

# BinMinder 9300™ - DAF INSTALLATION

## Effective Float Measurement & Control

### Primary Benefits

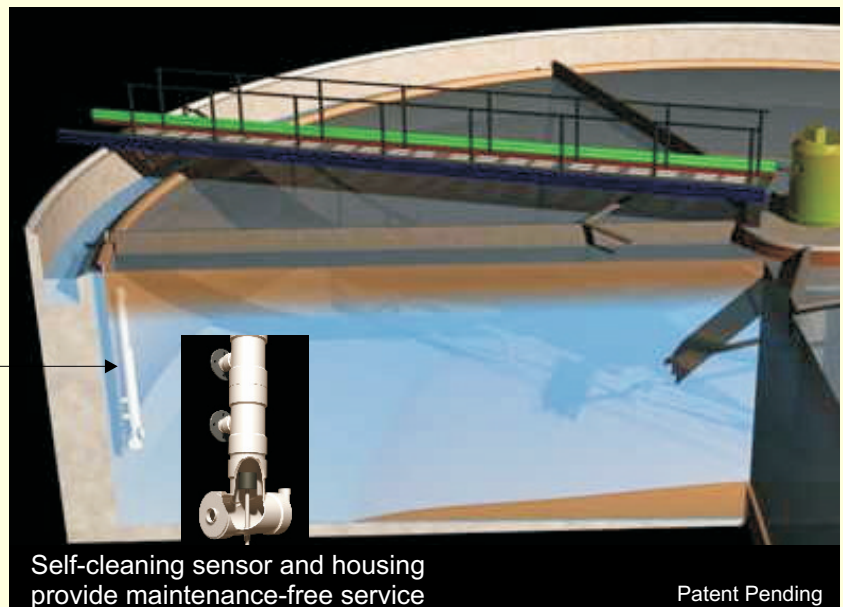
- Optimize/Automate sludge removal
- Optimize chemical dosing
- Prevent accidental discharge of solids
- Eliminate problematic hand measurements



Effective control of suspended solids float depth is essential to proper DAF operation. Insufficient float depth results in low concentration of solids discharged to downstream processing. Float that exceeds thickener design capabilities risks accidental discharge in the clean water effluent and may suggest ineffective chemical dosing.

Operators can now adjust skimmer operation to the actual requirements of the process rather than operating on the basis of rigid time models that are not responsive to changing process conditions. With BinMinder 9300, the effects of changes in influent flow rates, solids concentrations, and chemical dosage are continuously measured for optimal manual or automated control.

Unique installation fixture creates a “quiet zone” for signal transmission while allowing floating sludge to freely circulate and equalize with surrounding blanket.



**Sensor located in housing provides an accurate measurement of floating sludge depth.**

**Entech Design, Inc.** ...visit our website at <http://www.sludgelevel.com>

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# BinMinder 9300™ - DAF Installation

## Measurement Type:

- Single beam, underwater acoustic sensor

## Measurement Range:

- Minimum range: 1 ft. (0.3m)
- Maximum range: 6.0 ft.
- Range accuracy: 0.1 ft. (0.03m)

## Distance of Transducer to Processor:

- 1500 ft. maximum

## Outputs:

- 4-20 mA Current Loop Outputs:
  - Internally powered
  - Transient protection: Protected against transients exceeding 31.4V
  - Isolation: Galvanic isolation up to 1500V AC
  - Reverse polarity protection
- Serial Ports:
  - RS232 Interface for single unit operation
  - RS485 Interface for multiple units connected to the multidrop RS485
  - Transient Protection: Protected against transients exceeding 31.4V
  - Isolation (Optional): Galvanic isolation to withstand 1600 Vrms for 1 minute, or 2000 Vrms for 1 second
- Relays:
  - Four relays, independently assignable sensors
  - Relays are UL, CSA and VDE approved (VDE 0435, VDE 0631, VDE 0700)
  - Relay ratings are:
    - Nominal switching capacity
    - 10A @ 250V AC
    - 10A @ 30V DC

## Power Requirements:

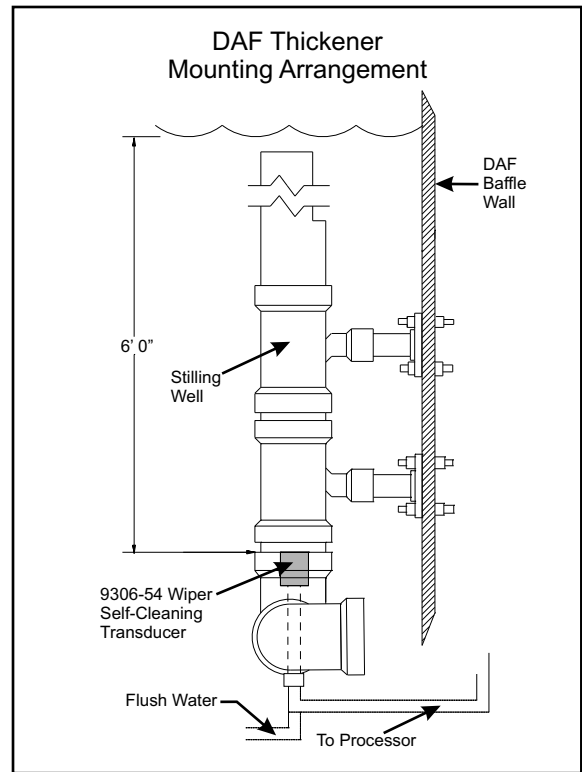
- AC power requirements are 110/220 VAC, 100 Watts
- AC line voltage transient protection
- Protected against transients that exceed 275V
  - Power line noise and interference is filtered by an in-line EMI filter, filter has CSA, UL and VDE approvals

## Temperature Range:

- Processor: -40°F to +140°F (-40°C to + 60°C)
- Transducer: -40°F to +120°F (-40°C to + 50°C)

## Mechanical:

- Processor:
  - Housing, molded fiberglass polyester
  - NEMA type 4X
  - Weight - 8 lbs.
  - Size (nominal) - 10" x 8" x 6"
- Transducer:
  - Housing - PVC
  - Encapsulating Material - epoxy
  - Weight - 1 lb.
  - Cleaning - Integral wiper system
- Transducer Housing Assembly
  - Housing - Schedule 80 PVC Pipe & Fittings, 4 in.
  - Housing Connection - 1-1/4 in. Schedule 80 PVC flange.
  - Flush Water Connection - 3/4 in. PVC slip connection to customer supplied clean water source.
- CE approved systems manufactured to EMC Directives: EN50081-2:1996, EN50082-2:1992 and Low Voltage Directive: EN61010.1 (Pub. IEC 61010-1:1990 with Amendments 1 & 2, and EU Group Differences) are available.



## Superior Performance at Industry Leading Low Cost

Represented by:

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