

**SERIES 5A AND 5B**

# **VALVE STATUS MONITOR**

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**INTRODUCTION**

The Bray Series 5A and 5B Valve Status Monitors (VSM) provide visual and electrical indication of position on any VDI/VDE 3845 compliant quarter-turn device. Our solutions enable end users to better monitor their process no matter the conditions.

**FEATURES**

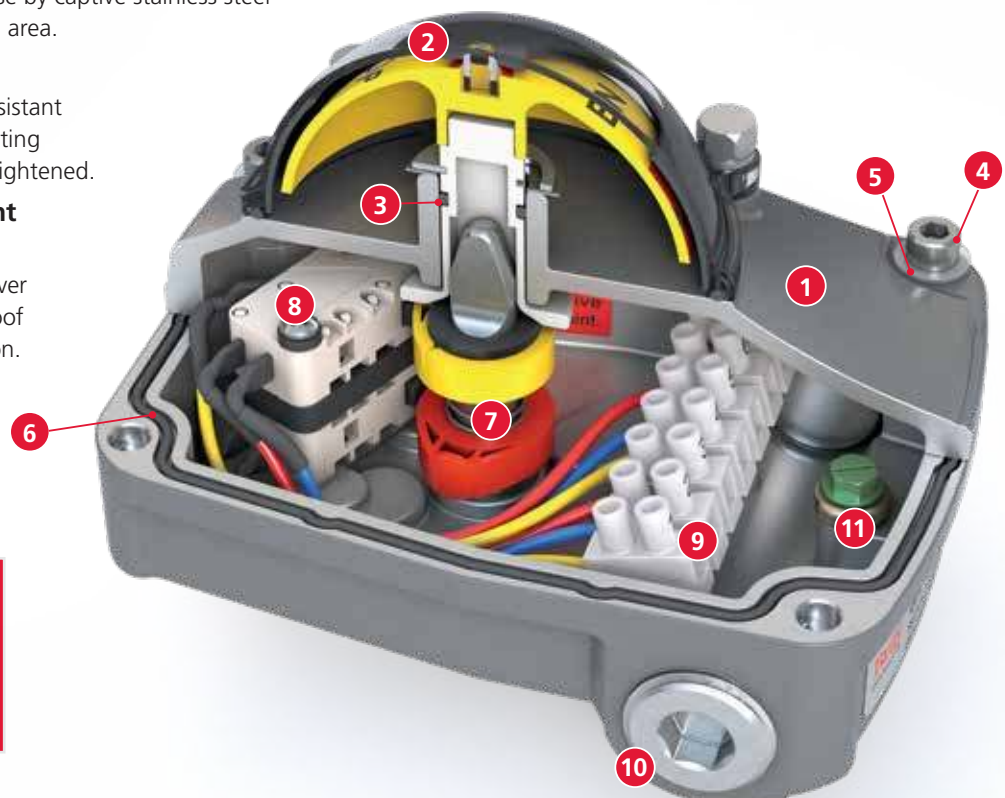
- 1 Enclosure**  
The compact low profile weatherproof VSM is UL certified NEMA Type 4, 4x and IP66/67. A die-cast aluminum cover and base coated with a polyester powder coat for exceptional corrosion, wear, impact and ultraviolet resistance.
- 2 High Visibility Position Indicator**  
Visual open and closed indication is provided with an impact resistant dome style indicator. Inverting the open and closed visual output is easily done by removing the dome and rotating it 90 degrees. There is no need to remove the cover and expose internal wiring of the VSM to change position indication.
- 3 Stub Shaft Secondary Seal**  
Ensures indicator area is separate from the VSM's internals. Provides a secondary seal to prevent water ingress should the dome or dome seal become compromised due to adverse site conditions.
- 4 Captive Cover Bolts**  
The cover is attached to the base by captive stainless steel bolts placed outside the sealing area.
- 5 Protective Washers**  
Clear, nonmetallic, corrosion resistant washers are used to ensure coating integrity when cover bolts are tightened.
- 6 O-Ring Seal For Watertight Enclosure**  
The O-ring seal between the cover and base provides a weatherproof seal preventing internal corrosion.

**CERTIFICATIONS**

- IP66/67
- NEMA Type 4X
- cULus
- CE
- UL50E Salt Spray



- 7 Sensor Cams**  
Splined cam design allows for easy and accurate setting of switch activation without the use of tools.
- 8 Limit Switches**  
Multiple switch options and configurations to meet connectivity requirements.
- 9 Terminals**  
Clearly marked terminal blocks are angled towards the user to ensure easy access.
- 10 Conduit Entries**  
Two conduit entries available in either imperial or metric threads.
- 11 Grounding**  
Green color-coded, easy-access grounding bolt.



**SERIES 5A**

- Single terminal strip
- Low weight
- Compact housing

**High Visibility, Shatter Resistant Dome**

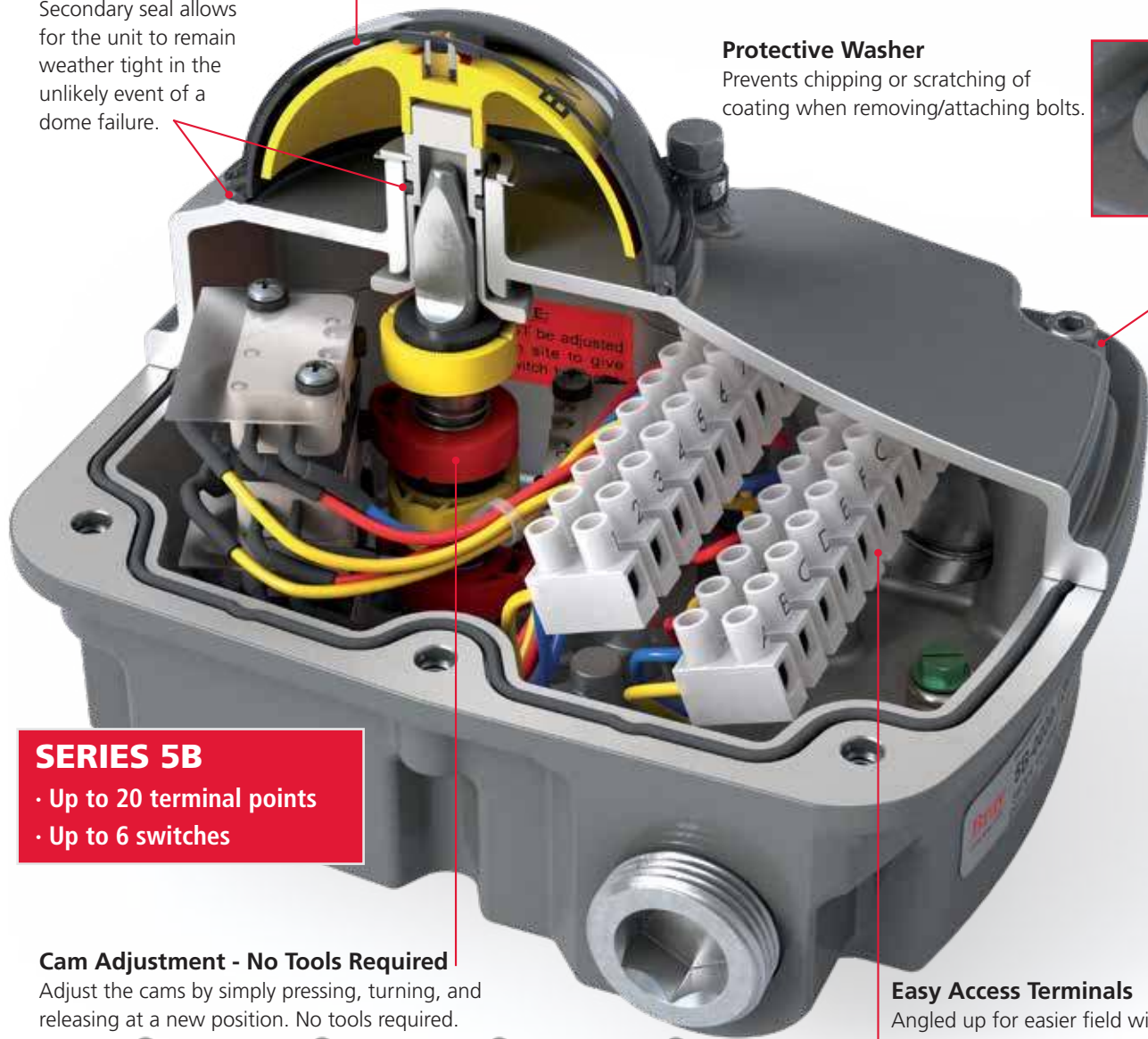


**Double Seal**

Secondary seal allows for the unit to remain weather tight in the unlikely event of a dome failure.

**Protective Washer**

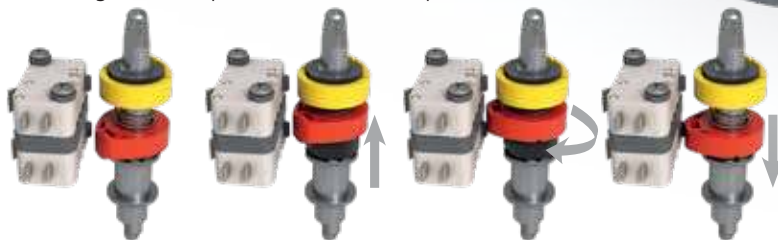
Prevents chipping or scratching of coating when removing/attaching bolts.



**SERIES 5B**  
 · Up to 20 terminal points  
 · Up to 6 switches

**Cam Adjustment - No Tools Required**

Adjust the cams by simply pressing, turning, and releasing at a new position. No tools required.



**Easy Access Terminals**

Angled up for easier field wiring.



## FLEXIBLE MOUNTING OPTIONS

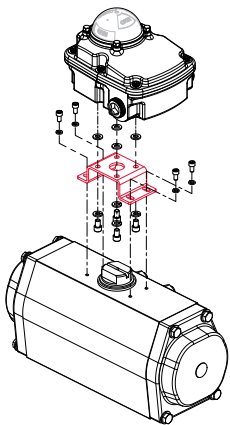
Users have the ability to mount the VSMs in both perpendicular and parallel orientations without changing brackets. The visual indication can also be inverted without removing the cover. This is done by rotating the indicator dome 90 degrees.



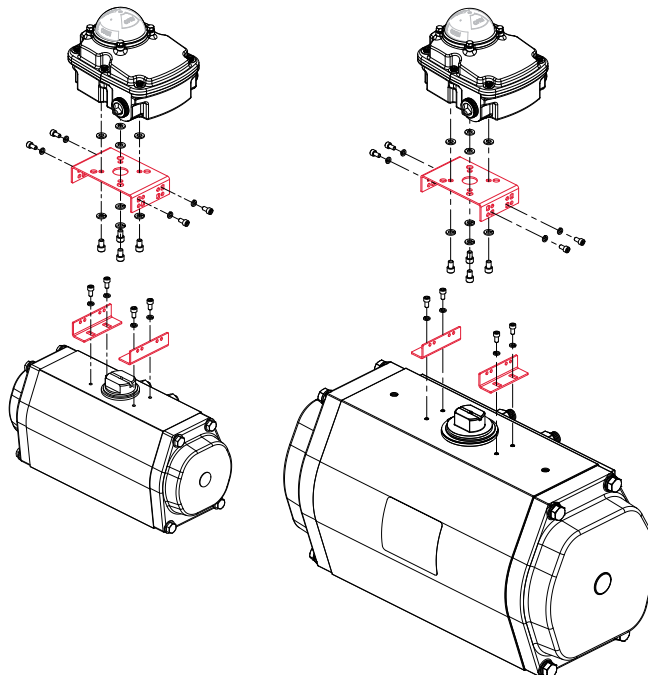
## UNIVERSAL NAMUR MOUNTING BRACKET

Bray's VSMs can be mounted to most NAMUR compliant rack and pinion, scotch yoke and other quarter-turn actuators.

> Fixed Bracket



> Adjustable bracket for both 30x80 and 30x130 NAMUR mounting pads (fits all S92/93/98 actuators)



> Common mounting F05 pattern ISO5211



## PROXIMITY SWITCHES

Our proximity switches offer reliable inductive sensing in both 2-wire and 3-wire configurations.

- > DC and AC versions available
- > CE and cULus Certified on most configurations

## INDICATION SWITCH OPTIONS

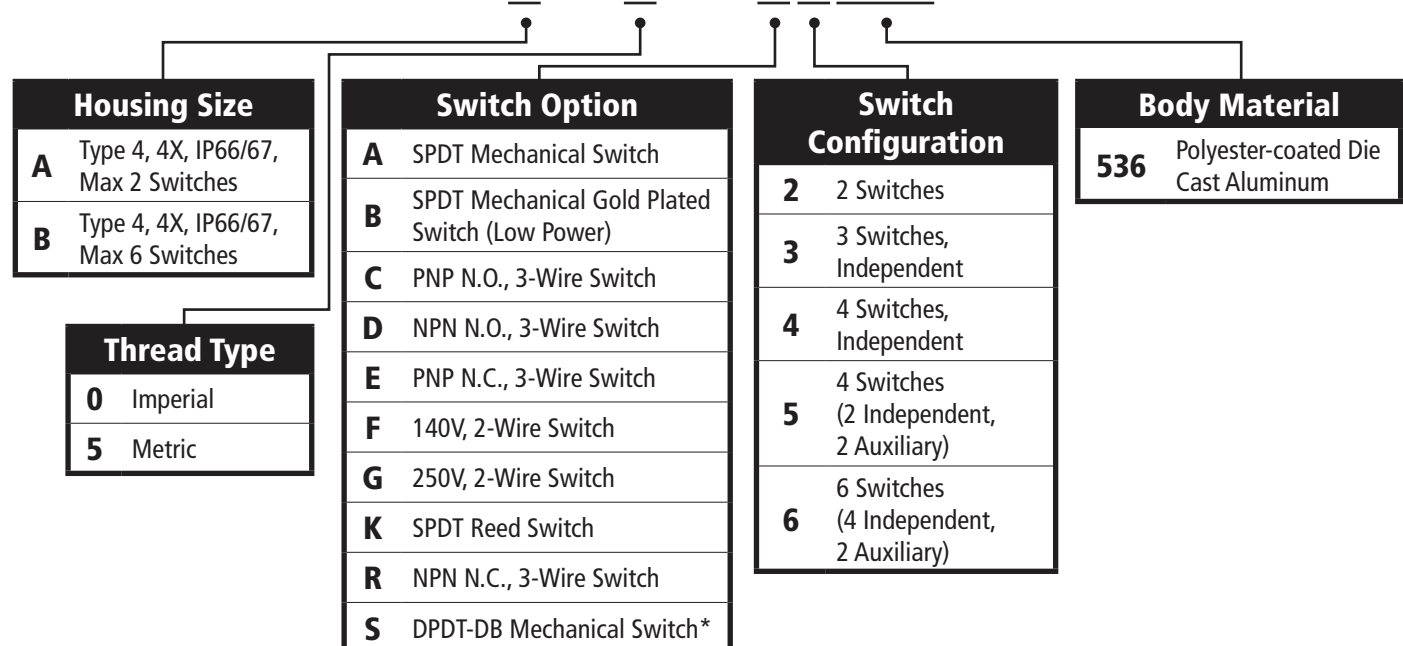
Bray's VSM product line is offered with multiple indication switch options to better suit the end user's requirements.



		S5A	Max Qty.	S5B	Max Qty.
MECHANICAL SWITCHES	SPDT Mechanical Switch	✓	2	✓	6
	SPDT Mechanical Gold Plated Switch (Low Power)	✓	2	✓	6
	DPDT-DB Mechanical Switch		N/A	✓	2
PROXIMITY SWITCHES	PNP N.O., 3-Wire Switch	✓	2	✓	6
	NPN N.O., 3-Wire Switch	✓	2	✓	6
	PNP N.C., 3-Wire Switch	✓	2	✓	6
	NPN N.C., 3-Wire Switch	✓	2	✓	6
	140V, 2-Wire Switch	✓	2	✓	6
	250V, 2-Wire Switch	✓	2	✓	6
	SPDT Reed Switch	✓	2	✓	6

## PART NUMBERING SYSTEM

**5X000X-126X X XXX**





Extreme High Temperature Actuator

Stainless Steel Actuator

## SERIES 92/93 PNEUMATIC ACTUATOR

**Bray rack and pinion actuators available in double acting and spring return**

- Standard units have anodized aluminum bodies with polyester coated end caps
- Seacorr coating for harsh environments
- Integral porting
- Internal bidirectional travel stops
- SIL 3 capable

<b>Torque:</b>	Double Acting up to: 44,130 lb-in (4,986 Nm) Spring End Torque up to: 14,173 lb-in (1,601 Nm)	
<b>Pressure Range:</b>	40 - 140 psi (2.8 - 10 bar)	
<b>Media:</b>	Dry Compressed Air/Inert Gas*	
<b>Temperature Range:</b>	Standard:	-4°F to 200°F (-20°C to 93°C)
	Low:	-40°F to 176°F (-40°C to 80°C)
	High:	0°F to 300°F (-18°C to 149°C)
	Extreme High Temperature:	0°F to 482°F (-18°C to 250°C)



## SERIES 98 SCOTCH YOKE PNEUMATIC ACTUATOR

**Bray scotch yoke actuator for quarter turn rotary operation**

- Compact design with a high torque to weight ratio
- Modular design offers easy configuration in the field
- Optional modular components: manual overrides, hydraulic dampener for fast acting operation, lockout/PST device
- Premium epoxy/polyurethane coating as standard
- Pressure Equipment Directive (PED) 97/23/EC compliant
- Standardized interfaces: ISO 5211, VDI/VDE 3845 for accessories
- Optional Seacorr coating for harsh environments
- SIL 3 capable

\*Contact Factory for other media or non-standard temperature range.

<b>Torque:</b>	Double Acting up to:	885,000 lb-in (100,000 Nm)
	Spring Return (Spring End) up to:	445,261 lb-in (50,306 Nm)
<b>Pressure Range:</b>	40 - 150 psi (2.8 - 10.3 bar)	
<b>Media:</b>	Dry Compressed Air/Inert Gas*	
<b>Temperature Range:</b>	Standard:	-4°F to 200°F (-20°C to 93°C)
	High Temperature:	Up to 300°F (149°C)
	Low Temperature:	Down to -50°F (-46°C)

## SERIES 70 ELECTRIC ACTUATOR

**Low profile, compact, high output actuator for quarter turn applications**

- On/Off or modulating (Servo NXT)
- Manual declutchable handwheel
- High visibility dome position indicator
- Network protocols available

<b>Torque:</b>	300 to 18,000 lb-ins (34 to 2030 Nm)
<b>Voltage:</b>	VAC: 24, 120, 220, VDC: 12, 24
<b>Standard Enclosure:</b>	NEMA Type 4, 4X
<b>Explosion Proof:</b>	NEMA Type 4, 4X, 7, 9 Class I, Div 1 & 2, Group C, D Class II, Div 1 & 2, Group E, F, and G.





### **SERIES 6A ELECTRO-PNEUMATIC POSITIONER**

- Precision digital control
- Zero bleed design
- Compatible with rotary or linear actuators for single and double acting applications
- Various housing options available
- Precise, microprocessor driven flow control and advanced communication
- Non-contacting position sensor technology
- Integral volume booster
- Connective and preventative maintenance self-diagnostic checks



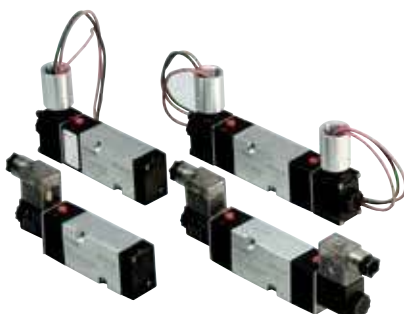
### **SERIES 6P P/P POSITIONER**

- Pneumatic to pneumatic positioner for single and double acting actuators
- Rugged aluminum diecast housing for harsh environments
- Minimal setup time for zero and span adjustment
- Split range capabilities
- High visibility dome position indicator
- Optional 2 x SPDT mechanical switches



### **SERIES 54 VALVE PROXIMITY SENSOR**

- Dual proximity sensors for valve position
- NEMA 4, 4X and IP66, IP67, IP69K ingress protection available
- Available Solenoid outputs
- 2 or 3 wire DC, AC/DC, intrinsically safe, and AS-i interface
- Pin connector or conduit versions available



### **SERIES 63 HIGH FLOW 3 & 4 WAY SOLENOID VALVES**

- Weatherproof NEMA 4, 4X and explosion proof housings available
- Flying leads or DIN connectors
- Single or dual coil
- 5/2 or 3/2 Operation
- NAMUR mounted
- High flow up to 1.4 Cv
- Intrinsically safe versions available



THE HIGH PERFORMANCE COMPANY



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