



# VALVE STATUS MONITOR

**SERIES 50-0400, 0700**

WITH MICRO SWITCHES

PROXIMITY & PNEUMATIC SWITCHES

**NEMA 4, 4X & 4, 4X, 7, 9**

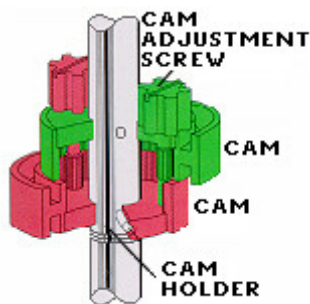


The  
High  
Performance  
Company

# FEATURES

Bray Controls proudly introduces the Brayline Series 50 Valve Status Monitor, the future of valve position signaling. Bray's extensive field experience, research and development has produced the finest multi-purpose switch/control monitors for industrial plant automation. The Series 50 signals actuator and valve position to local and remote stations. The Series 50-0400 unit has a die cast aluminum housing which is waterproof (NEMA 4, 4X.) The Series

50-0700 housing is also die cast aluminum and rated waterproof and explosion proof (NEMA 4, 4X, 7 & 9.) The units have been designed for ease of wiring and a wide variety of switches. Both feature the same high quality internal parts and the same rugged reliability.

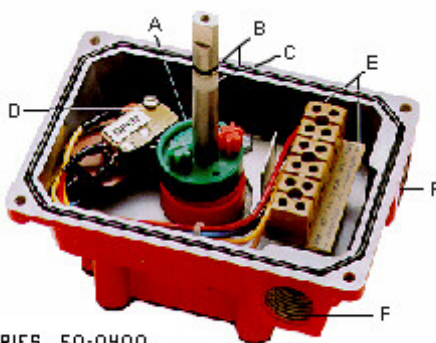


## (A) CAMS / CAM ADJUSTMENT

Featured in the Series 50 Valve Status Monitors are Bray's uniquely designed cams. A cam for each switch is mounted directly to the output shaft and each cam is color coded - red adjustment screw matches red cam (which closes valve,) green screw matches green cam (which opens valve.) The cams are *infinitely* adjustable from the top by finger touch or regular screw driver with no special tools needed. The adjustment screws rotate the eccentric shaped cams. The cams will not slip out of adjustment from line vibration. Standard factory settings are to the open and closed positions for 90 degree travel.

## (B) O-RING SEALS

Seals on the shaft and housing provide a waterproof enclosure and prevent internal corrosion.



SERIES 50-0400  
NEMA 4, 4X WATERPROOF

## (C) SHAFT BEARINGS

The Series 50-0400 has acetal bearings on the top and bottom of the shaft which reduce friction and eliminate shaft binding.

## (D) SWITCHES

Both Valve Status Monitors come standard with 2 SPDT Micro switches. For other available switches consult switches.

## (E) TERMINAL BLOCK

The internal switches are pre-wired to a terminal block. The block has been designed for ease of wiring installation with clearly marked wire numbers for both open and closed switches.

## (F) CONDUIT ENTRIES

For ease of wiring, the Series 50 features two conduit entries. The Series 50-0400 unit has 1/2" NPT conduit connections, and the Series 50-0700 has 3/4" NPT conduit connections.



SERIES 50-0700  
NEMA 4, 4X, 7, 9 EXPLOSIONPROOF

## SERIES 50-0400

This waterproof NEMA 4, 4X rated unit is designed to meet IP 65. The Series 50-0400 features a die cast aluminum housing coated with a chemical resistant epoxy for further protection. The Series 50-0400 is an excellent choice for use in a wide range of applications where harsh chemical conditions are found.

## SERIES 50-0700

The Series 50-0700 Valve Status Monitor is for application in hazardous locations. The waterproof/explosion proof housing (NEMA 4, 4X, 7 & 9) is designed to meet IP 65 and UL, CSA, Class I: Groups C&D, Class II: Groups E, F, & G, Div. 1&2. BASEEFA EEx d IIB T6 and CENELEC EN 50 014, 50 018. The housing contains bronze bearings, top and bottom, which meet flame path requirements.

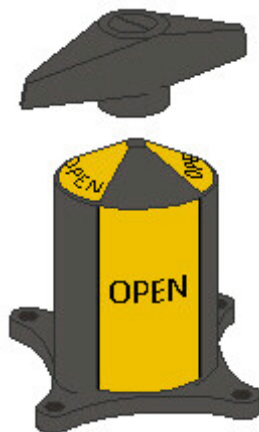


# FEATURES

CONT.

## DIRECT MOUNTING OF SERIES 50 VALVE STATUS MONITOR TO BRAY SERIES 90 PNEUMATIC ACTUATOR

A compact, modular design allows direct mounting of the Brayline Valve Status Monitor to Bray Series 90 and Series 91 pneumatic actuators without any brackets or couplings. The mounting pattern complies with VDI/VDE 3845 (NAMUR recommendations).



## POSITION INDICATORS

Bray has specially designed position indicators which locally signal valve position. The pointer, made of ABS, come standard with all Series 50 units. For high visibility and positive signaling of valve position through the full range of travel, Bray offers a valve status display. Made of high impact, heat resistant clear polycarbonate with water tight seals, this display is able to withstand corrosion and caustic washdown. Prominently labeled and color coded - green for open, red to close - the display is designed to directly mount to the Series 50 housings.

## CAPTIVE HOUSING BOLTS

The housing covers of Bray Valve Status Monitors are attached to the housing bases by stainless steel bolts. When the cover is removed the bolts are held captive in the cover. This prevents time consuming problems caused from lost or misplaced bolts.

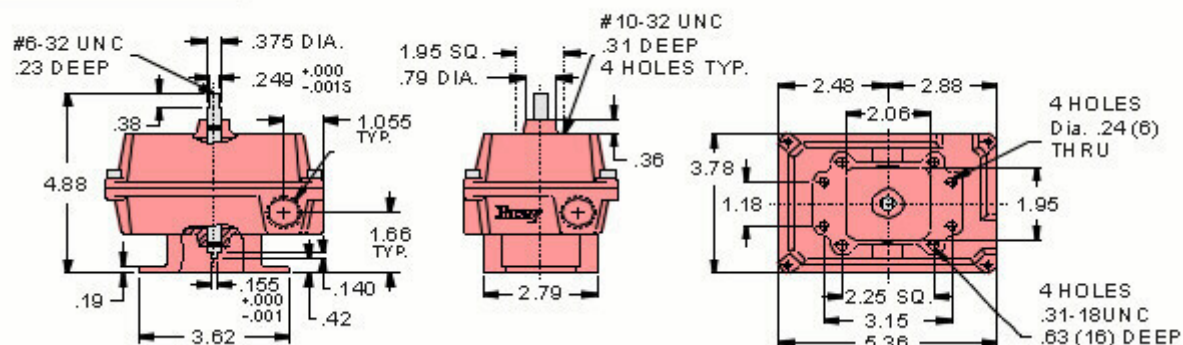


## SERIES 50-0700 ACCESSORY

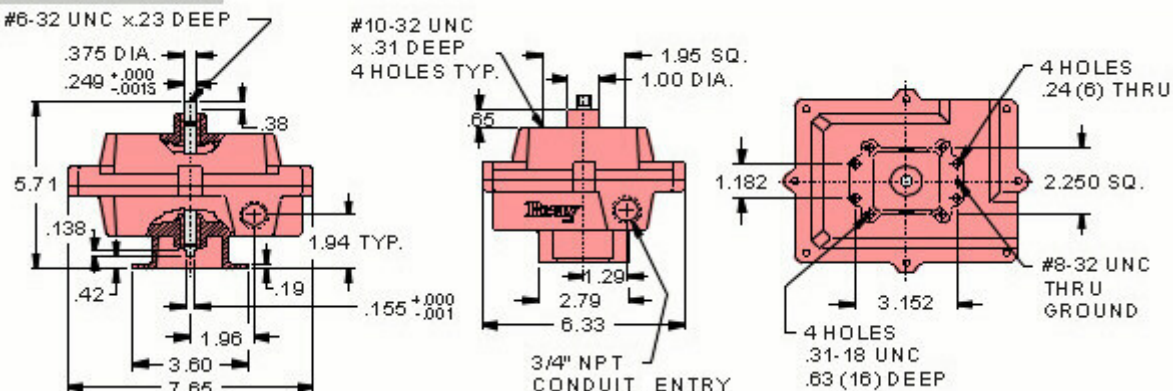
A Bray Series 50 solenoid valve may easily be mounted to the Series 50-0700 Valve Status Monitor. The solenoid and monitor are electrically wired together to a common terminal block within the switch box.

# DIMENSIONS

## SERIES 50-0400



## SERIES 50-0700



# SWITCHES

## MICRO SWITCHES

Economical switches with the highest current ratings on the market.

### 2, V3 TYPE SPDT SWITCHES

Contact material is fine silver.  
Max Rating: 15A-120/250 VAC,  
15A-24VDC  
Max Temperature: 176°F (80°C)  
4 or more switches are available.



### 2, V24T7 TYPE DPDT SWITCHES

Contact material is fine silver.  
Max Rating: 5A-120/250 VAC,  
5A-24VDC  
Max Temperature: 158°F (70°C)



## PROXIMITY SWITCHES

Sealed against explosive gases and liquids, these switches offer long, trouble free life.

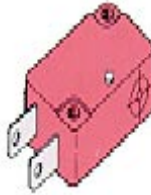
### 2, CYLINDRICAL TYPE N INDUCTIVE SWITCHES

(Intrinsically safe)  
Supply Volts: 5-25 VDC  
Nominal Voltage: 8 VDC  
Load Current: <1mA >3mA  
Max. Temperature: 212°F (100°C)  
Other types available, consult factory.



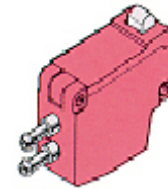
### 2, V3 TYPE INDUCTIVE SWITCHES

Supply Volts: 5-25 VDC  
Nominal Voltage: 8 VDC  
Load Current: <1mA >3mA  
Max Temperature: 212°F (100°C)  
Other types available, consult factory.



## PNEUMATIC SWITCHES

For hazardous locations.  
2 switches are provided with 2 ports and vents.  
Rating: 150 psi (10 bar)  
Connections: 1/8" NPT  
Max. Temperature: 176°F (80°C)



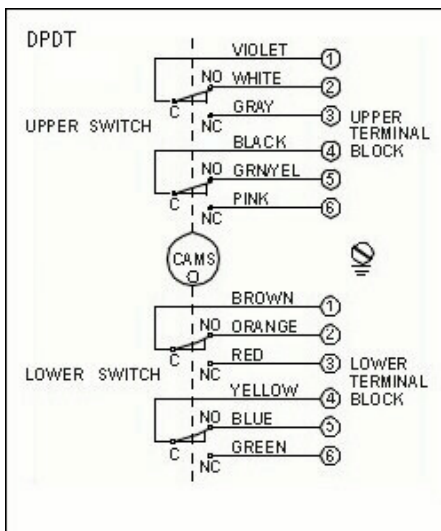
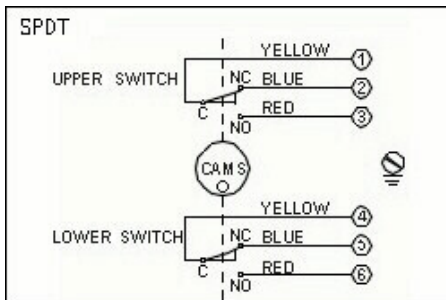
## POTENTIOMETER

For analog feedback of precise valve position a potentiometer can be mounted within the Series 50-0700 housing. The standard value is 1000 ohms, and the standard power rating at 158°F (70°C) is 1 watt.

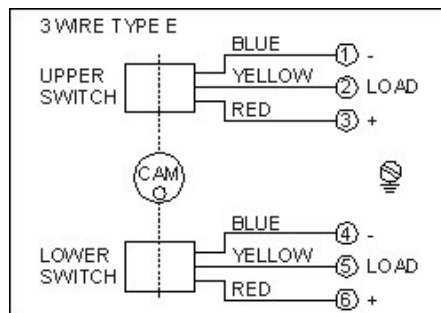
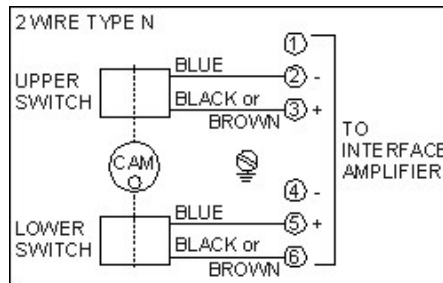
## REED SWITCHES

2 magnetic reed switches (hermetically sealed) are available upon request.

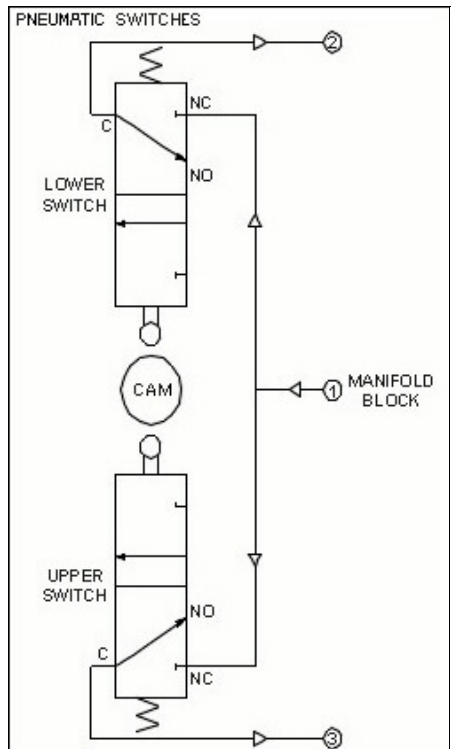
## MICRO SWITCHES



## PROXIMITY SWITCHES



## PNEUMATIC SWITCHES



**Bray** CONTROLS

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