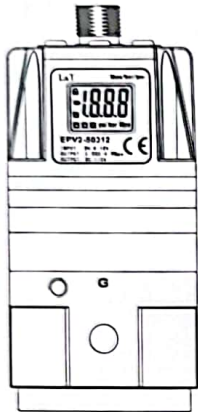


OPERATION MANUAL

E/P REGULATOR

EPV1\EPV2\EPV3 series

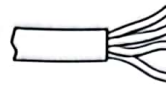


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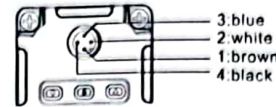
Safety instructions.....	P2
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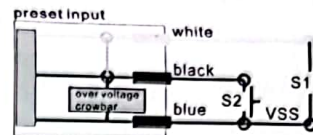
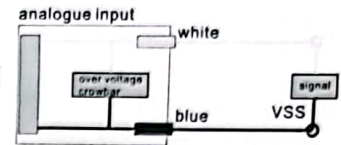
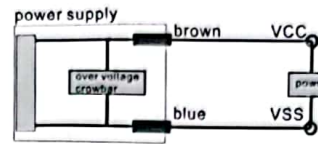
Wiring method



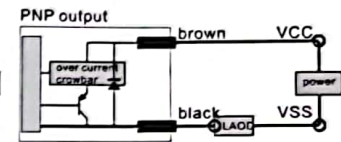
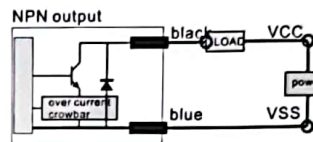
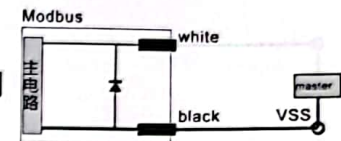
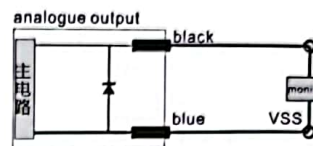
1.brown	VCC(Power supply)
2.white	Input signal
3.blue	VSS(COMMON)
4.black	Output signal



note:the wire color is for when optional cable is used



preset	P_1	P_2	P_3	P_4
S1	OFF	ON	OFF	ON
S2	OFF	OFF	ON	ON



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Safety instructions



WARNING:operator error could result in serious injury or loss of life

- Whether this product is applicable should be determined by designer or senior person of air pressure system.
- This product should be performed by knowledgeable and experienced operator, it is very dangerous to error operate compressed air.
- Do not operate the equipment or remove the components until safety is confirmed, regular inspection should be taken to ensure the proper operation.



WARNING:operator error could result in injury or equipment damage

- If power to this product is cut off due to power failure, etc. when it is in a controlled state, residual pressure will be retained temporarily.
- The optional cable connector is a 4 wire type, when the monitor output(analogue output or switch output) is not being used, prevent it from touching the other wires as a malfunction could occur.
- This product is adjusted for each specification at the time of shipment from the factory. Avoid careless disassembly or removal of parts, as this can lead to malfunction.
- Take the following steps to avoid malfunction due to noise:
 - Install a line filter etc. to the AC power line to reduce/eliminate power supply noise.
 - Avoid malfunction due to noise by installing this product and its wiring away from strong electric fields, such as those of motors and power line. etc.
 - Be sure to implement protective measures against load surge for induction loads (solenoid valves, relays, etc).
 - Turn off the power supply before installing and removing the connector.
- Please note that the right angled cable connector does not rotate and is limited to only one entry direction.

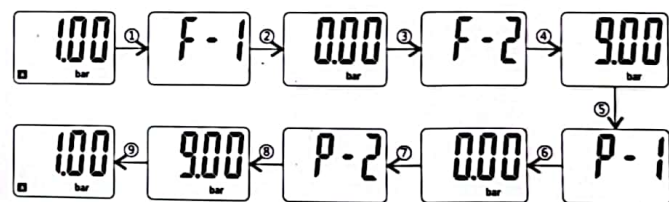
-2-

Setting method

Key to unlock

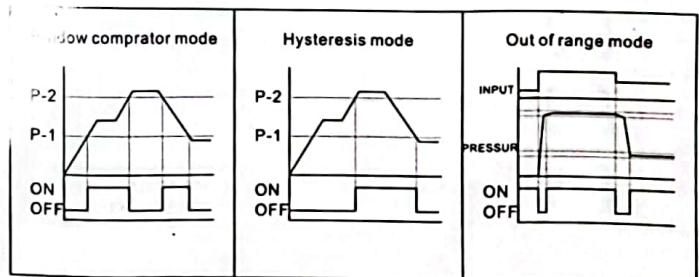


Analog input signal type setting of min. pressure, max. pressure



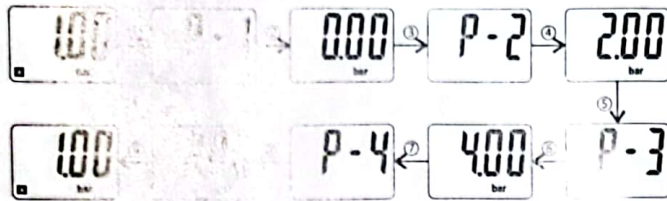
1.Unlock keys and press [S] key	2.Set the minimum pressure F-1 by using [▼] [▲] key
3.press [S] key to save data	4.Set the maximum pressure F-2 by using [▼] [▲] key
5.press [S] key to save data (P-1/P-2 only used in switch out products)	
6.Set the pressure P-1 by using [▼] [▲] key	7.press [S] key to save data
8.Set the pressure P-2 by using [▼] [▲] key	9.press [S] key to save data

Note 1: F-1 is adjustable in a range from 0% to 90% of rated value.
 Note 2: F-2 is adjustable in a range from 10% to 100% of the rated value.
 Note 3: (F-2)-(F-1) ≥ 10% F.S.
 Note 4: P-1 < P-2, Window comparator mode.
 Note 5: P-1 ≥ P-2, Hysteresis mode.
 Note 6: P-1 = P-2 = 0, Out of range mode.



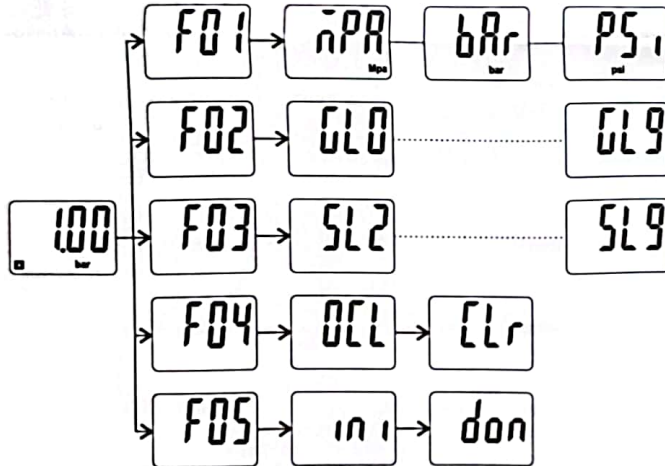
-4-

Setting of preset pressure



1. Unlock keys and press **[S]** key for 2 seconds to function setting
2. Set the pressure P-1 by using **[V]** **[A]** keys
3. press **[S]** key to save data
4. Set the pressure P-2 by using **[V]** **[A]** keys
5. press **[S]** key to save data
6. Set the pressure P-3 by using **[V]** **[A]** keys
7. press **[S]** key to save data
8. Set the pressure P-4 by using **[V]** **[A]** keys
9. press **[S]** key to save data

Function setting



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Technical Specifications

Model	EPV1-1	EPV1-3	EPV1-5
	EPV2-1	EPV2-3	EPV2-5
	EPV3-1	EPV3-3	EPV3-5
Min. pressure supply	Set pressure +0.1MPa		
Max. pressure supply	0.2MPa	1.0MPa	
Set pressure range	0.005~0.1MPa	0.005~0.5MPa	0.005~0.9MPa
Power supply	Voltage	DC24V±10%	
	Current	DC24V : 0.12A MAX	
Input	Current type	DC4~20mA, DC0~20mA	
	Voltage type	DC0~5V, DC0~10V	
	Preset type	4 point	
Input resistance	Current type	below 250Ω	
	Voltage type	approx 6.5KΩ	
	Preset type	Preset input type 24VDC approx 4.7KΩ	
Output	Analog output	DC1~5V(load impedance: over 1KΩ) DC4~20mA(load impedance: below250Ω) Output precision within range the range of 6%F.S.	
	Switch output	NPN-OC output type: 30mA PNP-OC output type: 30mA	
linear		±1%F.S.	
hysteresis		0.5%F.S.	
repeatability		±0.5%F.S.	
temperature characteristic		±2%F.S.	
display	Precision	±2%F.S.	
	Division	1000 division	
Ambient temperature		0~50°C	
Protection class		IP65	

Reference data of response time

series	Input signal 50%~100%			
	EPV0	EPV1	EPV2	EPV3
without load	below 0.1S	0.2~0.3S	0.2~0.3S	0.3~0.4S
with load 1L		0.3~0.5S	0.3~0.5S	0.4~0.5S

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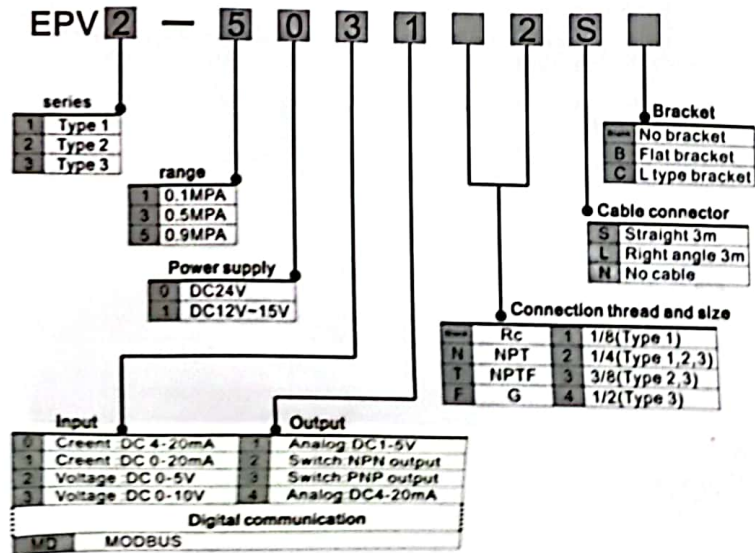
Unlock keys and press [S] key for 2 seconds to function setting	
F01 Unit setting	
Select F01, press [S] key, to unit setting.	
Select Bar, MPa, psi by using [V] [A] keys, and press [S] key to save data.	
F02 response setting	
Select F02, press [S] key, to response setting.	
Select GL0~GL9 by using [V] [A] keys, and press [S] key to save data.	
The gain is changed when sharp fluctuations in output pressure.	
F03 error setting	
Select F03, press [S] key, to error setting	
Select SL2~SL9 by using [V] [A] keys, and press [S] key to save data.	
The gain is changed when sharp fluctuations in output pressure.	
F04 "Zero clear" setting	
Select F04, press [S] key, to "Zero clear" setting	
Press both [V] [A] keys until CLR displayed, the adjustable range is within 5%F.S.	
Operate "zero clear" to correct the initial pressure	
F05 Initialize settings	
Select F05, press [S] key, to Initialize settings	
Press both [V] [A] keys until DON displayed, return to pressure display automatically	

Error indication function

No	Contents of error	countermeasure
1	E-1 Input signal exceeds the rated value range.	Reset input signal to within the rated range
2	E-2 Solenoid valve failure	Contact customer service for maintenance
3	E-3 Out of range error of zero clear	Error operate, recheck, please operate "zero clear" with in the range of 5%F.S.
4	E-4 Air line failure	Please check if first pressure is supplied and if EXH side and pilot exhaust are blocked.

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Ordering guide



Abstract EPV series regulator applies signal feedback control system via MEMS pressure sensor, marking output pressure synchronous changed accurately with input signal.

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