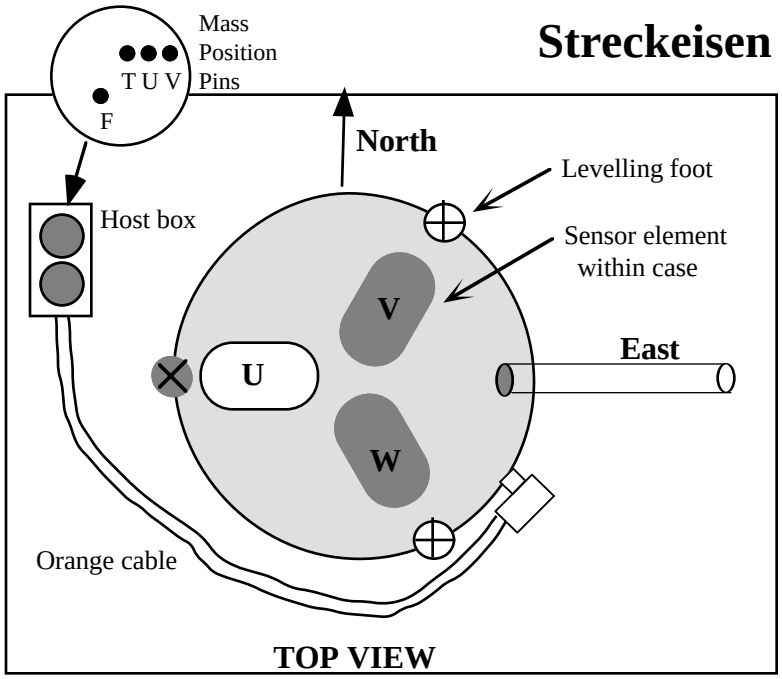
Streckeisen STS-2



Channel Order
(positive voltage on DAS channel means ground moved in given direction)
1 Up
2 North
3 East

Sensitivity
1500 Volts / meter / second

Calibration constant
1 microamp step ~ 0.25 Volts peak

Typical DAS parameters: 72A-08
Gain 1
Cal Amplitude 8.0 volts
Cal Interval 200 seconds
Cal Step Size 201 seconds

Physical Characteristics:

Size Cylinder 23.5 cm diameter, 23 cm high
Weight 9 kg
Shipping Weight 55 lbs. **Size** 18x18x16 inches
Power consumption
serial no. 190## 100mA @ 12 VDC
all others 50mA @ 12 VDC

Frequency Response:

Natural Freq. 0.0083 Hz. (120 seconds)
Damping 0.707 critical
Zeros two at zero
Poles -0.037 + 0.037*i*
-0.037 - 0.037*i*
3 more High freq poles exist

Installation Tips:

(See also the STS-2 Field Note, these are tips not complete instructions)

1. The sensor pad should be within 5° of level, marked with line oriented east. Construction of the sensor enclosure is critical to data quality. See Field Note on Broadband Vault Construction.
2. Align the sensor orienting rod to east, the U element foot is west. Level the sensor by adjusting the feet to center the bubble level, if necessary use the mirror on your brunton to view bubble. Twist the top part of the foot mechanism down (clockwise) onto the bottom part to lock it.
3. Attach the Orange cable, seat it all the way in. Secure the orange cable so that tugs on it (inadvertent or otherwise) do not budge the sensor.
4. Unlock the masses, cover the sensor with insulation. Insulate the vault and close the vault.
5. Connect the sensor power supply cable to the PASSCAL Powerboard (white +, black -) or 12 VDC supply. Connect the signal cable to REF TEK DAS.
6. Center the sensor using the button on the green host box and measuring the mass position voltages. Mass position voltages are pins T U V (F as ground) corresponding to elements U W and V respectively. The voltage should be within 1.5 volts of zero. Wait 90 seconds between recentering attempts. If after more than 10 attempts an element mass position voltage still has not crossed zero, consult the STS-2 Field Note for further instruction.

Cabling Notes:

There are two cable assemblies for the STS-2.
1) A 5 meter (a few 3 meter) orange cable with a 90° connector on one end and a green "host box" on the other end.
2) Two 4 meter grey cables tied togther. These mate with the host box on one end and the DAS sensor connector on the other end, with spade lugs for the power. The host box is keyed so the grey cable will attach to only one of the two ports. For power, white or red is positive (+) and black is negative (-).