

Shock and Vibration Control Switch



VS94 Model

VS94 Model

- NEMA 4X/IP66 Enclosure (CSA Types 4 & 12)
- Protects Your Equipment from Excessive Shock or Vibration
- Fine Adjustment to Precisely Select the Degree of Sensitivity
- Reset from a Remote Location (Optional)
- Time Delay to Override Trip Operation at Start-up (Optional)
- Space Heater to Prevent Moisture Condensation Inside the Unit (Optional)

Description

VS94 Series is an electro-mechanical device designed to protect equipment from damaging shock or vibration. This sensitive mechanism can detect excessive shock or vibration and shutdown the equipment before further damage occurs. A set of contacts is held in a latched position through a magnetic latch mechanism. As the level of shock or vibration increases an inertia mass exerts force against the latch arm and forces it away from the magnetic latch causing the latch arm to separate and to operate the contacts. Sensitivity is obtained by adjusting the amount of air gap between the magnet and latch arm plate.

The VS94 Series is housed in a NEMA 4/4X glass filled polyester enclosure and has a base mount. It is for applications in non-hazardous locations.

VS94 models are rated up to 480 VAC.

(See the How to Order section on back page for models and options available.)

Applications

Applications for the VS94 include all stationary types of machinery or equipment where excessive shock/vibration can be damaging or poses a threat to normal operations such as in:

- Cooling fans
- Engines
- Pump jacks
- Compressors
- Pumps
- Rotating and Reciprocating Machinery

Features

- Electromechanical Design
- Detects Shock or Vibration in Three Planes of Motion
- NEMA 4/4X (CSA types 4 and 12) Weather-proof Enclosure
- Reliable Magnetic Latch Feature
- Micro Fine, Easy-to-Adjust Sensitivity Adjustment
- Manual Reset (Standard)

- Remote Reset (Optional)
- Adjustable Start-up Time Delay (Optional)
- Space Heater Circuit to Prevent Housing Moisture Condensation (Optional)
- Two (2) versatile SPDT snap-switches rated up to 480 VAC.

Options

Remote Reset

This option of the VS94 includes a built-in electric solenoid which allows reset of tripped unit from a remote location. Available for 115 VAC or 24 VDC.

Time Delay

Overrides trip operation on start-up. The time delay option is field-adjustable from 5 seconds up to 6-1/2 minutes with an easy-to-adjust 20-turn potentiometer. Available for 115 VAC or 24 VDC.

Space Heater

This optional circuit prevents moisture condensation inside the VS94 housing.

Specifications

Case: Polyester fiberglass reinforced; NEMA type 4X; IP66; CSA types 4 and 12.

Conduit Fitting: 3/4 NPT conduit fitting connection.

Normal Operating Ambient Temperature:

0 to 140°F (-18 to 60°C).

Snap-switches: 2-SPDT snap acting switches; 5A @ 480 VAC; 2A resistive, 1A inductive, up to 30 VDC.

Range adjustment: 0 - 7 G's; 0 - 100 Hz /0.100 in. displacement.

Space Heater (optional):

| Option | Operating Current |
|--------|-------------------|
| H15 | .023 A @ 115 VAC |
| H24 | .12 A @ 24 VDC |

Remote Reset (optional):

| Option | Operating Current |
|--------|-------------------|
| R15 | .17 A @ 115 VAC |
| R24 | .36 A @ 24 VDC |

Time Delay (optional):

| Option | Operating Current | Standby Current |
|--------|-------------------|-----------------|
| T15 | .360 A @ 115 VAC | .01 A @ 115 VAC |
| T24 | 1.15 A @ 24 VDC | .01 A @ 24 VDC |

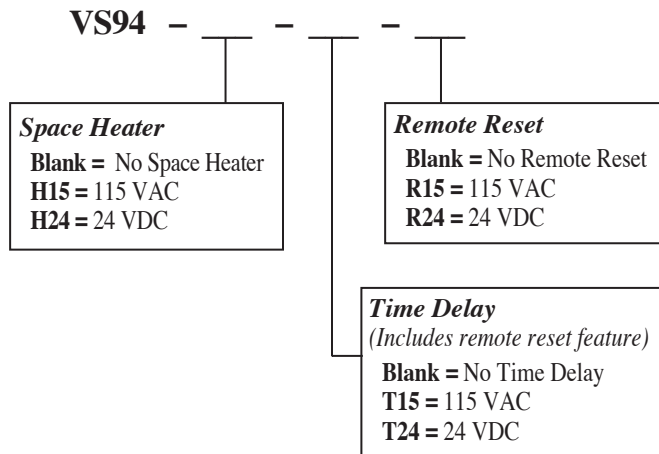
Time Delay/Remote Reset: Adjustable 20-turn potentiometer from 5 seconds to 6-1/2 minutes (15 seconds per turn approximately).

Shipping Weight: 4.35 lb. (2 kg.)

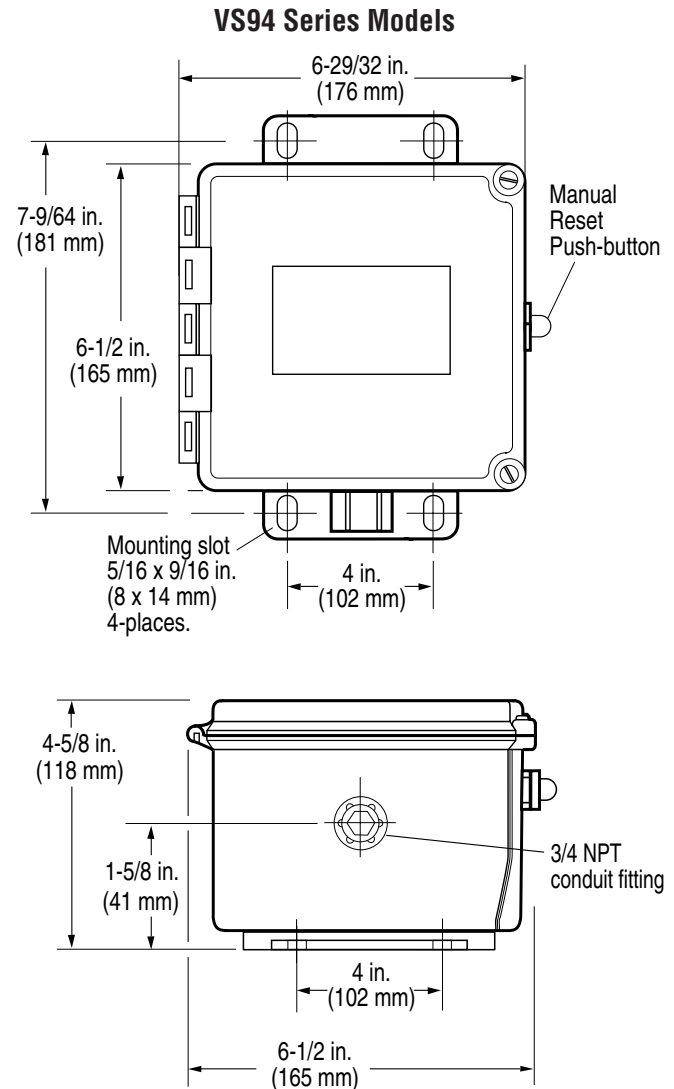
Shipping Dimensions: 9 x 8 x 4-11/16 in. (229 x 203 x 119 mm)

How to Order

To order your VS94 model use the diagram below.



Dimensions



Warranty

A limited warranty on materials and workmanship is given with this FW Murphy product. A copy of the warranty may be viewed or printed by going to www.fwmurphy.com/support/warranty.htm

MURPHY

FW Murphy
P.O. Box 470248
Tulsa, Oklahoma 74147 USA
+1 918 317 4100
fax +1 918 317 4266
e-mail sales@fwmurphy.com
www.fwmurphy.com

CONTROL SYSTEMS & SERVICES DIVISION
P.O. Box 1819; Rosenberg, Texas 77471; USA
+1 281 633 4500 fax +1 281 633 4588
e-mail sales@fwmurphy.com

MURPHY DE MEXICO, S.A. DE C.V.
Blvd. Antonio Rocha Cordero 300, Fracción del Aguaje
San Luis Potosí, S.L.P.; México 78384
+52 444 8206264 fax +52 444 8206336
Villahermosa Office +52 993 3162117
e-mail ventas@murphymex.com.mx
www.murphymex.com.mx

FRANK W. MURPHY, LTD.
Church Rd.; Laverstock, Salisbury SP1 1QZ; U.K.
+44 1722 410055 fax +44 1722 410088
e-mail sales@fwmurphy.co.uk
www.fwmurphy.co.uk

MURPHY SWITCH OF CALIFORNIA
41343 12th Street West
Palmdale, California 93551-1442; USA
+1 661 272 4700 fax +1 661 947 7570
e-mail sales@murphyswitch.com
www.murphyswitch.com

MACQUARRIE CORPORATION
1620 Hume Highway
Campbellfield, Vic 3061; Australia
+61 3 9358 5555 fax +61 3 9358 5558
e-mail murphy@macquarrie.com.au



In order to consistently bring you the highest quality, full featured products, we reserve the right to change our specifications and designs at any time.