



PV-4 SERIES

YOULI HYDRAULIC

PROPORTIONAL VALVES
比例式控制閥

For MOBILE and INDUSTRIAL HYDRAULIC
APPLICATIONS.

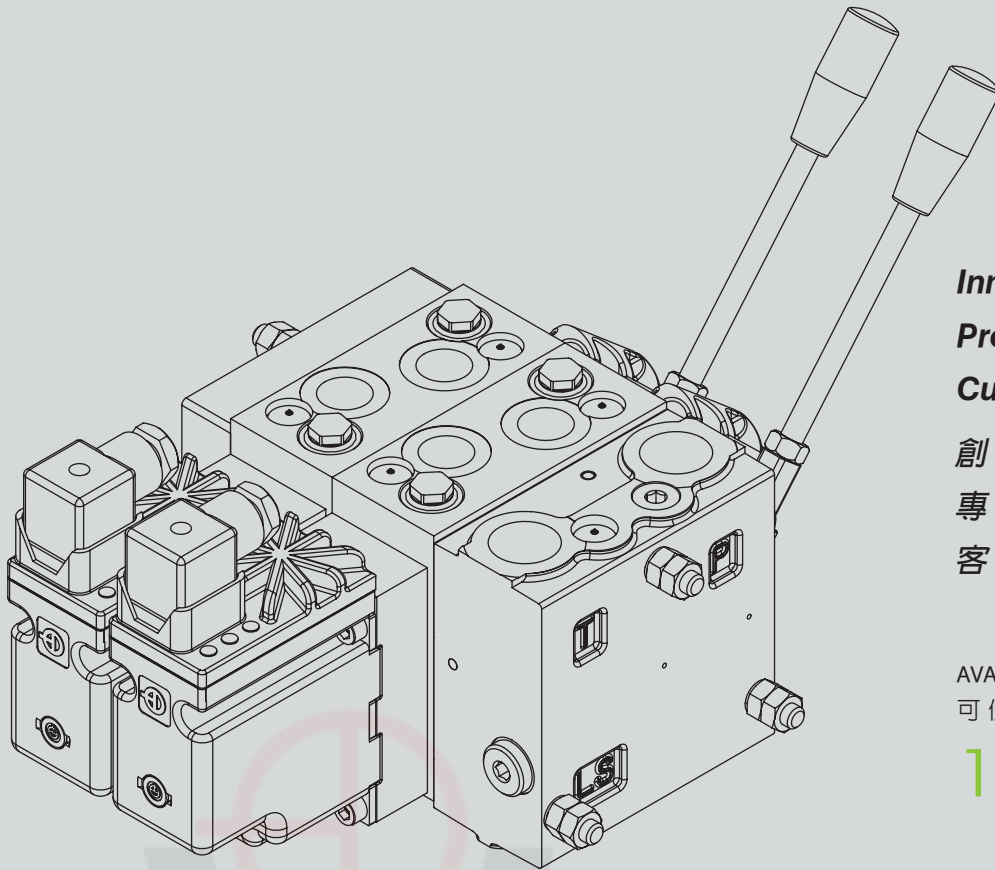
車輛及產業用油壓零件 / 各式油壓閥專業製造廠



油力油壓工業股份有限公司
YOULI HYDRAULIC INDUSTRIAL CO.,LTD.

PV-4 Proportional Valves 比例式控制閥

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Innovative Designs
Professional Quality
Customer Satisfaction !

創新設計
專業品質
客戶滿意度

AVAILABLE SECTIONS FROM
可使用的聯數

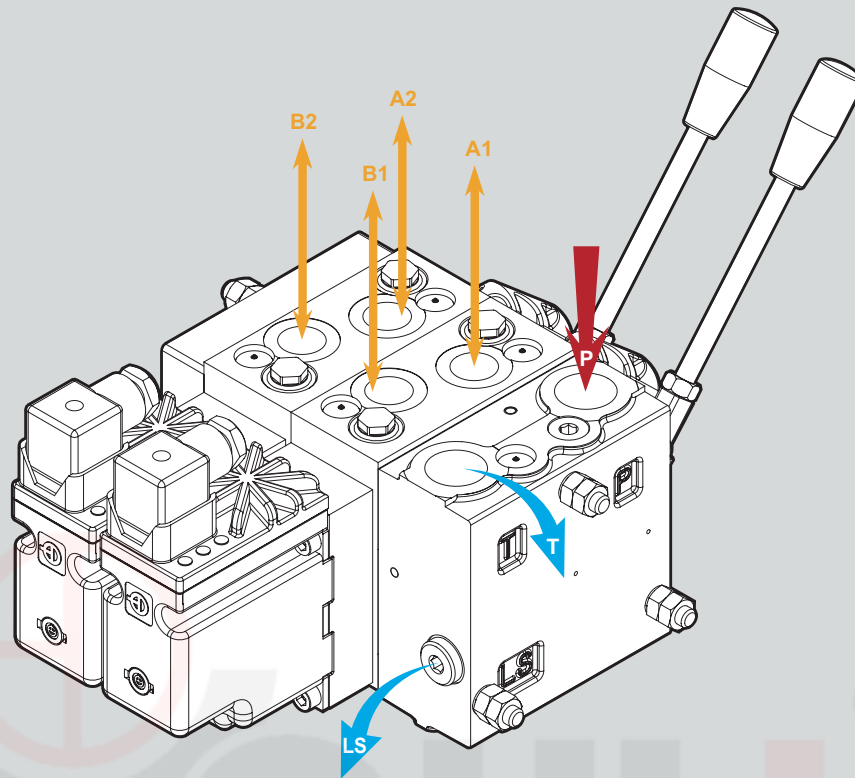
1 TO 10

PV-4

PV-4 Proportional Valves 比例式控制閥



PV-4 Proportional Valves 比例式控制閥

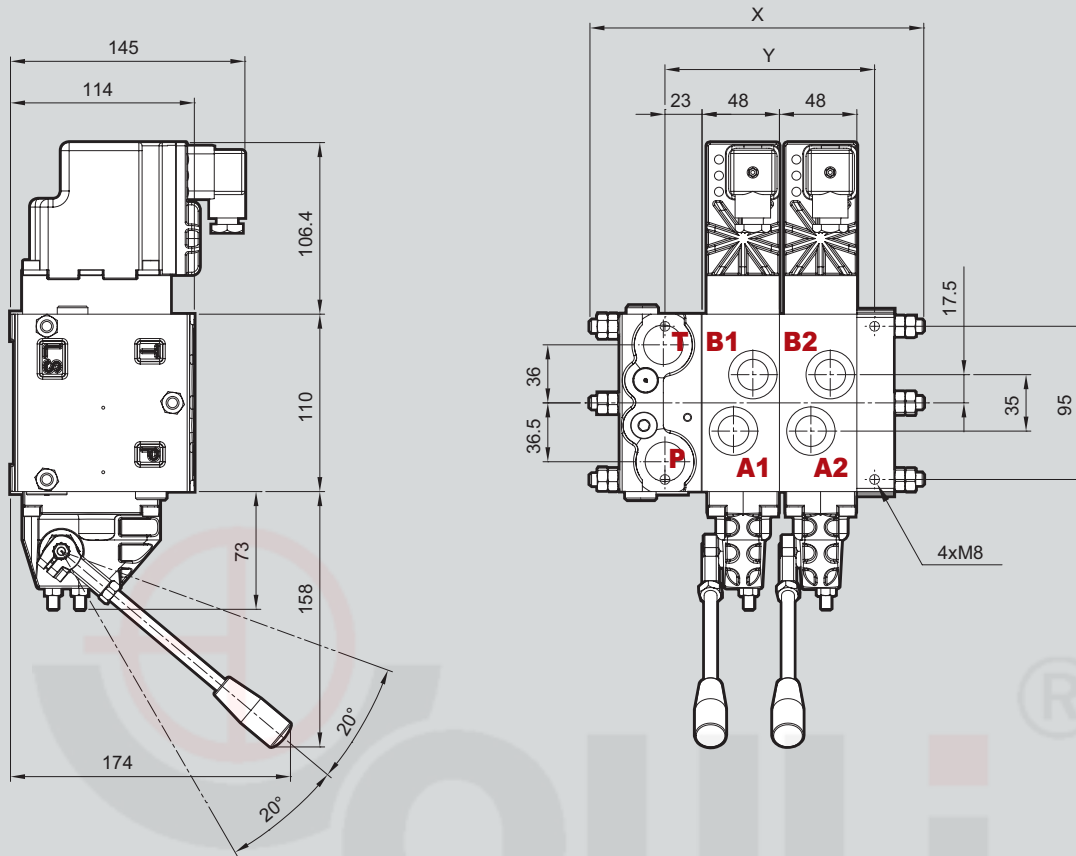


Specifications 規格

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
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 cm ³ /min	
Oil temperature 油溫		from - 20 °C ~ 90 °C	from - 4 °F ~ 194 °F
Oil viscosity 黏度	Operating range 工作範圍	from 15 mm ² /s ~ 75 mm ² /s	from 15 cst ~ 75 cst
	Min. 最小	12 mm ² /s	12 cst
	Max. 最大	400 mm ² /s	400 cst
Ambient temperature range 環境溫度		from - 30 °C ~ 60 °C	from - 22 °F ~ 140 °F
Max. contamination 最大污染		23 / 19 / 16 (ISO 4406)	
Filtration 過濾器		10 μm	

- All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.
- 本公司之產品規格、設計特性，均不斷研究改進，尺寸規格如有變動，恕不另行通知。

PV-4 Proportional Valves 比例式控制閥



Standard Threads 螺紋規範

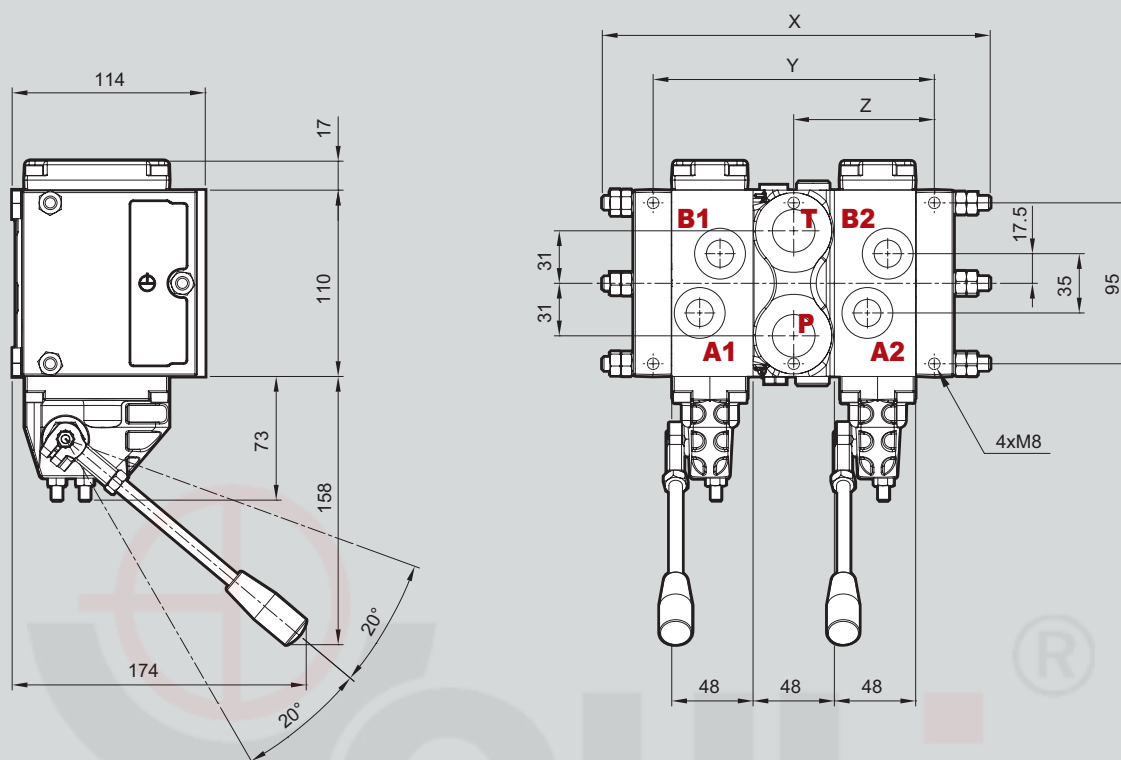
Port 口位	Inlet P 入油口	A and B ports 工作口	Outlet T 回油口
BSP	G1/2, G3/4	G1/2	G3/4
UN-UNF	7/8-14 UNF (SAE10), 1" 1/16-12 UN (SAE12)	7/8-14 UNF (SAE10)	1" 1/16-12UN (SAE12)

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

Standard Dimensions 標準尺寸

TYPE 聯數	X		Y	
	mm	in	mm	in
PV4 /1S 一聯	159	6.26	82	3.23
PV4 /2S 二聯	207	8.15	130	5.12
PV4 /3S 三聯	256	10.08	178	7.01
PV4 /4S 四聯	305	12.01	226	8.90
PV4 /5S 五聯	354	13.94	274	10.79
PV4 /6S 六聯	403	15.87	322	12.68
PV4 /7S 七聯	452	17.80	370	14.57
PV4 /8S 八聯	501	19.72	418	16.46
PV4 /9S 九聯	545	21.46	466	18.35
PV4 /10S 十聯	594	23.39	514	20.24

PV-4 Proportional Valves 比例式控制閥



Standard Threads 螺紋規範

Port 口位	Inlet P 入油口	A and B ports 工作口	Outlet T 回油口
BSP	G1	G1/2	G1
UN-UNF	1" 5/16-12 UN (SAE16)	7/8-14 UNF (SAE10)	1" 5/16-12UN (SAE16)

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

Standard Dimensions 標準尺寸

TYPE 聯數	X		Y		Z	
	mm	in	mm	in	mm	in
PV4 /1S 一聯	181	7.13	116	4.57	83	3.27
PV4 /2S 二聯	229	9.02	166	6.54	131	5.16
PV4 /3S 三聯	278	10.94	214	8.43	179	7.05
PV4 /4S 四聯	327	12.87	262	10.31	227	8.94
PV4 /5S 五聯	376	14.80	310	12.20	275	10.83
PV4 /6S 六聯	425	16.73	358	14.09	323	12.72
PV4 /7S 七聯	474	18.66	406	16	371	14.61
PV4 /8S 八聯	523	20.59	454	17.87	419	16.50
PV4 /9S 九聯	567	22.32	502	19.76	467	18.39
PV4 /10S 十聯	616	24.25	550	21.65	515	20.28

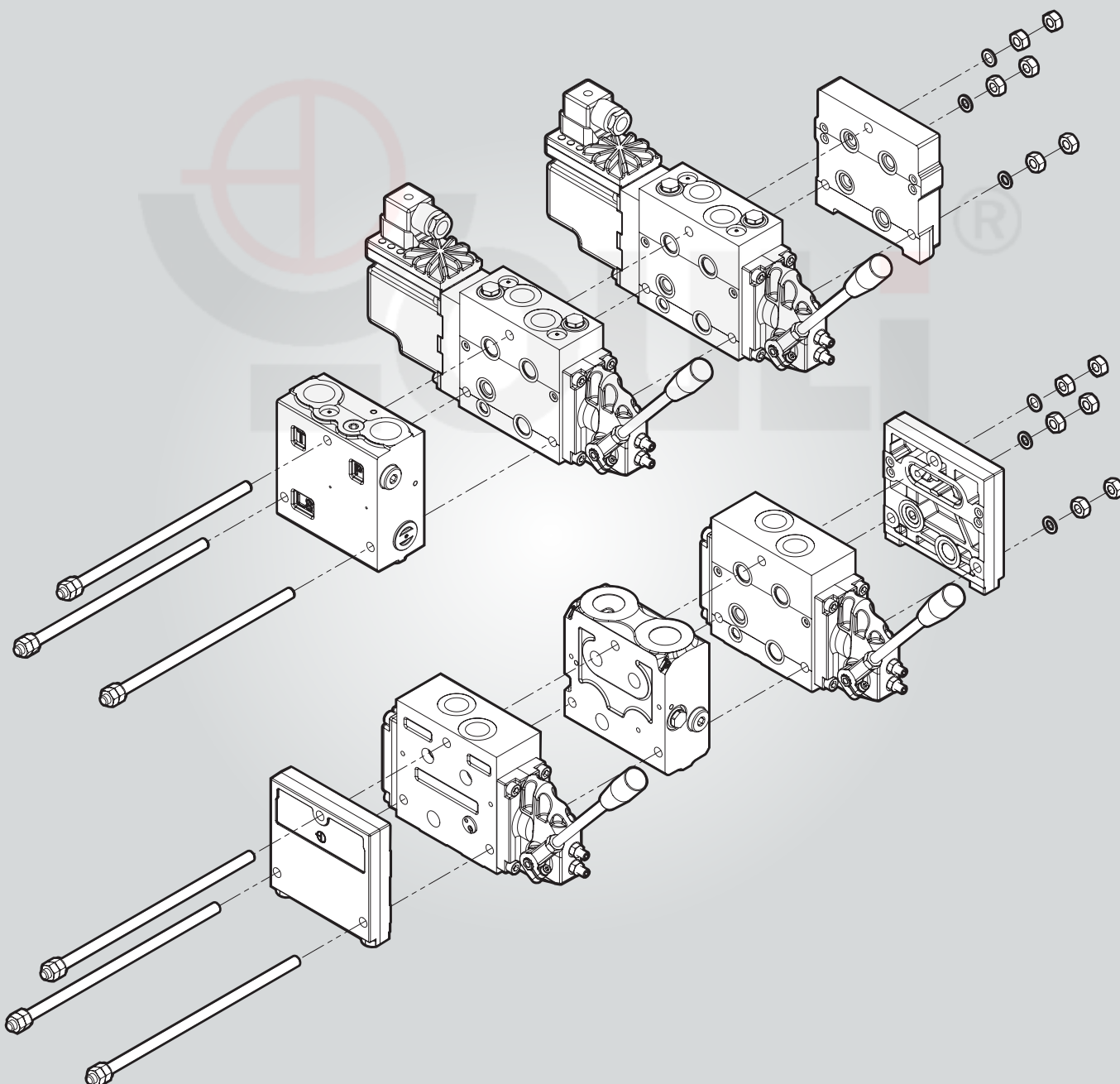
PV-4 Proportional Valves 比例式控制閥

HOW TO ORDER FOR A COMPLETE ASSEMBLED VALVE

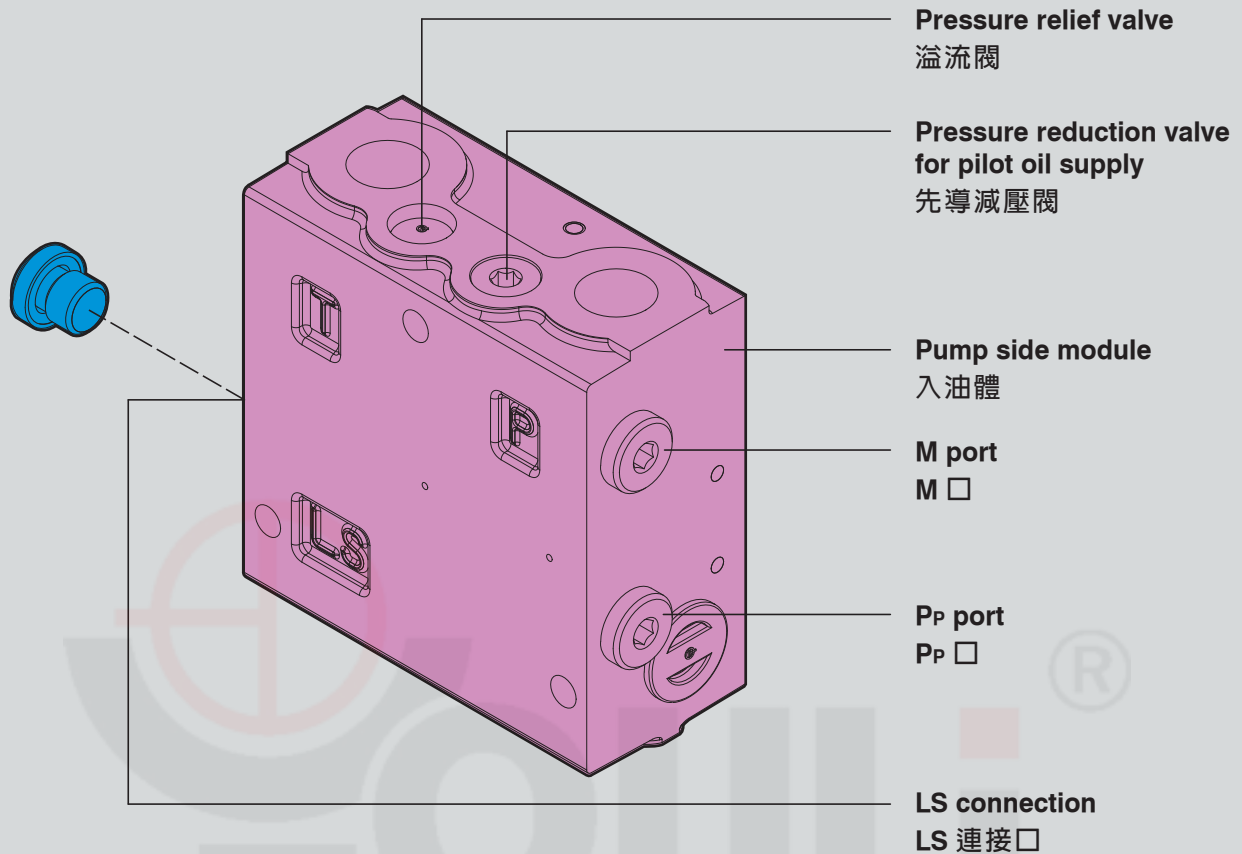
訂購範例/說明：

PV-4 / ※※※※ / G 646

PV-4	Series code	系列號
※※※※	Reference code	參考代碼
G 646	Thread code	牙口



PV-4 Proportional Valves 比例式控制閥



M port □: G2=G1/4
E5=1/2-20 UNF

Pp port □: G2=G1/4
E5=1/2-20 UNF

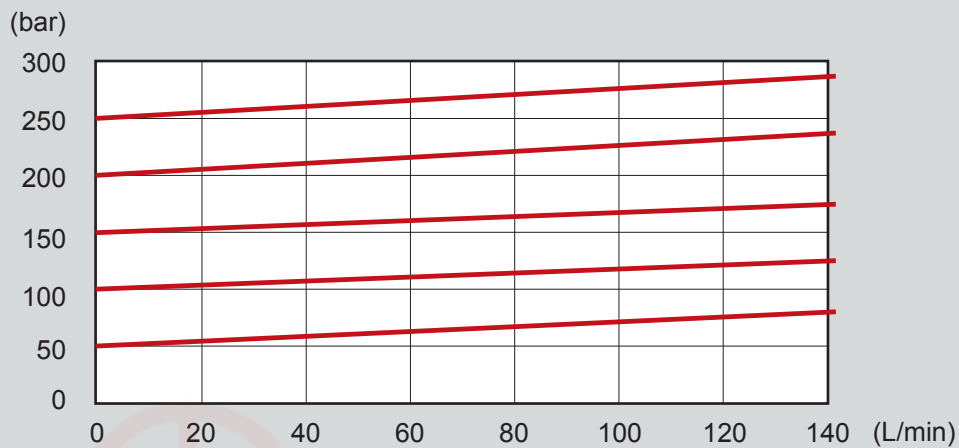
LS port □: G2=G1/4
E5=1/2-20 UNF

- Please refer to the page 8~12 for details.
- 詳細內容請參考 P.8~12 頁

PV-4 Proportional Valves 比例式控制閥

Pressure Relief Valve Characteristic

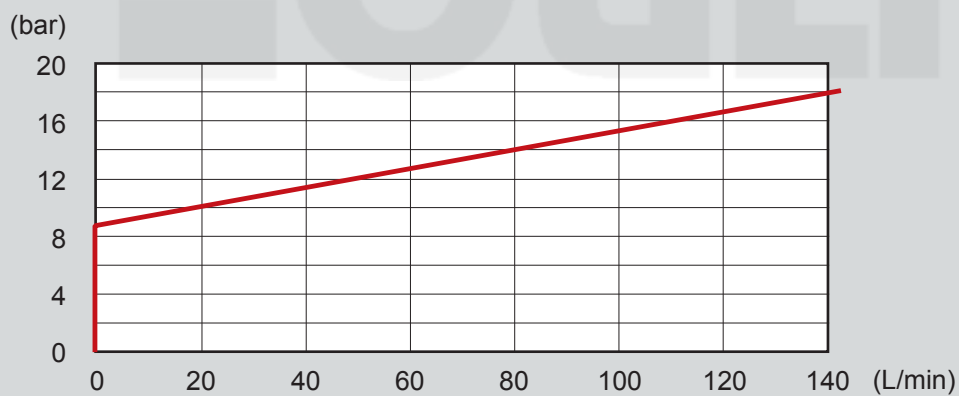
溢流閥特性：



INITIAL DATA 初始狀態：

Pressure Flow Characteristics

壓力流量特性：

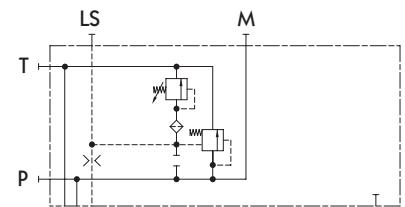


PV-4 Proportional Valves 比例式控制閥

PV4P0101

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。

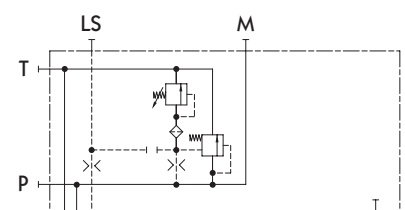
PV4P0101-G4	P port: G1/2
PV4P0101-E10	P port: 7/8-14UNF
PV4P0101-G6	P port: G3/4
PV4P0101-E12	P port: 1-1/16UN



PV4P0201

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。

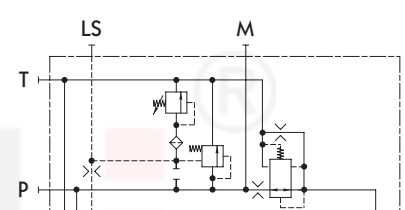
PV4P0201-G4	P port: G1/2
PV4P0201-E10	P port: 7/8-14UNF
PV4P0201-G6	P port: G3/4
PV4P0201-E12	P port: 1-1/16UN



PV4P0102

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。

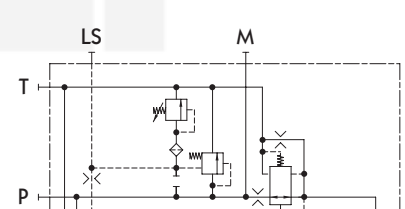
PV4P0102-G4	P port: G1/2
PV4P0102-E10	P port: 7/8-14UNF
PV4P0102-G6	P port: G3/4
PV4P0102-E12	P port: 1-1/16UN



PV4P0102H

Open center pump side module for pumps with fixed displacement.
With pilot oil supply for electrically actuated valves. (H: For higher pressure)
 開迴路模塊，配合定量泵，提供較高壓力先導油源。

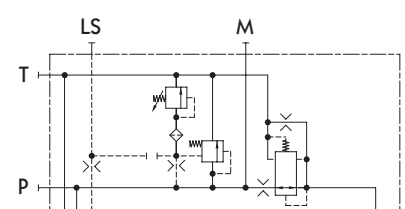
PV4P0102H-G4	P port: G1/2
PV4P0102H-E10	P port: 7/8-14UNF
PV4P0102H-G6	P port: G3/4
PV4P0102H-E12	P port: 1-1/16UN



PV4P0202

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。

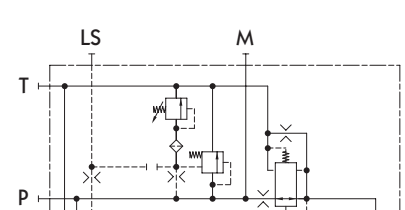
PV4P0202-G4	P port: G1/2
PV4P0202-E10	P port: 7/8-14UNF
PV4P0202-G6	P port: G3/4
PV4P0202-E12	P port: 1-1/16UN



PV4P0202H

Closed center pump side module for pumps with variable displacement.
With pilot oil supply for electrically actuated valves. (H: For higher pressure)
 閉迴路模塊，配合變量泵，提供較高壓力先導油源。

PV4P0202H-G4	P port: G1/2
PV4P0202H-E10	P port: 7/8-14UNF
PV4P0202H-G6	P port: G3/4
PV4P0202H-E12	P port: 1-1/16UN



PV-4 Proportional Valves 比例式控制閥

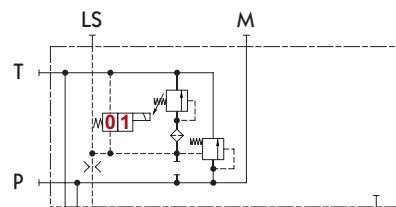
PV4P0103

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。

PV4P0103-G4	P port: G1/2
PV4P0103-E10	P port: 7/8-14UNF
PV4P0103-G6	P port: G3/4
PV4P0103-E12	P port: 1-1/16UN



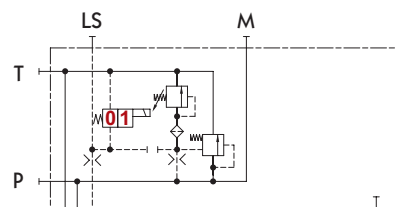
PV4P0203

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。

PV4P0203-G4	P port: G1/2
PV4P0203-E10	P port: 7/8-14UNF
PV4P0203-G6	P port: G3/4
PV4P0203-E12	P port: 1-1/16UN



PV4P0104

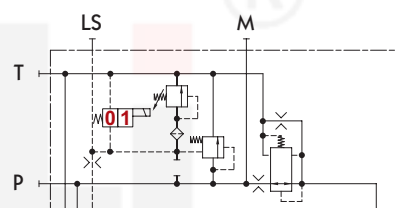
Connection for electrical LS unloading valves.

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，可連接電控LS卸載閥。

PV4P0104-G4	P port: G1/2
PV4P0104-E10	P port: 7/8-14UNF
PV4P0104-G6	P port: G3/4
PV4P0104-E12	P port: 1-1/16UN



PV4P0104H

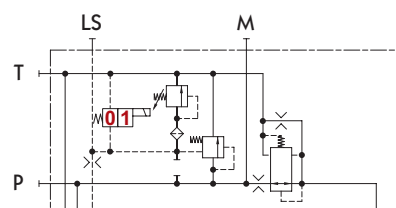
Connection for electrical LS unloading valve.

Open center pump side module for pumps with fixed displacement.

With pilot oil supply for electrically actuated valves. (H: For higher pressure)

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。

PV4P0104H-G4	P port: G1/2
PV4P0104H-E10	P port: 7/8-14UNF
PV4P0104H-G6	P port: G3/4
PV4P0104H-E12	P port: 1-1/16UN



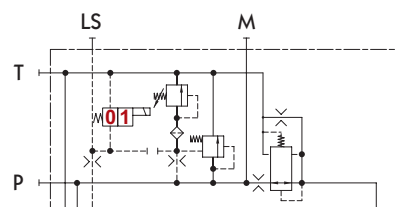
PV4P0204

Connection for electrical LS unloading valves.

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，可連接電控LS卸載閥。

PV4P0204-G4	P port: G1/2
PV4P0204-E10	P port: 7/8-14UNF
PV4P0204-G6	P port: G3/4
PV4P0204-E12	P port: 1-1/16UN



PV-4 Proportional Valves 比例式控制閥

PV4P0204H

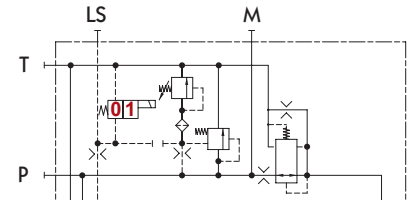
Close center pump side module for pumps with variable displacement.

With pilot oil supply for electrically actuated valves. **(H: For higher pressure)**

Connection for electrical 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。

PV4P0204H-G4	P port: G1/2
PV4P0204H-E10	P port: 7/8-14UNF
PV4P0204H-G6	P port: G3/4
PV4P0204H-E12	P port: 1-1/16UN



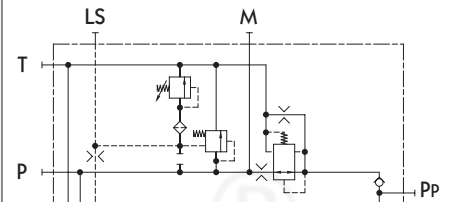
PV4P0105

With pilot oil supply for electrically actuated and connection for pilot oil pressure.

Open center pump side module for pumps with fixed displacement.

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。

PV4P0105-G4	P port: G1/2
PV4P0105-E10	P port: 7/8-14UNF
PV4P0105-G6	P port: G3/4
PV4P0105-E12	P port: 1-1/16UN



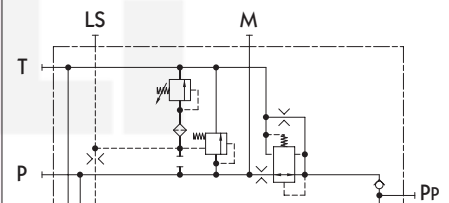
PV4P0105H

Open center pump side module for pumps with fixed displacement.

With pilot oil supply for electrically actuated and connection for pilot oil pressure. **(H: For higher pressure)**

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。

PV4P0105H-G4	P port: G1/2
PV4P0105H-E10	P port: 7/8-14UNF
PV4P0105H-G6	P port: G3/4
PV4P0105H-E12	P port: 1-1/16UN



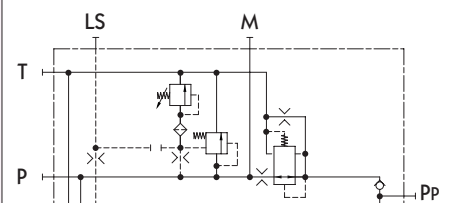
PV4P0205

With pilot oil supply for electrically actuated and connection for pilot oil pressure.

Closed center pump side module for pumps with variable displacement.

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。

PV4P0205-G4	P port: G1/2
PV4P0205-E10	P port: 7/8-14UNF
PV4P0205-G6	P port: G3/4
PV4P0205-E12	P port: 1-1/16UN



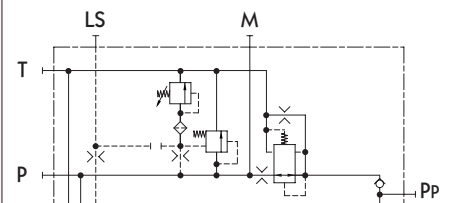
PV4P0205H

Close center pump side module for pumps with variable displacement.

With pilot oil supply for electrically actuated and connection for pilot oil pressure. **(H: For higher pressure)**

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。

PV4P0205H-G4	P port: G1/2
PV4P0205H-E10	P port: 7/8-14UNF
PV4P0205H-G6	P port: G3/4
PV4P0205H-E12	P port: 1-1/16UN



PV-4 Proportional Valves 比例式控制閥

PV4P0106H

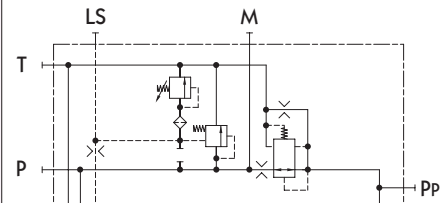
Open center pump side module for pumps with fixed displacement.

With pilot oil supply for hydraulic actuated and connection for pilot oil pressure. (H: For higher pressure)

Can connect with hydraulic pilot linear operation type 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: JHP。

- PV4P0106H-G4 P port: G1/2
- PV4P0106H-E10 P port: 7/8-14UNF
- PV4P0106H-G6 P port: G3/4
- PV4P0106H-E12 P port: 1-1/16UN



PV4P0206H

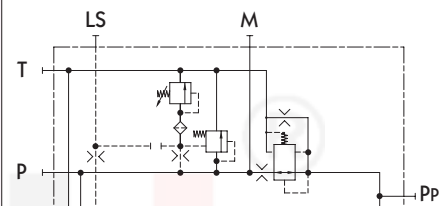
Close center pump side module for pumps with variable displacement.

With pilot oil supply for hydraulic actuated and connection for pilot oil pressure. (H: For higher pressure)

Can connect with hydraulic pilot linear operation type JHP.

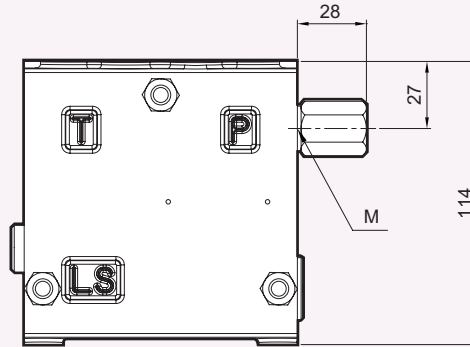
閉迴路模塊，配合變量泵，提供較高壓力先導油源，並有先導油輸出口，可連接液控元件，例: JHP。

- PV4P0206H-G4 P port: G1/2
- PV4P0206H-E10 P port: 7/8-14UNF
- PV4P0206H-G6 P port: G3/4
- PV4P0206H-E12 P port: 1-1/16UN



PV-4 Proportional Valves 比例式控制閥

Dimension 外觀尺寸

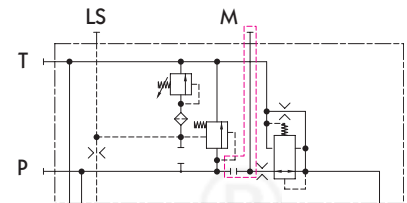


Code 編號

- POG** Thread Code 牙口: G1/4
- POE** Thread Code 牙口: 1/2-20 UNF

Symbol 符號

Plug for external pilot oil supply, it's suitable for fixed displacement or variable displacement.
外部先導油接頭，用於定量與變量模塊。

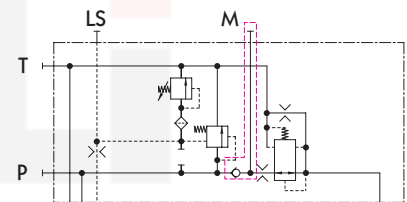


Code 編號

- PCG** Thread Code 牙口: G1/4
- PCE** Thread Code 牙口: 1/2-20 UNF

Symbol 符號

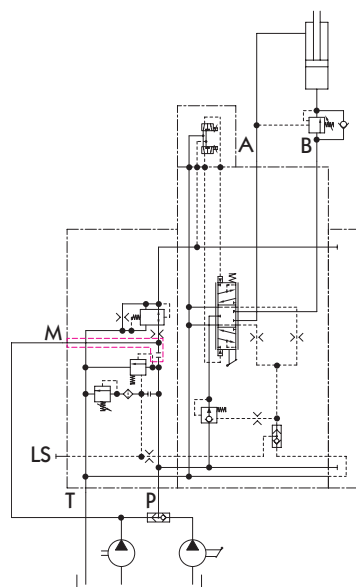
Plug for external pilot oil supply with check valve. It's suitable for fixed displacement.
外部先導油接頭，帶單向閥，用於定量模塊。



Application Circuit 應用迴路

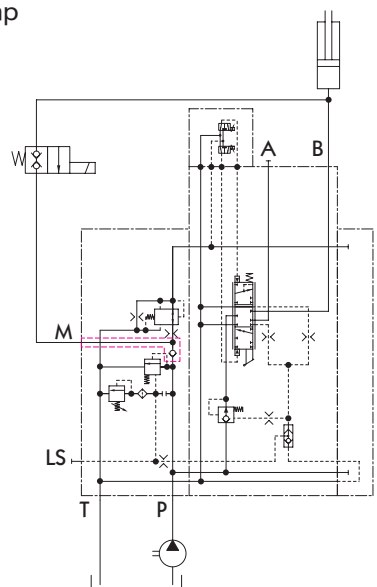
PV4-PO

Used when a manual emergency pump is required.
When main pump failure, using manual emergency pump with 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。

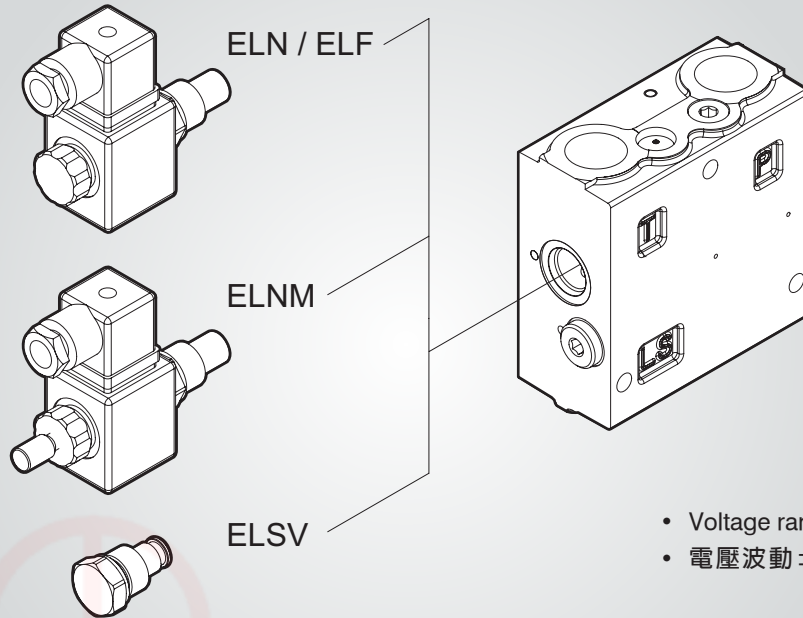


PV4-PC

Without using the pump flow to control the solenoid valve.
Used the hydraulic pressure drop to provide solenoid valve oil source.
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。



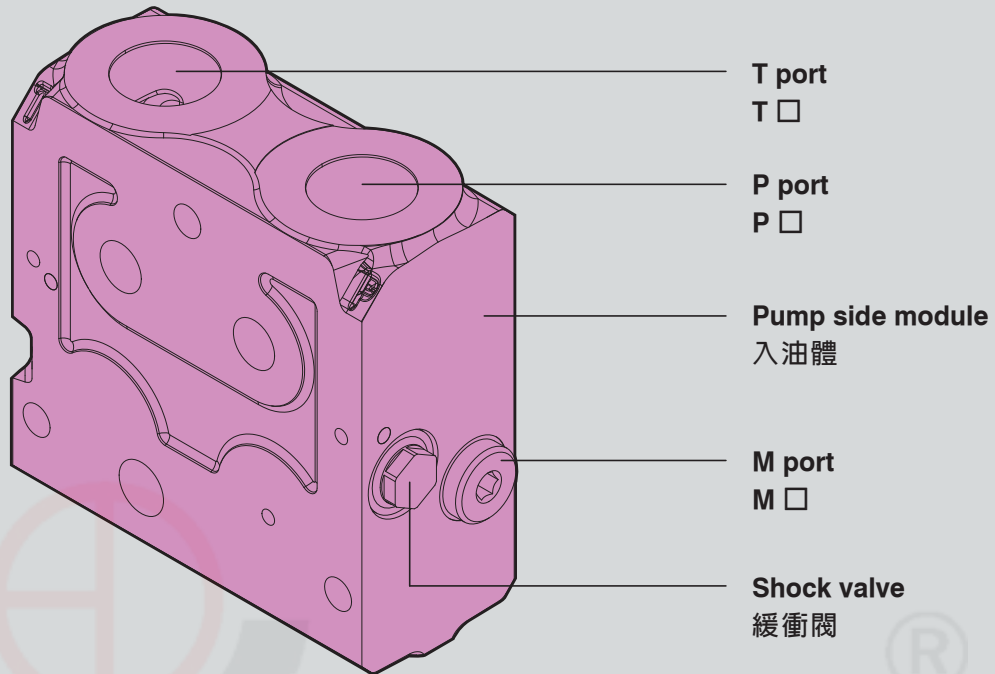
PV-4 Proportional Valves 比例式控制閥



- Voltage range $\pm 10\%$
- 電壓波動 $\pm 10\%$

Code 編號	Symbol 符號	Dimension 尺寸
ELN12 Rated Voltage 額定電壓: 12VDC Resistance 電阻: $7.5\Omega \pm 7\%$	Normally Open (NO) 常開型 	
ELN24 Rated Voltage 額定電壓: 24VDC Resistance 電阻: $28.6\Omega \pm 7\%$		
ELF12 Rated Voltage 額定電壓: 12VDC Resistance 電阻: $7.5\Omega \pm 7\%$	Normally Closed (NC) 常閉型 	
ELF24 Rated Voltage 額定電壓: 24VDC Resistance 電阻: $28.6\Omega \pm 7\%$		
ELNM12 Rated Voltage 額定電壓: 12VDC Resistance 電阻: $7.5\Omega \pm 7\%$	Emergency button for Normally Open (NO) 常開型手動緊急按鈕 	
ELNM24 Rated Voltage 額定電壓: 24VDC Resistance 電阻: $28.6\Omega \pm 7\%$		
ELSV	Plug 塞頭 	

PV-4 Proportional Valves 比例式控制閥



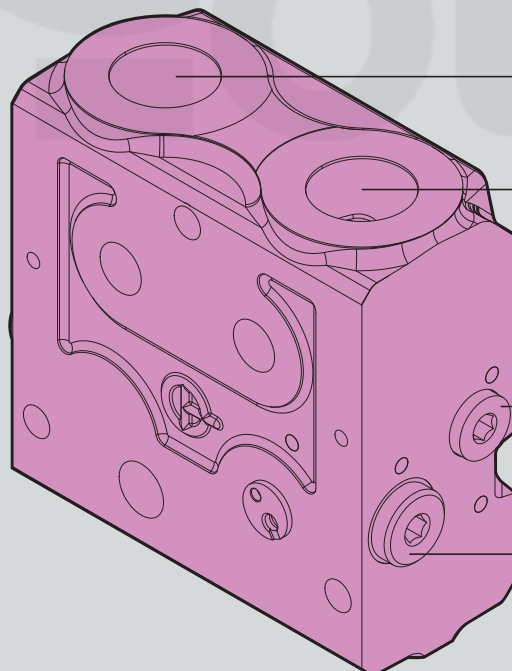
T port
T □

P port
P □

Pump side module
入油體

M port
M □

Shock valve
緩衝閥



P port
P □

T port
T □

Pressure reduction valve
for pilot oil supply
先導油減壓閥

LS connection
LS 連接□

M port □: G2=G1/4
E5=1/2-20 UNF

LS port □: G2=G1/4
E5=1/2-20 UNF

- Please refer to the page 16 for details.
- 詳細內容請參考 P.16 頁

PV-4 Proportional Valves 比例式控制閥

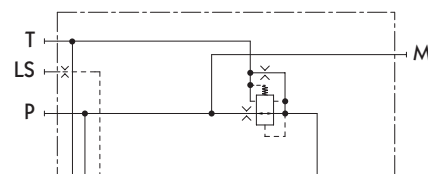
PV4P0301

The rated max spool oil flow 150 L/min.

Closed center pump side module for pumps with variable displacement, with pilot oil supply for electrical actuation.

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 port: G1
PV4P0301-E16 P, T port: 1-5/16UN



PV4P0302

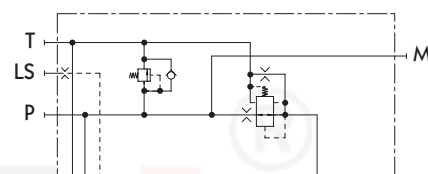
The rated max spool oil flow 150 L/min.

Closed center pump side module for pumps with variable displacement, with pilot oil supply for electrical actuation.

With U63 shock valve.

閉迴路模塊，配合變量泵，提供電控先導油，搭配U63緩衝閥，最大泵流量150 L/min。

PV4P0302-G8 P, T port: G1
PV4P0302-E16 P, T port: 1-5/16UN



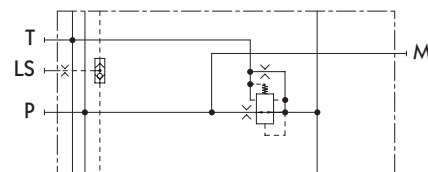
PV4P0303

The rated max spool oil flow 230 L/min.

Closed center pump side module for pumps with variable displacement, with pilot oil supply for electrical actuation (Mid inlet).

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 port: G1
PV4P0303-E16 P, T port: 1-5/16UN



PV4P0304

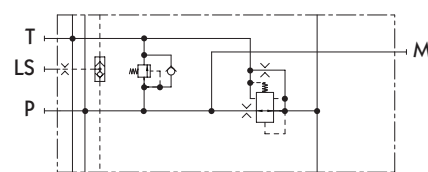
The rated max spool oil flow 230 L/min.

Closed center pump side module for pumps with variable displacement, with pilot oil supply for electrical actuation (Mid inlet).

With U63 shock valve.

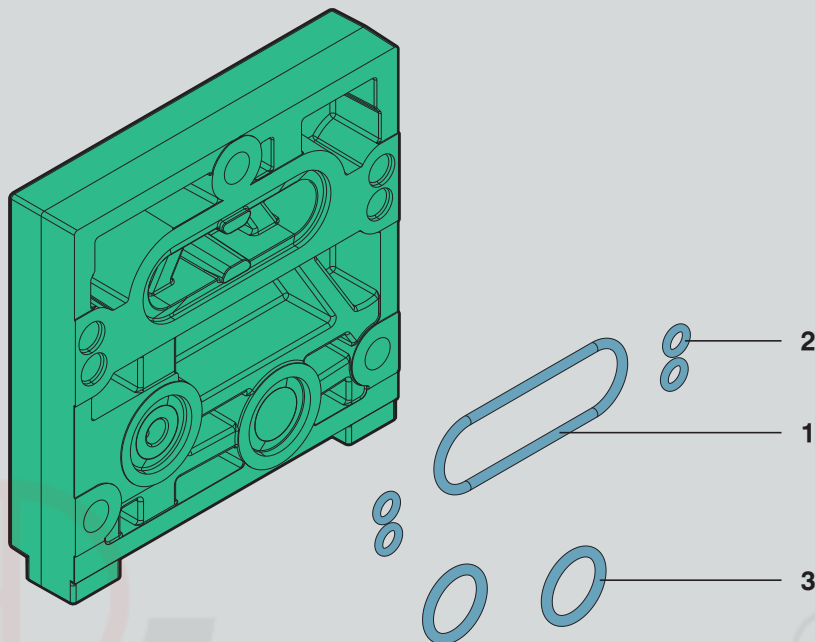
閉迴路模塊，配合變量泵，中間入油，提供電控先導油，搭配U63緩衝閥，最大泵流量230 L/min。

PV4P0304-G8 P, T port: G1
PV4P0304-E16 P, T port: 1-5/16UN



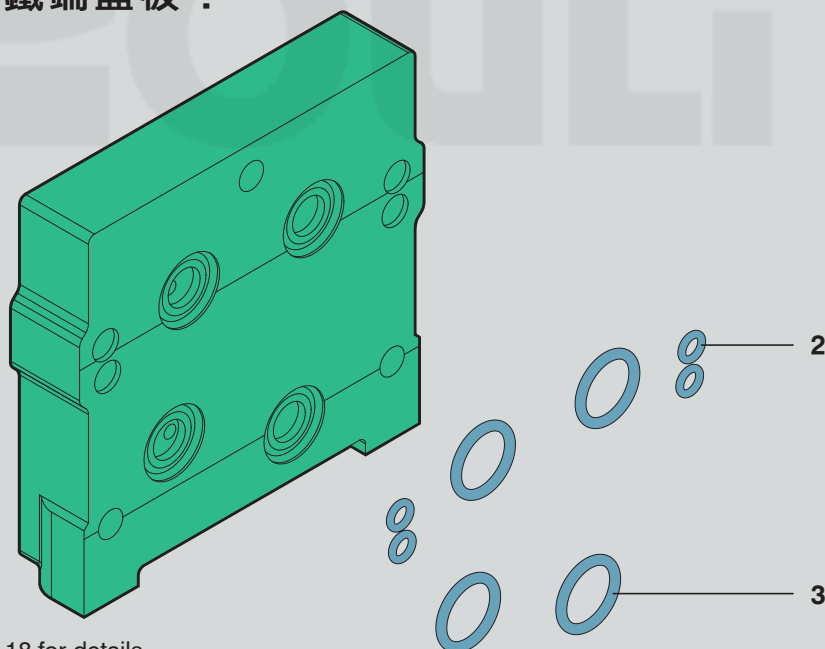
PV-4 Proportional Valves 比例式控制閥

Aluminum Casting 鑄鋁端蓋板 :



- Please refer to the page 18 for details.
- 詳細內容請參考 P.18 頁

Iron Casting 鑄鐵端蓋板 :



- Please refer to the page 18 for details.
- 詳細內容請參考 P.18 頁

Item 代碼	Code 編號	Aluminum Casting 鑄鋁端蓋板 (Q'TY 數量)	Iron Casting 鑄鐵端蓋板 (Q'TY 數量)
1	PVORN-001	1	
2	OR-00502	4	4
3	AS114	2	4

End Plate Options 端蓋板選項

PV-4 Proportional Valves 比例式控制閥

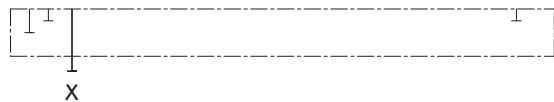
PV4C0101

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)



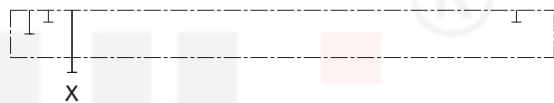
PV4C0102

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)



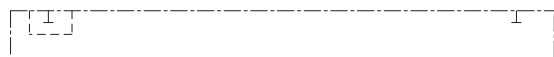
PV4C0103

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)



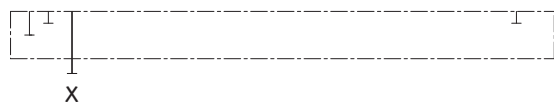
PV4C0201

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)



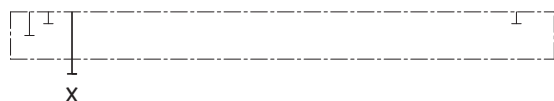
PV4C0202

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)

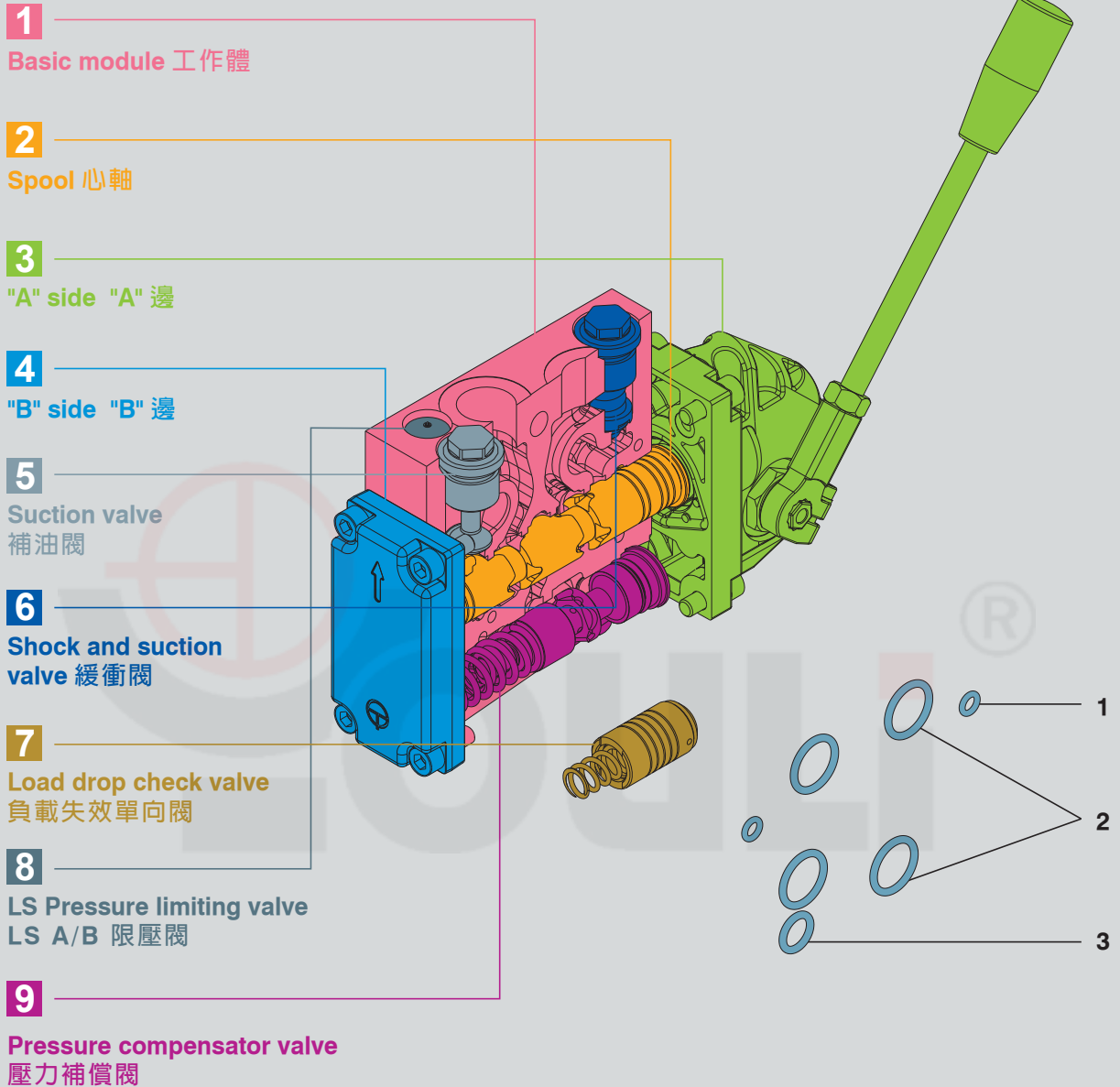


PV4C0203

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)



PV-4 Proportional Valves 比例式控制閥



Seal For Basic Module 工作體油封

Item 代碼	Code 編號	Q'TY 數量
1	OR-00502	2
2	P16	4
3	P10A	1

- Basic Module: See page 19~21.
- Spool options: See page 22~29.
- "A" side: See page 30~31.
- "B" side: See page 32~38.
- Suction valve: See page 39~40.

- 工作體: 詳細內容請參考 P. 19~21 頁
- 心軸: 詳細內容請參考 P. 22~29 頁
- "A"邊: 詳細內容請參考 P. 30~31 頁
- "B"邊: 詳細內容請參考 P. 32~38 頁
- 補油閥: 詳細內容請參考 P. 39~40 頁

PV-4 Proportional Valves 比例式控制閥

PV4V01		
<p>Without load drop check valve and pressure compensated valve. 無負載失效單向閥與壓力補償閥。</p>	PV4V01-G4 AB port: G1/2 PV4V01-E10 AB port: 7/8-14UNF	
PV4V01U		
<p>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。</p>	PV4V01U-G4 AB port: G1/2 PV4V01U-E10 AB port: 7/8-14UNF	
PV4V02		
<p>With load drop check valve. 帶負載失效單向閥。</p>	PV4V02-G4 AB port: G1/2 PV4V02-E10 AB port: 7/8-14UNF	
PV4V02U		
<p>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。</p>	PV4V02U-G4 AB port: G1/2 PV4V02U-E10 AB port: 7/8-14UNF	
PV4V03U		
<p>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。</p>	PV4V03U-G4 AB port: G1/2 PV4V03U-E10 AB port: 7/8-14UNF	
PV4V04		
<p>With non-damped pressure compensated valve. 帶壓力補償閥。</p>	PV4V04-G4 AB port: G1/2 PV4V04-E10 AB port: 7/8-14UNF	
PV4V04U		
<p>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。</p>	PV4V04U-G4 AB port: G1/2 PV4V04U-E10 AB port: 7/8-14UNF	

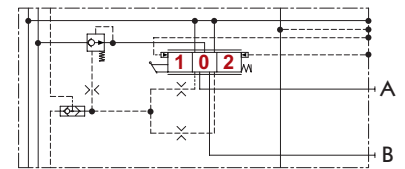
PV-4 Proportional Valves 比例式控制閥

PV4V05

With damped pressure compensated valve.

帶節流壓力補償閥。

PV4V05-G4 AB port: G1/2
PV4V05-E10 AB port: 7/8-14UNF



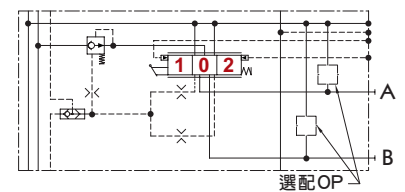
PV4V05U

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: 7/8-14UNF

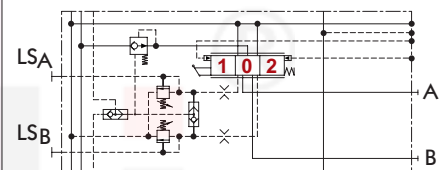


PV4V06

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: 7/8-14UNF



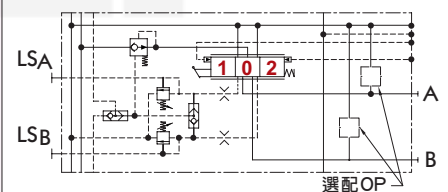
PV4V06U

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: 7/8-14UNF

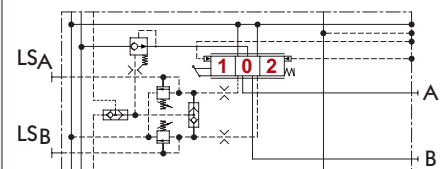


PV4V07

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: 7/8-14UNF



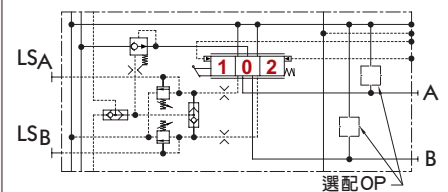
PV4V07U

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: 7/8-14UNF



Flow Control Spools 流量控制心軸

PV-4 Proportional Valves 比例式控制閥

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>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → B</p> <p>A → T</p>	<p>P & T & A & B</p> <p>Closed</p>	<p>P → A</p> <p>B → T</p>

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
		YLWPV4201010FD	YLWPV4201025FD	YLWPV4201040FD	YLWPV4201065FD	YLWPV4201100FD	
	YLWPV4201010ABFD	YLWPV4201025ABFD	YLWPV4201040ABFD	YLWPV4201065ABFD	YLWPV4201100ABFD		

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>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → B</p> <p>A → T</p>	<p>A & B → T</p> <p>P Closed</p>	<p>P → A</p> <p>B → T</p>

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
		YLWPV4202010FD	YLWPV4202025FD	YLWPV4202040FD	YLWPV4202065FD	YLWPV4202100FD	
	YLWPV4202010ABFD	YLWPV4202025ABFD	YLWPV4202040ABFD	YLWPV4202065ABFD	YLWPV4202100ABFD		

PV-4 Proportional Valves 比例式控制閥

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

Flow Control Spools 流量控制心軸

PV-4 Proportional Valves 比例式控制閥

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>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → A</p> <p>B → T</p>	<p>B → T</p> <p>P Closed</p>	<p>P → B</p> <p>A → T</p>

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
	YLWPV4205025AB	YLWPV4205040AB	YLWPV4205065AB	YLWPV4205100AB	

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>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → A</p> <p>B → T</p>	<p>A → T</p> <p>P Closed</p>	<p>P → B</p> <p>A → T</p>

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
	YLWPV4206025AB	YLWPV4206040AB	YLWPV4206065AB	YLWPV4206100AB	

PV-4 Proportional Valves 比例式控制閥

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>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → B</p> <p>A → T</p>	<p>P & T & A & B</p> <p>Closed</p>	<p>P → A</p> <p>B → T</p>

Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (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>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → B</p> <p>A → T</p>	<p>A & B → T</p> <p>P Closed</p>	<p>P → A</p> <p>B → T</p>

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

Pressure Control Spools 壓力控制心軸

PV-4 Proportional Valves 比例式控制閥

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>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>
<p>P → B A → T</p>	<p>P & T & A & B Closed</p>	<p>P → A B → T</p>

Flow 流量	5 (L/min)	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>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>
<p>P → B A → T</p>	<p>P & T & A & B Closed</p>	<p>P → A B → T</p>

Flow 流量	5 (L/min)	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

PV-4 Proportional Valves 比例式控制閥

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>P → B A → T</p>	<p>A & B → T P Closed</p>	<p>P → A B → T</p>

Flow 流量	5 (L/min)	10 (L/min)	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>P → B A → T</p>	<p>A & B → T P Closed</p>	<p>P → A B → T</p>

Flow 流量	5 (L/min)	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

Pressure Control Spools 壓力控制心軸

PV-4 Proportional Valves 比例式控制閥

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 ※※※※

<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → B</p> <p>A → T</p>	<p>B → T</p> <p>P & A Closed</p>	<p>P → A</p> <p>B → T</p>

Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號			YLWPV42A23025	YLWPV42A23040	YLWPV42A23065	
				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

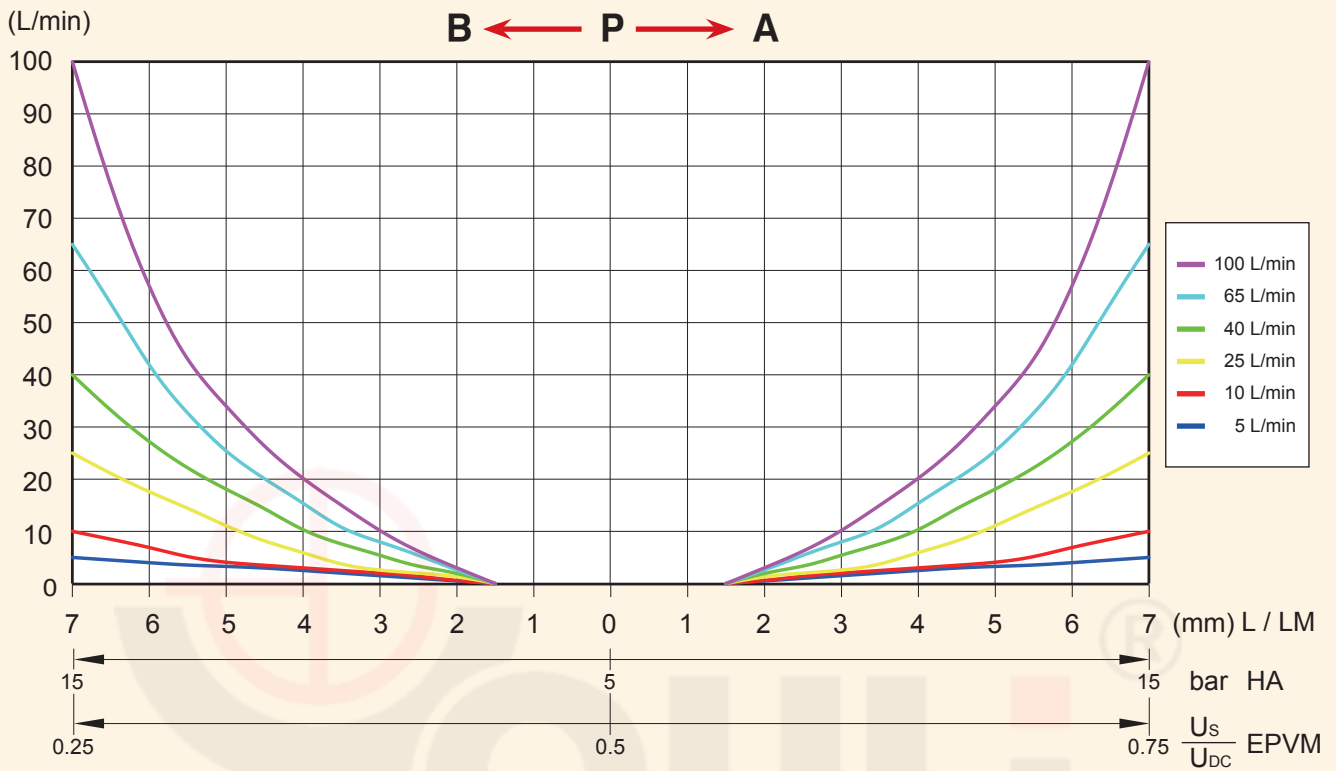
YLWPV42 B23 ※※※※

<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>	<p>1 0 2</p> <p>B A</p> <p>T P T</p>
<p>P → B</p> <p>A → T</p>	<p>A → T</p> <p>P & B Closed</p>	<p>P → A</p> <p>B → T</p>

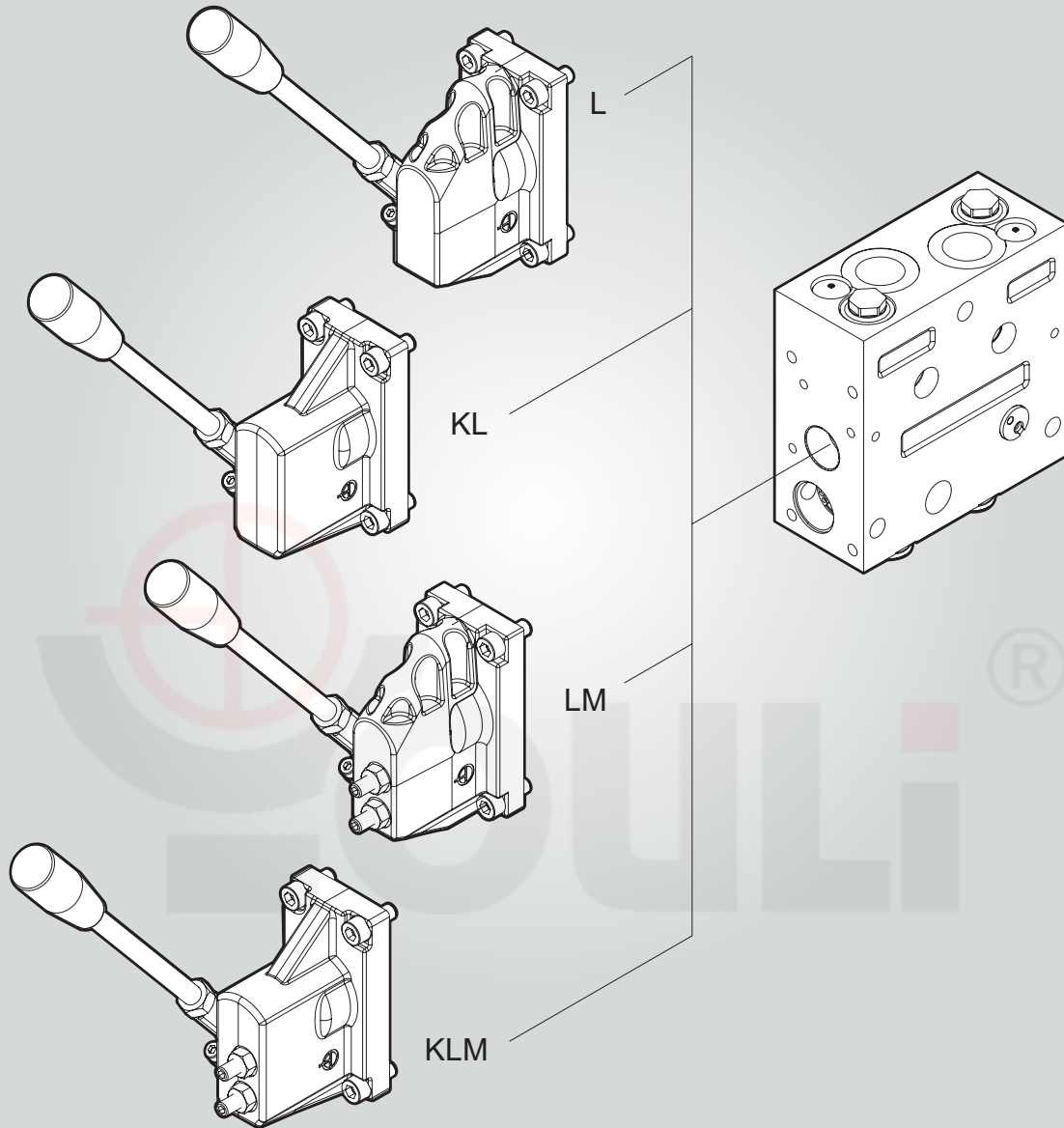
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)
Code 編號				YLWPV42B23040	YLWPV42B23065	
		YLWPV42B23010AB	YLWPV42B23025AB	YLWPV42B23040AB	YLWPV42B23065AB	

PV-4 Proportional Valves 比例式控制閥

PV-4 Flow Curve 流量曲線



PV-4 Proportional Valves 比例式控制閥



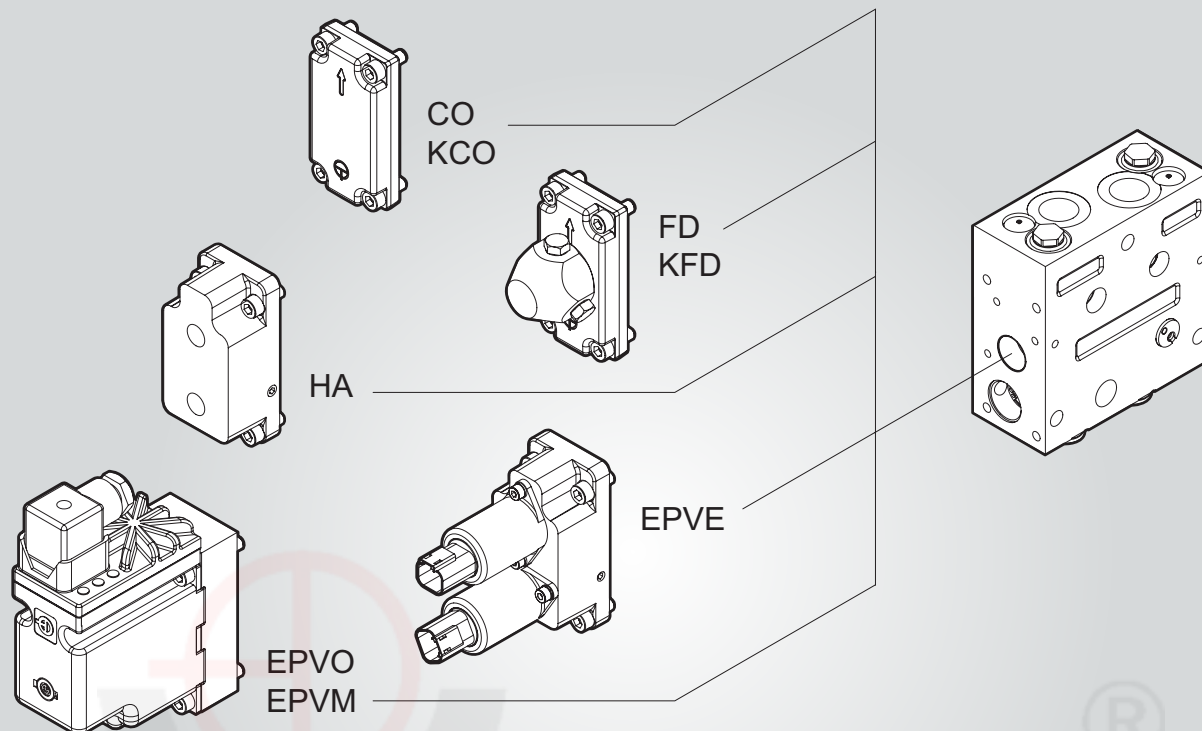
Code 編號 L	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KL		Iron 鑄鐵
<p>Standard lever. 標準把手。</p>		

PV-4 Proportional Valves 比例式控制閥

Code 編號 LM	Circuit 迴路	Aluminum 鑄鋁
Code 編號 KLM		Iron 鑄鐵
<p>Standard lever; individual oil flow adjustment to ports A and B.</p> <p>標準把手，帶 A/B □最大流量調節螺絲。</p>		
<p>With Standard lever box; without lever.</p> <p>標準把手蓋，無手把。</p>		
<p>With standard lever box, without lever; With individual oil flow adjustment to ports A and B.</p> <p>標準把手蓋，無手把，帶 A/B □最大流量調節螺絲。</p>		

B Side Options B 邊選項

PV-4 Proportional Valves 比例式控制閥



Code 編號 CO	Symbol 符號	Aluminum 鑄鋁
Code 編號 KCO		Iron 鑄鐵
Standard cover. 標準後蓋。		
Code 編號 FD	Symbol 符號	Aluminum 鑄鋁
Code 編號 KFD		Iron 鑄鐵
Friction detent. 摩擦定位。		
Code 編號 HA-G2	Symbol 符號	Thread Code 牙口: G1/4
Code 編號 HA-E6		Thread Code 牙口: 9/16-18 UNF
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。		

PV-4 Proportional Valves 比例式控制閥

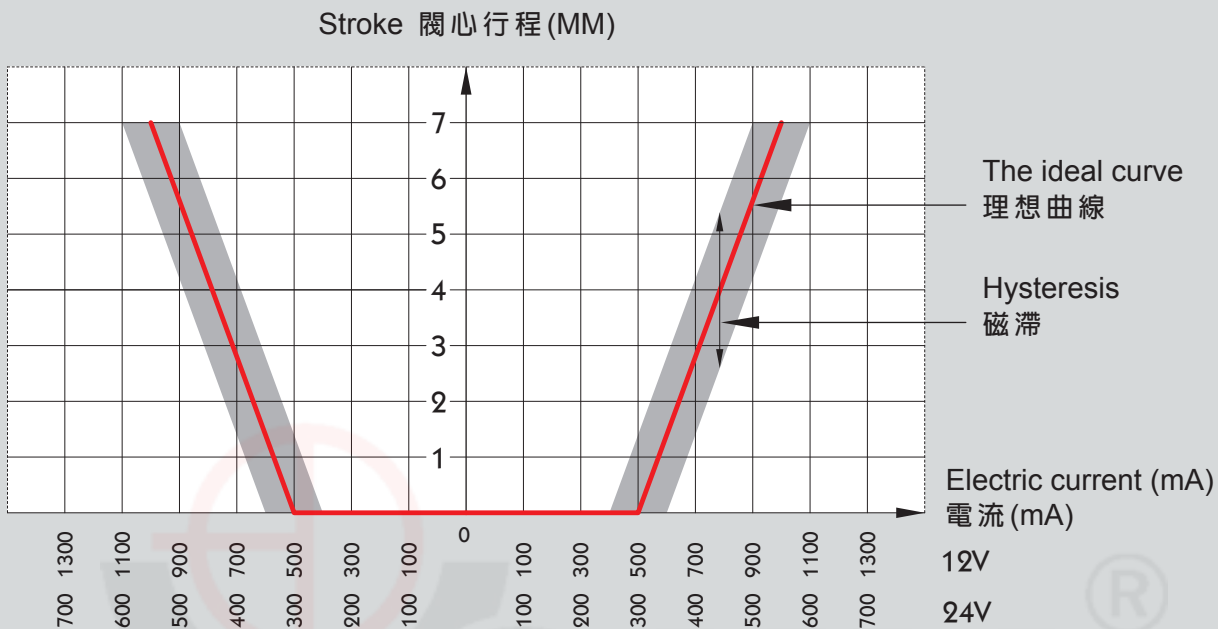
Function 功能	功能
<p>The main spool position is adjusted with the electrical proportional actuation, in this condition, the position corresponds to an electrical control signal.</p> <p>The control signal is converted into a hydraulic pressure signal that make the spool moved in the valve. This is done by means of two proportional pressure reducing valve. The electrical actuation can be controlled by current amplifier card and a programmable micro-controller directly.</p> <p>※ Use with 25 bar pilot pressure, to match with HA spool, cannot combine to use EPVE with EPVO and EPVM.</p>	<p>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。</p> <p>※ 使用 25 BAR 先導壓力，需搭配 HA 心軸，不可與 EPVO、EPVM 共用。</p>

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

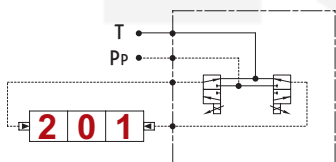
Parameter 參數	12V DC	24V DC
Controller output current range 控制器輸出電流範圍	0~1500 mA	0~750 mA
Resistance 電阻	4.72 Ω \pm 5%	20.8 Ω \pm 5%
Current consumption 消耗電流	24 mA (12V)	20 mA (24V)
Control type 控制型態	Current control recommended: PWM 100 HZ 電流控制推薦：PWM 100 HZ	
Pilot pressure 先導壓力	Min. 最小 21 bar { 305 psi } , Max. 最大 25 bar { 636 psi }	
Pressure control range 壓力控制範圍	5~15 bar { 72.5~217.5 psi }	
Ambient temperature 環境溫度	-30°C~80°C { -22°F~176°F }	
Medium temperature 介質溫度	-20°C~80°C { -4°F~176°F }	
Oil Viscosity 液壓油黏度	Range 範圍：12~75 mm ² /s { 65~350 SUS }	
	Min. 最小：4 mm ² /s { 40 SUS }	
	Max. 最大：400 mm ² /s { 2130 SUS }	
Filtering in the hydraulic system 液壓系統過濾	Max. allowed degree of contamination (ISO 4406) 允許最大污染 (ISO 4406)	

PV-4 Proportional Valves 比例式控制閥

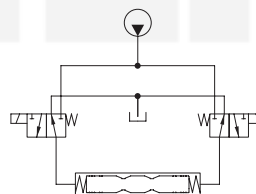
Performance Graphs 曲線圖 :



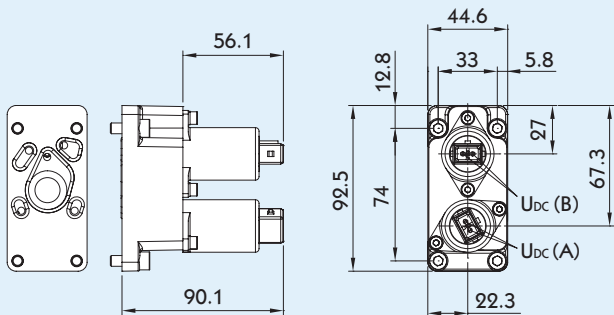
Circuit 迴路



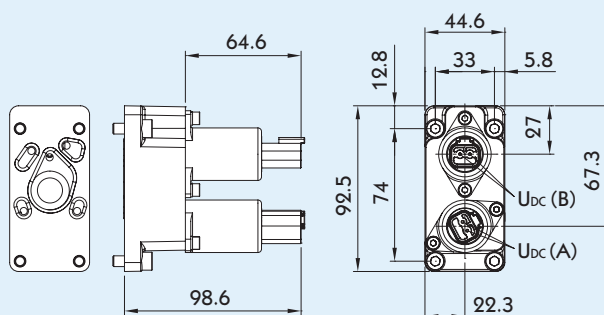
Function 功能圖



Standard Type-AMP 標準型-AMP



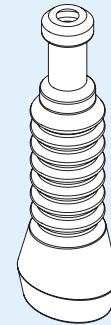
Standard Type-Deutsh 標準型-Deutsh



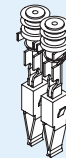
PV-4 Proportional Valves 比例式控制閥

AMP Connector Version AMP 插件

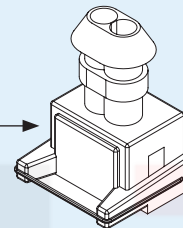
Description 描述	QTY 數量	AMP 代碼
Seal kit 密封件	1	880810-1



Description 描述	QTY 數量	AMP 代碼
Contacts 觸點	2	828905-1
Contacts 觸點	2	929930-3



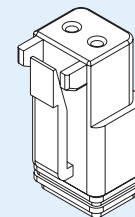
Description 描述	QTY 數量	AMP 代碼
Connector 接頭	1	282189-1



- ★ **By Purchased (non-provided)**
- ★ 自購零件(無法提供)

Deuth Connector Version Deuth 插件

Description 描述	QTY 數量	AMP 代碼
Connector 接頭	1	W2S



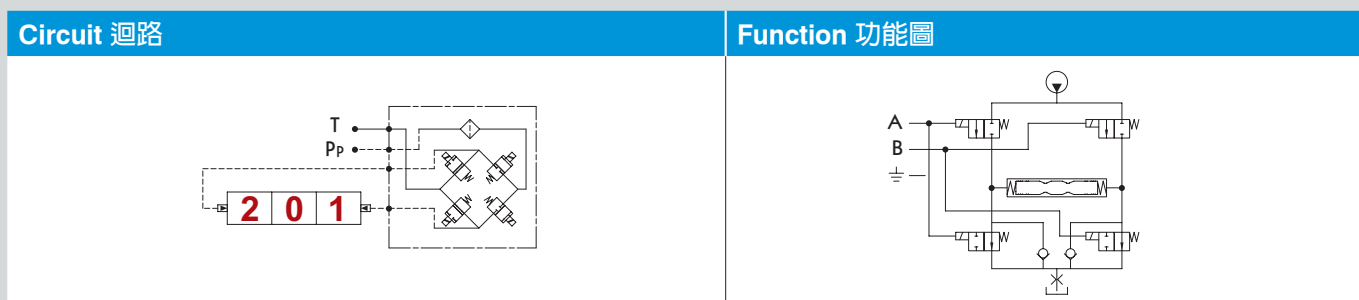
- ★ **By Purchased (non-provided)**
- ★ 自購零件 (無法提供)

PV-4 Proportional Valves 比例式控制閥

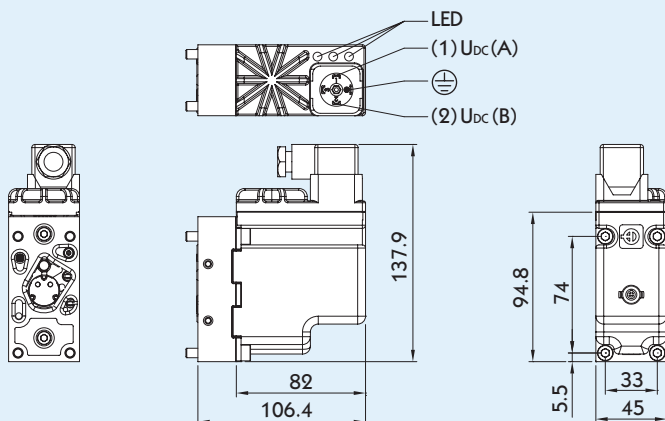
Function 功能	功能
The main spool is controlled by ON/OFF modulated plug-in solenoid valve, reaction time from neutral position to max spool travel... Supply voltage range : 11~30V Led signal indicator is optional.	主閥心可經由開關控制驅動，從中位到達最大行程位置，全電壓操作 11V~30V，可選擇 LED 訊號燈。

Code 編號	Description 描述	Connector 接頭	Enclosure to IEC 529 防護等級
EPVO-H0100	ON/OFF activated actuator connectors, no LED lights. 開 / 關控制 Hirschmann 接頭，無 LED 訊號燈。	Hirschmann 接頭	IP65
EPVO-H0101	ON/OFF activated actuator connectors, with LED lights. 開 / 關控制 Hirschmann 接頭，有 LED 訊號燈。	Hirschmann 接頭	IP65

Parameter 參數	Description 描述	Parameter 參數	Description 描述
Supply voltage 電源電壓 (UDC)	11V~30V	Pilot pressure 先導壓力	Min. 最小 : 10 bar { 145 psi } Max. 最大 : 15 bar { 217.5 psi }
Max. ripple 最大波動量	5 %	Filtering in the hydraulic system 液壓系統過濾	Max. allowed degree of contamination 允許最大污染 (ISO 4406)
Ambient Temperature 環境溫度	-30°C~60°C { -22°F~140°F }	Oil Viscosity 液壓油黏度	Range 範圍 : 12~75 mm ² /s { 65~350 SUS } Min. 最小 : 4 mm ² /s { 40 SUS } Max. 最大 : 400 mm ² /s { 2130 SUS }
Oil temperature 液壓油溫度	Range 範圍 : 30°C~60°C { 86°F~140°F } Min. 最小 : -30°C { -22°F } Max. 最大 : 90°C { 194°F }	Power consumption 消耗功率	8.5 W
Input resistance 輸入阻抗	15 kΩ		



Standard Type-Hirschmann 標準型-Hirschmann



ON / OFF 開 / 關控制	Neutral position 中位 0	P → A	P → B
A (Pin 1) (腳位 1)	0	Udc	0
B (Pin 2) (腳位 2)	0	0	Udc
LED indicator LED 燈號	0	Blue 藍燈	Yellow 黃燈

PV-4 Proportional Valves 比例式控制閥

Function 功能	功能
<p>Electronic control system was based on the deviation between the input signal and the feedback, to control the solenoid valve. Thereby changing the pilot pressure drives the main spool, and makes it in the right direction and speeds to meets the desired position.</p> <p>Supply voltage 12V DC & 24V DC, and it can options with LED light or not.</p>	<p>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，分為 12V 與 24V 版本，均可選擇有無 LED 訊號燈。</p>

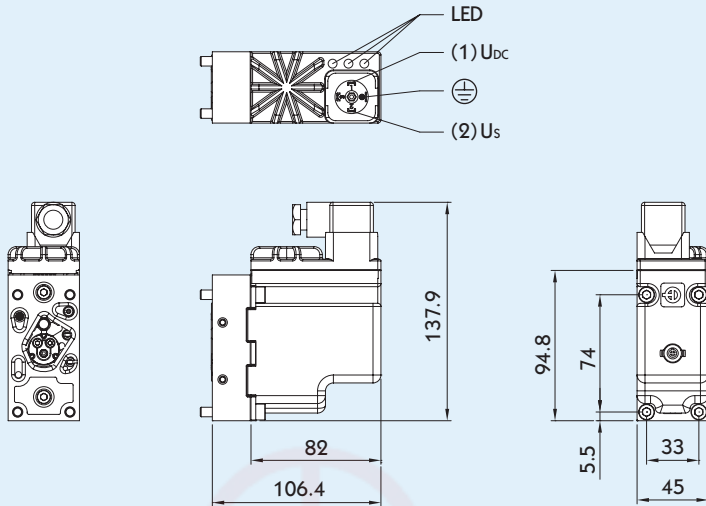
Code 編號	Description 描述	Connector 接頭	Enclosure to IEC 529 防護等級
EPVM-H0110	Proportional valve, Voltage 12 VDC Without LED light. 比例電磁閥，電壓 12V，無 LED 訊號燈。	Hirschmann 接頭	IP65
EPVM-H0111	Proportional valve, Voltage 12 VDC With LED light. 比例電磁閥，電壓 12V，有 LED 訊號燈。	Hirschmann 接頭	IP65
EPVM-H0120	Proportional valve, Voltage 24 VDC Without LED light. 比例電磁閥，電壓 24V，無 LED 訊號燈。	Hirschmann 接頭	IP65
EPVM-H0121	Proportional valve, Voltage 24 VDC With LED light. 比例電磁閥，電壓 24V，有 LED 訊號燈。	Hirschmann 接頭	IP65

Parameter 參數	Description 描述	12V DC	24V DC	Parameter 參數	Description 描述
Supply voltage 電源電壓 (UDC)	Rated 額定	12V	24V	Ambient temperature 環境溫度	-30°C~60°C { -22°F~140°F }
	Range 範圍	11V~15V	22V~30V	Oil temperature 油溫	-30°C~90°C { -22°F~194°F }
	Max. ripple 最大波動量	5%		Oil viscosity 液壓油黏度	Range 範圍： 12~75 mm ² /s { 65~350 SUS }
Current consumption 消耗電流	Typical 典型	760 mA	450 mA		Min. 最小：4 mm ² /s { 40 SUS }
	Neutral 中位	0.5 x U _{DC}			Max. 最大：400 mm ² /s { 2130 SUS }
Signal voltage 信號電壓 (US)	A port ↔ B port	0.25~0.75 x U _{DC}		Pilot oil pressure 先導油壓力	10~15 bar { 145~217.5 psi }
	Power consumption 消耗功率	10W	11W	Filtering in the hydraulic system 液壓系統過濾	Max. allowed degree of contamination 允許最大污染 (ISO 4406)

Circuit 迴路	Function 功能圖

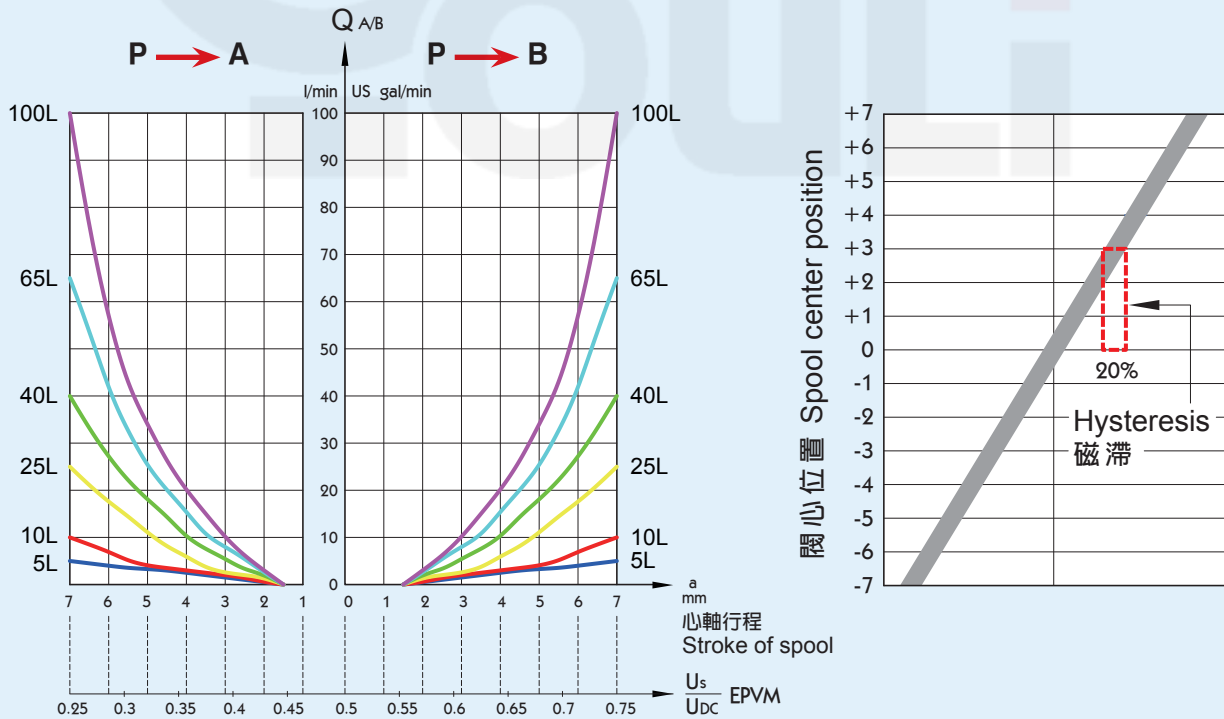
PV-4 Proportional Valves 比例式控制閥

Standard Type-Hirschmann 標準型-Hirschmann

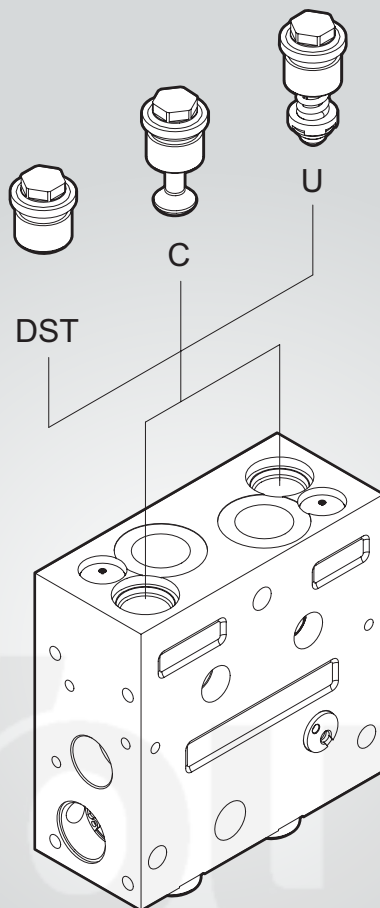


Function 功能	Signal voltage 信號電壓 (Us)	LED indicator LED 燈號
Neutral position 中位 0	Us (Pin 腳位 2) = 0.5 x U _{bc}	Green 綠燈
P → A	Us (Pin 腳位 2) = (0.5 → 0.25) x U _{bc}	Blue 藍燈
P → B	Us (Pin 腳位 2) = (0.5 → 0.75) x U _{bc}	Yellow 黃燈

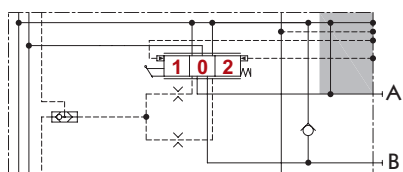
Control Curve 控制曲線



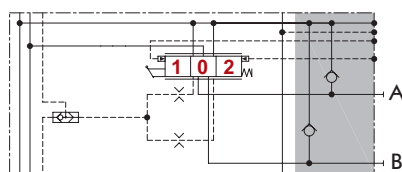
PV-4 Proportional Valves 比例式控制閥



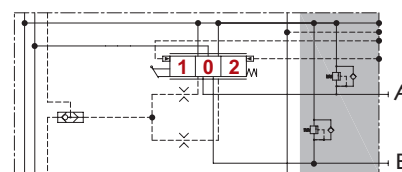
Code 編號 DST



Code 編號 C



Code 編號 U

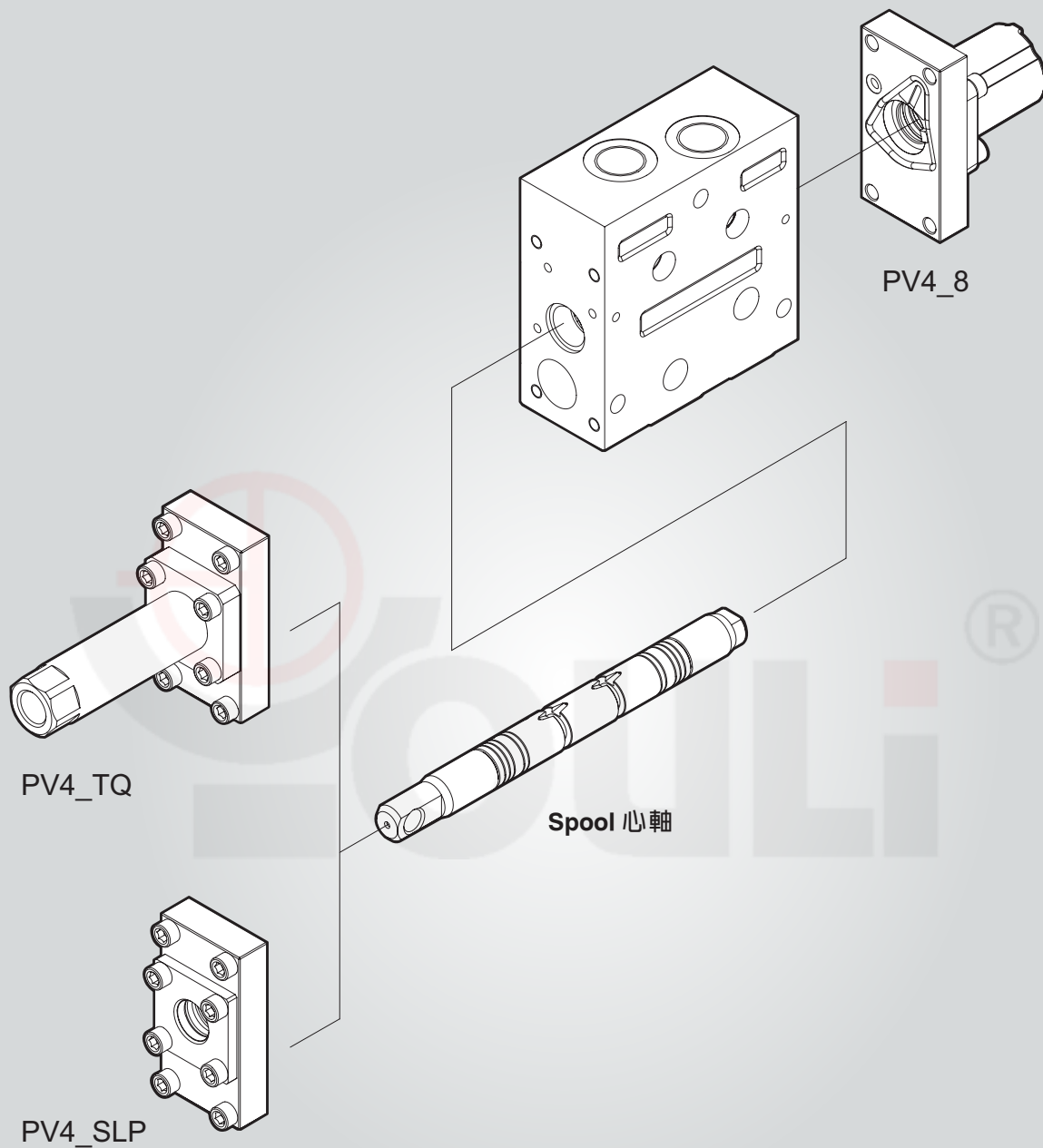


PV-4 Proportional Valves 比例式控制閥

Shock And Suction Valve Options 緩衝壓力選擇

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

PV-4 Proportional Valves 比例式控制閥



External Control Series 外部控制系列

A Side options A 側選項

Code 編號	SLP	Dust proof plate (External spool control) 防塵蓋 (外部心軸控制)
	TQ	TQ connector (Cable control) TQ 連接器 (纜繩控制)

B Side options B 側選項

Code 編號	8	Standard cover (Spring centered) 標準蓋 (彈簧復歸)
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Flow Control Spools 流量控制心軸

PV-4 Proportional Valves 比例式控制閥

YLWPV42 01 ※ ※ ※ ※ ※

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

YLWPV42 01 ※※※

<p>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>
<p>P → B A → T</p>	<p>P & T & A & B Closed</p>	<p>P → A B → T</p>

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	YLWPV4201005TQ	YLWPV4201010TQ	YLWPV4201025TQ	YLWPV4201040TQ	YLWPV4201065TQ	YLWPV4201100TQ	YLWPV4201130TQ
編號	YLWPV4201005ABTQ	YLWPV4201010ABTQ	YLWPV4201025ABTQ	YLWPV4201040ABTQ	YLWPV4201065ABTQ	YLWPV4201100ABTQ	YLWPV4201130ABTQ

YLWPV42 02 ※ ※ ※ ※ ※

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

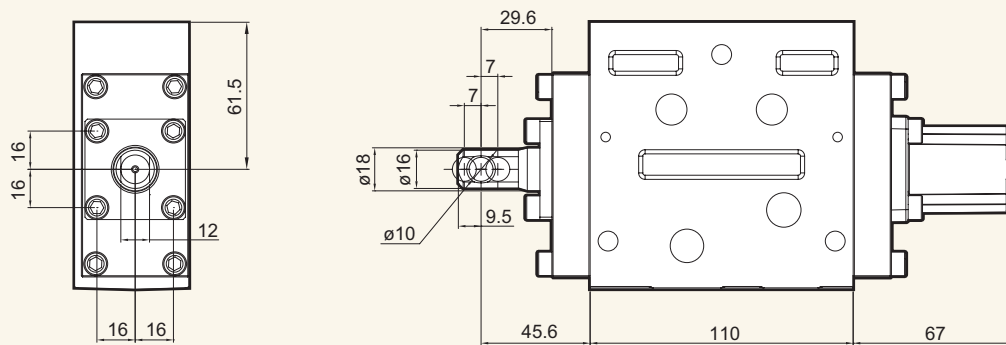
YLWPV42 02 ※※※

<p>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>	<p>1 0 2 B A T P T</p>
<p>P → B A → T</p>	<p>A & B → T P Closed</p>	<p>P → A B → T</p>

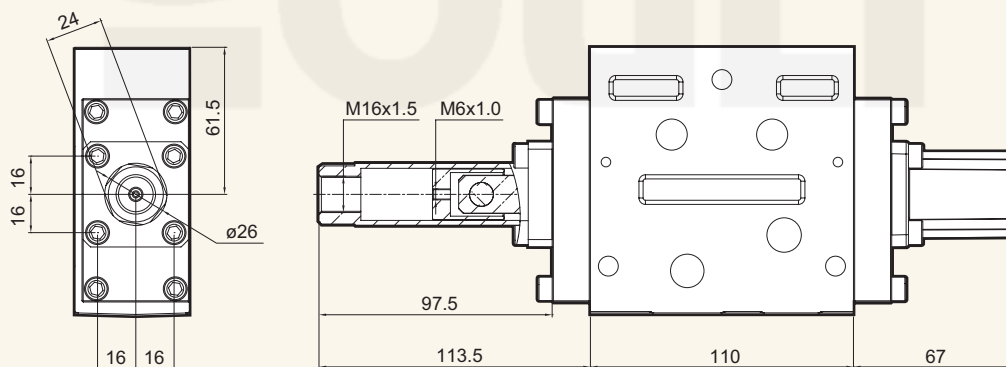
Flow 流量	5 (L/min)	10 (L/min)	25 (L/min)	40 (L/min)	65 (L/min)	100 (L/min)	130 (L/min)
Code	YLWPV4202005TQ	YLWPV4202010TQ	YLWPV4202025TQ	YLWPV4202040TQ	YLWPV4202065TQ	YLWPV4202100TQ	YLWPV4202130TQ
編號	YLWPV4202005ABTQ	YLWPV4202010ABTQ	YLWPV4202025ABTQ	YLWPV4202040ABTQ	YLWPV4202065ABTQ	YLWPV4202100ABTQ	YLWPV4202130ABTQ

PV-4 Proportional Valves 比例式控制閥

Type SLP 型式

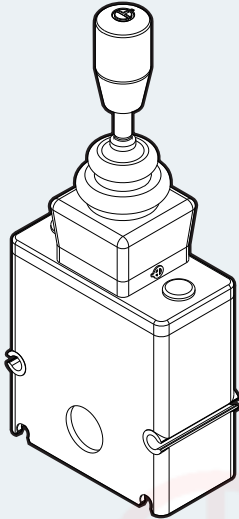


Type TQ 型式



PV-4 Proportional Valves 比例式控制閥

PVH-1 Proportional Lever 比例把手



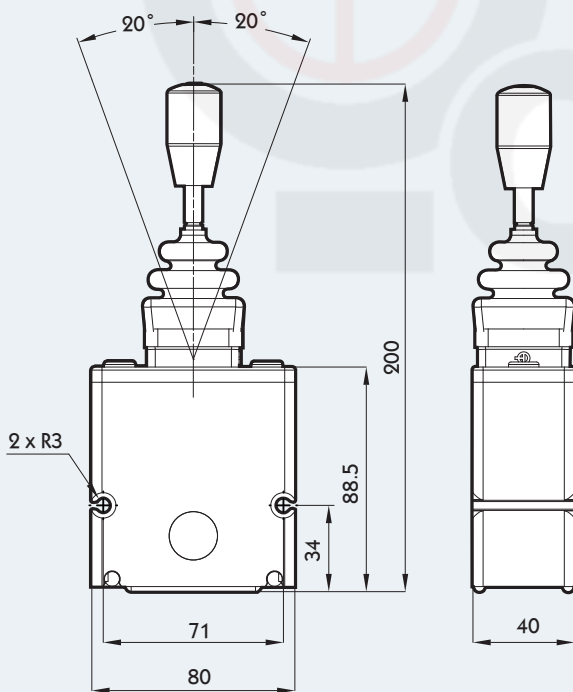
PVH-1

PVH : Type 產品代碼

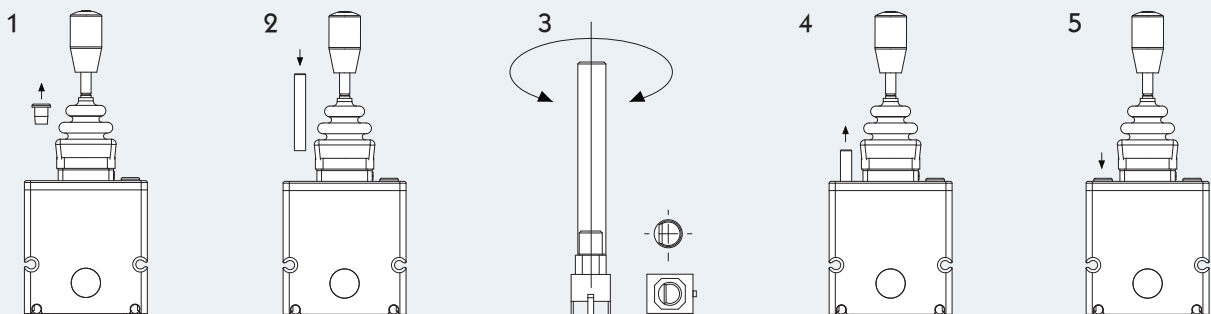
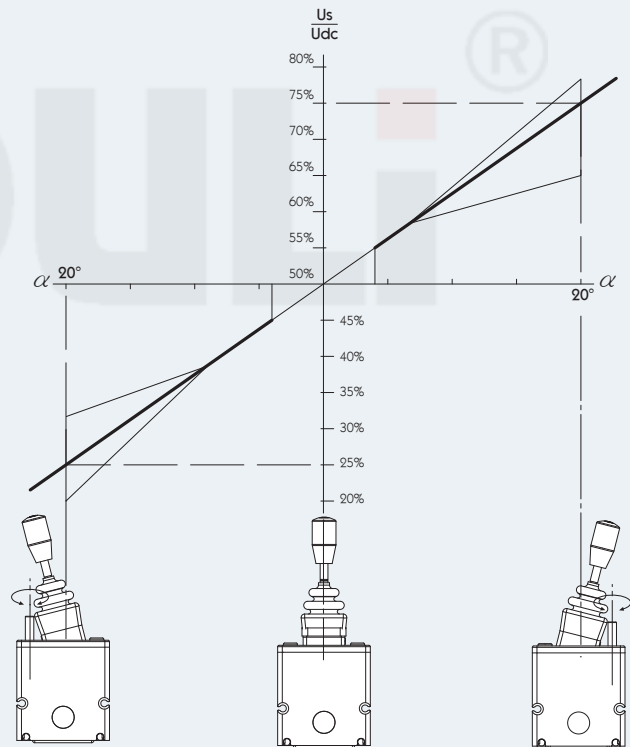
1 : Single lever for one section operation 單柄把手

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 U _{DC}
Neutral voltage 中位電壓	Us	0.5 U _{DC}
Max. current of the power switch 斷電開關最大電流	ON/OFF 開 / 關控制	1A
Control angle 控制角度	Single 單邊	20°

Dimensions 尺寸

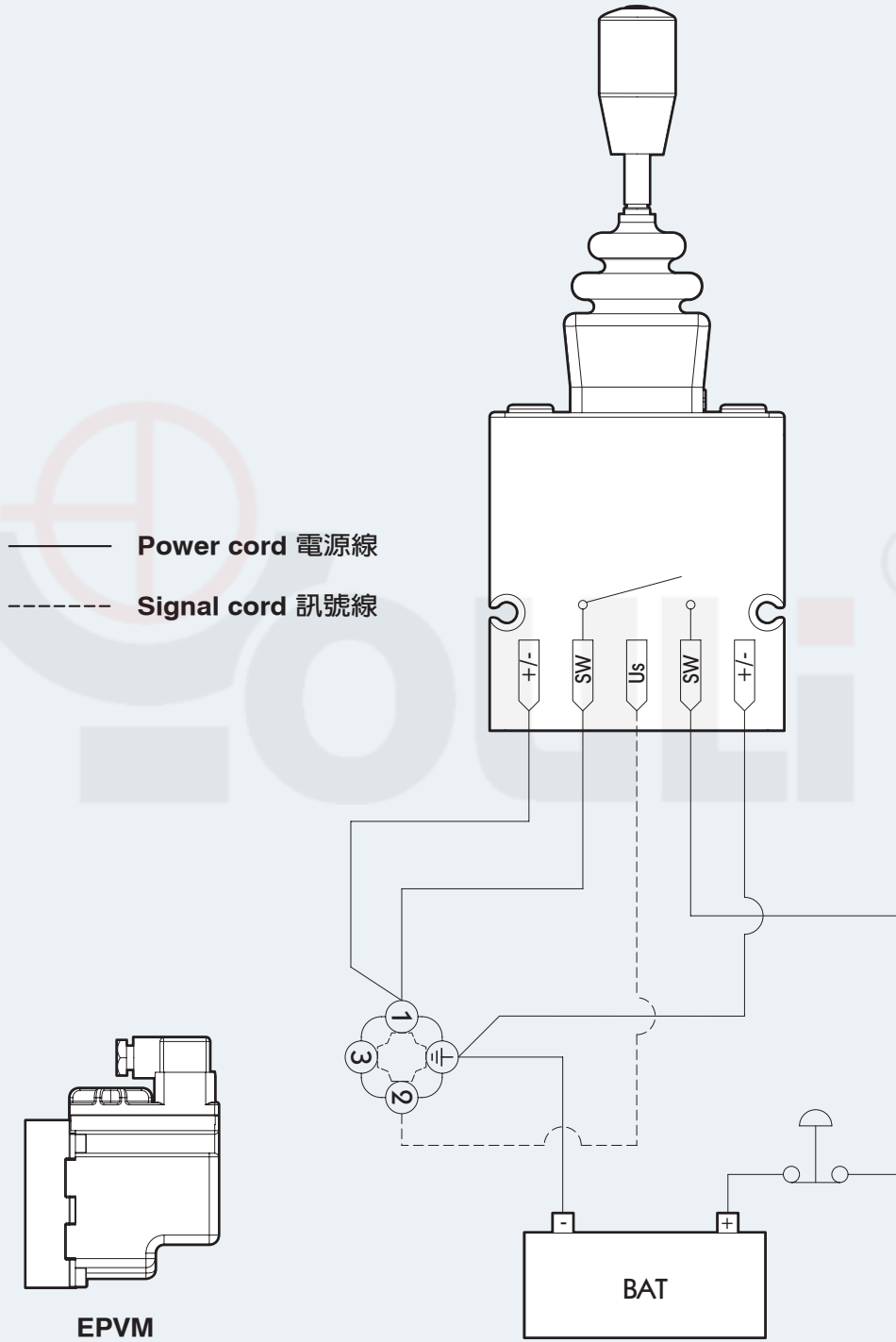


Characteristic Chart 特性圖



PV-4 Proportional Valves 比例式控制閥

Wiring Diagram 接線圖



PV-4 Proportional Valves 比例式控制閥

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 $\pm 10\%$ N-m.

※ 安裝扭力值 $\pm 10\%$ N-m.



PV-4 Proportional Valves 比例式控制閥

	【Description of Function】 功能描述	P1:	P:			P2:
			Bar			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	
		M:	T:			

Specification sheet: 【P】 Pump side module 【P1】 Plug for external pilot oil supply 【P2】 LS Solenoid Unloading vavle
 【A】 A side options 【B】 B side options 【W】 Basic moldules 【W1/W2】 Shock and suction valve
 【LA/B】 LS A/B Pressure relief valve setting 【G】 Spool 【T】 End plate 【M】 Tie rod kit

表框選項: 【P】 入油體 【P1】 外部先導油接頭 【P2】 LS 電磁洩壓閥 【A】 A 邊選項 【B】 B 邊選項
 【W】 工作體 【W1/W2】 緩衝補油閥 【LA/B】 LS A/B 限壓閥設定值 【G】 心軸
 【T】 端蓋板 【M】 串聯螺絲組



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