

Features

- Valve positioners for rotary air actuators
- Highly precise Linearity/ Hysteresis/Sensitivity +/- 0.5 % / +/-0.3% / +/-0.3% FS
- Multi-function LCD display including Target/input valve, Limit Switch status, control status
- Auto-sensing rotation (clockwise or counter-clockwise)
- Direct drive output shaft—no linkages
- IP66 Weatherproof aluminum enclosure with anti-corrosion protection
- Universal Namur mounting bracket included
- Doubles as a limit switch with dome indicator and two limit switches to confirm valve position (529861 model)
- Installed, calibrated and tested when ordered as part of a Valworx assembly

Applications

Digital smart positioners are used with rotary air actuators to accurately position control valves used in throttling applications. Valworx positioners offer fast and accurate control of ball valves, butterfly valves and other type valves. Suitable for use with Valworx double acting or spring return air actuated valves, as well as most other brands utilizing the standard Namur mount.

Operation

Digital smart positioners convert a 4-20mA signal to a proportional pneumatic output. This output is fed to an air actuator which in turn controls the valve position and flow (combined with mechanical position feedback). Fast and accurate response times from input change to valve movement. Auto-calibration feature for easy set up. Positioner can be setup to rotate output shaft clockwise or counter-clockwise 90 degrees. Easily convertible from spring return to double acting or vice versa.

Construction

Type	Electro-Pneumatic	Air Connections	1/4" NPT
Rotation	0-90°	Electrical Connection	1/2" NPT Conduit
Load Voltage	6.8 V	Linearity	+/- 0.5% F.S.
Input Signal	4-20mA DC (min. 3.6mA/ max. 50mA)	Hysteresis	+/- 0.3% F.S.
Output Signal	4-20mA @12-30VDC supply voltage	Sensitivity	+/- 0.3% F.S.
Impedance	340 +/-15 ohms	Repeatability	+/- 0.2% F.S.
Flow Capacity	8.8 SCFM @ 20 PSI	Performance Characteristic	Linear, Shape (EQ%, Quick), User Set
Air Consumption	0.9 SCFM @ 20 PSI	Enclosure	Aluminum die-cast + Epoxy painted
Vibration	2G, 5 to 400 Hz	Enclosure Rating	IP66 weatherproof, General Purpose
Humidity	Dew point- 18°F or 10°C lower temperature of device	Limit Switch (*529861 Only)	2x SPDT max 5A @ 220 VAC
		Weight	5.5 lbs



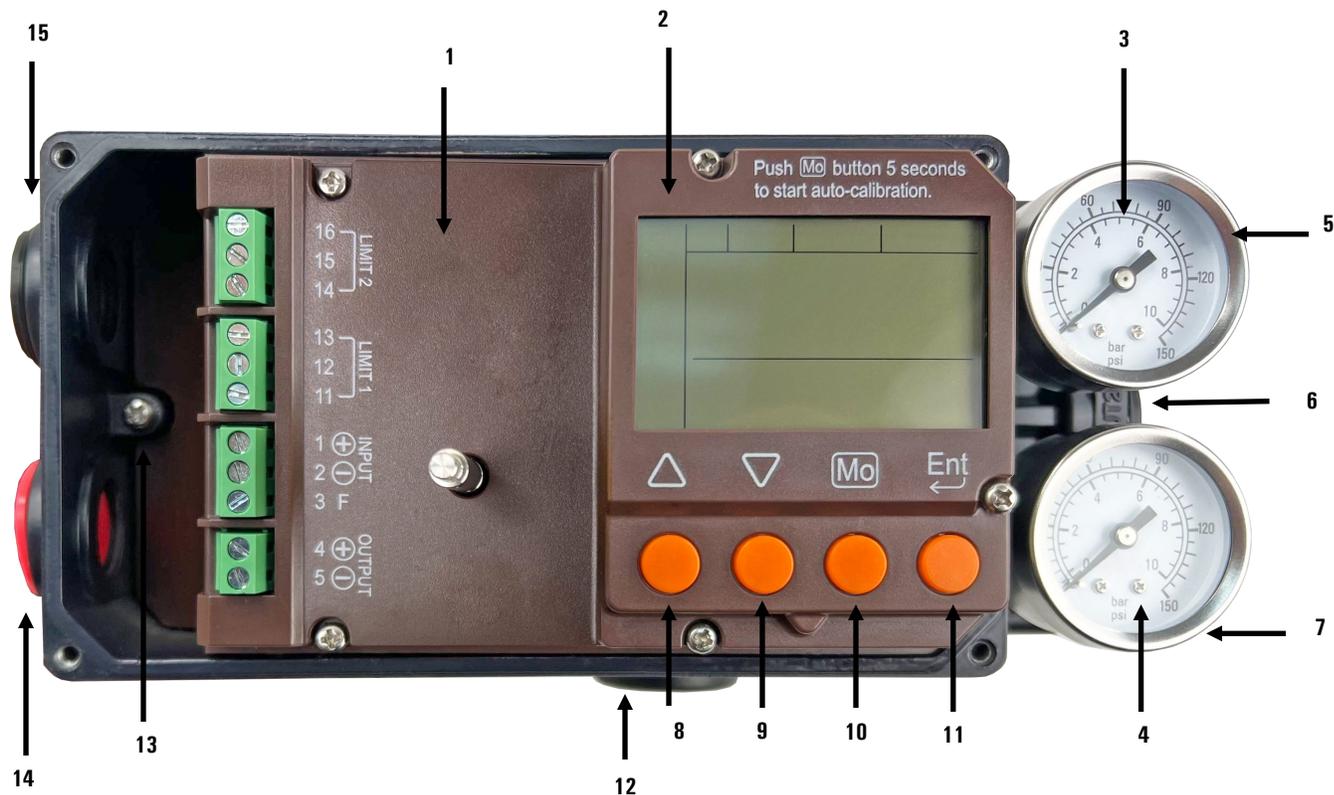
Description

Rugged aluminum die cast housing has superior anti-corrosion surface treatment and an easy read visual valve position indicator. These positioners direct mount to rotary type air actuators with the standard VDI / VDE-3845 Namur style top shaft mounting. Universal Namur stainless steel mounting bracket kit is included with each positioner. 529860 is the base model. 529861 includes a visual indicator and two limit switches.

Approvals

CE Conformance- EMC 2014/30/EU
IEC 61508:2010 Parts 1 and 2
Safety Integrity Level (SIL) 2 Capable with HFT=0
Safety Integrity Level (SIL) 3 Capable with HFT=1

Specifications



1	PCB Cover	7	Supply Port	13	Ground
2	LCD Display	8	UP Button	14	Cable Gland
3	OUT 1 Gauge	9	DOWN Button	15	Bland Plug
4	OUT 2 Gauge	10	Mode Button		
5	OUT 1 Port	11	Enter Button		
6	OUT 2 Port	12	Air Vent		

Pressure Rating

Supply Pressure Rating: 20-100 PSI (1.4 to 7 bar)

Temperature Range

Ambient Temperature— 22 to 176°F (-30 to 80°C)

Operating Temperature— -4 to 176°F (-20 to 80°C)

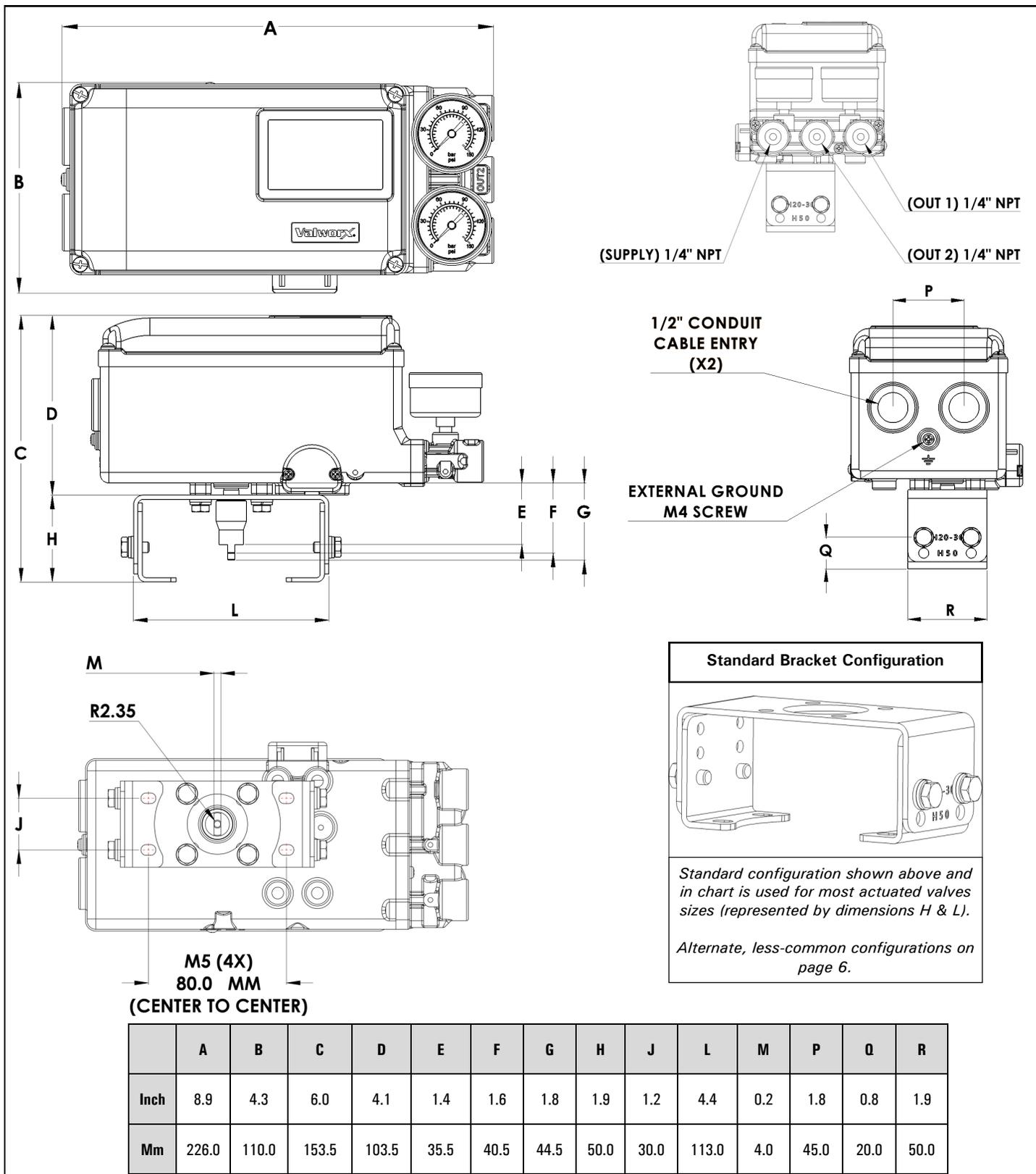
Humidity— the dew point should be at least 18°F or 10°C lower than the temperature of this device.

Specifications

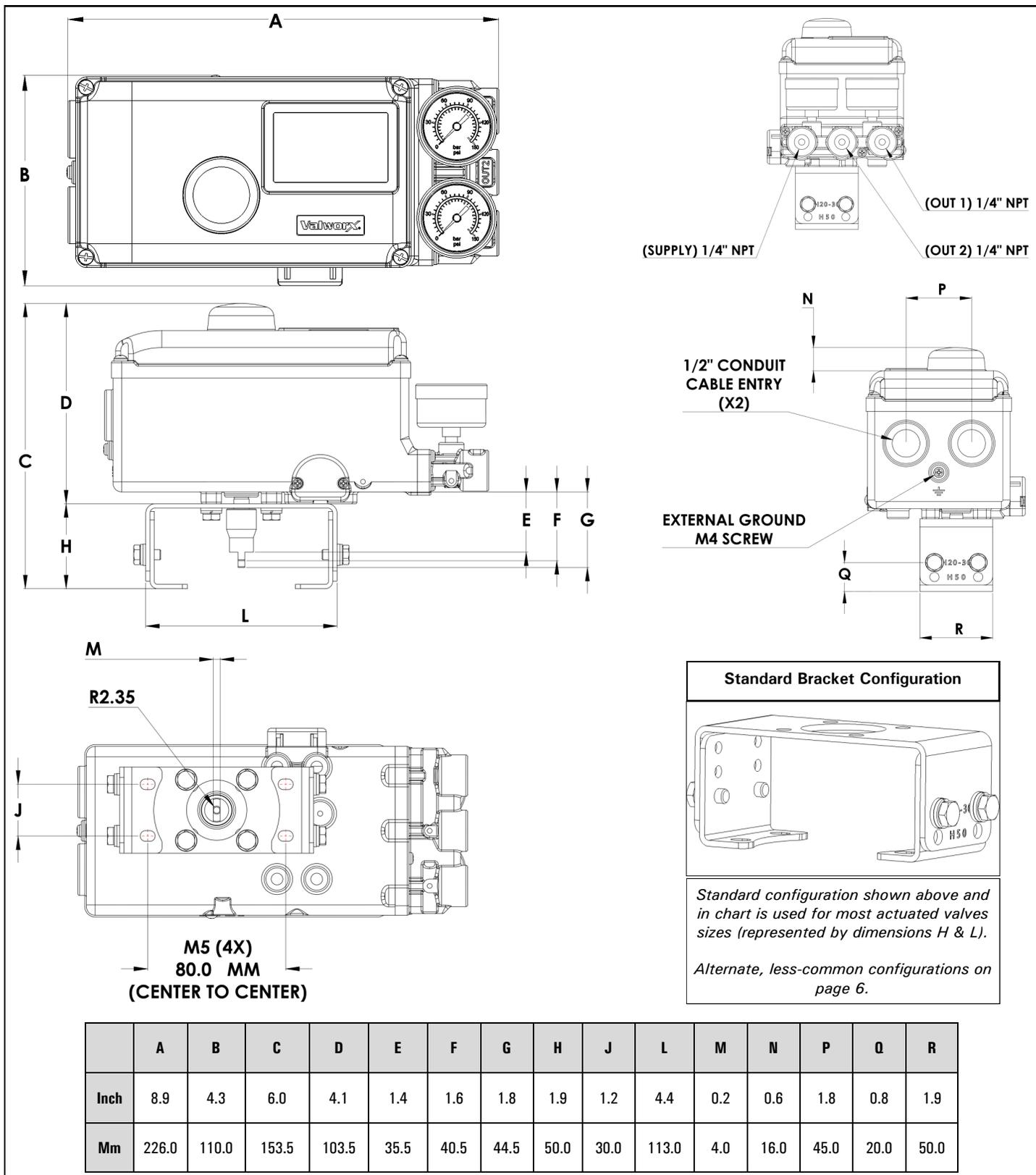


1	Display Status	6	Set Friction Mode
2	HART Communication— (not available)	7	NE 107 Alarm
3	Control Status	8	PV & Temperature Display
4	Quick/User Set Mode	9	SV & Parameter Display
5	Sensitivity: Low or High	10	Main Menu

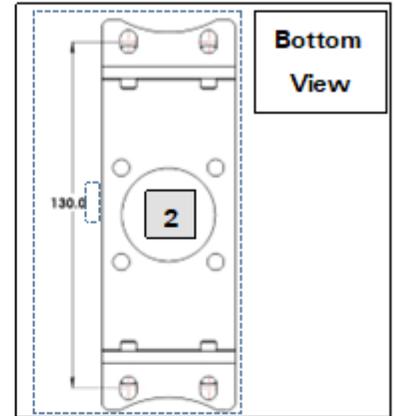
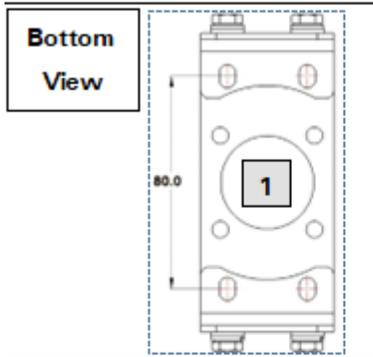
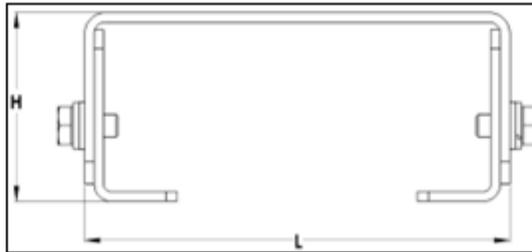
Smart Positioner Dimensions: 529860



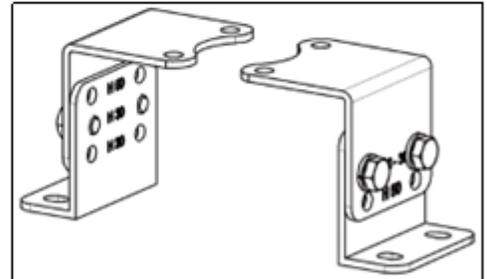
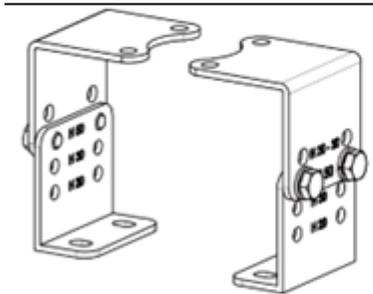
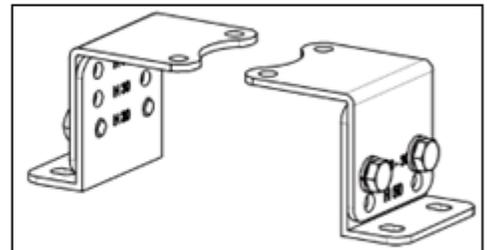
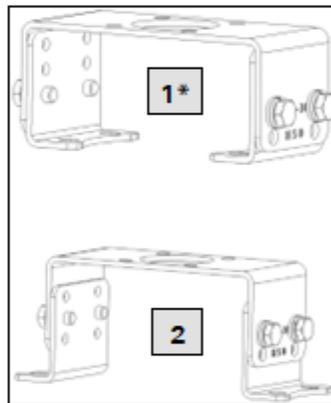
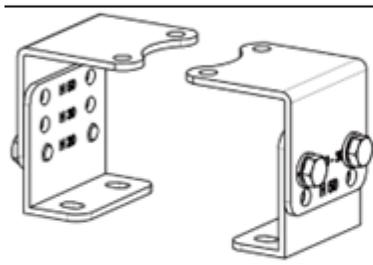
Smart Positioner Dimensions: 529861



Alternate Configurations

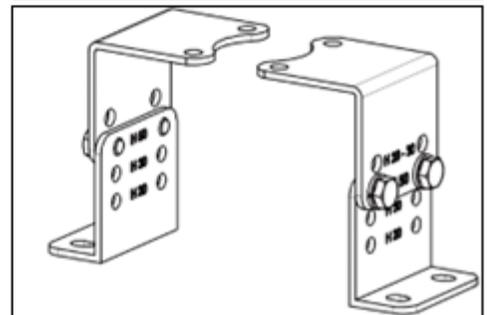


Bracket Configurations



1* is the standard bracket configuration used for most actuator sizes (see previous page for dimensions).

Alternate, less-common configurations are shown on page (add "H" to overall height of positioner install).



CONFIGURATION	H (in/mm)	L (in/mm)
1	2.4/60.0	4.4/113.0
1	2.8/70.0	4.4/113.0
1	3.1/80.0	4.4/113.0
2	1.9/50.0	5.1/130.0
2	2.4/60.0	5.1/130.0
2	2.8/70.0	5.1/130.0
2	3.1/80.0	5.1/130.0