

RESOLUTION AIR

LTD

Miniature Proportional Pinch Valve
MPPV-EN Series

Precision Flow Control Pinch Valve Providing Sanitary Fluid Separation & Flow Metering

Applications Include

- Chemical Mixing / Dispensing
- Dosage Systems
- Clinical or Chemical Analysis
- Vending Machines
- Blood Handling/Analysis
- Lab Analysis



Resolution Air, Ltd. announces the release of their IP65 rated Miniature Proportional Pinch Valve Series. The MPPV-EN series combines the benefits of pinch valve fluid separation and proportional valve control for sanitary processes already available in the patented MPPV-series with protection against dust and water jet ingress. With the addition of the IP65 rated enclosure, barriers associated with environmental conditions are eliminated launching the MPPV-EN into systems and applications not previously obtainable. In addition, the MPPV-EN incorporates robust M12 connector technology streamlining installation and wiring. As well as providing fluid metering, the MPPV- series and MPPV-EN series generate 5x (15 lbs.) the pinch force of a typical solenoid pinch valve. This is a tremendous benefit in systems utilizing higher pressures and larger tube diameters (1/8" O.D. -0.500" O.D.). The newly developed MPPV-EN series has been engineered to meet the needs of the most challenging precision flow metering applications in industries such as bio-chemical, food and beverage, and medical devices.

Miniature Proportional Pinch Valve Advantages

- IP65 Rated
- Automated control
- No physical contact with process fluid
- High resolution flow control
- Maintains position with power loss
- High repeatability
- Low power consumption
- Light weight, low profile design
- 5x pinch force (15 lb.) of solenoid pinch valve
- Home switch indicates full open position



Miniature Proportional Pinch Valve MPPV-EN Series

MPPV-2-EN

Tube Size O.D. 0.125"
 Travel Rate* 0.5 sec.
 Weight 0.372 lb.
 Valve Dim. 0.875 O.D. x 2.921"L

MPPV-4-EN

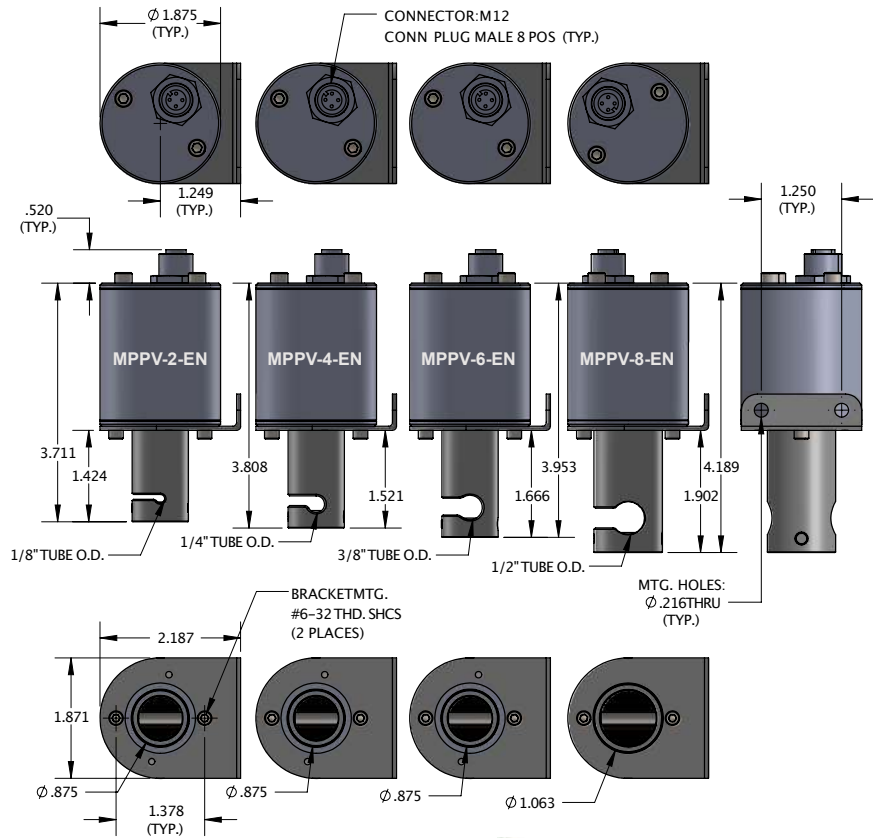
Tube Size O.D. 0.250"
 Travel Rate* 1 sec.
 Weight 0.372 lb.
 Valve Dim. 0.875 O.D. x 3.018"L

MPPV-6-EN

Tube Size O.D. 0.375"
 Travel Rate* 1.5 sec.
 Weight 0.374 lb.
 Valve Dim. 0.875 O.D. x 3.163"L

MPPV-8-EN

Tube Size O.D. 0.500"
 Travel Rate* 2 sec.
 Weight 0.402 lb.
 Valve Dim. 0.875 O.D. x 3.424"L



Performance Characteristics

Standard Tube Sizes (O.D.)	1/8", 1/4", 3/8", 1/2"
Recommended Tubing Durometer	50-60 Shore A
Max. Temp.	180° F
Motor Type	Bi-Polar Stepper Motor
Position Resolution	.0005"/step
Power Consumption	3.85 Watts
Home Switch Supply Voltage	3.8-24 VDC
Motor Supply Voltage	24-40 VDC Unregulated Power Supply
Electrical Connection	12" Wiring Harness (included)
Driver Requirements	Bi-Polar Chopper Drive
Home Switch	Hall Effect- Full Open Position
Max. Current/Phase	385 mA
Max. Pinch Force	16.25 lbs. @100 steps/sec.
Certifications	RoHS, CE, IP65

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, 90 Degree	M12-A Female, Straight
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, REACH Regulation (EC 1907/2006)	CE, 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