Shock and Vibration Switch
VS2™ Series

The VS2 Series switches are shock-sensitive mechanisms for shutdown of engine or electric motor powered equipment. It is designed to detect shock/vibration in three planes of motion. These fully adjustable switches use a magnetic latch to ensure reliable operation. Explosion-proof EX models for hazardous locations are available.

Ideal for use on engines, pumps, compressors, heat exchangers and pumping units, the VS2 Series can be used where shut-down protection from damaging shock/vibration is desired. Switches are field adjustable to the sensitivity required in each application.

Specifications

**Normal Operating Temperature:** -40° to 185° F (-40° to 85° C); For UL and CSA applications, applicable temperature specification is de-rated to -40° to 140° F (-40° to 60° C)

**VS2 and VS2C**
- **Case:** Environmental Protection: Ingress protected to IP54 (when mounted on a horizontal surface with drain holes down). Suitable for non-hazardous areas. VS2C: C-clamp mount, includes 45 ft. (13.7 m) 2-conductor cable and 5 cable clamps
- **Contacts:** SPDT-double make leaf contacts, 3A @ 240 VAC; 10A @120 VAC; 10A @ 32 VDC
- **Shipping Weight:** VS2: 2 lb. 8 oz. (1.1 kg); VS2C: 7 lb (3.2 kg)
- **Shipping Dimensions:** VS2: 8-1/4 x 9-1/4 x 5 in. (210 x 235 x 127 mm); VS2C: 12 x 7 x 5-1/2 in. (305 x 178 x 140 mm)

**VS2EX**
- **Case:** Base mount, explosion-proof aluminum alloy housing; meets IP54 specifications; Class I, Division 1, Groups C & D; UL and CSA listed
- **Certification:** CSA, UL
- **Snapswitches:** 2-SPDT snap switches; 5A @ 480 VAC; 2A resistive, 1A inductive, up to 30 VDC
- **Shipping Weight:** 4 lb. 8 oz. (2 kg)
- **Shipping Dimensions:** 8-1/4 x 9-1/4 x 5 in. (210 x 235 x 127 mm)

* Selected configurations are third-party listed.

All trademarks and service marks used in this document are the property of their respective owners.

Basic Operation

Pushing the reset button moves the tripping latch into a magnetically held position. A shock/vibration will move the magnet beyond this holding position, thus freeing the spring loaded tripping latch to transfer the contacts and shut down the machinery (see dimensional diagrams or visual representation of parts).
Environmental Protection: Ingress protected to IP54 (when mounted on a horizontal surface with drain holes down).

**VS2 and VS2C**
The VS2 and VS2C are designed for use in non-hazardous locations. They have leaf type SPDT, double make contacts that can be used for shutdown and/or alarm. They have a slotted sensitivity adjustment located on the side of the case (see drawing).

![Diagram of VS2 and VS2C](image)

**VS2EX**
- IP54 Specifications
- Snap switch Contacts
- Tattletale® Reset Button

Model VS2EX is housed in an explosion-proof enclosure with threaded cover. This enclosure is CSA and UL listed for Class I, Division 1, Groups C & D hazardous locations. In place of the leaf type contacts, 2-SPDT snap-switches are used in this model. Sensitivity is externally adjustable, and when tripped, the VS2EX gives a Tattletale indication on the reset button. It is constructed to meet IP54 specifications.

![Diagram of VS2EX](image)

---

**ELECTRICAL**

**Contact Rating:**
- 5 A @ 480 VAC

![Contact Diagram](image)
How to Order

Options listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information.

<table>
<thead>
<tr>
<th>Service Part Number</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>20000031</td>
<td>Glass and gasket assembly</td>
<td>VS2 and VS2C</td>
</tr>
<tr>
<td>20000032</td>
<td>Reset push button assembly</td>
<td></td>
</tr>
<tr>
<td>20050021</td>
<td>Mounting clamp</td>
<td>VS2C</td>
</tr>
<tr>
<td>20000261</td>
<td>Cable clamp assembly (1 each)</td>
<td></td>
</tr>
<tr>
<td>20000288</td>
<td>Snap-switch and insulator kit (1 switch per kit) for models manufactured after Sept. 1, 1995</td>
<td>VS2EX</td>
</tr>
<tr>
<td>20000289</td>
<td>C-clamp conversion mounting kit</td>
<td></td>
</tr>
<tr>
<td>25050506</td>
<td>Dust boot</td>
<td></td>
</tr>
</tbody>
</table>

Options listed below. All configurations may not be available. Call your sales representative or FW Murphy for more information.

**Base Model**

<table>
<thead>
<tr>
<th>VS2</th>
<th>-</th>
<th>LC</th>
</tr>
</thead>
</table>

**Options**

- LC = Less Case
- LCC = Less Cable and Clamps on VS2C

NOTE: Order C-clamp mounting kit as a separate line item for VS2EX.