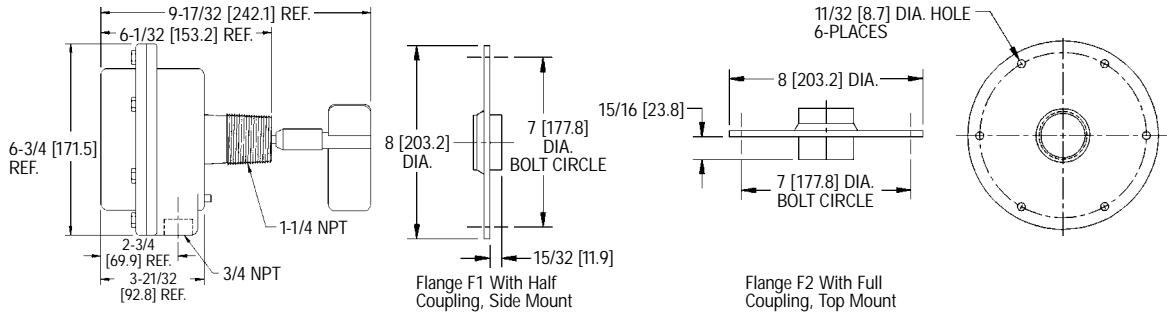


Specifications – Installation and Operating Instructions



Series DBL bin level monitors provide reliable dry bulk level control at reasonable cost. A slow speed synchronous motor rotates a stainless steel paddle which senses the presence or absence of dry bulk granular material. With proper placement, these devices can sense high, intermediate or low conditions preventing overflows, empty bins, choking or clogs in a wide range of applications. The unit can be mounted on the side or top of the bin or tank with a steel mounting flange and vane type stainless steel paddle. When used with our Easy Mount stainless steel bayonet paddle, installation can be made through the 1 1/4" NPT coupling opening, eliminating the need to purchase a mounting flange. Built-in signal delay allows a small amount of paddle motion even in a stalled motor position to reduce false signals. The motor draws only 3 watts of power and de-energizes in the stalled position to reduce the risk of burnout and save electricity cost while increasing operating life. The enclosed gears and abrasion resistant, three bearing stainless steel construction increases motor, gear and bearing life. Our power pack is completely interchangeable with all major competitive units except for fail-safe or explosion proof versions. The SPDT snap switch can be used to turn equipment on or off and/or provide alarm functions. The aluminum enclosure is rated for NEMA 1, 4 and 12 service.

PHYSICAL DATA

Motor: 115 VAC, 50/60 Hz, 220 VAC optional, consult factory.
Power Consumption: 3 watts
Switch: SPDT snap switch
Electrical Rating: 15A @ 125 VAC, 0.5A @ 125 VDC.
Mounting: Industry standard flange or 1 1/4" NPT threaded coupling.
Maximum Temperature: 200°F (93°C)
Conduit Opening: 3/4" NPT
Housing: Aluminum, rated for NEMA 1, 4 and 12 service.
Vane, Bearings and Shaft: 316 stainless steel
Seal: PTFE lip seal, FDA approved. Rated @ 30 psig.
Weight: Complete unit, approx. 8 lbs. (3.6 kg). Power pack only, approx. 5 lbs. (2.3 kg).

Three vane stainless steel paddle. For material 30 to 70 lbs per cubic foot. Turns in 5" (12.7 cm) diameter.

2 1/2" single vane insertable stainless steel paddle for material over 70 lbs. per cubic foot. Turns in 5" (12.7 cm) diameter.

Easy Mount single vane bayonet type insertable stainless steel paddle. For medium or heavy materials. Turns in a 6 1/2" (16.5 cm) diameter.



MODEL NUMBER, SIDE MOUNT	MODEL NUMBER, TOP MOUNT	SUPPLIED WITH
DBL-1010F1	DBL-2010F2	5" three blade SS vane and flange
DBL-1020F1	DBL-2020F2	2 1/2" single SS vane and flange
DBL-1030F1	DBL-2030F2	SS bayonet blade and flange
DBL-1030	DBL-2030	SS bayonet blade, no flange
DBL-1000P	DBL-1000P	Power pack only

INSTALLATION

In selecting a mounting location, be sure the material can freely flow to and away from the shaft and paddle. The shaft and paddle should also be out of the direct flow of material as it fills the bin or tank.

Flexible carbon steel mounting plates should be used when a completely assembled control is to be mounted on a curved or flat wall from the outside. Cut 5 1/2" (13.97 cm) hole in the wall at the mounting location. Drill six bolt holes on a 7" (17.78 cm) dia. bolt circle to match the holes in the mounting plate. See drawing above. The mounting plate, with the control attached, is then bolted in place.

Half coupling flange F1 is used with side of bin installations. Full coupling flange F2 is used with top of bin installations. If material is extremely heavy, only top mounting is recommended.

WIRING

The SPDT snap switch is wired to terminals 3, 4 and 5. When wired to terminals 3 and 5 the circuit will be closed when the motor is running and it will open when the motor is stopped, caused by the presence of material. When wired to terminals 4 and 5, the circuit will be open when the motor is running and it will close when the motor is stopped. The motor is operated through terminals 1 and 2. They will be on when the motor is on, and off when the motor is off. The maximum current to terminals 1 and 2 is limited to 15 amps.

