

MULTI-ELECTRODE PROBE FOGRod Installation Guide V2.7

Introduction

Designed as a cost effective alternative to stainless steel rods, ball floats, ultrasonics etc for raw water, grey water and wastewater application. FOGRod is a very simple device that electrically connects liquid level controller electrode inputs to ground via effluent using high grade stainless steel corrosion resistant electrodes.

In wastewater FOG stands for FAT OIL and GREASE, FOGRod was also developed to deliver high reliability even in wastewater wet wells with lots of rag and/or FOG.

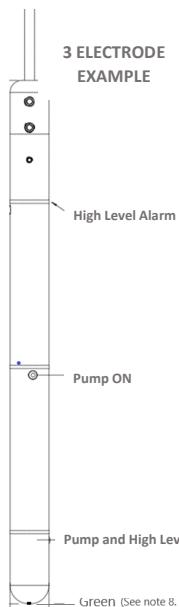
Installation Guidelines

1. Hang FOGRod using the stainless steel S hook from the cleaning bracket directly into the effluent with a minimum of 150mm radius clearance from objects such as pumps, walls, guide rails, ladders etc.
2. Position the mounting/cleaning bracket to allow ease of access for inspection and cleaning of FOGRod.
3. In sewage DO NOT install in a stilling tube always hang free in effluent (stilling tube fine in debris free effluent such as water, greywater etc).
4. In sewage ideally position the FOGRod in a turbulent area of the wet well, next to (not directly under) the inflow. Turbulence helps keep FOGRod clean, use 5ft or 7.5ft FOGRods in very turbulent wells as the weight keeps it stabilised.
5. In sewage Use the bottom side mount electrode (black wire) as the pump(s) off point, this has the additional benefit of keeping wet well rag accumulation down.
6. In pumping applications position the very bottom of the FOGRod a minimum of 75mm above the snore point of the pump.
7. Leave enough spare cable coiled loosely by the cleaning bracket to allow the FOGRod to be pulled fully up through the cleaning bracket.
8. When using a 3 or 5 electrode + earth FOGRod the earth electrode on the very bottom tip of the FOGRod (green wire on 3 electrode version, blue wire on 5 electrode version) is **NOT FOR WASTEWATER APPLICATIONS** but water applications or with plastic tanks where no metal earthing is present.
9. Notwithstanding the exception in note 8. above an earth terminal in the panel must be connected to an earth point in the wet well, this can be existing metal in constant contact with the effluent ie. guiderails etc (if site has existing earth bonding then no further action required). This earth return conductor should be a minimum 1mm in size, importantly this **ISN'T FOR ELECTRICAL MAINS EARTH BONDING** but simply a guaranteed low conductivity return path for the liquid level controller used with FOGRod. For 10 electrode FOGRods where no metal exists in the chamber or well install a 6mm 316 stainless steel rod permanently in contact with the liquid as earth return connected to the electrical panel earth.

Maintenance Guidelines

1. In sewage applications FOGRod should be cleaned on service visits by pulling it up through the mounting and cleaning bracket.

Wiring Connections & Colours for 3, 5 & 10 Electrode FOGRods



SHORT FOGRod CABLE WIRING			
3 ELECTRODE		5 ELECTRODE	
5.	N/A	Brown	Top electrode
4.	N/A	Green	Between
3.	White Upper electrode	White	Middle electrode
2.	Red Middle electrode	Red	Between
1.	Black Lower electrode	Black	Lower electrode
	Green Earth stud electrode	Blue	Earth stud electrode

NOTES:

1. USE WHATEVER ELECTRODES ARE MOST SUITABLE FOR THE INSTALLATION. HOWEVER IN SEWAGE DUTY PUMP OFF SHOULD ALWAYS BE THE BOTTOM SIDE ELECTRODE (BLACK WIRE).
2. THE PINK WIRE ON THE 10 ELECTRODE FOGRod IS FOR CONNECTION TO THE LIT ONLY FOR THE 'CABLE CUT' ALARM.
3. THE 10 ELECTRODE FOGRod HAS EITHER A GREEN WIRE OR A NAKED DRAIN WIRE CONNECTED TO THE SCREEN, THIS WIRE MUST BE CONNECTED TO EARTH
4. THE TEN ELECTRODE FOGRod GIVES A GREAT CHOICE OF ELECTRODES AND ALSO THE POTENTIAL TO USE SPARE ELECTRODES AS REDUNDANCY

