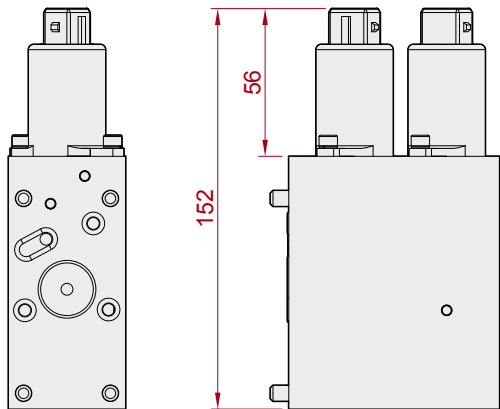
Performance Graphs 曲線圖



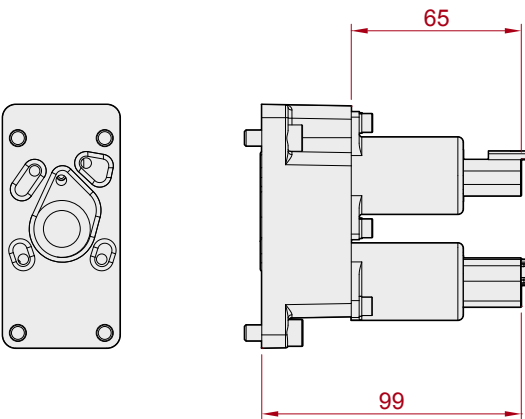
Standard Type 標準型-AMP



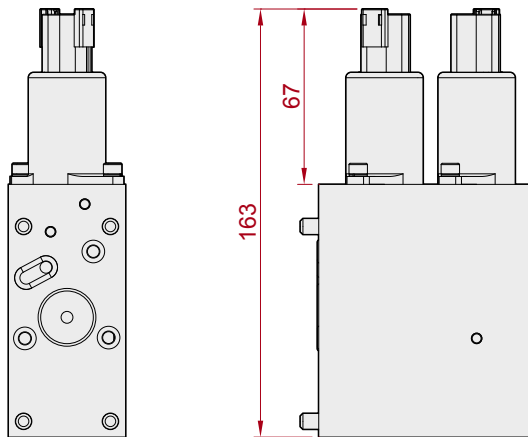
Vertical Type 直立型-AMP



Standard Type 標準型-Deutsch



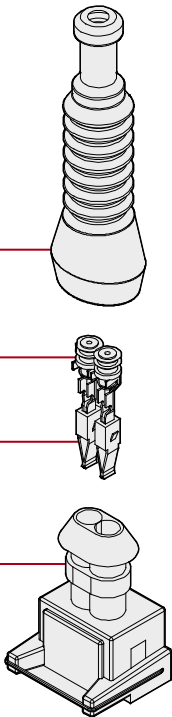
Vertical Type 直立型-Deutsch



AMP Connector Version 插件

Description 描述	QTY 數量	AMP 代碼
Seal Kit 密封件	1	880810-1
Contacts 觸點	2	828905-1
Contacts 觸點	2	929930-3
Connector 接頭	1	282189-1

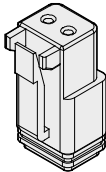
★ By Purchased (Non-provided)
產品不提供插件



Deutsch Connector Version 插件

Description 描述	QTY 數量	Deutsch 代碼
Connector 接頭	1	W2S

★ By Purchased (Non-provided)
產品不提供插件



EPVO

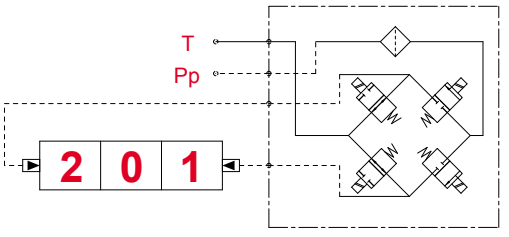
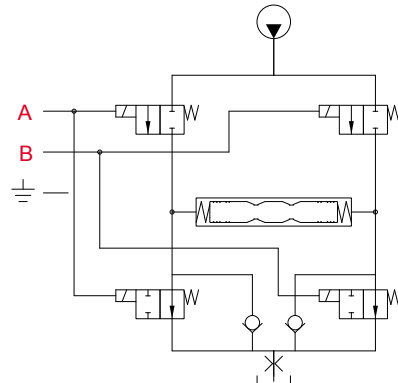
Function 功能：

The main spool is controlled by ON/OFF modulated plug-in solenoid valve, reaction time from neutral position to max spool travel. Supply voltage range：12~24V. LED signal indicator is optional.

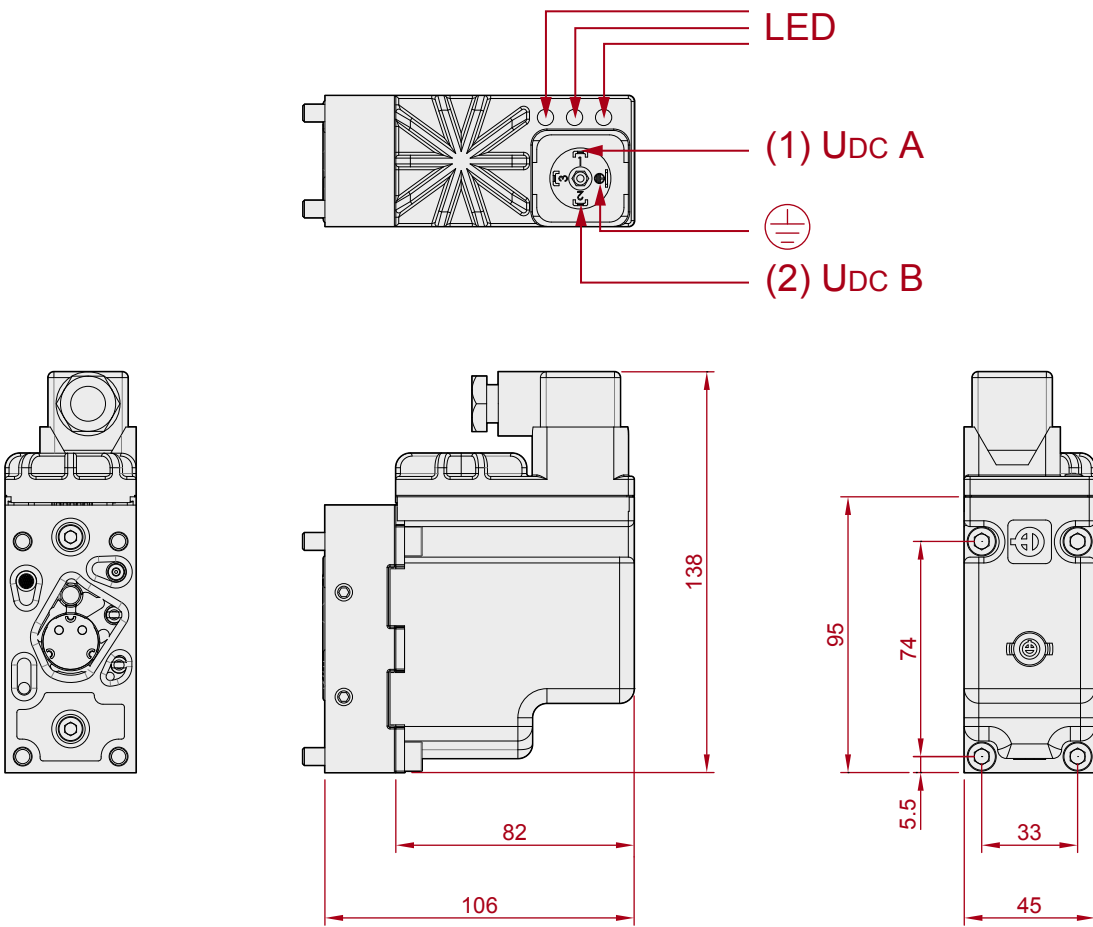
主閥芯可經由開關控制驅動，從中位到達最大行程位置，分為 12 V 與 24 V 版本，可選擇 LED 訊號燈。

Code 編號	Description 描述	Connector 接頭	Enclosure to IEC 529 防護等級
EPVO-H0110	ON/OFF control, voltage 12 VDC without LED light. 開/關控制，電壓 12 V，無 LED 訊號燈。	Hirschmann 接頭	IP65
EPVO-H0111	ON/OFF control, voltage 12 VDC with LED light. 開/關控制，電壓 12 V，有 LED 訊號燈。		
EPVO-H0120	ON/OFF control, voltage 24 VDC without LED light. 開/關控制，電壓 24 V，無 LED 訊號燈。		
EPVO-H0121	ON/OFF control, voltage 24 VDC with LED light. 開/關控制，電壓 24 V，有 LED 訊號燈。		

Parameter 參數	Description 描述		Parameter 參數	Description 描述
Supply Voltage 電源電壓 Udc	12 V	24 V	Pilot Pressure 先導壓力	Min. 最小 10 bar { 145 psi }
Max. Ripple 最大波動量	5%			Max. 最大 15 bar { 217.5 psi }
Ambient Temperature 環境溫度	-30°C~-60°C {-22°F~140°F}		Hydraulic Oil Viscosity 液壓油黏度	Range 範圍： 12~75 mm²/s { 65~350 SUS }
Hydraulic Oil Temperature 液壓油溫度	Range 範圍： 30°C~60°C {86°F~140°F}			Min. 最小： 4 mm²/s { 40 SUS }
	Min. 最小： -30°C {-22°F}			Max. 最大： 400 mm²/s { 2130 SUS }
	Max. 最大： 90°C {194°F}		Hydraulic System Filtration 液壓系統過濾	Max. Contamination 最大污染 (ISO 4406)
Input Impedance 輸入阻抗	15 kΩ		Power Consumption 消耗功率	8.5 W

Circuit 迴路	Function 功能圖
	

Standard Type 標準型-Hirschmann



On/Off Control 開/關控制	A (Pin1) A (腳位1)	B (Pin2) B (腳位2)	LED Indicator LED 燈號
Neutral 中位 0	0	0	0
P → A	U DC	0	Blue 藍燈
P → B	0	U DC	Yellow 黃燈

※Red LED means an error happens 紅燈為故障燈

EPVO-2

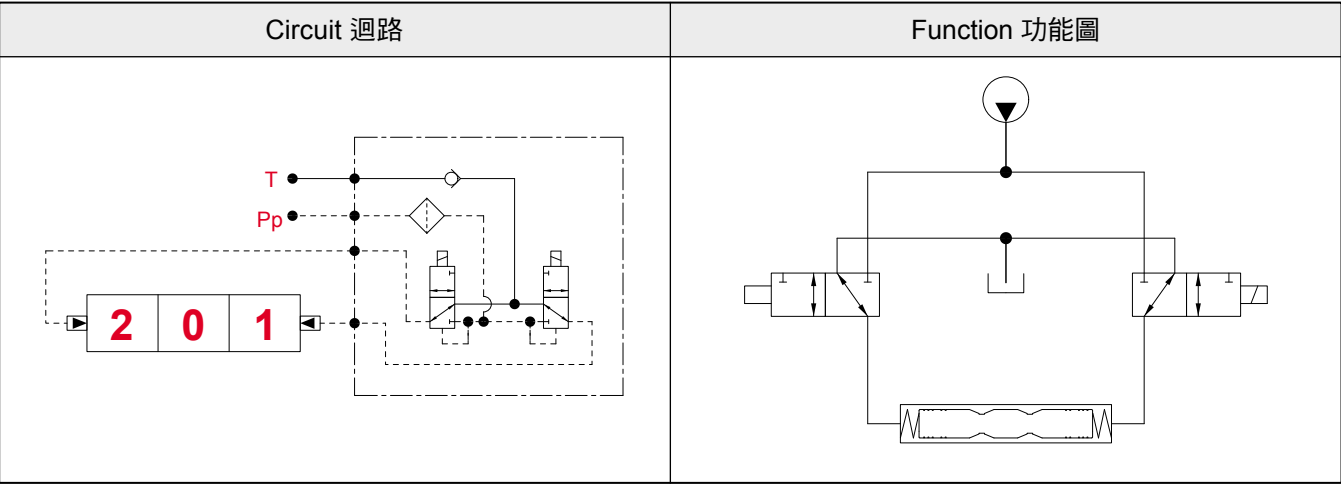
Function 功能：

The main spool can be actuated by switch control, moving from the neutral position to the maximum stroke position. Available in 12 VDC and 24 VDC versions with LED indicator light. When the voltage exceeds the specified range, the red LED error indicator will illuminate and operation will stop automatically. Equipped with reverse polarity protection.

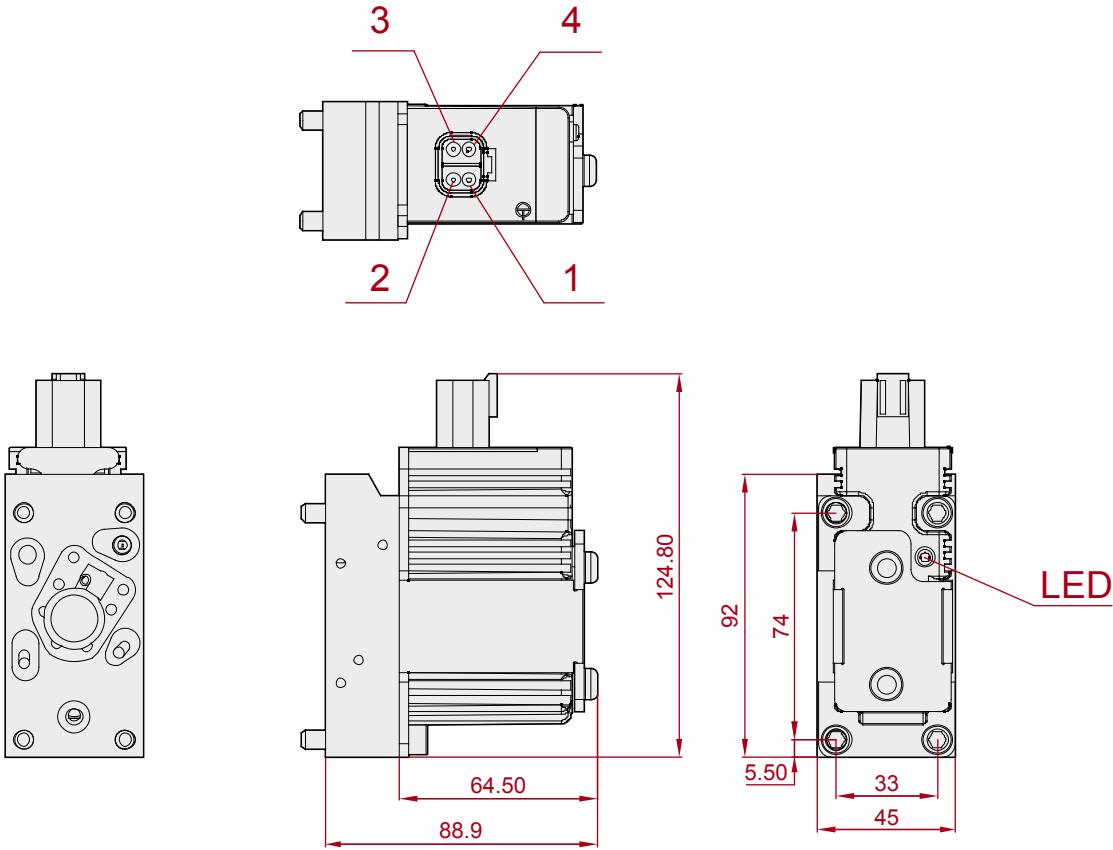
主閥芯可經由開關控制驅動，從中位到達最大行程位置，電壓分為 12 V 與 24 V 版本，LED 訊號燈。電壓超過範圍值顯示紅燈錯誤停止動作。誤接正負電源保護。

Code 編號	Description 描述	Connector 接頭	Enclosure to IEC 529 防護等級
EPVO-2D0111	ON/OFF control, voltage 12 VDC with LED light. 開/關控制，電壓 12 V，有 LED 訊號燈。	Deutsch	IP67
EPVO-2D0121	ON/OFF control, voltage 24 VDC with LED light. 開/關控制，電壓 24 V，有 LED 訊號燈。		

Parameter 參數	Description 描述		Parameter 參數	Description 描述
Supply Voltage 電源電壓 Udc	12 V	24 V	Pilot Pressure 先導壓力	Min. 最小 10 bar { 145 psi }
Range 範圍	11 V-15 V	22 V-30 V		Max. 最大 15 bar { 217.5 psi }
Max. Ripple 最大波動量	5%		Hydraulic Oil Viscosity 液壓油黏度	Range 範圍： 12~75 mm²/s { 65~350 SUS }
Hydraulic Oil Temperature 液壓油溫度	Range 範圍： 30℃~60℃ {86°F~140°F}			Min. 最小： 4 mm²/s { 40 SUS }
	Min. 最小： -30℃ {-22°F}			Max. 最大： 400 mm²/s { 2130 SUS }
	Max. 最大： 90℃ {194°F}		Hydraulic System Filtration 液壓系統過濾	Max. Contamination 最大污染 (ISO 4406)
Input Impedance 輸入阻抗	16.8 Ω ±5%	67.2 Ω ±5%	Power Consumption 消耗功率	8.5 W ±10%



Standard Type 標準型-Deutsch



On/Off Control 開/關控制	Pin1 腳位1	Pin2 腳位2	Pin3 腳位3	Pin4 腳位4	LED Indicator LED 燈號
Neutral 中位 0	0	0	GND	GND	0
P → A	U DC	0			Green 綠燈
P → B	0	U DC			Green 綠燈

※Red LED means an error happens 紅燈為故障燈

EPVH

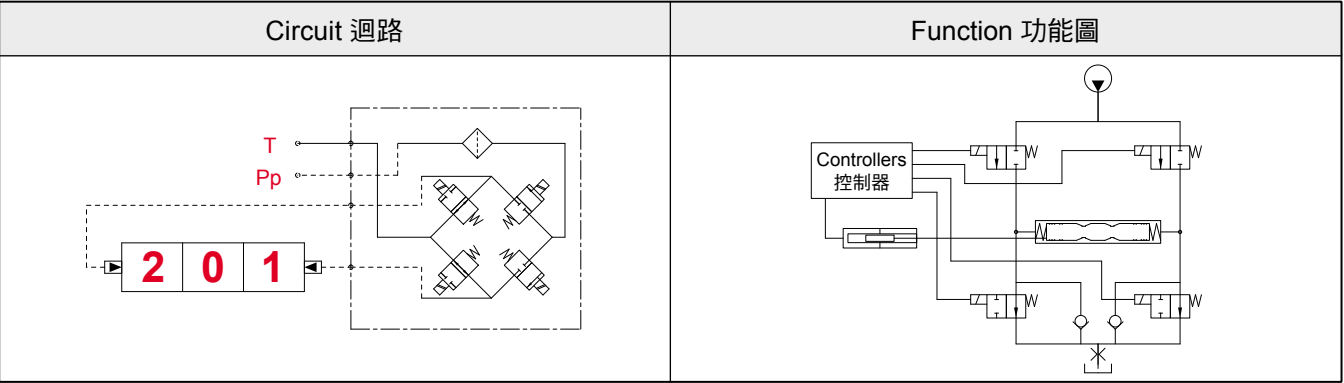
Function 功能：

The electronic control system regulates the solenoid valve in accordance with the discrepancy between the input and feedback signals, thereby modifying the pilot pressure to actuate the main valve spool. This action ensures that the spool reaches its required position with the correct direction and velocity.

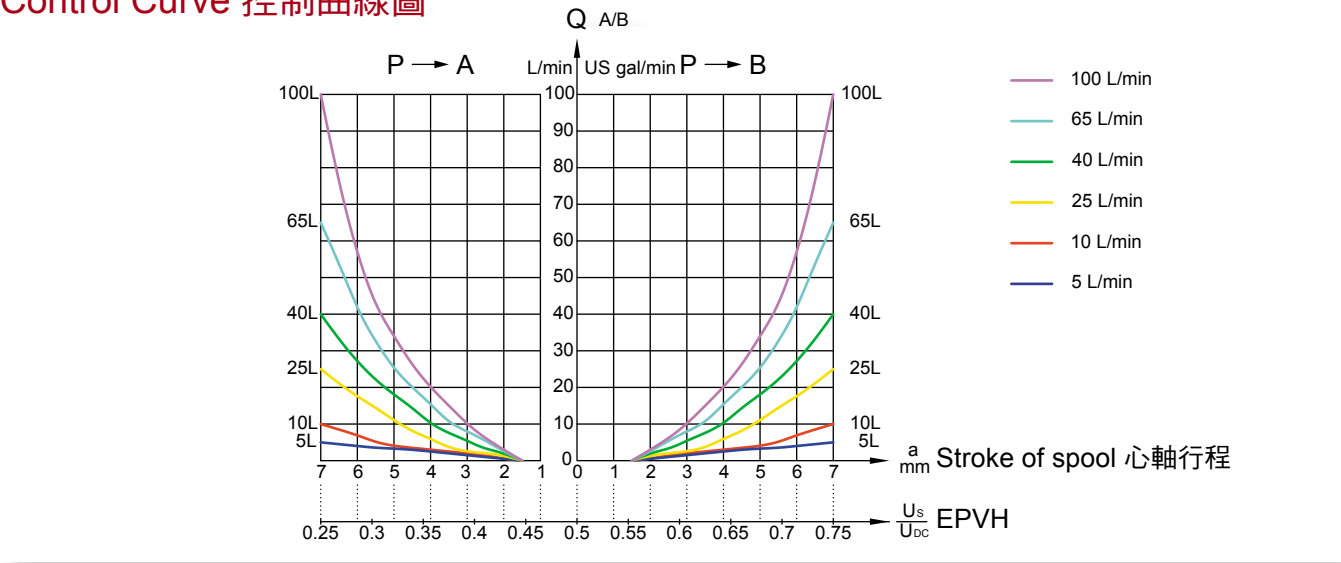
電控系統依據輸入信號和反饋信號之間的偏差，來控制電磁閥，進而改變先導壓力，驅動主閥芯使其往正確的方向、速度到達所需位置。

Code 編號	Description 描述	Connector 接頭	Enclosure to IEC 529 防護等級
EPVH-H010A	Proportional solenoid valve with Hirschmann connector, operating voltage 11~32 VDC, with active fault monitoring. 比例電磁閥 Hirschmann 接頭 電壓 11~32 VDC 主動故障監控	Hirschmann 接頭	IP65
EPVH-H010P	Proportional solenoid valve with Hirschmann connector, operating voltage 11~32 VDC, with passive fault monitoring. 比例電磁閥 Hirschmann 接頭 電壓 11~32 VDC 被動故障監控		

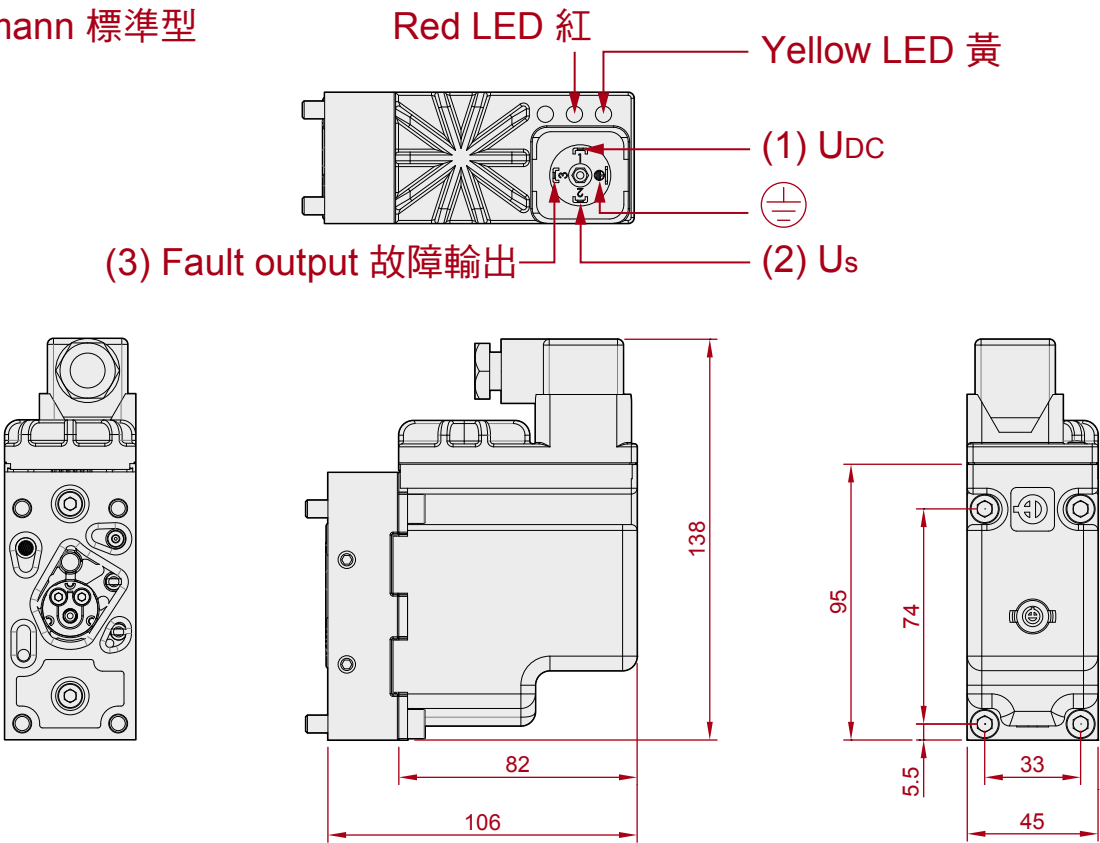
Parameter 參數	Description 描述		Parameter 參數	Description 描述
Power Supply 電源電壓 Udc	Rated 額定	11 V-32 V	Ambient Temperature 環境溫度	-30°C~60°C {-22°F~140°F}
	Range 範圍	11 V-32 V	Fluid Temperature 油溫	-30°C~90°C {-22°F~194°F}
	Max. Ripple 最大波動量	5%	Pilot Pressure 先導壓力	10~15 bar (305~636psi)
Current Consumption 消耗電流	Typical 典型	0.75A@12 V 0.3A@24 V	Spool Stroke 閥心移位行程	±7 mm
LED Indicator LED 燈號	Power 電源	Yellow 黃燈	Coil Resistance 線圈阻值	33Ω ±5%
	Fault 故障燈	Red 紅燈	Pwm Duty Cycle Pwm 控制範圍	25-75%
Power Consumption 消耗功率		7 W	Pwm Frequency Pwm 頻率	100~4000 HZ
Hydraulic System Filtration 液壓系統過濾			Input Voltage 輸入電壓	0-Vbat
Max. contamination 最大汙染 (ISO 4406)			Input Impedance 輸入電阻	≥ 10kOhm



Control Curve 控制曲線圖



Hirschmann 標準型



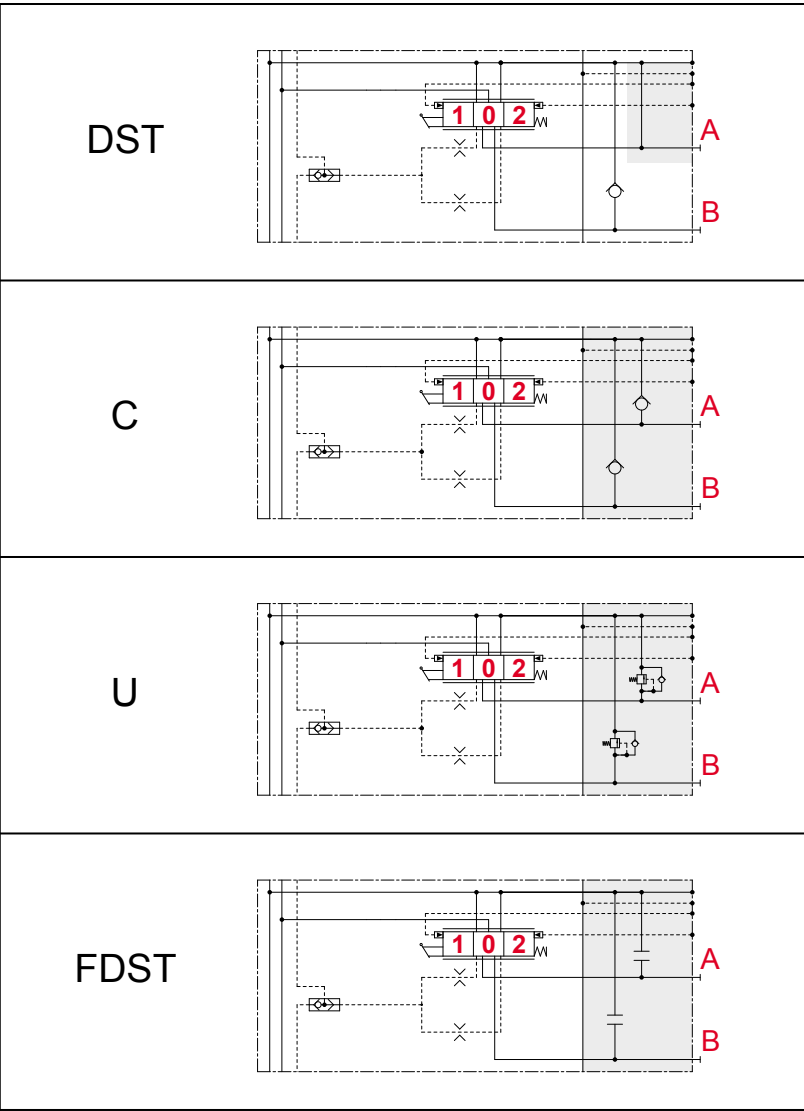
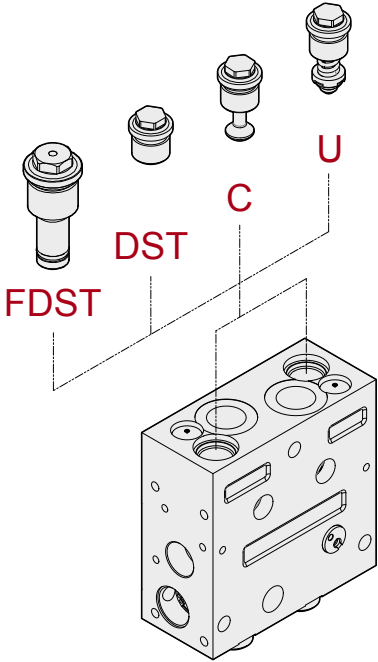
On/Off Control 開/關控制	Signal Voltage 信號電壓 (Us)	LED Indicator LED 燈號
中位 0	$U_s (\text{腳位2}) = 0.5 \cdot U_{DC}$	Yellow 黃燈
P → A	$U_s (\text{腳位2}) = (0.5 \rightarrow 0.25) \cdot U_{DC}$	
P → B	$U_s (\text{腳位2}) = (0.5 \rightarrow 0.75) \cdot U_{DC}$	

※Red LED means an error happens 紅燈為故障燈

EPVH
User Manual 使用手冊

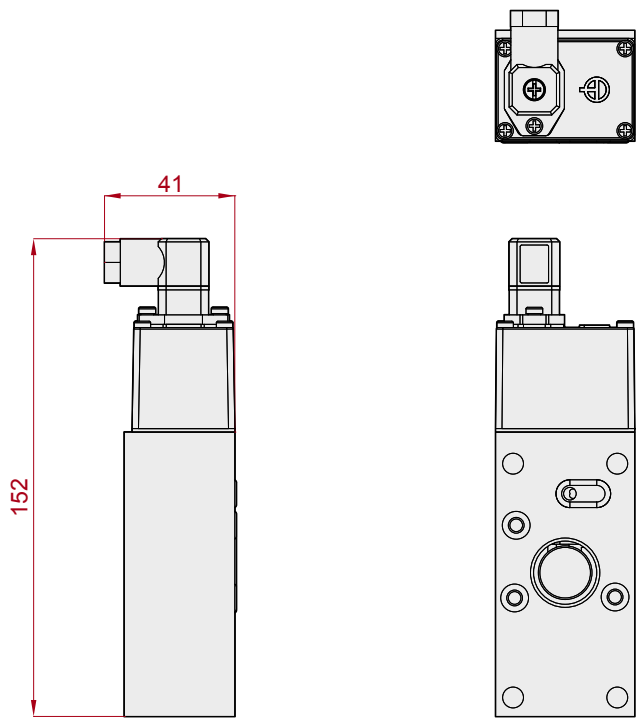
Fault Indication 故障指示				
Model 型號	Fault Monitoring 故障監控	Fault Type 故障類型	Output Signal 故障輸出訊號	LED Indicator LED 指示器
EPVH	Active / Passive 主動/被動	No fault 無故障	<2 V	Yellow, steady ON 黃，恆亮
		Input signal error (Us) 輸入信號錯誤 (Us)	~U _{dc}	Red, flashing 紅，閃爍
		LVDT error LVDT錯誤		Red & Yellow, flashing 紅，黃，閃爍
		Closed-loop control error 閉環控制錯誤		Red & Yellow, steady ON 紅，黃，恆亮
		Voltage error (Udc) 電壓錯誤 (U _{dc})		Red, steady ON 紅，恆亮

Fault Monitoring Description 故障監控說明	
- Active fault monitoring: Outputs an alarm signal, the solenoid valve is deactivated, and the main spool returns to the neutral position. - Passive fault monitoring: Outputs alarm signal only. - Fault monitoring is triggered under the following three Conditions: - Input signal error (Us): No input signal, or the input signal is outside the range of 15%~85% of the supply voltage. - LVDT error: Open circuit or short circuit in any LVDT coil. - Closed-loop control error: The actual spool position must match the commanded position (Us). If the deviation exceeds 12%, the system detects a fault and enters fault mode.	- 主動故障監控：發出報警信號，電磁閥失效，主閥芯復位 (回歸中位)。 - 被動故障監控：僅發出報警信號。 - 故障監控僅在下列 3 類事件發生時觸發 - 信號錯誤 (Us)：無信號輸入、或輸入信號不在電信源電壓的 15%~85% 範圍內。 - LVDT 錯誤：LVDT 的任一線圈有斷裂或短路。 - 閉環控制錯誤：閥芯的實際位置必須總是和指令所要求的位置 (Us) 保持一致。如果實際位置 and 要求的閥芯位置偏差過大 (>12%)，系統將檢測到錯誤，並轉入出錯狀態。
Active Fault Monitoring	主動故障監控
- The solenoid valve is deactivated, and the main spool returns to the neutral position. - Fault signals are output via the designated output connector. - The fault condition remains active until the system is reset (power OFF).	- 電磁閥失效，主閥芯復位 (回歸中位) - 錯誤信號經由指定的輸出接頭輸出 - 錯誤狀態直到系統重置 (關閉電源)
Passive Fault Monitoring	被動故障監控
- The solenoid valve remains in operation. - Fault signals are output via the designated output connector. - The fault condition remains active until the fault is cleared (except for voltage error, U_{dc}). In case of a voltage error, the system indicates a fault when the supply voltage exceeds 36 VDC or drops below 9.5 VDC. An alarm signal is generated, the solenoid valve is deactivated, and the main spool returns to the neutral position.	- 電磁閥繼續在工作狀態 - 錯誤信號經由指定的輸出接頭輸出 - 錯誤狀態直到錯誤排除電壓錯誤 (U_{dc})：電壓錯誤時，均會顯示錯誤狀態當電壓高於 36 VDC 或低於 9.5 VDC 時，顯示錯誤狀態。發出報警信號，電磁閥失效，主閥芯復位 (回歸中位)。



Shock And Suction Valve Options 緩衝閥壓力選擇		
Code 編號	Setting Pressure 設定壓力	
	bar	psi
U32	32	460
U50	50	725
U63	63	914
U80	80	1160
U100	100	1450
U125	125	1813
U140	140	2031
U150	150	2175
U160	160	2320
U175	175	2538
U190	190	2755
U210	210	3045
U230	230	3335
U240	240	3480
U250	250	3625
U265	265	3843
U280	280	4061
U300	300	4351
U320	320	4641
U350	350	5075

8MG4/5



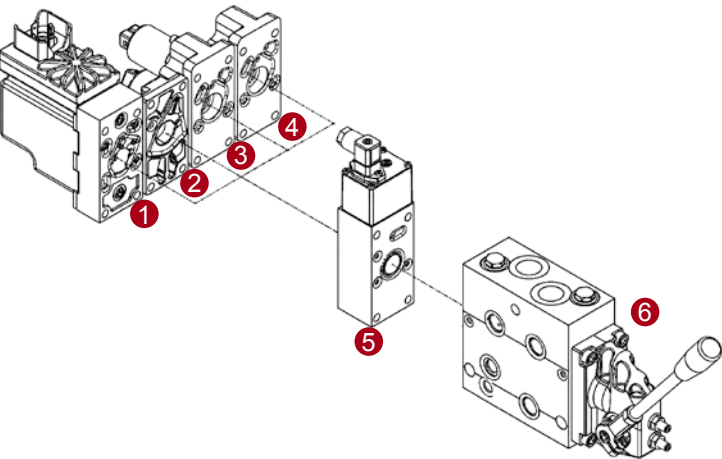
PV4 Proportional Valves 比例式控制閥

Supply Voltage 供電電壓	12/24 VDC
Max. Current 最大電流	5 A
Connector 接頭	(HIRSCHMANN) G4W1F
Protection Rating 防護等級	IP65

Characteristics 特性：

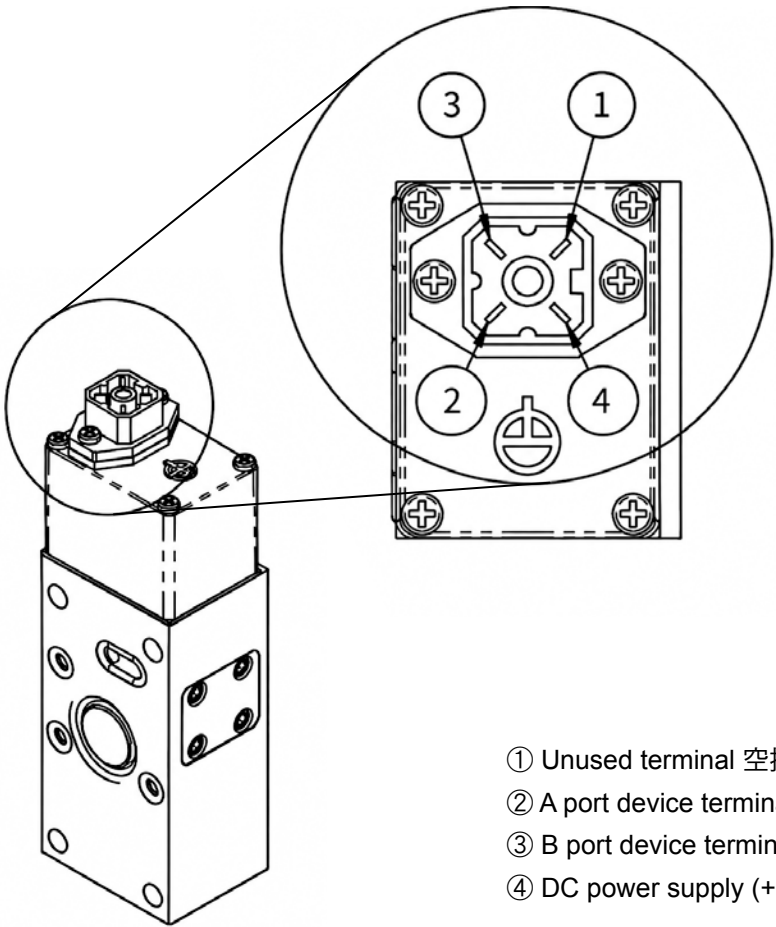
Built-in microswitch monitors spool position, with separate pin outputs for A/B ports. Electrical feedback can be powered, and it is compatible with CO, HA, EPVE, EPVO, and EPVH.

內置微動開關可監控心軸位置 A/B 口不同腳位輸出，電器回電可供電可搭配 CO, HA, EPVE, EPVO, EPVH



- Component Names 各部位名稱
- ① Electrical control units (EPVH, EPVO)
 - ② End cover (CO)
 - ③ Electrical control unit (EPVE)
 - ④ Hydraulic control unit (HA)
 - ⑤ Direction indicator (PV4-8MG4)
 - ⑥ Working section / Valve section (PV4V)
- ① EPVH、EPVO (電控)
② CO (端蓋)
③ EPVE (電控)
④ HA (液控)
⑤ PV4-8MG4 (方向指示器)
⑥ PV4V (工作塊)

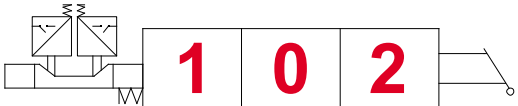
PV4 Proportional Valves 比例式控制閥



- ① Unused terminal 空接腳
- ② A port device terminal (-) A 口端設備接腳 (-)
- ③ B port device terminal (-) B 口端設備接腳 (-)
- ④ DC power supply (+) 接直流電 (+)

Code 編號	UDC		A port A 口	Neutral 中位	B port B 口
8MG4	Pin 4	Pin 2	HIGH	LOW	LOW
		Pin 3	LOW	LOW	HIGH
8MG5	Pin 4	Pin 2	HIGH	HIGH	LOW
		Pin 3	LOW	HIGH	HIGH

8MG4

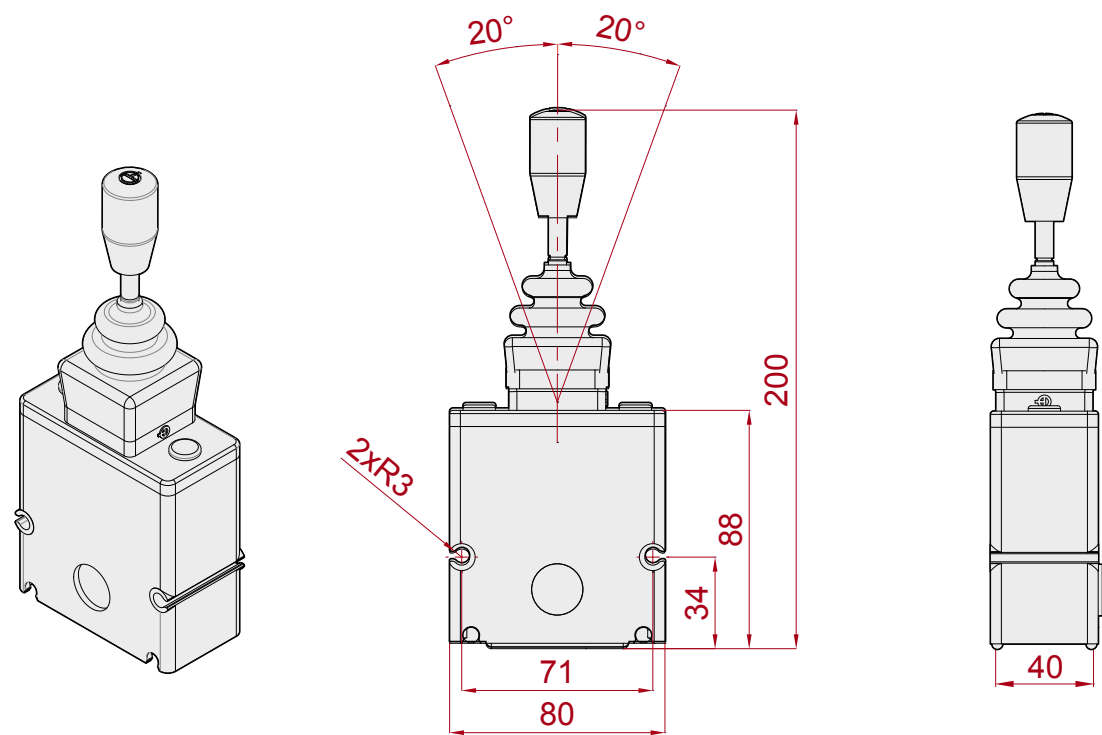


8MG5

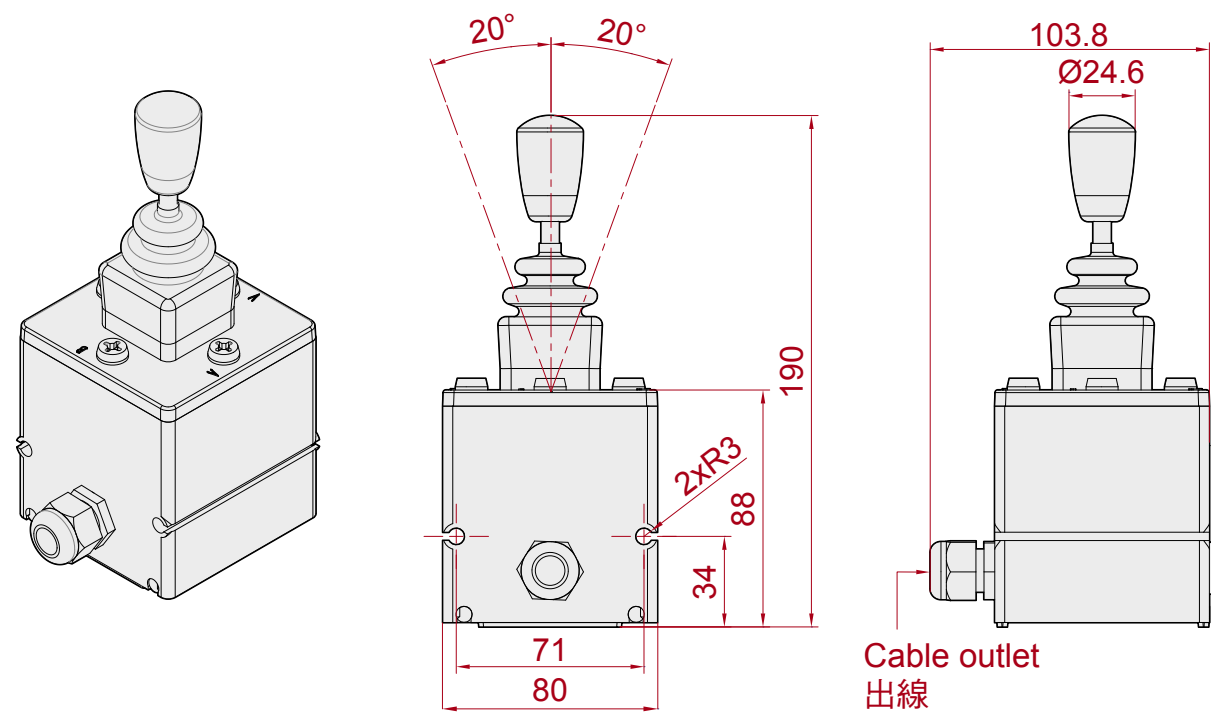


PV4 Proportional Valves 比例式控制閥

PVH-1 Dimensions 尺寸



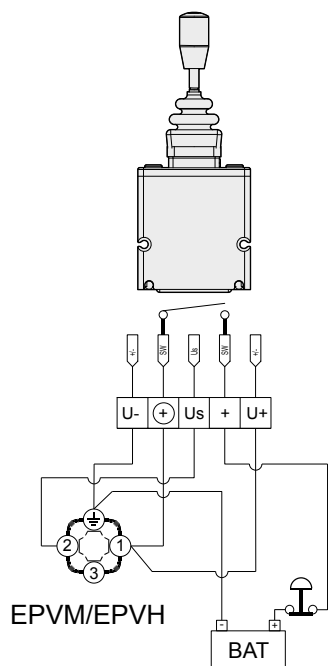
PVH-2 Dimensions 尺寸



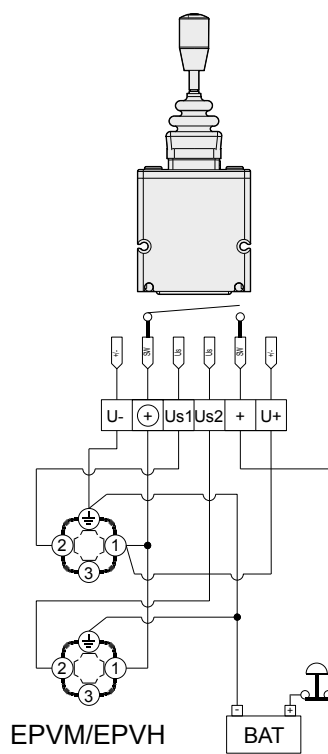
Cable outlet
出線

PV4 Proportional Valves 比例式控制閥

PVH-1 Wiring diagram 接線圖

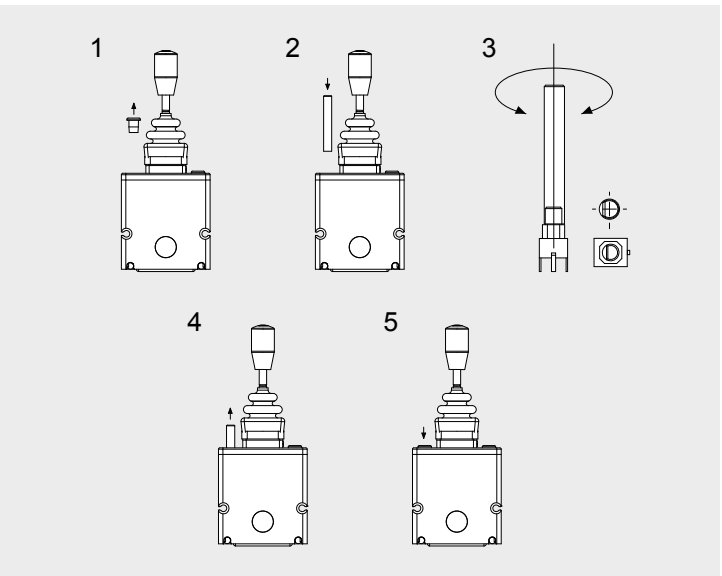
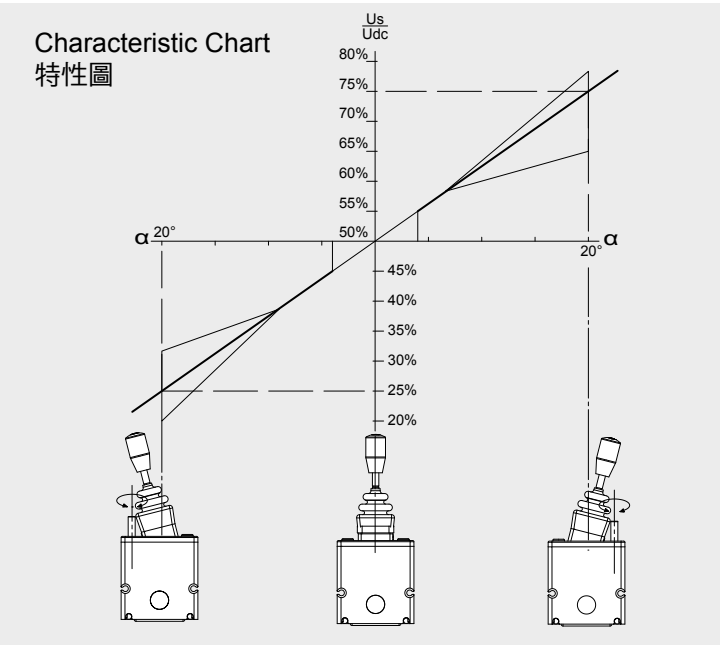


PVH-2 Wiring diagram 接線圖



PVH-1 Single axis control 單軸控制
PVH-2 Double axis control 兩軸控制

Description 工作電壓	Range 範圍	11~30 Vdc
	Max. ripple 最大波動	5%
Current Consumption 消耗電流	Max. 最大	100 mA
Output Voltage 輸出電壓	US	0.25~0.75 Udc
Neutral Voltage 中位電壓	US	0.5 Udc
Max. Current of the Power Switch 斷電開關最大電流	On/Off 開 / 關控制	1 A
Control Angle 控制角度	Single 單邊	20°



Assembly Torque Data 安裝扭力值			
Thread Type-G G牙		Thread Type-E E牙	
Specification 規格	N-m	Specification 規格	N-m
		3/8" - 24 UNF (SAE 3)	18
G2 (PF 1/4)	40	7/16" - 20 UNF (SAE 4)	29
G3 (PF 3/8)	80	1/2" - 20 UNF (SAE 5)	32
G4 (PF 1/2)	115	9/16" - 18 UNF (SAE 6)	40
G6 (PF 3/4)	180	3/4" - 16 UNF (SAE 8)	70
G8 (PF 1)	310	7/8" - 14 UNF (SAE 10)	115
G10 (PF 1-1/4)	450	1 1/16" - 12 UN (SAE 12)	185
		1 5/16" - 12 UN (SAE 16)	270
		1 5/8" - 12 UN (SAE 20)	340

※Assembly torque data ±10% N-m. 安裝扭力值 ±10% N-m.

PV Order Specification PV 訂購表單
Order number 訂單編號：

	Description of Function 功能描述	P1:	P:			P2:
						bar
1		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
2		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
3		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
4		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
5		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
6		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
7		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
8		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
9		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
10		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
11		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
12		A:	LA: Bar	W:	W2:	B:
			W1:	G:	LB: Bar	
		M:		T:		

Specification sheet 表框選項：

- 【P】：Pump side module 入油體

【P2】：LS Solenoid Unloading vavle LS 電磁洩壓閥

【A】：A side options A 邊選項

【W】：Basic modules 工作體

【L/A/B】：LS A/B Pressure relief valve setting LS A/B 限壓閥設定值

【T】：End plate 端蓋板
- 【P1】：Plug for external pilot oil supply 外部先導油接頭

【B】：B side options B 邊選項

【W1/W2】：Shock and suction valve 緩衝補油閥

【G】：Spool 心軸

【M】：Tie rod kit 串聯螺絲組