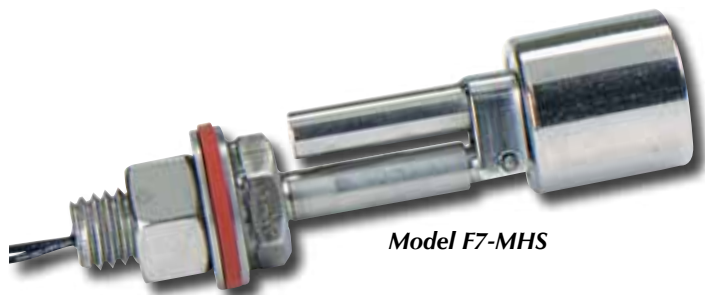


# Liquid Level Switches



Model F7-MHS

**Series F7** Horizontal Mount Level Switches are designed to mount through the walls of tanks and other vessels. Internally mounted models **F7-HPS-1**, **F7-MHS** and **F7-SS5** are secured to the wall of the tank or vessel from the inside while model **F7-HPS-2** is mounted from the outside (externally). Model **F7-HSS** can be installed internally or externally.

## Applications:

- The **F7-HPS-1** is suitable for gasoline, kerosene or solvents
- The **F7-HPS-2** is suitable for gasoline, kerosene or solvents.
- The **F7-HSS** is designed for high temperatures or corrosives.
- The **F7-MHS** is designed to limited space applications with high temperatures or corrosives.
- The **F7-SS5** is ideal for heavy-bodied liquids such as glue or fluids containing metal particles
- **F7-HPS-1** & **F7-HPS-2** float & stem material: Polysulfone
- **F7-HPS**, **F7-MHS** & **F7-SS5B** float & stem material: 316SS

## Specifications:

**Electrical Rating:** AC/DC: 15VA, 220V, 1.0A max. (**F7-HPS-1,-2**); 30 watts: 0.14A @220VAC, 0.28A @ 110VAC, 0.07A @ 120VDC, 0.28A @ 24VDC (**F7-HSS, -MHS, -SS5**)

**Mounting Connection:** 1/2" male NPT (**F7-HPS-2, -HSS**), M16 x 2 (**F7-HPS-1**), 1/2-13 bulkhead (**F7-MHS, -SS5**)

**Wire Leads:** 22 AWG x 39" (1m) (**F7-HPS-1, -2**); 22 AWG x 24" (61cm) (**F7-HSS, -MHS, -SS5**)

**Magnet:** Alnico (**F7-HPS-1, -2, -SS5**), Ceramic (**F7-HSS, -MHS**)

**Weight:** 1.5 oz (43g) (**F7-HPS-1**); 2 oz (57g) (**F7-HPS-2, -MHS, -SS5**), 3 oz (94g) (**F7-HSS**)  
**F7-HSS** is rated explosion-proof for Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III

Model	Max. Pressure	Min. S.G.	Approx. Deadband	Price
<b>F7-HPS-11</b>	150 psig, 10 bar	0.85	3/16", 5mm	<b>\$69</b>
<b>F7-HPS-21</b>	150 psig, 10 bar	0.85	3/16", 5mm	<b>\$67</b>
<b>F7-HSS</b>	300 psig, 20.7 bar	0.60	1/8", 4mm	<b>\$308</b>
<b>F7-MHS</b>	100 psig, 6.89 bar	0.70	3/16", 5mm	<b>\$190</b>
<b>F7-SS5B</b>	50 psig, 3.4 bar	0.60	3/16", 5mm	<b>\$193</b>

# Dry Bulk Monitors



The Mini-Bin provides reliable level sensing for dry bulk solids where mounting space is limited. This compact, side mount control reports high, intermediate, and low level conditions, eliminating overflows, choking, clogs or empty vessels. **Model DBLM** Mini-Bin operates by using a 1 rpm synchronous motor to rotate a four vane, plastic paddle. When material surrounds paddle and impedes rotation, the motor is de-energized and triggers a SPDT snap switch. Mount the Mini-Bin with optional 1-1/4" to 3/4" reducer to replace standard size units.



## Specifications:

**Motor:** 110 VAC, 50/60 Hz, 220 VAC optional

**Power Consumption:** 1.5 Watts

**Switch:** SPDT snap switch.

**Electrical Rating:** 3 A @ 250 VAC.

**Mounting:** 3/4" NPT(M), optional flange and 1-1/4" to 3/4" reducer

**Temperature Range:** -4 to 140°F (-20 to 60°C)

**Wiring Connections:** 18 AWG, 12" leads wrapped in conduit

**Wetted Materials:** Polycarbonate paddle, SS shaft, Teflon® washer

**Housings:** Polycarbonate, NEMA 1

**Weight:** 0.77 lbs. (350 g)

Model	Description	Price
<b>DBLM3040</b>	Dry Bulk Level Monitor, 110VAC	<b>\$234</b>
<b>DBLM3140</b>	Dry Bulk Level Monitor, 220VAC	<b>\$234</b>
<b>F1/A</b>	Flexible Mounting Flange, 8" x 1-1/4"NPT	<b>\$104</b>
<b>A-335</b>	1-1/4" to 3/4" Reducer	<b>\$18</b>

# Dry Bulk Level Switches



## Features:

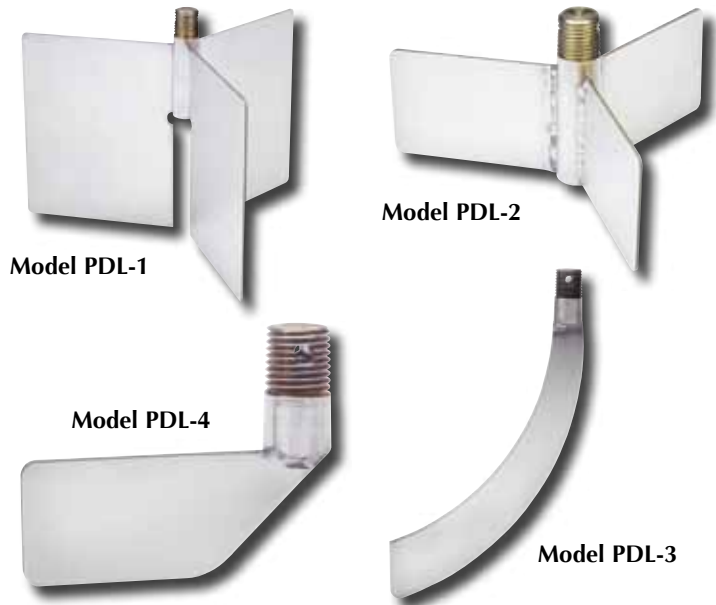
- Rotary paddle level control
- Top or side mounting for dry bulk materials
- Magnetic drive isolates and completely seals head from process and environment
- Motor shut-offs when paddle stalls
- Slip clutch design prevents damage to motor and drive mechanism from sudden or excessive loading
- Red LED switch status indication light
- Screw cover
- Modular design allows for field installation
- Weatherproof construction (NEMA 4X)
- Flexible coupling available for protection of paddle drive from side loads, surges or impacts

## Paddle Options:

- **Model PDL-1:** 316 SS 3-vane paddle for light weight materials with a minimum bulk density of 5 lb/ft<sup>3</sup> (80 kg/m<sup>3</sup>)
- **Model PDL-2:** 316 SS 3-vane paddle for medium weight materials with a minimum bulk density of 30 lb/ft<sup>3</sup> (481 kg/m<sup>3</sup>)
- **Model PDL-3:** 316 SS single vane paddle for medium weight materials with a minimum bulk density of 30 lb/ft<sup>3</sup> (481 kg/m<sup>3</sup>). Fits through a 1-1/4" coupling eliminating the need for a mounting flange.
- **Model PDL-4:** 316 SS single vane paddle for heavy weight materials with a minimum bulk density of 70 lb/ft<sup>3</sup> (1122 kg/m<sup>3</sup>). Fits through a 1-1/4" coupling eliminating the need for a mounting flange.

## Specifications:

Service:	Dry powder or bulk materials compatible with wetted materials
Sensitivity:	Min. material density of 5 lb/ft <sup>3</sup> (80 kg/m <sup>3</sup> ), max. of 200 lb/ft <sup>3</sup> (3200 kg/m <sup>3</sup> )
Temperature Limits:	Process: -40 to 300°F (-40 to 149°C); Control Head: -40 to 200°F (-40 to 93°C);
Pressure Limits:	30 psig (2.07 bar) maximum for 0.5 micron or larger material
Wetted Materials:	Paddles: 316 SS; Shaft: 316 SS; Shaft Seal: PTFE; Mounting Boss: Aluminum; Mounting Flanges: Carbon steel or 316 SS
Power Supply:	120 VAC
Enclosure:	Powder coated aluminum
Switch Type:	SPDT or DPDT snap switch
Electrical Rating:	15A @ 120 VAC
Electrical Connections:	Screw terminals
Conduit Connections:	3/4" female NPT
Process Connections:	1-1/4" male NPT
Weight:	Control head only: 4 lb (1.8 kg)



Model	Description	Price
PLS-W-S-1-0-0-0-0	Level Switch	\$298
PLS-W-S-1-3-0-0-0	Level Switch w/ PDL-3 Paddle	\$355
PLS-W-S-1-2-CSH-0-0	Level Switch w/ PDL-1 Paddle & Carbon Steel Flange w/ Half Coupling	\$388
PDL-1	Triple Vane Paddle	\$41
PDL-2	Triple Vane Paddle	\$38
PDL-3	Single Vane Paddle	\$41
PDL-4	Single Vane Paddle	\$38