Switch-Pak™ AX1X
with Compact Junction Box

Application
The intrinsically safe or general purpose level switch package provides high or low liquid level detection with one relay or reed switch output, and a compact junction box for wiring termination. Available in three level sensor technologies, choose the sensor type based upon your application media. This PP or PVDF level switch package is selected for bulk storage, IBC or drum, and neutralization tank applications, connected to a PLC or relay controller.

Features
- Rugged polypropylene or PVDF construction for use with corrosive liquids
- Available in intrinsically safe and general purpose classifications
- 60VA relay or 15VA dry contact switches selectable NO or NC via wiring
- Offered in three sensing technologies for broad application coverage
- Polypropylene enclosure rated NEMA 4X with swivel base for conduit alignment

Key Benefits
- Ideal single-point high or low level switch solution for PLC or controller input
- Available in three sensor technologies and two materials for all types of liquid media

Sensor Technologies
- **SWITCH-TEK™**
  - **LU10**
  - Ultrasonic Level Switch - IS
    - Broadly applied in chemicals and light weight oils
  - **LV10**
  - Vertical Buoyancy Level Switch - GP
    - Applied in clean water and
Select the best sensor technology based upon your application.

Available only in the following configurations:

- **Vibration** = AZ18 (General purpose with relay contact)
- **Ultrasonic** = AU18 (Intrinsically safe with relay contact)
- **Buoyancy** = AV16 (General purpose with reed contact)

Note: PVDF is only available with ultrasonic or buoyancy sensors.

Specify the A-dimension at the end of the part number (e.g., AV16-4243-17”). The dimension may be specified in 1/2” (1.3cm) increments from 6” to 10’ (15cm to 3m).

To calculate the length adder, round up the A-dimension to the next foot (30cm), multiply it by the selected material, and add that sum to the price. For PP, add $10 per foot (30cm). For PVDF, add $50 per foot (30cm).

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### Specifications

- **Length:** 6” to 10’ (15cm to 3m)
- **Accuracy:** ± 1mm in water
- **Repeatability:** ± 0.5mm in water
- **Orientation:** ± 20° vertical
- **Switch points:** 1 (factory set)
- **Supply voltage:**
  - AV16: N/A
  - AU18: 12-36 VDC
  - AZ18: 12-30 VDC
- **Consumption:**
  - AV16: N/A
  - AU18 / AZ18: 25 mA max.
- **Contact type:**
  - AV16: (1) SPDT reed
  - AU18 / AZ18: (1) SPST relay
- **Contact rating:**
  - AV16: 15 VA, 0.25A max.
  - AU18 / AZ18: 60 VA, 1A max.
- **Contact output:** Selectable NO / NC
- **Process temp.:**
  - AV16: N/A
  - AU18 / AZ18: -40° to 176° F / -40° to 80° C
- **Ambient temp.:**
  - AV16: N/A
  - AU18 / AZ18: -40° to 140° F / -40° to 60° C
- **Installed height:**
  - AV16: 3.6” (9.1cm) above tank process mount
  - AU18 / AZ18: 3.9” (10cm) above tank process mount
- **Pressure:**
  - AV16: 25 psi (1.7 bar)
  - AU18 / AZ18: 150 psi (10 bar)
- **Enclosure rating:** NEMA 4X (IP65)
- **Enclosure mat.:** PP, UL94VO
- **Terminal strip:** 6-pole, socket
- **Cond. entrance:** 1/2” NPT
- **Wetted material:**
  - AV16-224X: PP
  - AU18-224X: PP
  - AU18-524X: PVDF
  - AZ18-424X: PP-Ryton®
- **Classification:**
  - AV16 / AZ18: general purpose
  - AU18: intrinsically safe (see LU10 data sheet for details)
- **Compliance:** CE

### Dimensions

- **Length:** 2.8” (71mm)
- **Width:** 3.9” (99mm)
- **Height:** 2” (51mm)

### Fittings

For optimum performance, install Switch-Pak™ using the below recommended or direct equivalent fittings.

<table>
<thead>
<tr>
<th>P/N</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>LM52-2400</td>
<td>3” NPT x 2” NPT, PVC, schedule 40</td>
</tr>
<tr>
<td>LM52-2800</td>
<td>3” NPT x 2” NPT, PVC, schedule 80</td>
</tr>
<tr>
<td>LM52-3800</td>
<td>4” NPT x 2” NPT, PVC, schedule 80</td>
</tr>
<tr>
<td>LM52-2410</td>
<td>3” socket x 2” NPT, PVC, schedule 40</td>
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<tr>
<td>LM52-3410</td>
<td>4” socket x 2” NPT, PVC, schedule 40</td>
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<tr>
<td>LM52-2810</td>
<td>3” socket x 2” NPT, PVC, schedule 80</td>
</tr>
<tr>
<td>LM52-3810</td>
<td>4” socket x 2” NPT, PVC, schedule 80</td>
</tr>
<tr>
<td>LM52-2890</td>
<td>2” NPT bulkhead, PVC</td>
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<tr>
<td>LM52-2850</td>
<td>2” ANSI x 2” NPT, PVC, schedule 80</td>
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<tr>
<td>LM50-1001</td>
<td>2” NPT side mount bracket, PP</td>
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</tbody>
</table>

### Relay Control

For remote relay control, add a LC4X (general purpose) or LC9X (isolation) controller to Switch-Pak™. They’re available in two configurations with one or two switch inputs and one or two relay outputs for pump shut off, valve closure or alarm actuation.

### Ordering

**SENSOR TECHNOLOGY**

- **Z** Vibration - GP
- **U** Ultrasonic - IS
- **V** Buoyancy - GP

**CONTACTS**

- **6** SPDT reed
- **8** SPST relay

**WETTED MATERIAL**

- **4** PP
- **5** PVDF

**PROCESS MOUNT**

- **3** NPT (US)
- **7** G (Metric)

**DIMENSIONS**

- **A** Specify (PP) (PVDF)

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**NOTES**

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2) Available only in the following configurations:
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3) PVDF is only available with ultrasonic or buoyancy sensors.
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