The Perfect Choice for Explosion-Proof

The AVCO Sentinel has been designed to provide the most visible and reliable valve position indication in explosion-proof environments. With a wide variety of switches and sensors available to match your application, the Sentinel is the perfect choice. Features Include:

- UL and CSA Certified for Explosion-proof.
- Patented Engineered Loc-Ring Cam and Shaft Retention System provides unsurpassed sensing accuracy over the multi-million cycle life of the physical platform.
- Clear Ektar cover offers optimum chemical resistance and strength and is environmentally sealed to prevent fogging or entry of contaminants.
- Careful material selection provides the unique patented indicator a rated life of minimum 1,000,000 cycles.
- Materials of construction selected to excel in high vibration, corrosive and dirty environments, either indoors or outdoors.
- Indicator is fully adjustable to any valve or actuator.
- Internal Switches and terminal block are labeled for easier installation.
- The industry’s only “true” visual valve position indicator available for multi-port valves, adjustable to match the actual physical flow pattern of the valve.
- “Flat cover” version is available without an indicator for areas with tight space requirements.

Material Specifications

- Enclosure - Aluminum with Optional Iridite for Corrosion Resistance, Optional Hard Anodizing for Severe Applications
- Shaft - 303 or Optional 316 Stainless Steel
- Shaft Locking Ring - Stainless Steel
- Indicator Cover - Ektar Copolyester
- Bearing - Bronze or Optional 303 Stainless Steel
- Fasteners - 316 & 18-8 Stainless Steel
- O-rings - BUNA-N or Optional Viton
- Cams and Splines - Acetal

Certified Configurations

- 2 or 3 - 3/4” NPT Conduit Entries
- Certified Male 1/2” NPT Hub for Easy Direct-Mounting of Explosion-proof Solenoid Valves
- 1, 2, 3, 4 or 6 Mechanical SPDT Solenoids
- 1, 2, 3, 4 or 6 Tungsten or Rhodium TTL Hermetically-Sealed Proximity Switches
- 1, 2, 3 or 4 DPDT Mechanical Switches
- 1, 2, 3 or 4 Inductive Proximity or Intrinsically Safe Sensors
- Standard NAMUR, Low Profile NAMUR or Standard Shaft (1/4” flats)
- 4-20mA Transmitter or 0-1k or 10k ohm High Linearity Potentiometer for 0-100% Analog Output

Industry Approvals:

- Mechanical Switches: UL / CSA
  - Class I, Division 1 & 2, Groups C & D;
  - Class II, Division 1 & 2, Groups E, F & G
- TTL Switches: UL / CSA
  - Class I, Division 1 & 2, Groups C & D;
  - Class I, Division 2, Groups A & B;
  - Class II, Division 1 & 2, Groups E, F & G
LIMIT SWITCH
SENTINEL SERIES

Popular Switch and Sensor Specifications

- **Mechanical SPDT Switches**
  - Electrical Ratings
    - 15 A / 125-250 VAC
    - 2.5 A / 24 VDC
    - 0.5 A / 125 VDC
    - 0.25 A / 250 VDC
  - Operating Temperature
    - -40 to +175 °F

- **Mechanical DPDT Switches**
  - Electrical Ratings
    - 10 A / 125-250 VAC
    - 7 A / 24 VDC
    - 0.25 A / 125 VDC
  - Operating Temperature
    - -40 to +175 °F

- **TTL Hermetically Sealed Proximity Switches**
  - Electrical Ratings
    - Rhodium (DC Signals):
      - 1 A / 24VDC - 0.25 A / 120VAC
    - Tungsten (AC Signals):
      - 3 A / 120 VAC - 2 A / 24VDC
  - Operating Temperature
    - -40 to +175 °F

- **Pepperl & Fuchs NJ2-V3-N NAMUR Inductive Sensors**
  - Electrical Ratings
    - NAMUR 5-25 VDC
      - Target Present 3-15 mA
      - Target Absent <1mA
  - Operating Temperature
    - -25 to +140 °C

Open/Closed and 3-Way Path Indicators

- **Description**
  - Series: Sentinel
  - Limit Switch
  - With Indicator
  - Flat Cover
  - Indicator Type (open/closed)
  - No Indicator (Flat Cover)
  - Black / Yellow (Standard)
  - Green / Red
  - Red / Green
  - 0-100% Digital
  - 3-Way Path O (90 deg.)
  - 3-Way Path T (90 deg.)
  - 3-Way Path F (90 deg.)
  - 4-Way Path S (90 deg.)
  - 180 degree T-port
  - 180 degree L-Port - OcOc
  - 180 degree L-Port - OOcc
  - ANSI Green / White
  - ANSI Blue / White
  - ANSI Red / White

- **Code**
  - A
  - M
  - Y
  - B
  - E
  - 1
  - 2
  - 0

Intelligent Part Number System

- **Description**
  - Cover
  - Indicator
  - Bearing
  - Shaft
  - Switch

- **Code**
  - A
  - M
  - Y

- **Description**
  - Bearing
    - Bronze
    - 303 Stainless
  - Shaft
    - Standard 303 SS
    - Standard 316 SS
    - Low Profile NAMUR 303 SS
    - Low Profile NAMUR 316 SS
    - NAMUR 303 SS
    - NAMUR 316 SS
    - Mechanical SPDT 15A-250VAC
    - Mechanical SPDT 0.5A-125 VDC
    - PRISM SPDT Gold Plated 1A-24VDC
    - ITW Mechanical DPDT 10A-250VAC
    - Tungsten TTL Prox 3A-125 VAC
    - Rhodium TTL Prox 1A-24VDC
    - P&F NJ2-V3-N, NAMUR
    - Sensor Quantity

- **Code**
  - B
  - S
  - 1

- **Description**
  - Conduit Connection
    - 2 - 3/4” F NPT
    - 3 - 3/4” F NPT
    - 1 - 3/4” F NPT + 1-1/2” M NPT
  - Options
    - Transmitter 4 - 20mA
    - Potentiometer 0 - 1k
    - All Viton Seals
    - Hard Anodized Enclosure
    - 12 Terminal Points
    - 16 Terminal Points
    - High Temperature
    - Contact Moniteur for additional option codes and custom requirements

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