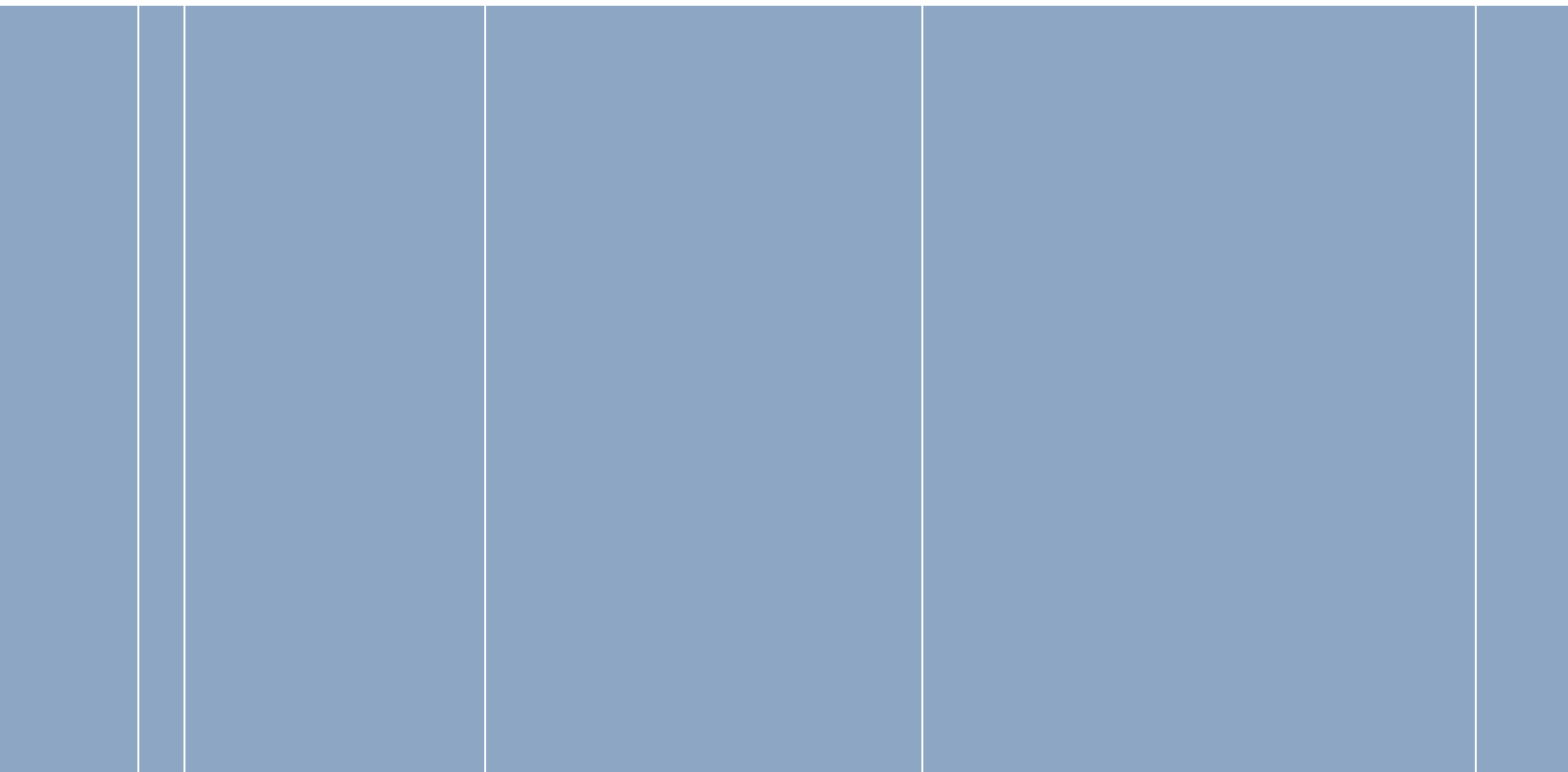


GCS314 Cylinder Scale



User Guide

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1.0 INTRODUCTION

1.1 PRODUCT DESCRIPTION

The GCS314 Cylinder Scale is known for its robust design to withstand industry-grade abuse. The stainless steel design provides resistance to harsh chemicals and corrosive gases. The scales have a sealed semiconductor load-cell which precisely weighs cylinders to within 0.1% accuracy of full scale. This allows cylinder and vessel depletion to lowest levels, reducing downtime and material cost. Scales come in a variety of ranges and sizes to fit almost any weighing application.

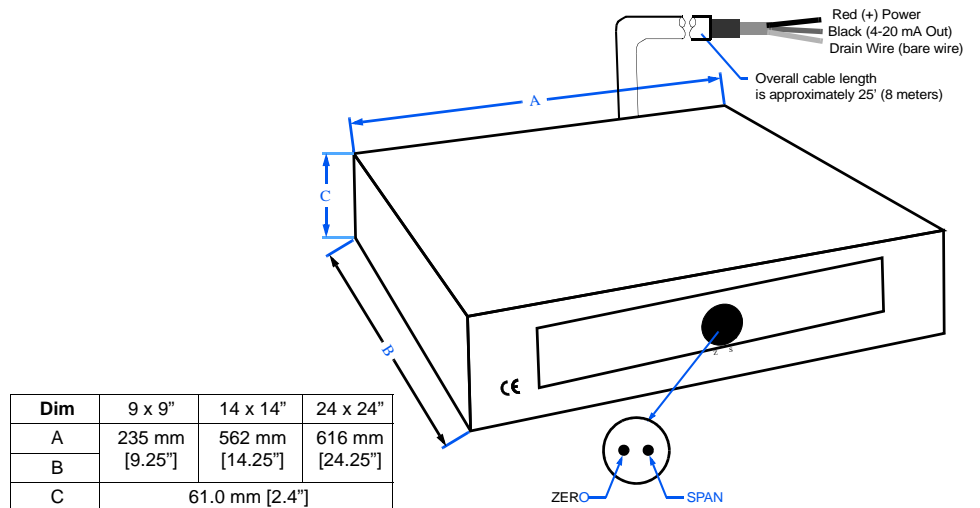
- Stainless steel construction
- Heavy gauge materials
- 0.1% accuracy
- CE compliant

1.2 SPECIFICATIONS

Material	Stainless steel platform, base and sealed load cell. Rubber shock pads.	Material
Input Power	24 VDC nominal, 11-30 VDC	Input Power
Output	4 to 20 mA	Output
Accuracy	±0.1% full scale	Accuracy
Temperature Range	Operating: -30 to 65° C (-22 to 150° F) Compensated: -10 to 50° C (14 to 122° F)	Temperature Range
Capacities and Sizes	60 lbs: 9"x9" 300 lbs: 9"x9", and 14"x14" 500 lbs: 14"x14" 1000 lbs: 24"x24"	Capacities and Sizes
Maximum Overload	150% full scale	Maximum Overload
Approximate Shipping Weight	9"x9": 20.4 lbs (9.25 kg) 14"x14": 54 lbs (24.49 kg) 24"x24": 150 lbs (68.04 kg)	Approximate Shipping Weight

NOTE: The 1000 lb scale has two load cells. All other scales have one load cell.

1.3 GCS314 CYLINDER SCALE DIMENSIONAL DRAWING

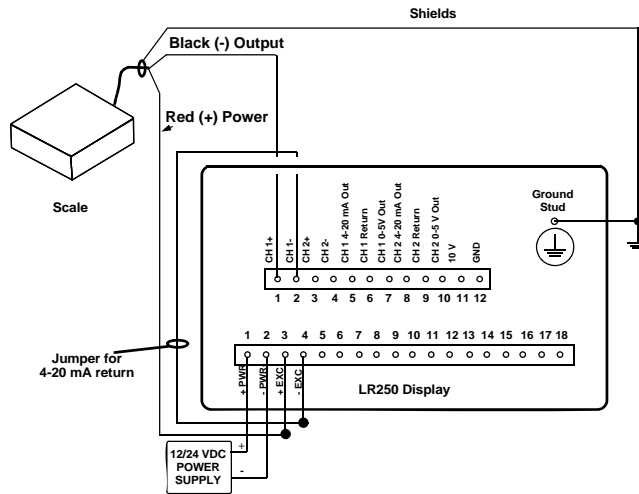


⚠ CAUTION ⚠
 Perform all operations with standard gas handling procedures in accordance with all local codes for safety and ventilation. You **MUST** wear appropriate clothing and safety apparatus for the gas you are using.

2.0 INSTALLATION

Failure to follow these procedures may adversely affect the product's performance and could void the product warranty. Inspect but **DO NOT** unwrap any parts until installation. Contact your Celerity representative with any problems.

2.1 WIRING THE GCS314 CYLINDER SCALE



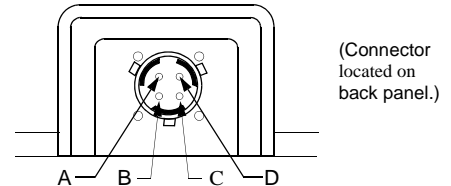
2.2 BENDIX® VERSION

Internal to the GCS314 cylinder scale, the electronics are enclosed in a metal housing. All connections are made using a shielded cable whose shield is connected to the platform plates. Testing has shown RFI protection is enhanced if the scale is connected to ground.

To ground a GCS314 cylinder scale with a Bendix connector, connect the shield of the power cable to the mating connector at the scale and to the ground at the other end.

⚠ CAUTION ⚠
 Exceeding the scale's capacity changes its calibration and may cause permanent damage.

Wiring Chart	
Pin No.	Wire
A	Red (+ power)
B	No Connection
C	No Connection
D	Black (4 - 20 mA signal)



NOTE: A mating connector with a 10' cable is available from Celerity as part number 3000032-001 and may be purchased separately.

2.3 PIGTAIL VERSION

The cable has two shields that are electrically isolated from each other. Trim the cable jacket as necessary to expose both shields and connect at the signal end to earth ground for RF immunity.

NOTE: The GCS314 cylinder scale IS NOT field serviceable. Should the scale require repair, it must be returned to the factory for service.

3.0 CALIBRATING THE GCS314 CYLINDER SCALE AMPLIFIER

The GCS314 cylinder scale is factory calibrated, however, if a field adjustment is needed, follow the steps below.

1. Remove the rubber plug from the scale that covers the zero and span adjustment potentiometers.
2. Connect the power source and allow a few minutes for the amplifier to stabilize.
3. With no load on the scale's platform, adjust the zero potentiometer to obtain 4 mA DC on either lead.
4. Place a load on the scale that weighs $\pm 0.1\%$ of the scale's full capacity, and adjust the span potentiometer to obtain 20 mA DC.
5. Repeat steps 3 and 4 as necessary to achieve a stable output at both ends of the scale (zero and full scale).
6. Re-install the rubber plug.

4.0

Product warranty information can be found on our Celerity website at www.Celerity.net. This information provides general warranty information, limitations, disclaimers, and applicable warranty periods according to product group.



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For technical assistance, contact Celerity Technical Support at 972.359.4000.

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