



EARTHQUAKE SAFETY SYSTEMS INC.

www.eqsafetysys.com

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PRODUCT APPLICATION SUMMARY

Subject: Seismic Monitoring Systems
Reference: Your request for information

The information below is provided in response to your request for product application notes.

SATURN S-001

For low-power or, basic indoor applications requiring just a contact closure (single-pole double-throw), we offer the **Model S-001 Saturn Seismic Switch**. Standard installation is floor-mount (vertical mount optionally available). Enclosure penetrations are via two compression fittings which can be replaced with rigid conduit fittings at the discretion of the installing electrician. The typical application for the Saturn S-001 is for generating a seismic signal for new or in-service PLC/CPU based alarm/control systems. If greater autonomy and/or NEMA 4X is desirable, consider the Apollo 2100 Series unit.

APOLLO

For industrial applications requiring a little more capacity or operation in a harsher environment there is the **Apollo 2100 Series** unit (PLC interface, toxic gases, NEMA 4X option, etc.). The enclosure is larger and more "conduit friendly". The Apollo Series units offer direct control of non-motor, low-power shutoff devices (i.e. solenoids, industrial relays), NEMA 4 standard, NEMA 4X available. In a similar enclosure but, with the added capability of broadcasting a user-recorded message (i.e. "duck, cover, hold") is the **Apollo Guardian** model.

MSC

For applications requiring 24Vdc back-up power and control (i.e. solenoid or motor-operated natural gas shutoff valves, toxic gas shutoff, extended autonomy, etc.) ESS offers the **Model MSC-T and MSC-U Master Seismic Controllers**. By adding an actuator control sub-assembly, this unit becomes the **Model MSC-W** which ESS markets to the water industry. The **MSC-W** is typically wired to automatically close a ¼-turn butterfly valve using AUMA, EIM, Keystone, Rotork or virtually any electric or pneumatic actuator device. Although 1/4-turn, butterfly valve applications are common, the MSC-W is designed to work with most actuator & valve assemblies. MSC systems are used for fuel oil lines, LP gas, cooking oils, chlorine-virtually any media that requires earthquake actuated automatic shutoff.

All of the preceding ESS units ship with a tri-axial solid-state trigger module featuring user-adjustable acceleration setpoints (X, Y and Z axes), band-pass filtering to preclude actuation from non-seismic vibration, built-in diagnostic tests, and more. Unit diagnostics, acceleration setpoint adjustment and the recovery of XYZ peak acceleration information is accomplished via an RS-232C serial interface- using the provided communication software.

*'Technologies for earthquake loss reduction'
Real-time Structural Damage Indication; Valve Control Systems:
Earthquake Alarms; Seismic Switches*

INDUSTRIAL

COMMERCIAL

INSTITUTIONAL

41710 Enterprise Circle So., #F, Temecula, CA 92590
TEL: (951) 543-2121 www.eqsafetysys.com