

# RESOLUTION AIR

LTD

Miniature Proportional Pinch Valve  
HPPV-EN Series

## Precision Flow Control Pinch Valve

Providing Sanitary Fluid Separation & Flow Metering

### Applications Include

- Biopharmaceutical Manufacturing
- Biochemical/Bioprocess Engineering
- Bioreactors
- Dosage systems
- Medical devices
- Lab Analysis



**Resolution Air, Ltd.** announces the release of their IP66 rated Hybrid Proportional Pinch Valve Series. The HPPV-EN series combines the benefits of pinch valve fluid separation and proportional valve control for sanitary processes already available in the patented HPPV-series with protection against dust and water jet ingress. With the addition of the IP66 rated enclosure, barriers associated with environmental conditions are eliminated launching the HPPV-EN into systems and applications not previously obtainable. In addition, the HPPV-EN incorporates robust M12A 8 pin connector technology streamlining installation and wiring. As well as providing fluid metering, the HPPV- series and HPPV-EN series generate 12x (50 lbs.) the pinch force of a typical solenoid pinch valve. This is a tremendous benefit in systems requiring higher system pressures and larger tube diameters (1/4" O.D. - 0.750" O.D.). The newly developed HPPV-EN series has been engineered to meet the needs of the most challenging precision flow metering applications in industries such as biopharmaceutical and biochemical manufacturing.

### Hybrid Proportional Pinch Valve Advantages

- IP66 Rated
- M12A 8 Pin connector plug
- Automated control
- No physical contact with process fluid
- High resolution flow control
- High repeatability
- Low power consumption
- 12x pinch force (50 lb.) of solenoid pinch valve
- Home sensor indicates full open position
- High system pressures
- Tube size range: 1/4" O.D. - 0.750" O.D.

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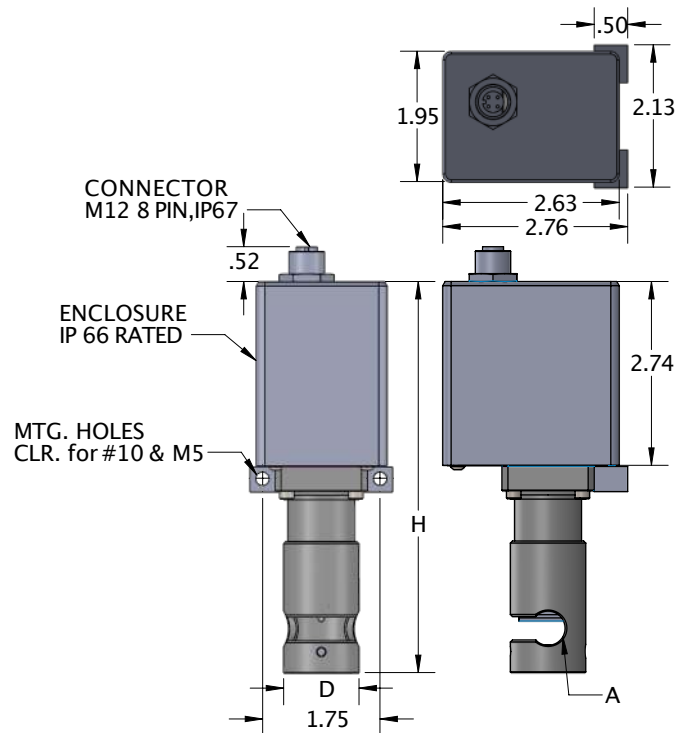
Valve Model	A Tube Size (O.D.)	H Overall Valve Height	D Overall Valve Diameter	*Travel Rate
HPPV-4-EN	.250"	5.325"	0.937"	0.52 sec.
HPPV-6-EN	.375"	5.468"	0.937"	0.78 sec.
HPPV-8-EN	.500"	5.826"	1.125"	0.89 sec.
HPPV-12-EN	.750"	6.429"	1.5"	1.3 sec.

\*Full open to full closed @1000 steps/sec.

## Cable Technical Data



Part Number	Cable-EN-R-1M	Cable-EN-S-1M
No. Conductors	8	8
Conductor Type	24 (19/36) AWG Bare Copper	24 (19/36) AWG Bare Copper
Wire Insulation Colors	1=white, 2=brown, 3=green, 4=yellow, 5= grey, 6=pink, 7=blue, 8=red	1=white, 2=brown, 3=green, 4=yellow, 5= grey, 6=pink, 7=blue, 8=red
Shield	85% Tinned Copper Braid	85% Tinned Copper Braid
Cord Configuration		
End 1	M12-A Female, <b>90 Degree</b>	M12-A Female, <b>Straight</b>
End 2	Cut End	Cut End
Contact Material	Copper Alloy, Gold plated	Copper Alloy, Gold plated
O-Ring	FKM	FKM
Standard Length	1 Meter (39.37")	1 Meter (39.37")
Available Lengths	0.6, 1, 3, 5 Meters	0.6, 1, 3, 5 Meters
Environmental Compliance	CE, IP 67, REACH Regulation (EC 1907/2006)	CE, IP 67, REACH Regulation (EC 1907/2006)
Temperature Range	-25° to 60° C	-25° to 60° C
Bend Radius	5X Cable Diameter (static), 10X Cable Diameter (dynamic)	5X Cable Diameter (static), 10X Cable Diameter (dynamic)
Current Rating	1.1 Amps @ 50° C	1.1 Amps @ 50° C



## Performance Characteristics

Standard Tube Sizes (O.D.)	1/4", 3/8", 1/2", 3/4"	Electrical Connection	M12 8 PIN IP 67 Connector
Recommended Tubing Durometer	50-80 Shore A	Driver Requirements	Bi-Polar Chopper Drive
Max. Temp.	180° F	Home Switch	10 kOhm Pull-Up Resistor Installed
Motor Type	Bi-Polar Stepper Motor	Home Switch Supply Voltage	3.8-24 VDC
Position Resolution	.00048"/step	Max. Pinch Force	50 lbs. @100 steps/sec.
Power Consumption	5.7 Watts	Certifications	RoHS, CE, IP66
Motor Supply Voltage	24-40 VDC Unregulated Power Supply		