22-12-2014

MADE IN

EFCON® water
EFFLUENT CONTROL SYSTEMS

Flow
Level
Pumps
Analytic
Samplers

Power supply	230V AC ±5% / 1 A / 50 Hz
Power	±100 W
Enclosure	Thermoplastic green
	Wall mounted model
Height	412 mm ±2%
Width	340 mm ±2%
Depth	302 mm ±2%
Weight	±9 kg
Material	PE
Back plate	Aluminium with
	suspension bracket
Protection class	IP 54
Ambient temp.	0°C / +40°C
Zone	Not in explosion hazardous
	environments

DN 16 mm

Dn 12 mm

Efcon Sampling Tube

- Acc. EN ISO 5667-2/10
- 3 mm Thermo Isolation & Solar Shielded
- PA Yarn Reinforced 3 layer Section
- Ambient: -5°C to 60°C
- Tube size: Dn 16 mm / Dn 12 mm with 1 meter length indication
- Migration tested at 40°C Acc. CE 1935/2004 type A/B/C Liquid

EFCON® Wall Mounted Vacuum Sampler

Acc. EN 16479, EN ISO 5667, NEN 6600-1

Robust Wastewater Sampler according the Vacuum Principle.
Sampling can take place Time or Flow (pulse or current) Proportional or with a trigger contact to start/stop Time Based Sampling.

Rotary Vane Pump & Pincher are bi-directional to prevent the use of failing ´Airmanagers´ or Air Valves.
Basic 24-lines data registration, Alarm output.

Standard with 5 meter ISO 5667-2 Sampling Tube and 1.5 meter Drain Tube.
Wetted parts: PC, PVC, SS316, Silicone.

Please contact Efcon® for customized solutions like MODBUS, WI-FI, UMTS, Open channel flowmeters etc.

Efcon® Water b.v. | www.efconomy.com
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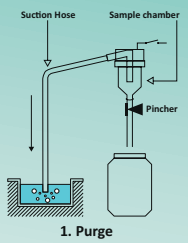
Specifications

Display	2 lines 16 characters, 16 keys
	Totalizer 300000,00m3 max (autom. resets)
I/O hardware	8 digital inputs, 4 analog inputs,
	11 relay outputs
Basic operation	Manual sample button, Next container
	button, Reset button
Inputs	Pulse input, Current flow input (4-20mA),
	Optional: 2x digital inputs (free config.)
Output	Optional: 1x 24VDC active output (free config.)
Sample principle	Vacuum
Sample program	Volume / time / batch
Sample interval	0,01 – 250,00 m3 / sample
	2 – 250 minutes / sample
Max error samples	0 – 999
Sample Volume	20 – 250 ml
Vacuum settings	Purge time 1- 99 sec
	Dose time 1 – 99 sec
Turn time	00:00 – 23:59
	Select day (MTWTFSS)
Turn Interval	00:00:00 – 99:59:59 (HH:MM:SS)
Container config.	1 – 24 containers, volume 0,01 – 99,99 l
Program settings	Start program according date/time (0=Off)
	Stop program according date/time (0=Off)
Stop after container	0 – 99 (0= Off)
Password	Yes, (1-9999)
Date & time	Changeable
Flow signal	Pulse / current / pulse + current
Pulse input	0,01 – 100,00 m3
Current	20mA = 1,0 – 360,0 m3/h
Input Options	Program on/off, Start program, Stop program, take
	sample, next container, start cool unit.
Output Options	General alarm, sample alarm, sampling active,
	sample ok, high temperature, sample error, 1m3
	Pulse, 0,1 m3 pulse, 0,01 m3 pulse, Containers full

Operation principal

1. Purge

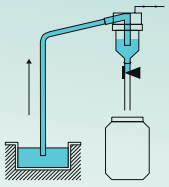
When taking a sample the sampler starts purging the suction hose during a set time. This is to remove the old medium from the suction hose trough the inlet.



1. Purge

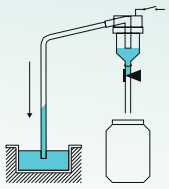
2. Suction

The sampler starts creating a vacuum on the inlet until medium reaches the medium detector. When the sampler doesn't detect medium within a set time an error sample is counted.


2. Suction

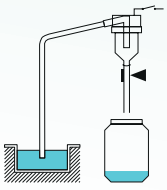
3. Dose

After the medium is detected the sampler doses the medium during a set time.


3. Dose

4. Drain

When a sample is dosed the vacuum pump creates pressure again on the inlet to drain all the excess water from the tubing inside the pump and suction hose all during a set time.

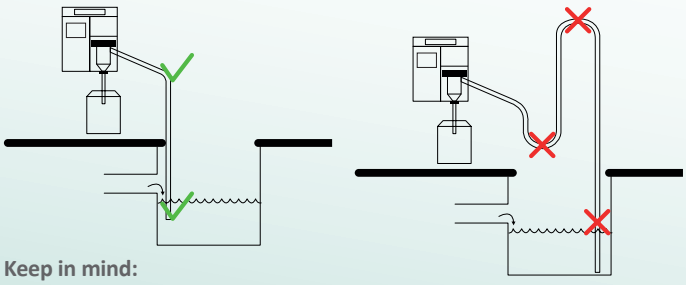

4. Drain

Installation Instructions

Mount the inlet of the suction hose on a fixed representative turbulent point to sample homogeneous, non foaming wastewater. Ensure the suction hose is always emerged in the wastewater/medium.

Sample Medium

- Free of solid parts
- Non foaming
- Free of air inclusion
- Temperature: +0,1°C / +50°C
- Minimal conductivity: 50µS

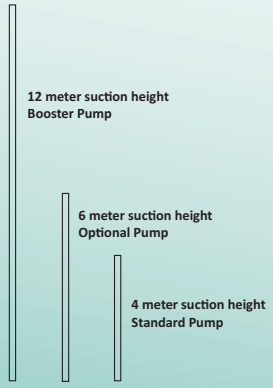


Keep in mind:

- Standard 4 meter suction height at 0,5 m/s *Max 5 meter*
- Option 6 meter suction height at 0,5 m/s *Max 7 meter*
- Avoid siphons in the suction hose
- Mount the inlet from the suction hose always downward and on a lower point then the sample chamber.

Suction height

- 4 meters suction height requires a Standard Pump.
- 6 meters suction height requires an Optional Pump.
- 12 meters suction height requires a Booster Pump.



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