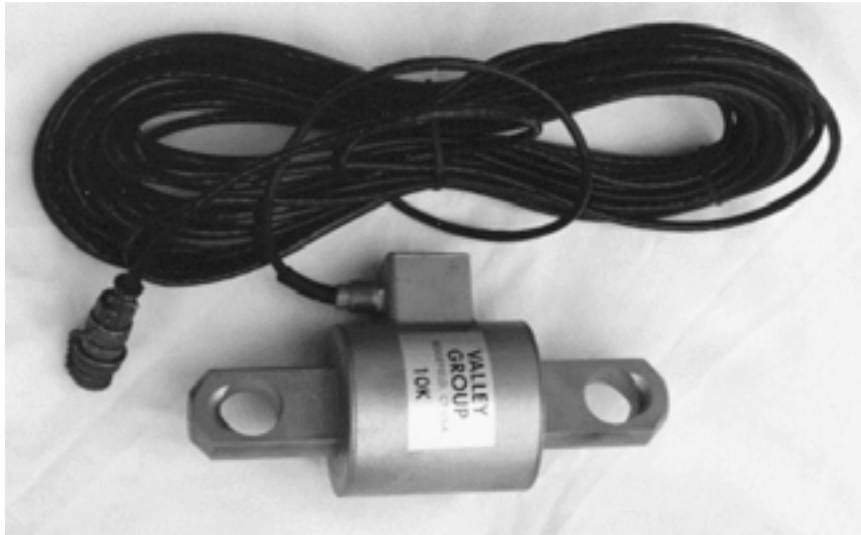


The Valley Group, Inc.

CAT-1™ Transmission Line Monitoring Systems

LOAD CELL DATA SHEET



Functional Description:

The CAT-1 Series 3.0 uses an all-stainless steel load cell with integral eye hardware. These load cells have been specifically designed and manufactured for The Valley Group, Inc. to withstand the power line environment. The load cells have high accuracy, stability, a 300% safety factor, and proprietary transient protection. All load cells have a two (2) year warranty.

These load cells are based on shear plate stainless steel transducers, with a separate external housing. The active strain elements of the load cells are insulated from the body of the load cell and protected by a 40V spark gap.

Load cells are available in standard ratings of 5,000; 10,000; 25,000; 50,000 lbs. (22.25, 44.5, 111.25, 222.50 kN). Other sizes can be specially manufactured upon request. The load cells are supplied with 80 ft. (24m) of cable unless otherwise specified.

The load cells and input circuits of the CAT-1 system have been designed to provide protection against electric and magnetic fields and transients.

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CAT-1™ Transmission Line Monitoring Systems

Specifications:

Nominal Range	5 / 22.25, 10 / 44.5, 25 / 111.25 (1000lbs / kN)
Maximum Range	7.5 / 33.78, 15 / 66.75, 37.5 / 166.88 (1000 lbs / kN)
Rated Strength	15 / 67.2, 30 / 134.4, 75 / 336 (1000 lbs / kN)
Resolution when used with CAT-1	0.05 %FS
Accuracy Class, Designation	0.03, D3
Excitation	10 VDC nominal, 15 VAC rms maximum
Rated Output	3±.003 mV/V
Zero Balance	1.0 %FS
Resistance: Input	350±3.5 ohms
Output	350±3.5 ohms
Insulation	5000 megohms @ 50VDC
Combined Error ¹	0.05 %FS
Non-Repeatability	0.02 %FS
Creep	0.03 % Ld/20 min
Temp Effect: ² Output	0.0008 %Ld/°F, 0.0072 %LD/5°C
Zero	0.0015 %FS/°F, 0.014 %FS/5°C
Temp Range: Compensated	0 to 150°F, -15 to 65°C
Operating	-65 to 200°F, -50 to 90°C
Barometric Effect	Negligible
Electrical Termination	GS02-145-SP-001 cannon connection with dust cap

Dimensions:

See attached

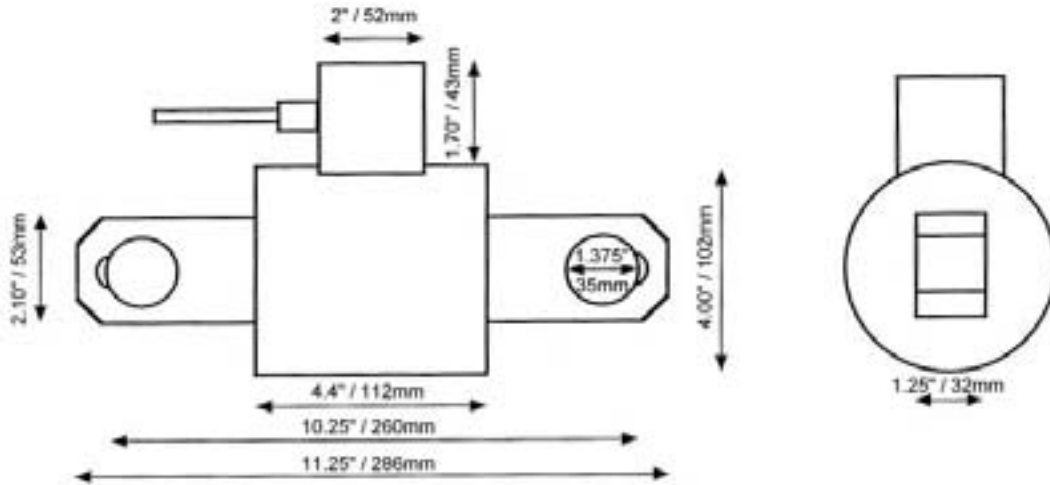
Notes:

1. The maximum deviation for both increasing and decreasing load from a straight line between no load and rated load at constant temperature. Includes effects of nonlinearity and hysteresis.
2. 200K/300K and all double bridge: 0.002%/°F, 0.0011/°C

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CAT-1™ Transmission Line Monitoring Systems

Load Cell Dimensions



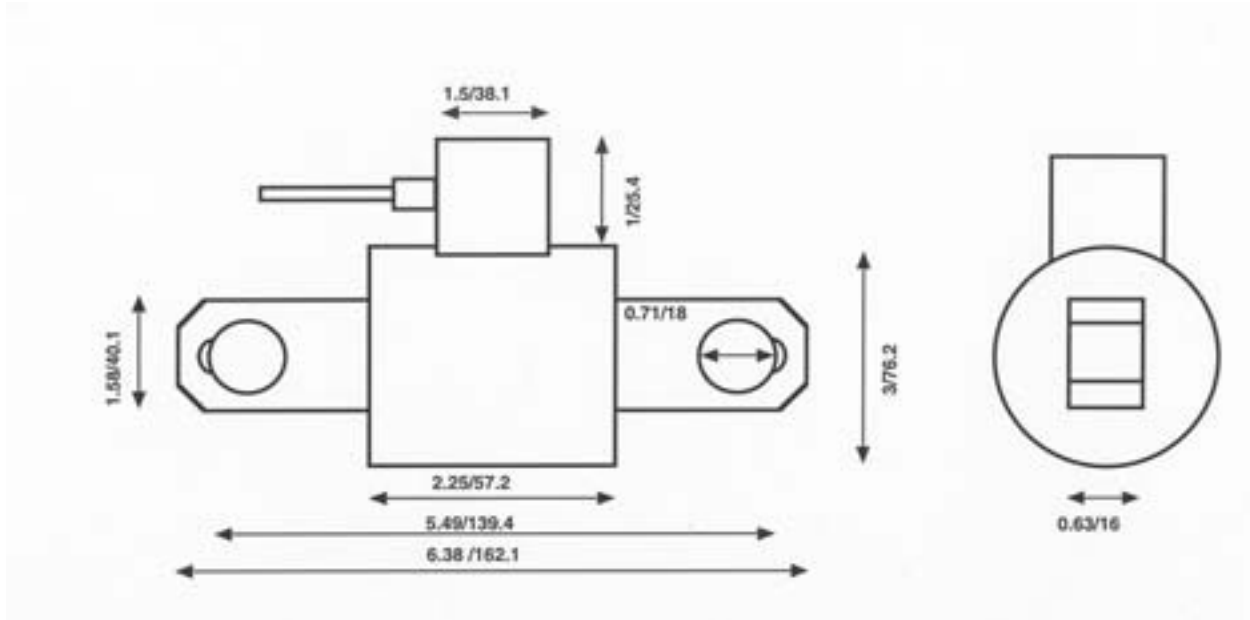
Dimensions shown for 10,000/25,000 lb cells (44.5, 111.25 kN).

Material: Stainless Steel, 180,000 psi / 1200 N/sq.mm
Standard cable length 80ft / 24m

The Valley Group, Inc.

CAT-1™ Transmission Line Monitoring Systems

Load Cell Dimensions, continued



Dimensions shown for 5,000 lb cell (22.25kN).

All dimensions are inches/mm

Material: Stainless Steel, 180,000 psi / 1200 N/sq.mm

Standard cable length 80ft / 24m