Specification

FPV

Item		FPV-P10-1-口	FPV-P30-1-口
		FPV-P10-2-口	FPV-P30-2-口
		FPV-P10-3-口	FPV-P30-3-口
		FPV-P10-4-口	FPV-P30-4-口
Max Inlet		10BARG	35BARG
		Maximum inlet pressure can be customized upon request	
Flow Range @ 5 BARG		FPV-P10-1-口, FPV-P30-1-口: 30SLPM FPV-P10-2-口, FPV-P30-2-口: 300SLPM FPV-P10-3-口, FPV-P30-3-口: 600SLPM FPV-P10-4-口, FPV-P30-4-口: 1800SLPM	
Port Size		FPV-P10-1-口, FPV-P30-1-口: 1/4G″ FPV-P10-2-口, FPV-P30-2-口: 1/4G″ FPV-P10-3-口, FPV-P30-3-口: 3/8G″ FPV-P10-4-口, FPV-P30-4-口: 3/8G″	
Power	Voltage	DC24V±10%	
	Current Consumption	⩽ 24W	
Input Signal	Voltage Type	0-10V	
	Current Type	4-20mA	
	Digital Type	RS485 (Communication Protocol: Modbus)	
Input Impedance	Voltage Type	4kΩ	
	Current Type	250Ω	
Electrical Connection		6-pin M8Aviation connector	
Linearity		±0.25% @ Full Scale (F.S.)	
Hysteresis		±0.25% @ Full Scale (F.S.)	
Repeatability		±0.1% @ Full Scale (F.S.)	
Response Time		0.8 seconds at 10% of full scale travel	
Display Accuracy		±0.3% @ Full Scale (F.S.)	
Compatible Media		Air, Water	
Flow Path Material		NBR、PEEK、Barss、Aluminum、Stainless Steel	
Ambient Temperature		0-60℃	
Fluid Temperature		0-60℃	
Waterproof Rating		IP40	
Weight	Aluminum		

⚠WARNING

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Product Order Code

FPV

FPV					
	Accuracy	±0.25%F.S.	Pressure range	Full-30BARG	
	Port size	FLOW<300L/min=G1/4″ FLOW>300L/min=G3/8″	FLOW range	30L/min @5BARG 300L/min 600L/min 1800L/min	
Example Part Number	FPV	P10		1	V
Reference Example →	①	②		③	④

①Spec Code	②Pressure range	③Flow range	④Input Signal
FPV	P10:10BARG P30:30BARG	1:0-30L/min(@Air Flow) 0-0.5L/min(@Water Flow) 2:0-30L/min(@Air Flow) 0-5L/min(@Water Flow) 3:0-600L/min(@Air Flow) 0-10L/min(@Water Flow) 4:0-1800L/min(@Air Flow) 0-30L/min(@Water Flow)	V:0-10V A:4-20mA D:RS485 (Communication Protocol: Modbus)

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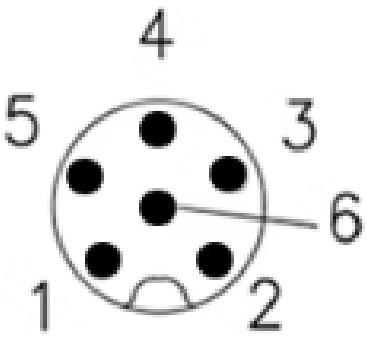
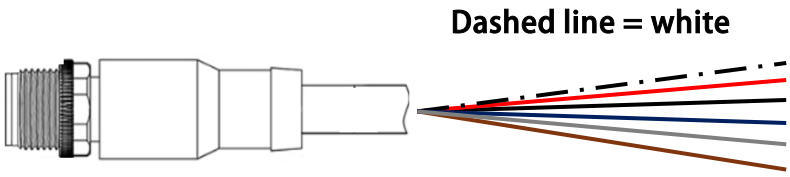
ELECTRICAL CONNECTIONS

FPV

⚠ Proceed to the corresponding section based on the type of valve being installed.
NOTE: All color codes refer to the factory-prewired FPV-XXX power cord.





Connector Number	Cable Color	Function
1	Brown	24V Power(+)
2	Blue	24V Power(-)
3	White	Input Signal(+) Modbus RTU RS485(+)
4	Grey	Input Signal(-) Modbus RTU RS485(-)
5	Black	Error Reset
6	Pink	Error output(-)

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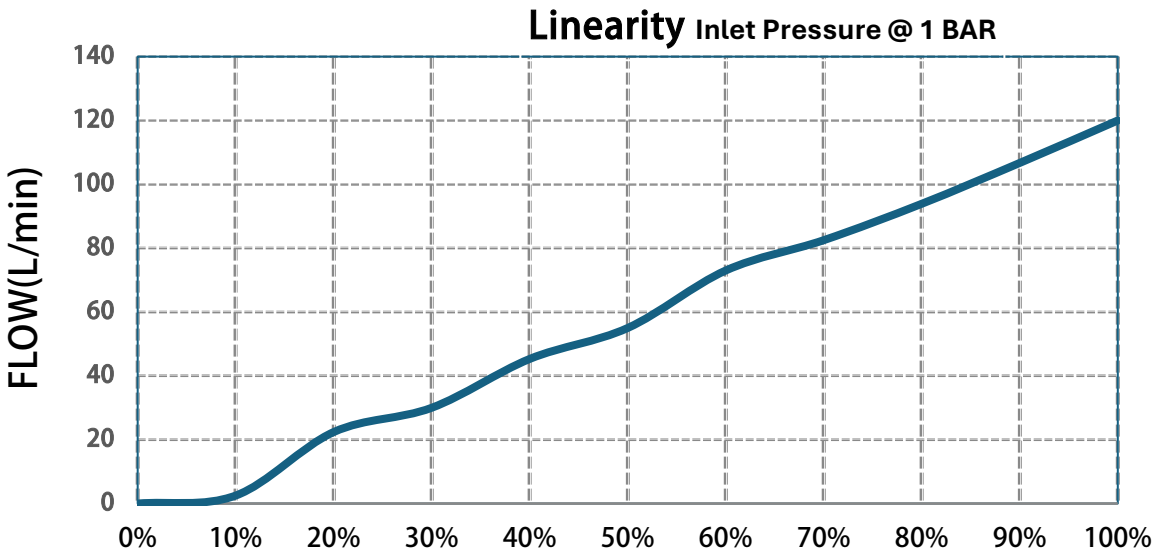
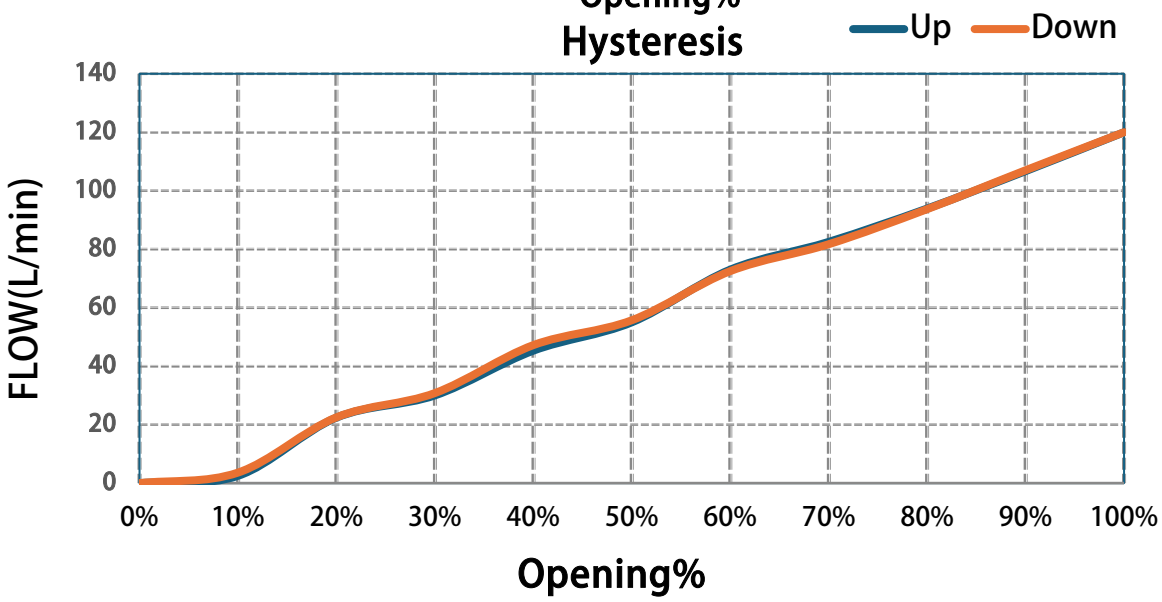
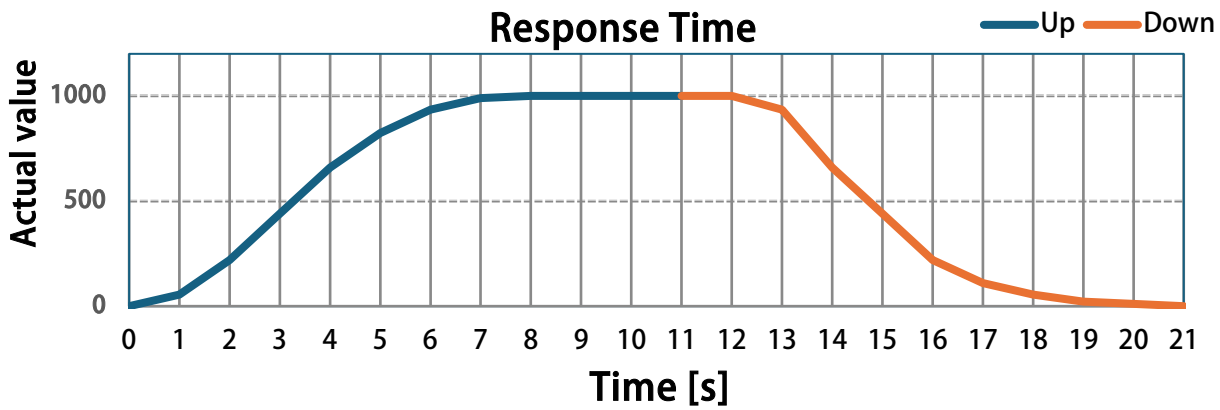
KIYAN®

Characteristic Curve

FPV







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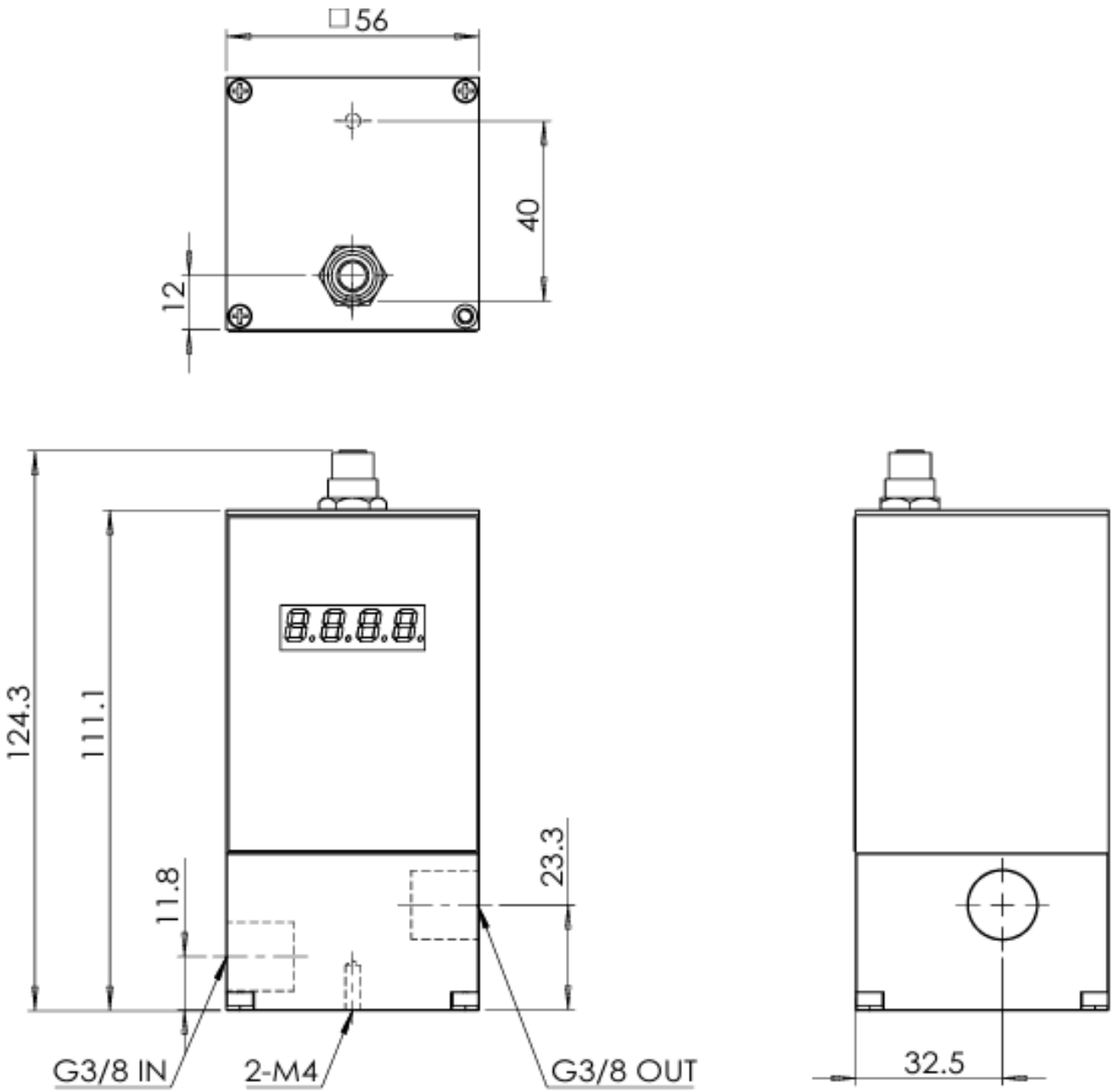
KIYAN®

Overall Dimension

FPV



⚠WARNING

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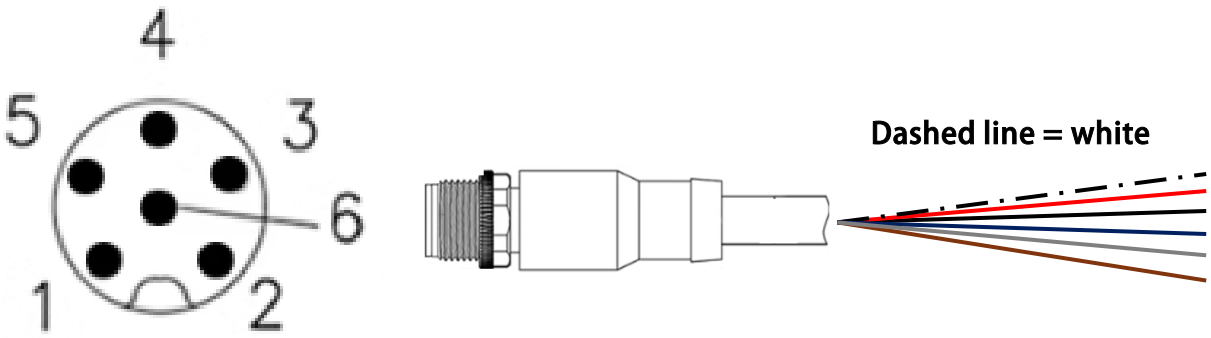
PROPORTINO-CONTROL

ELECTRICAL CONNECTIONS

⚠ **Proceed to the corresponding section based on the type of valve being installed.**
NOTE: All color codes refer to the factory-prewired FPV-XXX power cord.



Connector Number	Cable Color	Function
1	Brown	24V DC Power (+)
2	White	0-10 V Command (+) 4-20 mA Command (+)
3	Blue	GND
4	Black	Monitor output (+)
5	Grey	RS485(TX-)
6	Red	RS485(TX+)

⚠ **WARNING**
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PROPORTINO-CONTROL

Overall Dimension

⚠ WARNING

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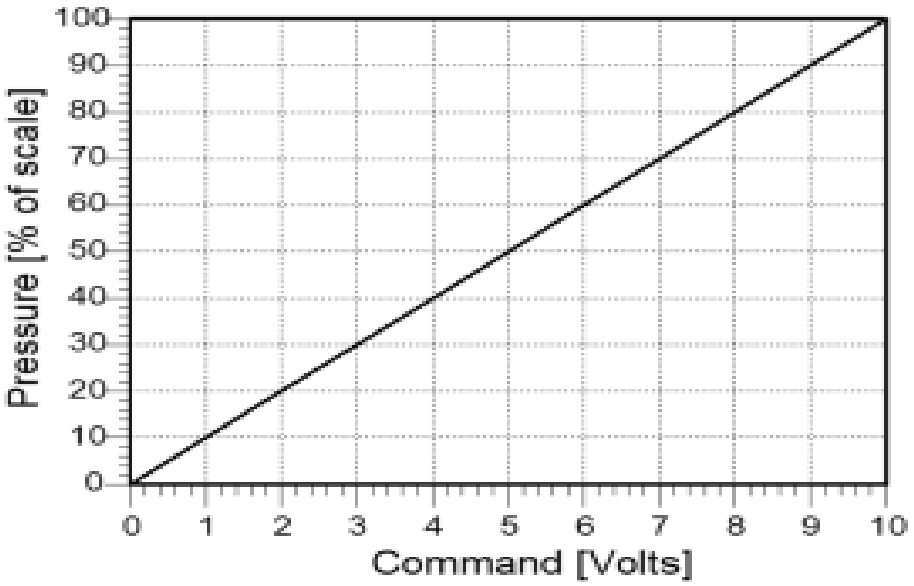
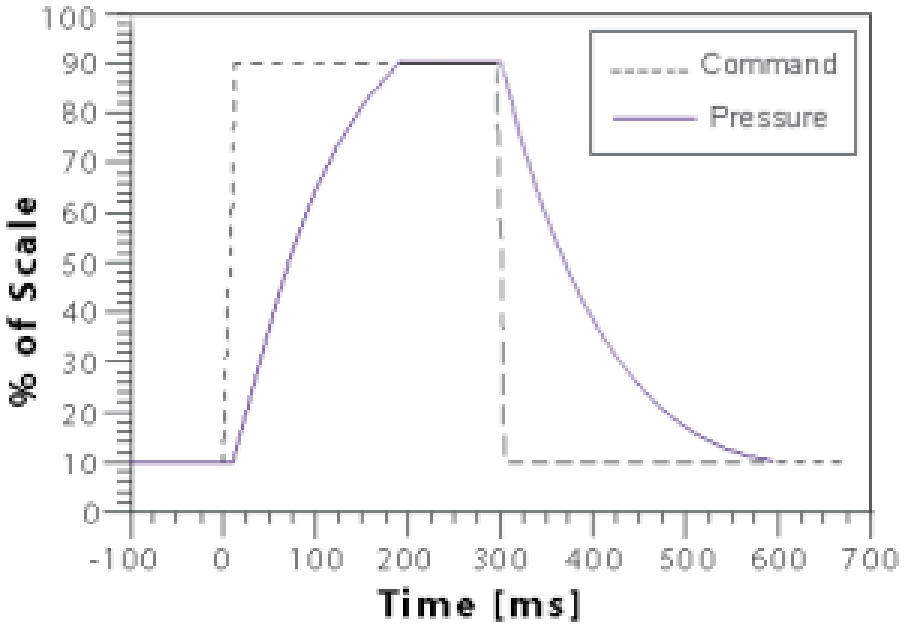
PROPORTINO-CONTROL

CHARTS

Linearity



Response Time



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PROPORTINO-CONTROL

INSTALLATION

1. Apply a small amount of thread sealant (provided) to the male threads of the in-line filter supplied with valve.
   CAUTION: USE ONLY THE THREAD SEALANT PROVIDED. OTHER SEALANTS, SUCH AS PTFE TAPE OR PIPE DOPE, CAN MIGRATE INTO THE FLUID SYSTEM CAUSING FAILURES.
2. Install the in-line filter into the port labeled “I” on VCM valve.
3. For vacuum or vacuum through positive pressure units, the vacuum supply should be connected to the exhaust port of the VCM.
4. Connect supply line to the in-line filter port. Connect device being controlled to port labeled “O” on VCM valve.
5. Mount unit accordingly.
6. The unit can be mounted in any position without affecting performance.
7. Proceed with electrical connections.
8. Compressed air containing large amounts of drainage can cause malfunction of this product and other pneumatic equipment. As a countermeasure, install an aftercooler, air dryer or Drain Catch, etc.
9. If large amounts of carbon dust are generated by the compressor, it can accumulate inside this product and cause malfunction.

WARNING
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PROPORTINO-CONTROL

SAFETY

AFETY PRECAUTIONS Please read the following safety information before installing or operating VCM. equipment or accessories. To confirm safety, observe 'ISO 4414: Pneumatic Fluid Power - General rules relating to systems' and other safety practices.

WARNING

Improper operation could result in serious injury or loss of life!

1. PRODUCT COMPATIBILITY

VCMproducts and accessories are for use in industrial pneumatic applications with compressed air media. The compatibility of the equipment is the responsibility of the end user. Product performance and safety are the responsibility of the person who determined the compatibility of the system. Also, this person is responsible for continuously reviewing the suitability of the products specified for the system, referencing the latest catalog, installation manual, Safety Precautions and all materials related to the product.

2. EMERGENCY SHUTOFF

VCM. products cannot be used as an emergency shutoff. A redundant safety system should be installed in the system to prevent serious injury or loss of life.

3. EXPLOSIVE ATMOSPHERES

Products and equipment should not be used where harmful, corrosive or explosive materials or gases are present. Unless certified, VCM. products cannot be used with flammable gases or in hazardous environments.

4. AIR QUALITY

Clean, dry air is not required for VCM. products. However, a 40 micron particulate filter is recommended to prevent solid contamination from entering the product.

5. TEMPERATURE

Products should be used with a media and ambient environment inside of the specified temperature range of 32°F to 158°F. Consult factory for expanded temperature ranges.

6. OPERATION

Only trained and certified personnel should operate electronic and pneumatic machinery and equipment. Electronics and pneumatics are very dangerous when handled incorrectly. All industry standard safety guidelines should be observed.

7. SERVICE AND MAINTENANCE

Service and maintenance of machinery and equipment should only be handled by trained and experienced operators. Inspection should only be performed after safety has been confirmed. Ensure all supply pressure has been exhausted and residual energy (compressed gas, springs, gravity, etc.) has been released in the entire system prior to removing equipment for service or maintenance.

CAUTION

Improper operation could result in serious injury to people or damage to equipment!

EXEMPTION FROM LIABILITY

1. **PNEUMATIC CONNECTION**
   All pipes, pneumatic hose and tubing should be free of all contamination, debris and chips prior to installation. Flush pipes with compressed air to remove any loose particles.
2. **THREAD SEALANT**
   To prevent product contamination, thread tape is not recommended. Instead, a non-migrating thread sealant is recommended for installation. Apply sealant a couple threads from the end of the pipe thread to prevent contamination.
3. **ELECTRICAL CONNECTION**
   To prevent electronic damage, all electrical specifications should be reviewed and all electrical connections should be verified prior to operation.

EXEMPTION FROM LIABILITY

1. VCM. is exempted from any damages resulting from any operations not contained within the catalogs and/or instruction manuals and operations outside the range of its product specifications.
2. VCM. is exempted from any damage or loss whatsoever caused by malfunctions of its products when combined with other devices or software.
3. VCM. and its employees shall be exempted from any damage or loss resulting from earthquakes, fire, third person actions, accidents, intentional or unintentional operator error, product misapplication or irregular operating conditions.
4. VCM. and its employees shall be exempted from any damage or loss, either direct or indirect, including consequential damage or loss, claims, proceedings, demands, costs, expenses, judgments, awards, loss of profits or loss of chance and any other liability whatsoever including legal expenses and costs, which may be suffered or incurred, whether in tort (including negligence), contract, breach of statutory duty, equity or otherwise.

WARRANTY

VCM. products are warranted to the original purchaser only against defects in material or workmanship for eighteen (18) months from the date of manufacture. The extent VCM liability under this warranty is limited to repair or replacement of the defective unit at VCM option. VCM shall have no liability under this warranty where improper installation or filtration occurred.

⚠ WARNING

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KIYAN

Specification

FPV

Specifications

Supply voltage	24 VDC
Supply current	600mA
Input Signal	0-10 VDC | 4-20 mA Digital Signal
Command signal impedance	Voltage:10 kΩ Current: 100 Ω

Mechanical

Maximum Inlet Pressure	507.5PSIG
Peak flow rate	30L/min @72.5PSIG 300L/min 600L/min 1800L/min
Minimum Filtration	40um
Accuracy	±0.25% F.S.
Hysteresis	±0.25% F.S.
Repeatability	±0.1% F.S.
Response Time	8S
Port size	FLOW<300L/min =G1/4″ FLOW>300L/min=G 3/8″

Internal Parts

Wetted Parts	NBR、Aluminum、Stainless steel、Brass、Peek

Material

Operating temperature	0-60℃
Protection rating	IP40
Weight	Aluminum
Electrical connector	6-pin M8Aviation connector

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Ordering Code

FPV

FPV	Accuracy	±0.25%F.S.	Pressure range	Full-435PSIG	
	Port size	FLOW<300L/min=G1/4″ FLOW>300L/min=G3/8″	FLOW range	0-30L/min @72.5PSI 0-300L/min 0-600L/min 0-1800L/min	
Example Part Number	FPV	1		2	3
Reference Example →		1		2	3

1	Input Signal
1	0-10V
2	4-20mA
3	Digital Signal

2	Pressure range
1	0-145PSIG
2	0-435PSIG

3	Flow range@43.5PSIG
1	0-30L/min(@Air Flow) 0-0.5L/min(@Water Flow)
2	0-30L/min(@Air Flow) 0-5L/min(@Water Flow)
3	0-600L/min(@Air Flow) 0-10L/min(@Water Flow)
4	0-1800L/min(@Air Flow) 0-30L/min(@Water Flow)

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