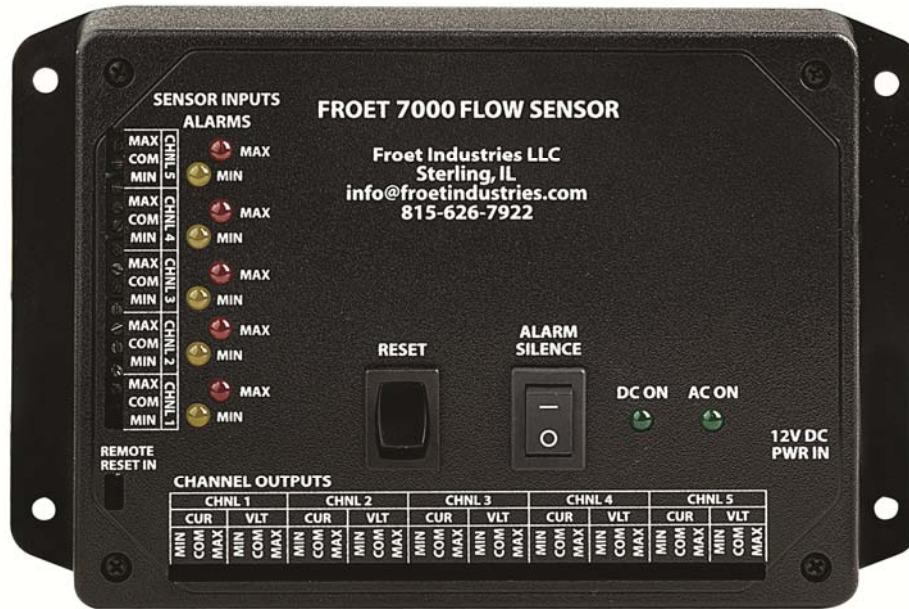


Froet 7000 Series Flow Sensor



The Froet Flow Sensor is designed to notify the building maintenance staff whenever there is flow in the overflow drainage system, typically an indication of either a primary drainage system blockage or the inability of the primary system to adequately handle the water load on the roof. The multiple sensor positions of the in-pipe pickups provides alerts for both low and high flow conditions. Any registered flow level remains present until manually cleared, ensuring that the drainage system is not only monitored around the clock, but that no one needs to be present to witness the event. The information provided by Froet Flow Sensor System alerts the owner to the maintenance needs of the drainage system, possibly avoiding a catastrophic structural failure. The flow sensor pick-up is supplied in a 6 inch long section of PVC, Steel or Cast Iron pipe to be installed by either no-hub gaskets, or gluing the PVC section into a horizontal run of the overflow drainage line. The sensor pickup should not be installed closer than 4 pipe diameters to an upstream elbow. The signal is sent out to the pickup and back to the control unit via a low voltage 12V signal (18 Ga. and in some cases due to interference wire should be shielded, wiring not included). Outputs are current or voltage outputs that will provide for connection to building management systems or to control valve actuators. Power is supplied to the unit from a 120 volt to 12 volt plug in transformer included with the sensor.

The 7000 unit has added improvements over the 6000 unit

1. Connection for remote reset
2. Optional 3 hour reset timer
3. Optional internal battery back-up
4. Current and voltage outputs

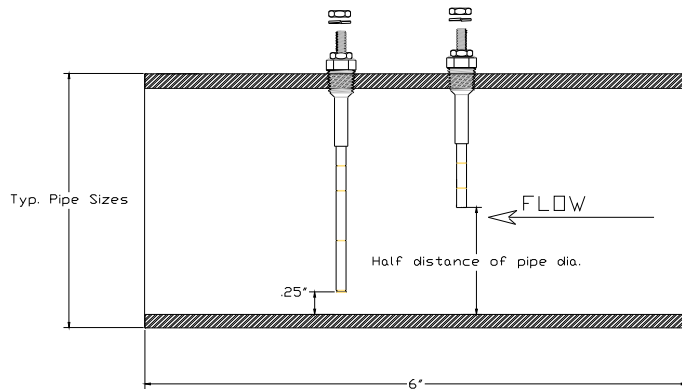
The Froet Flow Sensor can also be utilized in rainwater harvesting systems to sense the water in the system and control a valve to flush the debris in first ten minutes of rain and then fill the storage tank.

Froet Industries LLC 1741 Industrial Drive Sterling Illinois 61081
ph. 815.626.7922 fx. 815.626.0702 www.froetindustries.com

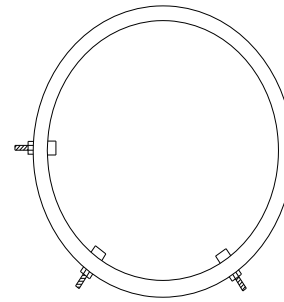
Specifications and dimensions subject to change without notice

1) Sensor Inputs:		Custom Froet Input Water Level Sensor	
1) Common	connection required for min. or max. inputs	connection 18 Ga. In some cases shielded, wire by others	
2) Minimum	connection as needed for application		
3) Maximum	connection as needed for application		
2) Froet 7000 Outputs:		Condition	Output
A) Current Loop Output ("CUR")	Level detection OFF (neither low "MIN" nor high "MAX" level condition detected).	3 ma. (+/- .3ma)	
B) Current Loop Output ("CUR")	Level detection ON (either low "MIN" or high "MAX" level condition detected).	20 ma. (+/- 2ma)	
C) current loop fault condition detected.	Open Circuit in Loop	0ma.	
D) Voltage Level Output ("VLT")	Level detection OFF (neither low "MIN" nor high "MAX" level condition detected).	0 V (referenced to common ground)	
E) Voltage Level Output ("VLT")	Level detection ON (neither low "MIN" or high "MAX" level condition detected).	10 V (+/- 1 V)	
3) Alarms:			
A) Low Level "MIN"	Visual	YEL LED turns ON	
B) High Level "MAX"	Visual	RED LED turns ON	
C) High Level "MAX"	Audible	2.5KHz (nom) audible alert turns ON	
4) Controls--Front Panel:			
A) Reset (Alarm) Switch	Resets alarms to OFF state (if alarm conditions no longer exist).		
B) Alarm Silence Switch	Silences the audible alarm when the high level alarm conditions exists.		
5) Control--Internal:			
A) Optional "3-Hour Timer Reset" board.	Automatically resets High Alarms after approximately 3 hours (+/- 10%).		
6) Control--External:			
A) External Reset-terminal block receptacle provided	Install an external switch or dry contact relay closure for an external means of resetting the alarms.		
7) Internal Battery:			
a) Optional 12 Volt Battery Back-up	Optional 12 Volt 0.8 Amp hrs. Spill Proof Construction Approved for transport by air D.O.T., I.A.T.A., F.A.A. and C.A.B. Certified Operating Temp Range -4°F(-20°C) to 122° (50°C) recommended life three to five years U.L. recognized under file # MH20845 Provides continued functionality if AC power is out (up to approx. 24 hrs for single-channel alarm set.	An internal charger circuit automatically keeps this battery charged.	
8) Power Indicators--Front Panel			
A) AC ON	When lit, indicates that the AC power source "Use power supply supplied, or equivalent 12 VDC, 500ma supply) is supplying power to the unit.		
B) DC ON	This LED will be lit when the AC power source is supplying power to the unit, or when the AC power source is not supplying power to the unit (AC line power down or off) and the internal battery is supplying power to the unit. If this LED is NOT lit when the AC power source is disconnected, then the internal; battery is either not connected or is discharged.		
9)Power input			
A) 12 volt DC	120 V ac 60 Hz Linear power supply with 12V dc 500mA output UL listed		

Froet 7000 Series Flow Sensor



Steel or Cast Iron pipe pick-up



PVC pipe pick-up

See: Froet flow sensor order form for correct ordering

Important information

If the overflow system is connecting to the primary on the horizontal the pickup must be in an elevated pipe section to prevent a false signal from water backing up the overflow pipe from the primary pipe

This product is not approved for use in hazardous locations or use with flammable liquids.

This product is designed to be used with a properly designed drainage system where the overflow system flows water in only rare occasions due to blockage or excessive rainfall. Use in a system that flows overflow water on a frequent basis due to improper design or installation may cause pickup corrosion and reduce the service life of the pickup terminals.

Removal of the pickup terminals will void warranty.

This product is designed to monitor one overflow drain per sensor channel, installation of the pickup sensor in a pipe with multiple upstream drains will not provide correct overflow notification.

In some cases the wire from the pick-ups to the control box may need to be shielded due to high voltage or RF signals in close proximity to the pickup wires

Disclaimer

The use of the Froet Flow Sensor to notify the building owner of an overflow systems operation does not eliminate the need for maintenance. Maintenance may still be required to maintain the proper operation of a roof drainage system.

Froet Industries LLC 1741 Industrial Drive Sterling Illinois 61081
ph. 815.626.7922 fx. 815.626.0702 www.froetindustries.com