

# 760 P/E Series

## Pneumatic & Electropneumatic Valve Positioners

The Marwin **760 Series** provides a cost effective, universal approach to your valve control. Their modular concept allows all models to be built on the base pneumatic unit (760P). The electro-pneumatic model (760E) is created by adapting an I/P Transducer to the base, and a wide range of accessories is easily installed inside the unit.

The 760 base pneumatic unit provides cam characterization, split ranging, direct or reverse action, and single or double acting without requiring additional parts. Key design features include non-interaction of the zero and span adjustments.

Series 760 Valve Positioners include provisions for internal limit switch mounting and position feedback devices without requiring additional housings. Thus, the need to stack housings that impede access to the main enclosure are eliminated.

A spool valve is used to load the actuator for positioning in response to an input signal. A characterized cam provides mechanical feedback. There are linear, equal percentage and quick opening operation cam profiles, and a blank profile cam is available for custom applications.

No additional parts are necessary to change between single or double acting actuators or direct or reverse action.



### Features & Benefits

- ▶ VDI/VDE 3845 rotary mounting for easy installation.
- ▶ Double acting or single-acting service and split ranging afford application versatility in a single unit
- ▶ NACE MR-01-75 compliant material ensures operation in harsh industrial environments
- ▶ Non-interaction of the zero and span adjustments and positive cam locking mechanism significantly reduce the calibration and setup
- ▶ Modular design reduces inventory because it allows interchangeable spare parts
- ▶ Comes standard with 3 cams, linear, quick opening and equal percentage for application versatility.



**Marwin Valve, a division of Richards Industries**  
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# Marwin Valve

## 760 Series Features & Benefits

### Specifications

#### Functional Specifications

##### Temperature Range

###### 760P

- -40°F to +185°F (-40°C to 85°C)
- Optional: -20°F to +300°F (-29°C to +148°C)

###### 760E

- -40°F to +167°F (-40°C to +75°C)

##### Ingress

- NEMA 4X IP 65

##### Connections

- Pneumatic – 1/4" NPT
- Gauge – 1/8" NPT
- Electrical – 3/4" NPT, 25 mm
- Exhaust – 1/4" NPT

##### Finish

- Epoxy/Polyester Powder Coat

##### Output Configuration

- Single or Double Acting

##### Action

- Direct or Reverse

##### Supply Pressure

- 150 psig max.

##### Air Consumption

- Standard Spool = 0.5 scfm
- Low Gain Spool = 0.5 scfm
- High Flow Capacity Spool = 1.0 scfm (typical)

##### Flow Capacity (at 60 psi with 25% drop)

- 9.0 scfm (Cv = 0.3) Standard
- 20.0 scfm (Cv = 0.6) Optional

##### Input Signal

- 760P: 3-15 psig, 3-27 psig, 50% split range
- 760E: 4-20 mA @ 40 VDC max. (resistance 260 ohms, reactance 260 ohms), 50% split range

##### Mechanical Feedback

- 90°, rotary standard

##### Characterization

- Equal Percentage, Quick Opening, Linear

##### Pressure Gain

- 160:1 @ 60 psig standard

##### Span

- Adjustable -60% to +25% of normal span

##### Zero

- Adjustable -10% to +60% of normal span

#### Performance Specifications

##### Linearity (Independent)

- 760P: 0.5% of normal span (typical)
- 760E: 0.75% of normal span (typical)

##### Hysteresis

- 760P: 0.75% of normal span (typical)
- 760E: 1.0% of normal span (typical)

##### Deadband

- Less than or equal to 0.25% of span

##### Repeatability

- Within 0.5% of span

##### Supply Pressure Effect

- Less than 0.2% of span for a 5 psi change in supply pressure

#### Hazardous Area Class Approval & Certifications

##### *FM Approvals:*

###### Intrinsically Safe:

- Class I, Division 1, Groups A, B, C, D
- Class II, Division 1, Groups E, F, G
- Class III, Division 1

###### Non-incendive:

- Class I, Division 2, Groups A, B, C, D

###### Suitable for:

- Class II, Division 2, Groups F, G
- Class III, Division 2

##### *CSA Certification*

###### Intrinsically Safe:

- Class I, Division 1, Groups A, B, C, D
- Class II, Division 1, Groups E, F, G
- Class III, Division 1

###### Suitable for:

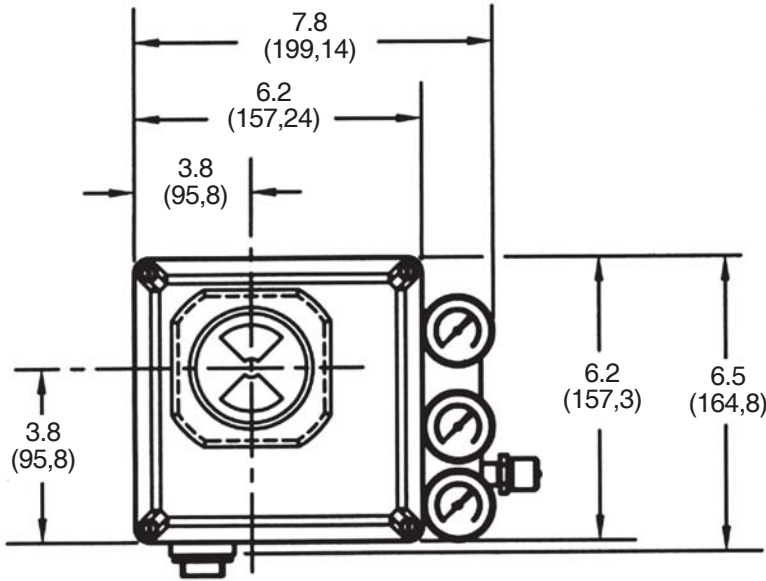
- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups E, F, G
- Class III, Division 2

###### Enclosure:

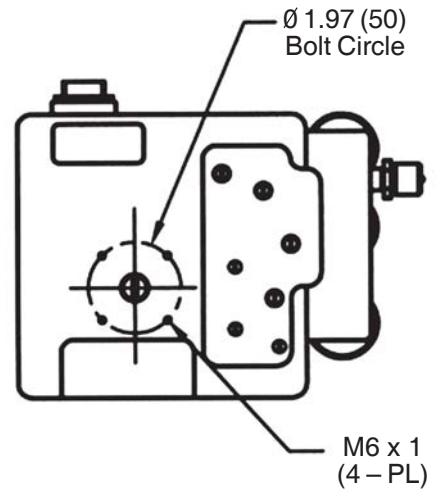
- Type 4X per NEMA standard 250
- Type IP65 per IEC standard 529

# Marwin Valve 760 Series Dimensions

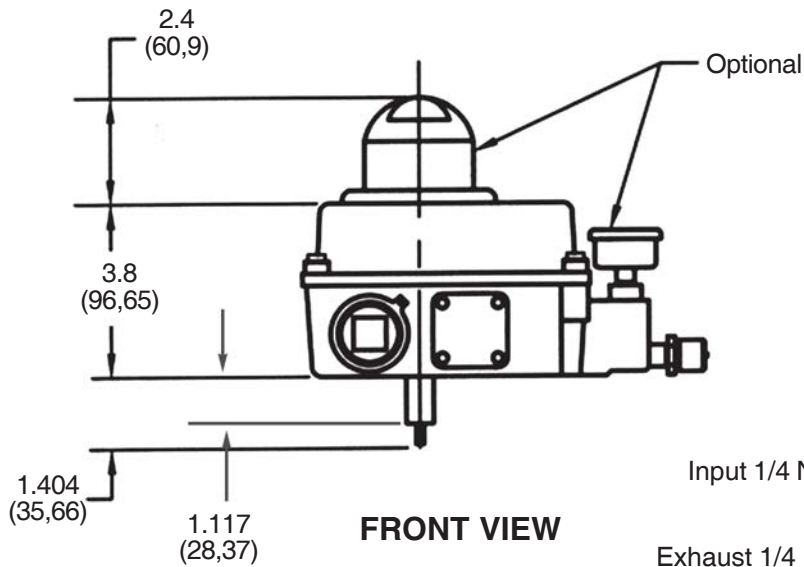
## 760 Series Dimensions – inch (millimeter)



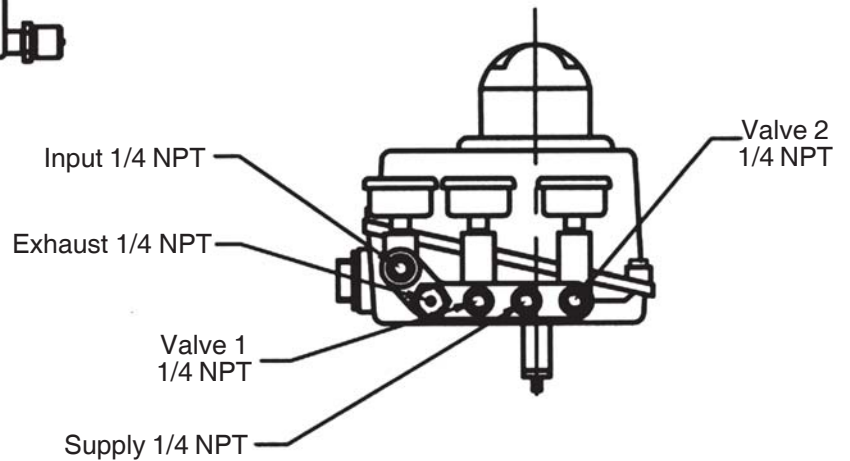
**TOP VIEW**



**BOTTOM VIEW**



**FRONT VIEW**



**RIGHT VIEW**

Weight 5.4 lbs (2,4 kg)

Art0747

**760 Series Ordering Schematic**

Series	Cam	Flow	Gauges	Position Indicator
760E	2	A	N	A

Series	
760E	Electropneumatic
760P	Pneumatic

Gauges	
N	Standard (no gauges)
G	3 gauges

Cam	
2	Linear (Standard)
4	Equal Percentage
6	Quick Opening

Position Indicator	
A	Standard (no indicator)
B	Beacon Indicator
K	Flat Indicator

Flow	
A	Standard Cv = 0.3 (use for UT-0 – 4)
B	Cv = 0.6 (use for UT-5 – 7)



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