

Resin Aviator™ Integrated Valve Controller

Introduction:

The Resin Aviator™ integrated valve controller combines an internal solenoid pilot, an external high capacity spool valve, and a pair of valve indicating limit switches in one enclosure for maximum corrosion protection. It meets CSA and cCSAus, Nema 4, and 4x waterproof standards. The integral switches and solenoid are pre-wired to screw terminal connectors for easy external wiring. The Resin Aviator™ housing includes one standard 1/2" NPT conduit connection for field wiring. Housings have been designed for easy upgrade to fieldbus communication protocols.



Applications:

The Resin Aviator™ package is designed to meet corrosive hazardous location valve control and position signaling needs. Switch options are available to meet a wide range of electrical specifications. Solenoid options include 3- and 4-way configurations, with standard 120 VAC, 220 VAC, 12 VDC, 24 VDC 2 Watt coils and other low-power coil options available. Hazardous area approvals include Class 1, Div 2 when hermetically sealed switches are specified.

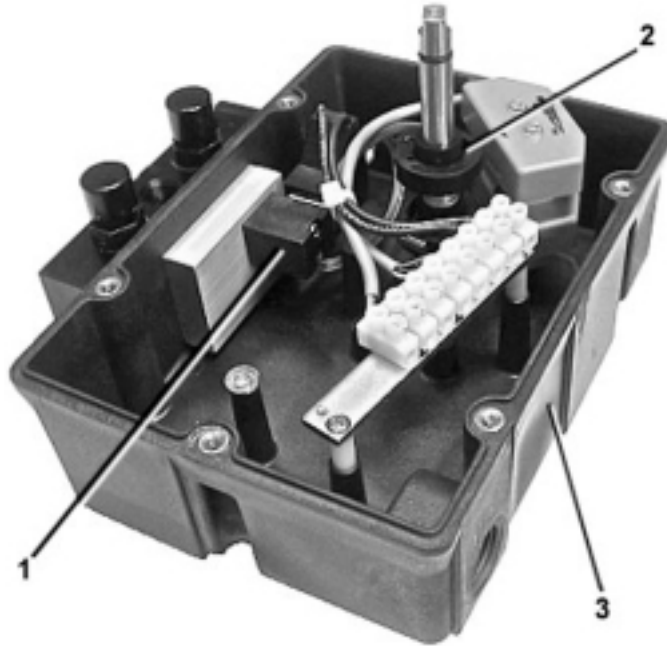
Durable construction and corrosion resistant materials and coatings provide protection against the toughest applications in all process industries, including:

1. Chemical and petro-chemical
2. Power
3. Food and Beverage
4. Pharmaceutical
5. Municipal and Waste Water

Flowserve Corporation
Flow Control Division
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Features:

1. **Internal Pilot Solenoid Coil** contains and protects the coil within the Resin Aviator™ housing. This feature allows for secure operation in hazardous environments, eliminates expensive conduit and fittings, simplifies wiring, and reduces the time and expense of installation. This feature also offers a high degree of solenoid coil protection in difficult “wash down” applications.
2. **Quick-Set Cams.** Tool free adjustment of switch trip point is accomplished simply by pushing or pulling the cam and rotating it to the new trip point position. Cams are spring-loaded and splined to maintain switch settings in any installed position. They are fully adjustable through 360° in 4° increments.
3. **Corrosion Resistant Materials.** All exposed parts are either stainless steel, anodized aluminum, or glass-reinforced engineered resin to enhance protection in the harshest corrosive environments.
4. **Captive Cover Screws** permit calibration without potential for losing screws.
5. **UltraDome™ Visual Position Indicator** provides adjustable, high-contrast, full angle viewing of valve position.
6. **Fieldbus upgradeable.** Fieldbus digital communications are a common requirement. The Resin Aviator™ housing has been designed to accommodate circuitry necessary to communicate with these systems and may be field-upgraded to expand the capabilities of installed units.

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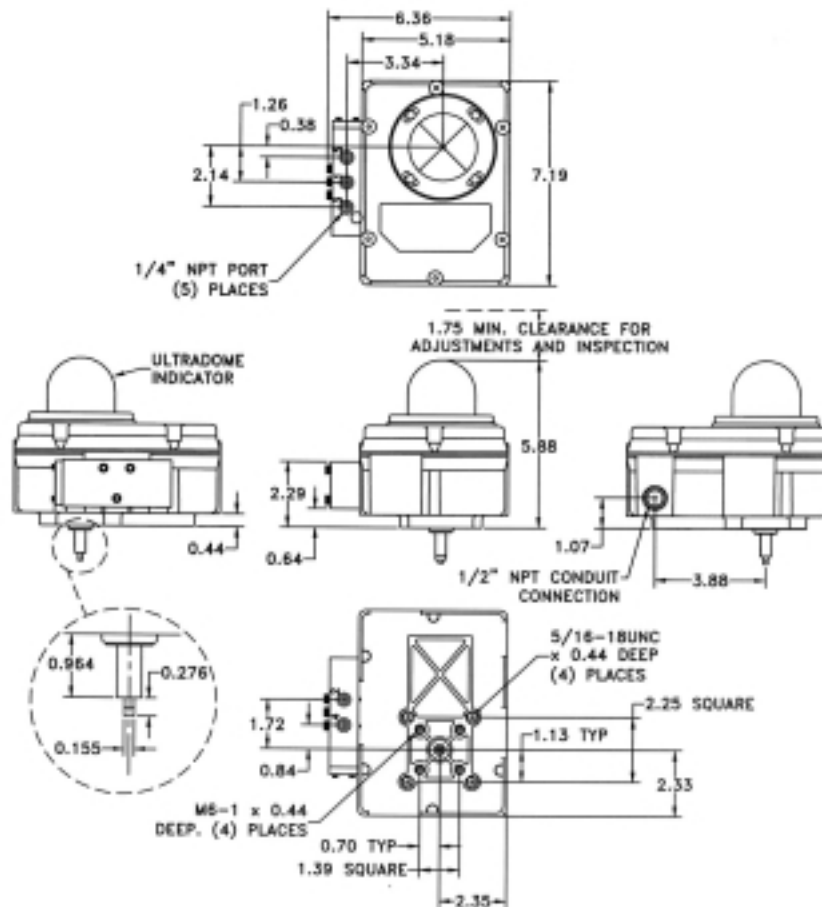
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Materials of Construction:

Part Numbers

PART	MATERIALS
Housing/Cover	Glass Reinforced Nylon
Shaft	Stainless Steel
Cams/Splines	Nylon
UltraDome Dome and Rotor	Polycarbonate
Internal Brackets	Stainless Steel or Plated Carbon Steel
All Internal Fasteners	Stainless Steel or Plated Carbon Steel
All External Fasteners	Stainless Steel

Dimensions:





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Principles of Operation:

The Resin Aviator™ is designed for use with pneumatic rotary valve actuators in hazardous locations. It provides actuator/valve control by receiving a direct solenoid voltage signal. It also provides remote indication of open and closed valve positions by completing separate electrical circuits. Local visual indication is accomplished with the UltraDome™ rotary indicator.

Enclosure Ratings: NEMA 4/4X

Mechanical Switches

Types M1 & MG

Proximity Switches

Types P1, P2, PP, PK, PL, PM, B4, BL, BK, BM

Class I, Division 2, Group A, B, C, D
 Class II, Division 2, Group E, F, G
 Type/NEMA 4x

Note: When using hermetically sealed proximity switches in Division 2 hazardous locations, a conduit seal is not required.

Temperature Range:

Hazardous Locations: T6: -13 to 133 Deg. F (-25 to 56 Deg. C)
 T5: -13 to 160 Deg. F (-25 to 71 Deg. C)
 T4A: -13 to 176 Deg. F (-25 to 80 Deg. C)

Agency Listings: 

How to Order:

I. Model		V. Solenoid Coil	
WR		A	110 VAC (2-Watt)
II. Indicators		C	220 VAC (2-Watt)
U	UltraDome 2-Way	F	12 VDC (2-Watt)
C	90 Degree 3-Way	G	24 VCD (2-Watt)
D	180 Degree 3-Way	H	12 VDC (.67 Watt)
E	180 Degree 3-Way Center Blocked	J	24 VDC (.67 Watt)
F	120 Degree Thru/Divert	K	24 VDC IS (15.5 VDC, .67 Watt) Intrinsically Safe
III. Switches		P	24 VDC Ultra-Low Power (.006 Watt)
M1	(2) SPDT Mech. (NEMA 4/4X ONLY)	VI. Spool Valve	
MG	(2) SPDT Mech., Gold Contacts (NEMA 4/4X ONLY)	1	3-Way Aluminum
R4	(2) SPST Proximity	2	3-Way Stainless Steel
P1	(2) Sabre SPDT Proximity	3	4-Way Aluminum
PP	(2) Phazer II SPDT Proximity	4	4-Way Aluminum
PL	(2) Phazer II SPDT Proximity w/LED	VII. Shaft Options	
B4	(2) Phazer II BRS SPDT Proximity	P	Standard 1/4" Shaft
BL	(2) Phazer II BRS SPST Proximity w/LED	N	NAMUR Shaft
S4	(2) P&F NJ2-V3-N (NAMUR)	VIII. Spool Valve Options	
SE	(2) Efector Type IN-2002-ABOA	R	Thermoplastic Rain Caps (Standard)
F2	2-Wire Foundation Fieldbus (P coil option ONLY)	M	Thermoplastic Rain Caps with Momentary Manual Override
F4	4-Wire Foundation Fieldbus (24VDC Coil)	L	Thermoplastic Rain Caps with Locking Manual Override
FD	AS-i (24VDC Coil)		
IV. Coils			
0	(1) Coil (Single Coil Operation)		
1	(2) Coils (Dual Coil Operation)		

* Example: WRUP10A1NR