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## INPRO GPS 10



**GPS 10 equipped with optional  
leak detection system**

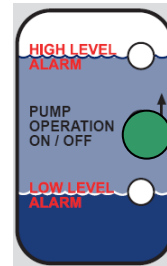
## **GPS 10 and GPS 10 Maxi INSTALLATION MANUAL**

## INDEX

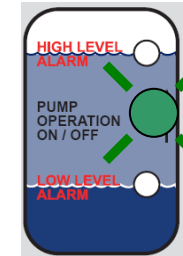
|                                      |    |
|--------------------------------------|----|
| GPS 10 Technical Specifications      | 2  |
| GPS 10 Installation                  | 3  |
| Troubleshooting and maintenance      | 4  |
| Wiring Diagram                       | 5  |
| System description and parts         | 6  |
| Accessories – Leak detection system  | 7  |
| Leak detection system wiring diagram | 8  |
| Installation examples                | 9  |
| Display quick reference list         | 10 |

### Display quick reference list

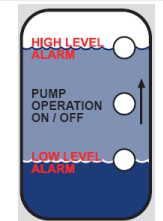
#### Normal Operation Status:



GPS 10 Oil Lifter is powered. Oil in lifter reservoir arrived till stop level. It keeps this state till low level is reached again, or start button is pushed.

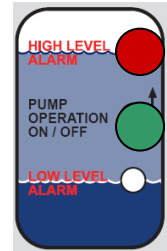


Pump filling GPS reservoir

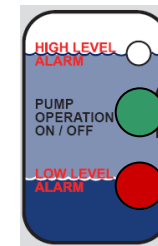


No Power Supply

#### Alarm Status:



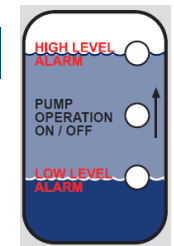
Very high level is reached



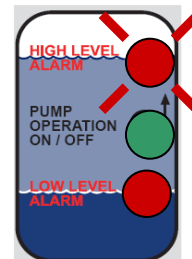
Very low level is reached



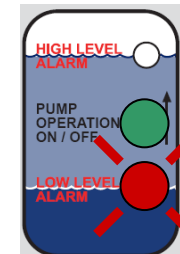
+



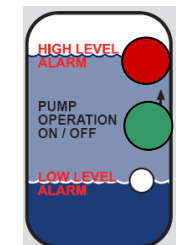
Leak detection alarm (if fitted)



Leak detected (if fitted)  
Combined with low level alarm

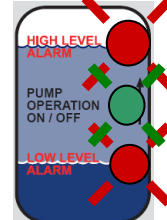


No oil Safety Stop:  
Activated after 1 hour  
approx. running without oil



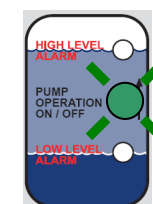
No level probe is detected

#### Other Status:

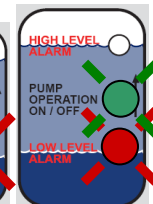
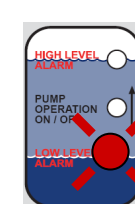


#### Reset Sequence

Following to an interruption to the power automatically starts within 3 seconds.



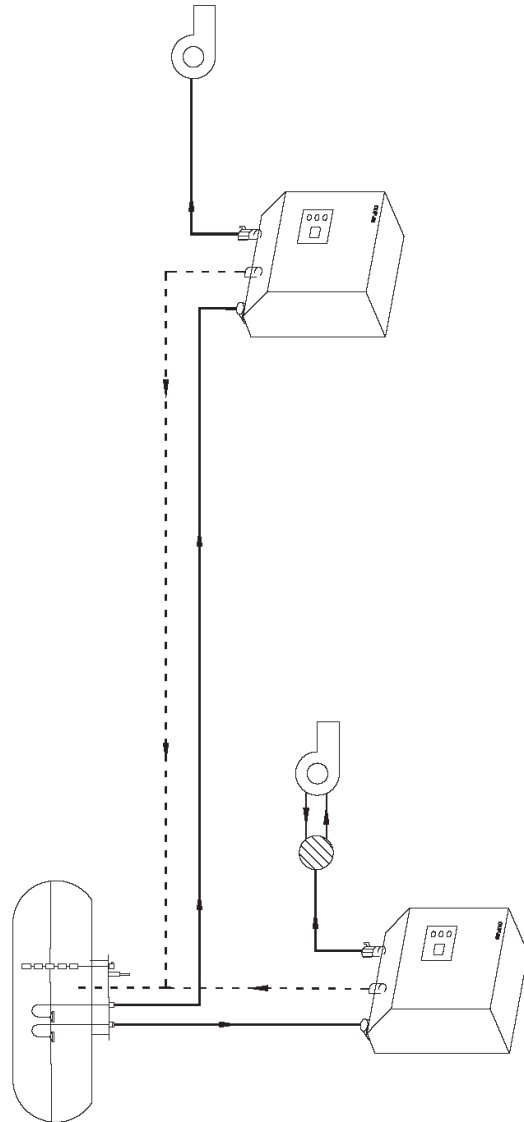
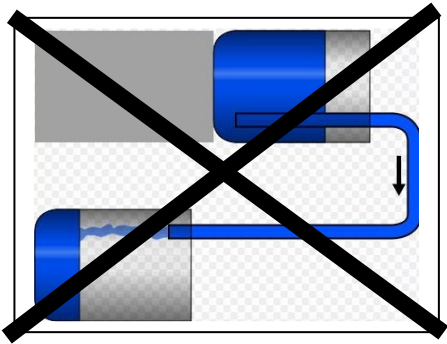
x 5...



#### Automatic Start Mode facility

To enter, keep pressing start button during 5 green led blinks (5 sec approx)

## Installation examples:



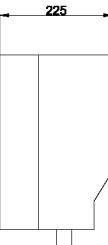
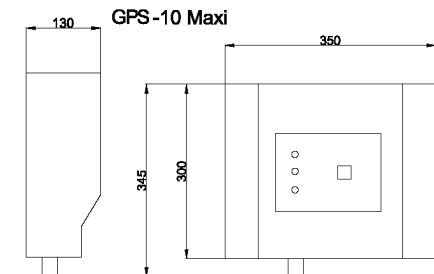
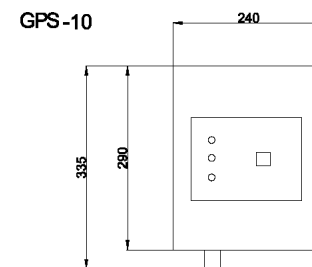
**Important:**

For outdoor use, use a weatherproof protective cabinet for the GPS 10

Do not install below oil level at main tank, as siphoning may occur if no extra device is installed (anti siphon valve or NC solenoid valve)

## GPS 10 – TECHNICAL SPECIFICATIONS

|  |   |             |          |
|--|---|-------------|----------|
| PUMP TYPE                              | Suction Solenoid Pump   |             |          |
| LIFTING HEIGHT (MAX.)                  | 8 m vertical (8 mm I.D. tube)   |             |          |
| MÁX. HORIZONTAL DISTANCE               | 100 m horizontal (8 mm I.D.. tube)  |             |          |
| OUTLET FLOW RATING<br>(8 mm I.D. tube) | 8 L/hr at: 8 m vertical & 25 m horizontal<br>15 l/hr at: 5 m vertical & 25 m horizontal |             |          |
| INLET CONNECTION                       | 3/8 " F BSP   |             |          |
| OUTLET CONNECTION                      | 3/8 " F BSP   |             |          |
| OVERFLOW OUTLET CONNECTION             | ½ " F BSP   |             |          |
| POWER SUPPLY                           | AC 230V, 50Hz   |             |          |
| POWER CONSUMPTION                      | 50 W  |             |          |
| RESERVOIR TOTAL CAPACITY               | 3,5 Litre.  | 12 Litre    |          |
|  | GPS 10  | GPS 10 MAXI |          |
| DIMENSIONS:                            | Width:  | (240 mm)    | (350 mm) |
|  | Depth:  | (130 mm)    | (225 mm) |
|  | Height:   | (335 mm)    | (345 mm) |
| WEIGHT                                 | 3 kg  | 4 kg        |          |
| FUEL TYPE                              | Kerosene & Diesel Oil   |             |          |



## GPS 10 INSTALLATION

### ☛ Installation must be in accordance with any local building regulations

1/ Connect the suction line from the main tank to the 'inlet' and the supply pipe ('gravity fed') to the appliance to the outlet. Connect the overflow facility(\*).

2/ Connect the GPS 10 to the mains supply either through a plug (not included) or fused electric spur (see attached wiring diagram).  
The mains supply cable has to pass through the access hole to the back part of the mounting plate  
Once powered up the low level led light will come on.

3/ To start the GPS automatic operation, press and keep pressed the start button, which will start the pump, filling the GPS 10 reservoir, until the Low Level lamp turns off. The pump may be noisy initially until the fuel starts coming through to the pump.

4/ To start the GPS automatic operation, press and keep pressed the start button, which will start the pump, filling the GPS 10 reservoir, until the Low Level lamp turns off. The pump may be noisy initially until the fuel starts coming through to the pump.

*Automatic start mode: If you keep pressed the start button during the 5 seconds just after the power supply is connected to your pump, you enter in a special programmed mode which keeps triggered the start button till automatic mode is reached (low level, so the pump continues filling GPS reservoir till high level). You will identify if you are under this mode because the 2 lower leds keep flashing intermittently. See details at page 10*

Once reached the low level, you can release the start button, because the GPS works in automatic mode.

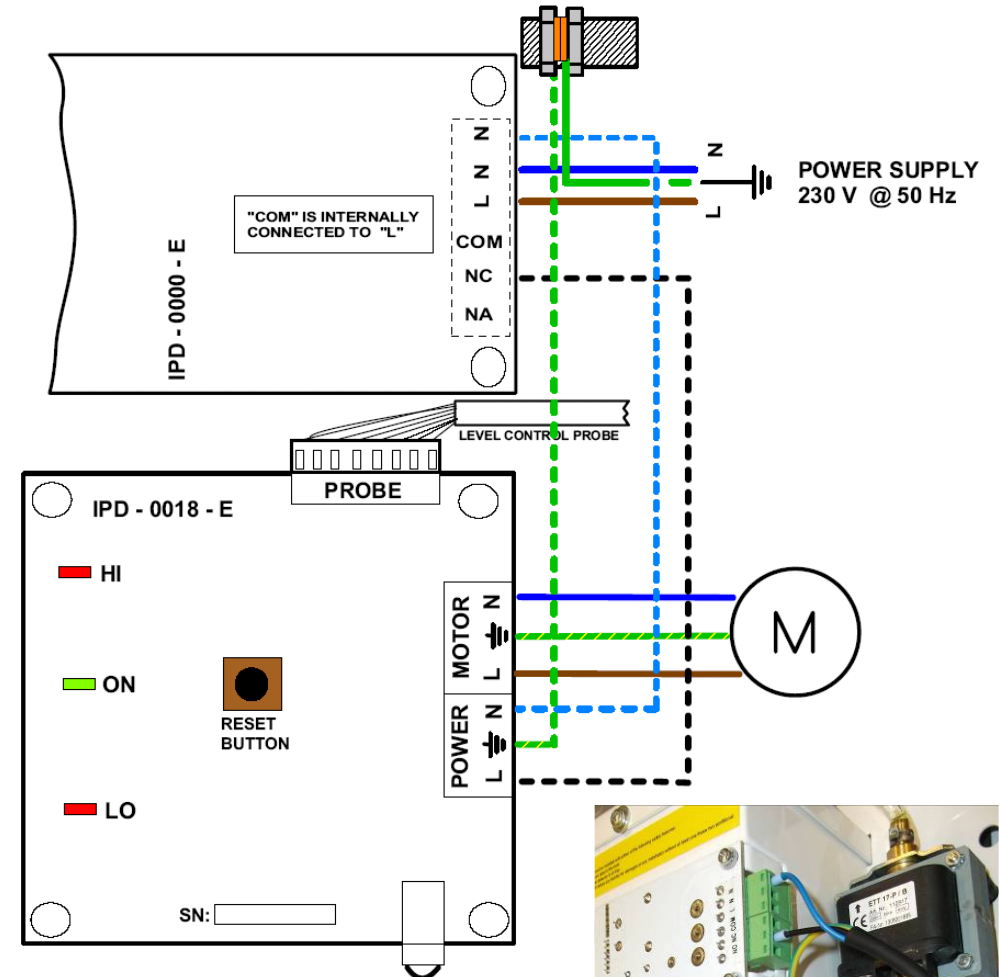
4/ Once the oil has filled the GPS 10 reservoir to the programmed maximum level (80% approx), the working level switch will stop the pump.

5/ The GPS is now ready for use and the appliance(s) can be used. The GPS 10 will manage the fuel supply automatically.

(\* ) The **overflow connection** is dual purpose:

- 1) It must be connected with a return pipe to the tank as a safety feature in the event that the float switch fails. A leak detector & oil tray are available as an alternative if it is not possible to take the overflow back to the tank. The manufacturer will refuse any liability for damages at any installation without at least one these two additional safety options fitted.
- 2) It can be connected to the oil tank to allow venting of the GPS 10 reservoir if it is required to be sealed to prevent unwanted smells.

## GPS 10 with leak detection system. Wiring diagram



Connections above detailed by dashed line, have to be fitted by the leak detection system installer.

An insulated three wire cable is provided for this purpose.

Note: The  is only operational when the Leak Detector & L.D. Board are fitted.



## Oil tray with leak detection system

An oil tray with an infrared leak detection system is available for your GPS.


This optional oil tray is strongly recommended, particularly in the event that the overflow pipe is not connected.

In some regions, the use of the oil tray can be compulsory under certain local standards. Please ask your dealer for details.



## How does the leak detection system function

Once installed, the function of your GPS remains unchanged, except when some liquid at the infrared probe activates the system. After a 4 seconds delay -safety against unnecessary stops-

- The pump stops and the lifter shut down
  - The upper red "high level" led light  comes on

This status will be maintained until the infrared probe is completely clean and dry again.

Once the probe is clean, the system will fill up automatically again, unless low or high level alarm is present.

## Installation of the leak detection system:

- 1.- Be sure that the GPS10 unit is not powered
- 2.- Remove the front plastic cover
- 3.- Fix the leak detection 4 pin connector at the L.D. PCB (see Fig. 1)
- 4.- Fix the leak detection PCB with its 4 screws at GPS reservoir (Above control PCB)
- 5.- Connect the power cables according to leak detection wiring diagram (Pag. 8)
- 6.- Place the infrared sensor in the blue clip in the oil tray, at the lowest possible position.
- 7.- Extract the yellow cap at overflow outlet



Fig. 1

If under automatic function, the noise level is not low and stable, that will mean that you have air coming inside the pump: Check suction line vacuum tightness, tube size, and distances related to suction limits of your GPS 10.

## If the oil does not come up to the GPS 10:

- Check suction pipe for blockage and/or vacuum tightness.
- Is your vertical lift height lower than 8 mt?
- Check if the filter is clogged/dirty

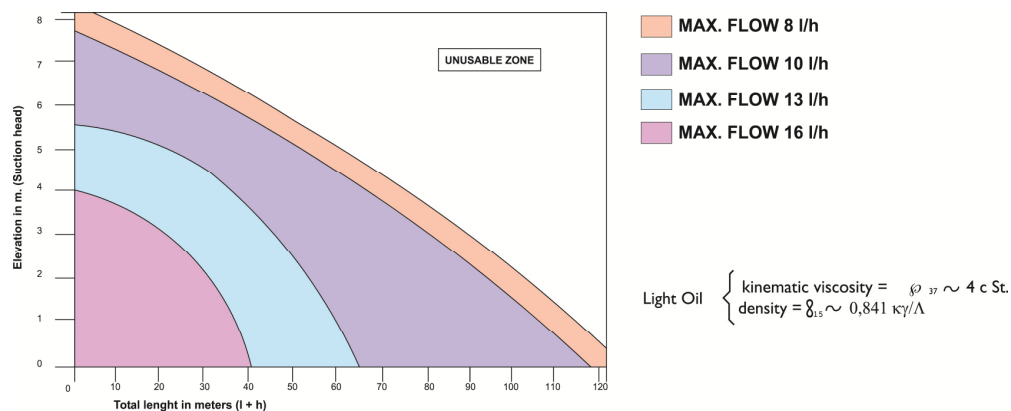
If the problem still persists:

- Check pump suction power (with a vacuum gauge or by placing your hand at the filter inlet and pressing the start button to see if you can feel suction.
- Check power supply voltage
- Prime the suction line at the GPS 10. Then switch on the pump to pull this oil through and the oil from the tank.
- Check if there is oil at main tank. After 1 hour pumping without oil, the pump will stop itself.

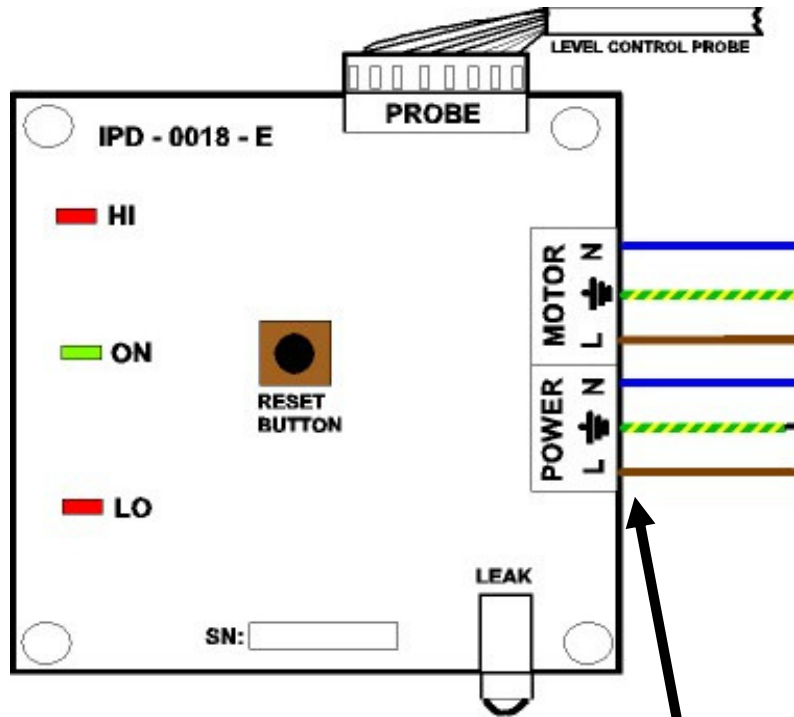
## Maintenance:

- Clean regularly the filter bowl and strainer.

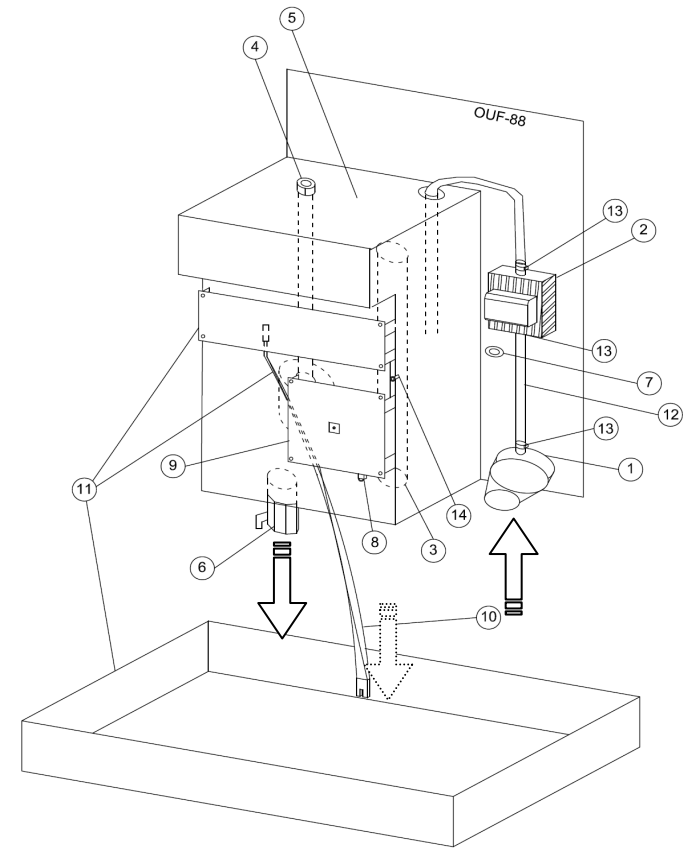
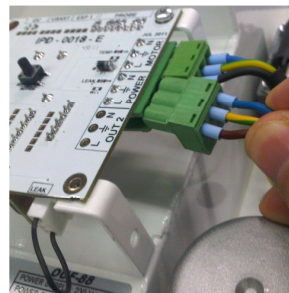
## Suction curve:



# GPS 10 Wiring Diagram



△ **Warning:** Make sure that earth is properly connected.



|      | <b>PART DESCRIPTION</b>                              | <b>Art. Nr.</b> |
|------|--|-----------------|
| 1.   | FILTER 3/8 " BSP/ INLET CONNECTION                   | 01110002004010  |
| 2.   | PUMP   | 01000000004660  |
| 3.   | OVERFLOW 1/2 " BSP CONNECTION                        | -               |
| 4.   | FLOAT SWITCH PROBE                                   | 23130000032010  |
|      | REPLACEMENT FLOAT IN STAINLESS STEEL                 | 00230004154135  |
| 5.   | OIL RESERVOIR (3 lts) or (MAXI 12 lts.)              | -               |
| 6.   | OUTLET CONNECTION 3/8 " BSP                          |                 |
| 7.   | POWER SUPPLY ACCESS HOLE                             | -               |
| 8.   | 4 PORTS LINK   | 03150000034000  |
| 9.-  | OUF CONTROL CIRCUIT COMPLETE (Ver. E)                | 23110000000410  |
| 10.- | INFRARED PROBE FOR OUF 88, 500mm long                | 23080000000010  |
| 11.- | LEAK DET. PCB, PROBE & OIL TRAY 24x14x4cm FOR OUF 88 | 230900000001135 |
| 12.- | TRANSPARENT PIPE                                     | 01120000090805  |
| 13.- | 1 SIDE COMPRESSED CLIPS 7.8/9.5                      | 05080000000208  |
| 14.- | EARTH POST   |                 |