

BWS Type II: Granular

The CentriFlow® BWS Meter is constructed similarly to the Type II Standard Meter in that the meter is contained within an enclosure. The meter is perfect for measuring a variety of granular products such as grains, beans or pellets. Typically installed after feed devices such as rotary airlocks, screw conveyors or bucket elevators, the BWS can also be directly mounted inline into pipes or chutes that are transporting product via gravity. The BWS is designed with simplicity in mind, thus ensuring that the meter is simple and easy to use. The streamlined design allows for a lower price point than the standard CentriFlow Meter with its wide array of options and features. Featuring several options for flow surfaces, including Stainless Steel and ceramic tile lined flow surfaces for high wear applications, the BWS is perfect for measuring any granular, free-flowing solid.



Design Specification

- Easy to use lifting locations are located around the perimeter of the top surface of the meter's enclosure to assist with positioning the meter during installation.
- A Companion Flange is supplied for the inlet of the BWS. This flange mates to the bolt hole pattern located on the top of the BWS for simple and easy installation.
- The companion flange is designed with a standard 150# flange pattern.
- The BWS' electronics are mounted directly to the rear of the BWS and feature a 4" color touch screen HMI. The electronics allows for push button calibration as well as a variety of other functions.
- The standard outputs for the BWS include:
 - 4-20 mA Output equivalent to flow
 - Totalizing Pulse Output

Material Specification

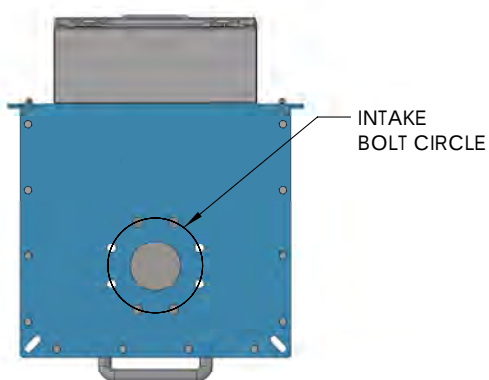
- Standard meter parts (other than product contact surfaces) are constructed of 6061 aluminum or Stainless Steel.
- Standard product contact surfaces (parts within the product flow path) are constructed of Stainless Steel.
- Type II enclosure as well as the rear access panel is constructed of painted Carbon Steel.
- Alumina Ceramic Tiled flow surfaces are also available for improving wear resistance against very abrasive materials such as sand or soybeans.

Volumetric Capacity of the CentriFlow® Meter
for the Type II BWS Meter ft³/min (m³/hr)

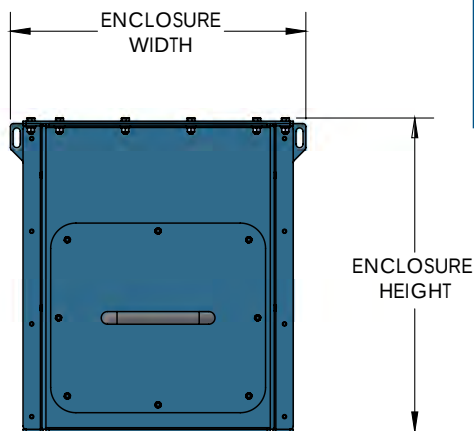
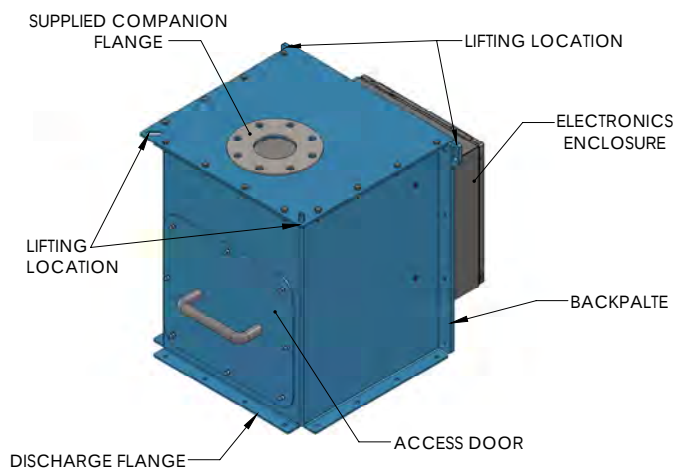
Meter Size	Min	Max
BWS-06	1.69 (2.87)	10.13 (17.20)
BWS-12	3.75 (6.37)	22.50 (38.23)
BWS-24	7.50 (12.74)	45.00 (76.46)
BWS-36	11.25 (19.11)	67.50 (114.68)
BWS-48	15.00 (25.49)	90.00 (152.91)



TYPE II BWS SPECS

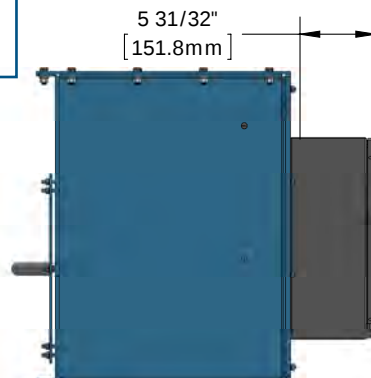


Top View



Front View

For Meters Without
An Enclosure Please
See Our Type I
Catalog



Side View

Type II Standard – Other Specifications

	Enclosure Width	Enclosure Height	Intake Inlet	Intake Flange	Discharge Flange Width	Discharge Flange Depth	Approximate Weight (CS)
BWS-06	23.38 in 594 mm	24.81 in 630 mm	4.00 in 102 mm	7.50 in 191 mm	21.38 in 543 mm	19.38 in 492 mm	209 lb 95 kg
BWS-12	23.38 in 594 mm	24.81 in 630 mm	6.00 in 152 mm	9.50 in 241 mm	21.38 in 543 mm	19.38 in 492 mm	209 lb 95 kg
BWS-24	35.38 in 899 mm	29.31 in 745 mm	10.00 in 254 mm	14.25 in 362 mm	33.38 in 848 mm	23.88 in 606 mm	379 lb 172 kg
BWS-36	47.13 in 1197 mm	24.56 in 624 mm	6.00 x 30.00 in 152 x 762 mm	8.41 x 32.41 in 214 x 823 mm	47.13 in 1197 mm	20.94 in 532 mm	425 lb 193 kg
BWS-48	58.375 in 1483 mm	24.56 in 624 mm	6.00 x 40.00 in 152 x 1016 mm	8.41 x 42.41 in 214 x 1077 mm	57.13 in 1451 mm	20.94 in 532 mm	492 lb 223 kg

Features & Benefits

Why choose the CentriFlow®?

Accuracy

Unlike existing technologies that *calculate* mass flow by making assumptions based on weight, speed, belt tension, or volume, the CentriFlow® Meter actually *measures* flowable solids in a process. This unique measurement ability allows the CentriFlow® Meter to have a typical $\pm 0.25\%$ accuracy full scale on virtually all flowable solids, significantly improving the industry standard.

Turndown Ratio

The CentriFlow® Meter can maintain its accuracy over a large turndown ratio and an additional Multiple Calibration option is available for extreme turndowns. Because the meter's unique design enables it to identify and cancel the friction component, the resulting mass flow signal = mass rate. This linear relationship allows the meter to measure at a typical accuracy of $\pm 0.25\%$ full scale and is unaffected by wide variances in rate.

Solid Construction / Low Maintenance

The CentriFlow® Meter's sturdy high-grade aluminum construction and stainless steel flow paths create a very low maintenance instrument. With no moving parts, it rarely requires recalibration and its solid-construction, low-maintenance design requires very few spare parts.

Plant Efficient Configurations

Designed to fit into nearly any existing process, the CentriFlow® Meter is available in multiple configurations that minimize the need for costly changes to your process. The Type I Configuration is designed to mount at the end of any existing horizontal feed system, while the Type II Configuration is designed for any in-line vertical feed system. Compared to alternatives, the CentriFlow® Meter's compact, space efficient design requires a small footprint.

Flexibility

The CentriFlow® Meter is not affected by changes in product elasticity, density, shape or friction and even fluctuations in flow rate don't impact its accuracy. The linearity of the zero friction formula underlying the meter's design allows the CentriFlow® Meter to measure at various densities and turndown ratios, while maintaining near perfect accuracy.

Continuous Measurement for Continuous Improvement

The CentriFlow® Meter's ability to provide an accurate and real-time, continuous mass flow measurement allows you to optimize your process like never before. The ability to measure gives you the control to manage.

CENTRIFLOW®: ACCURATE MEASUREMENT FOR MANY APPLICATIONS

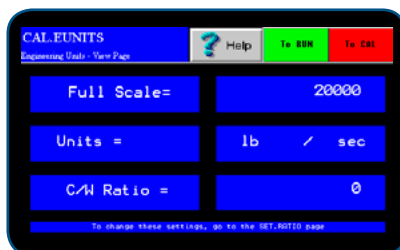
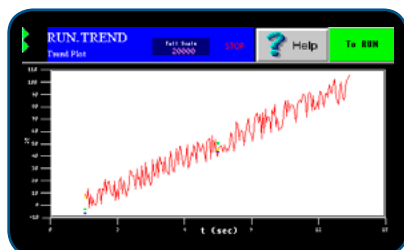
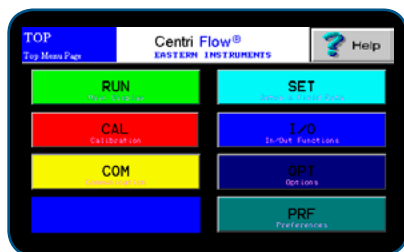


CentriFlow Electronics

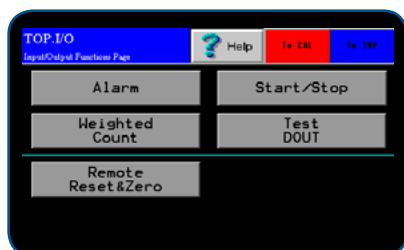
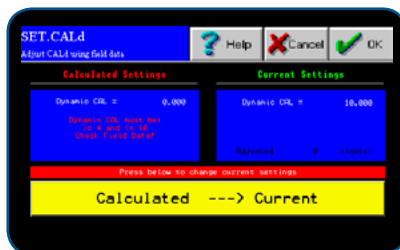
Integral Electronics Package with White Painted Steel Enclosure

The CentriFlow Integral Electronics is an integral electronics package used with all of the CentriFlow BWS style systems and mounts directly to the rear of these style meters. The integral electronics features a 4" color touchscreen HMI that allows for basic functionality and control of the CentriFlow unit, including calibration and zeroing of the meter. The main run screen shows a live reading of both flow rate and total.

SAMPLE SCREENS



Chan	CP Meter	Integral	Wt. Ratio	W. Error
1	0.000	0.000	0.000	+ 0.000
2	0.000	0.000	0.000	+ 0.000
3	0.000	0.000	0.000	+ 0.000
4	0.000	0.000	0.000	+ 0.000
5	0.000	0.000	0.000	+ 0.000



Features

- 4-20 mA Output (Flow Rate Proportional/Current Sourced/Fully Isolated)
- Frequency Output (Flow Rate Proportional – 0-500 Hz)
- Flow Rate or Totalization
- Alarm/Preset Capabilities
- Convenient, color, touch screen HMI with Flow Rate and Totalization displayed simultaneously on the main screen
- AC Power Supply (115-230 VAC)
- User-friendly Calibration, including Zero Adjustment, Static Calibration, Dynamic Calibration, Field Calibrations
- HMI On-screen Plotting/Trending
- Filterable rate signal allowing for a smoothing of the instantaneous flow rate output