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Installation Quick Guide
Flosense 4.0

Introduction

This Quick Guide serves as an easy-to-use guide to help make your installation of the Flosense Manifold system as simple as possible. However, beware that the Quick Guide is a supplement to the installation user guides and for that reason cannot stand alone. So please ensure that you have read all relevant User guides (Manifold Installation and Software guides) thoroughly before installing your new Flosense.

During start-up and purge, always follow the Quick Guide.

Warning

Please ensure that flow never exceeds the sensors' maximum.
If pressurized air flow exceeds 0.5 bar, the flow sensors may be damaged due to extreme purge speed.

Disclaimer

Costs connected to any damages to the products caused by lack of following the Instruction Manuals, will be at the customers' own expense.

PRIOR TO STARTUP:

flosense®

Check the label on the sensors to identify the flow or pressure sensor type:

Flow must never exceed the maximum capacity; failure to comply with this precaution may damage the sensor.

Flow sensors are called:
VFS8 1-18 E (1-20 l/min standard)
VFS8 2-40 E (2-40 l/min standard)
VFS8 1-18 K (1-20 l/min high temperature)
VFS8 2-40 K (2-40 l/min high temperature)

Pressure sensors are called:
RPS6 0-10 E (0-10 bar standard)
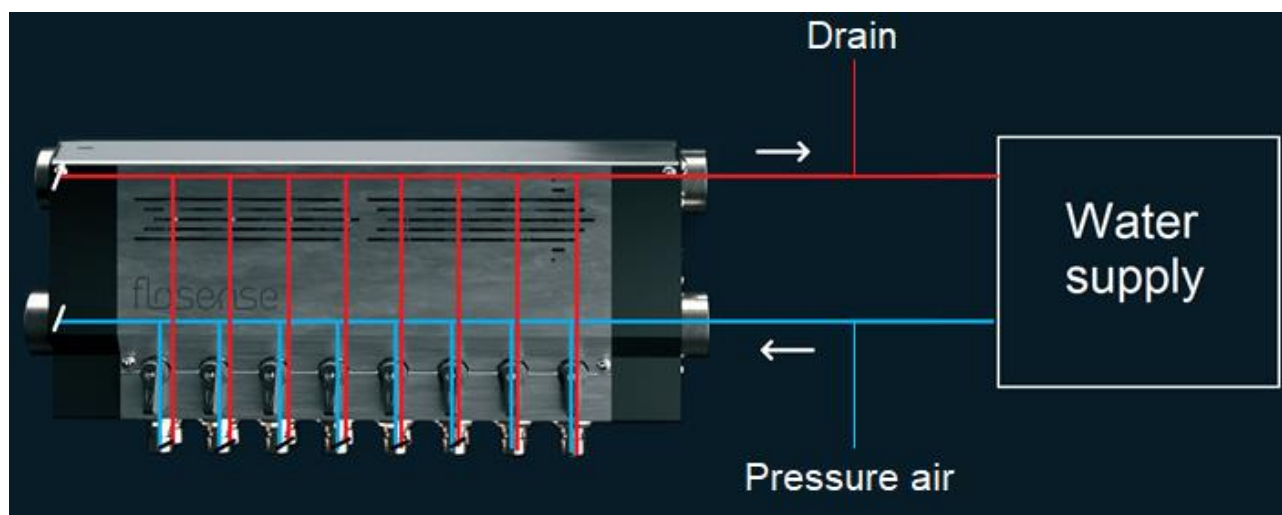RPS6 0-10 K (0-10 bar high temperature)

STARTUP PROCEDURE:

A 3-way ball valve is recommended to be installed either on, or before the main inlet, to enable purging of the manifold and mould with pressurized air. If needed for draining, also add a 3-way ball valve after the main outlet of the manifold. Pressurized air inlet must be adjustable (pressure reducer)

During startup (empty mould and manifold)

1. Fully open all ball valves to/from the mould
2. Open the main return outlet valve on the manifold
3. Slowly open the main inlet valves on the manifold and start filling the system
4. Adjust the inlet flow to match the needed flow only.
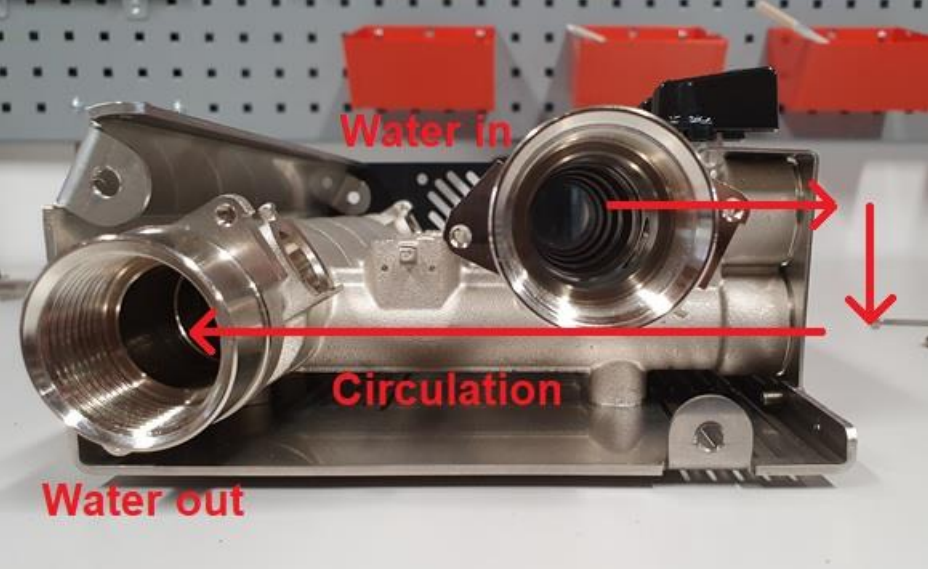5. Let it run until all air is out of the system before fully opening the main valve.

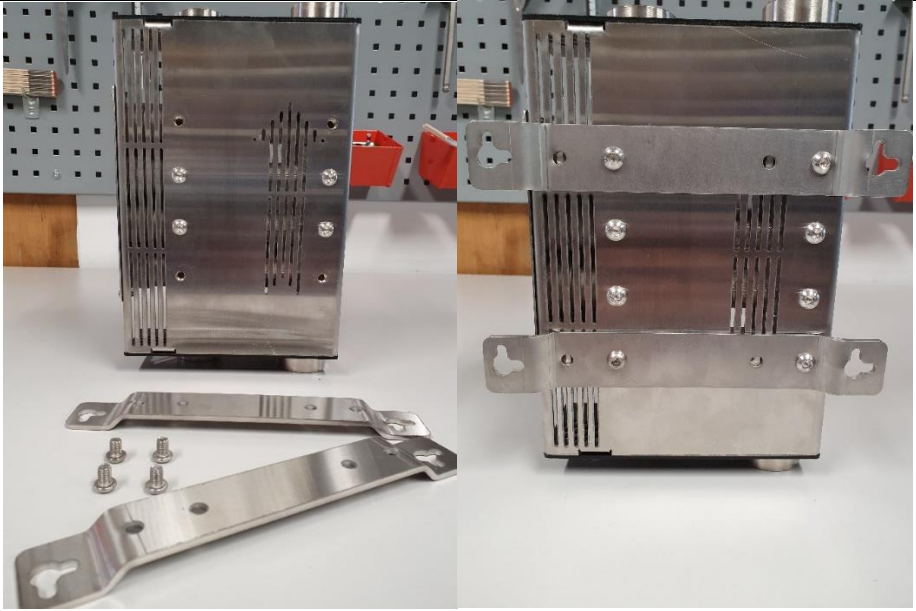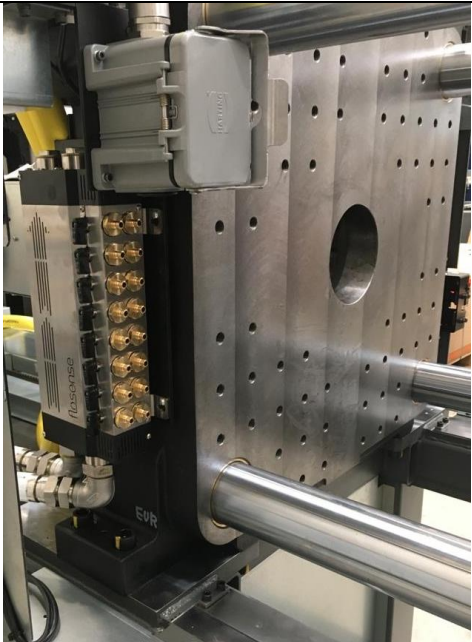**Purging (emptying mould with pressurized air)**

1. Turn the main inlet valve in blocked/closed position.
2. Turn the main outlet valve in "drain" position
3. Turn the main inlet valve in "pressure air in position"
4. Open the adjustable air without exceeding 0.5 bar and ensure slow purge of water.
5. When the system has been emptied, you can fully open the air supply to blow the circuits dry.
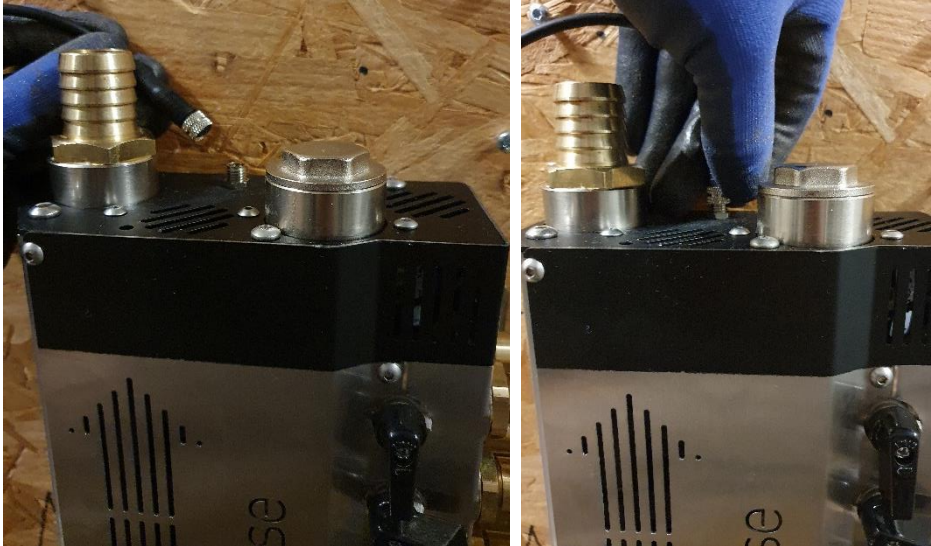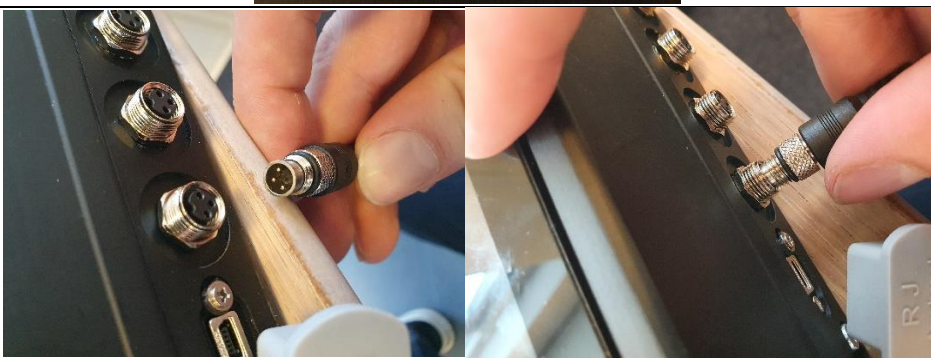
INSTALLATION GUIDE:

Step 1	Installation package includes
Check that all elements are included	Check that the following elements are included in your package: • 1-4 Flosense manifold • 1-4 M8 Connector cable (1 per manifold) • 2-8 Brackets for manifold (2 per manifold) • 1 Flosense PanelPilot Ace Screen • 1 Bracket for Screen • 1 Power supply 12V
Step 2	**Prepare the manifold**
Connect the fittings for the main water (in and out) and mount the blinding fittings at the other end	
Mount the fittings of your choice for each cooling channel	

Step 3	Mount the manifold
The manifold is designed to be able to replace the standard water flow regulator which is installed in most injection moulding machines per default.	
Mount the brackets on the back plate of the manifold. WARNING! The bolts are also used to hold the internal piping in place. Please only remove the bolts needed for the bracket you are currently mounting.	
Mount the manifold on the machine or the mould	

Step 4	Unpack screen and cables
Unpack the power supply, The Flosense Display, M8 connector cable(s) and extension cable(s) if needed	

Step 5	Mount screen on machine
Mount screen bracket on the machine. The bracket can be mounted with screws, or with the pre-mounted magnets	
Push the screen into the bracket, until the snap fit clicks into place	

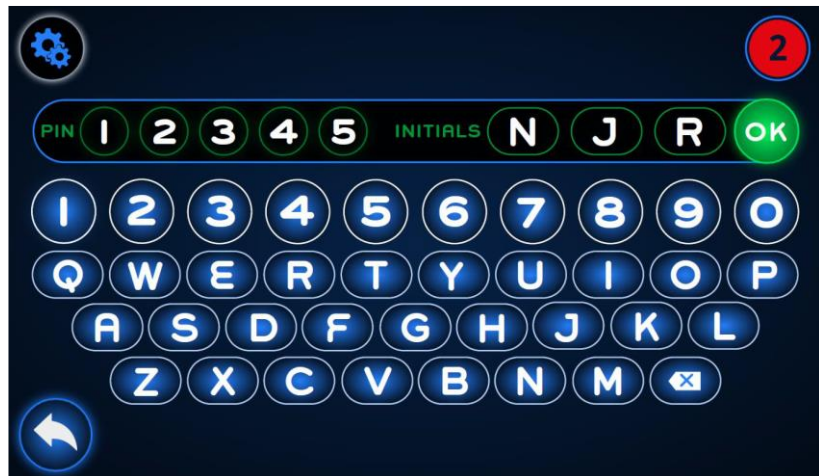| Step 6	Connect the manifold to the screen
Connect the manifold to the screen with the M8 connector cable. The manifold has an M8 connector in next to the inlet/outlet pipes on the side where the arrow on the top plate points towards. The Flosense 4.0 screen can have up to 4 manifold connected at the same time.	
Connect the female end of the M8 cable to the first manifold	

Fasten he cable onto the connector	
Connect the male end of the M8 cable to the first connector of the manifold. Use an extender cable if necessary	
Fasten the cable onto the connector	
Follow the previous four steps for the remaining manifold[1]	

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[1] See Known Issue on page 13

Step 7	Connect Power
Connect the power supply to the M8 connector next to the grounding, and connect the other side to a power outlet with a voltage of 100-240V	

Step 8	Startup
When the power has been connected, the screen will startup automatically The manifolds will be numbered 1 through 4, depending on how many manifolds are connected, starting from 1 for the leftmost manifold.	

Step 9	Configure the Manifolds
Once the screen has been connected and has started up, check to see if the correct number of manifolds are being displayed on the home screen.	

If the number of manifold or sensors are wrong, find the sensors 1 menu by pressing the settings button in the bottom right corner. You will be have to enter a PIN, which by default is **36963.** You can write any initials, but it needs at least 1 letter.	
After logging in you will enter the settings menu, which is similar to the home screen. Select the manifold you wish to examine.	
Press the scan button at the bottom to search for sensors. Do this for all manifold which are not displayed correctly, and then return to the settings menu by pressing the exit button in the bottom right corner.	

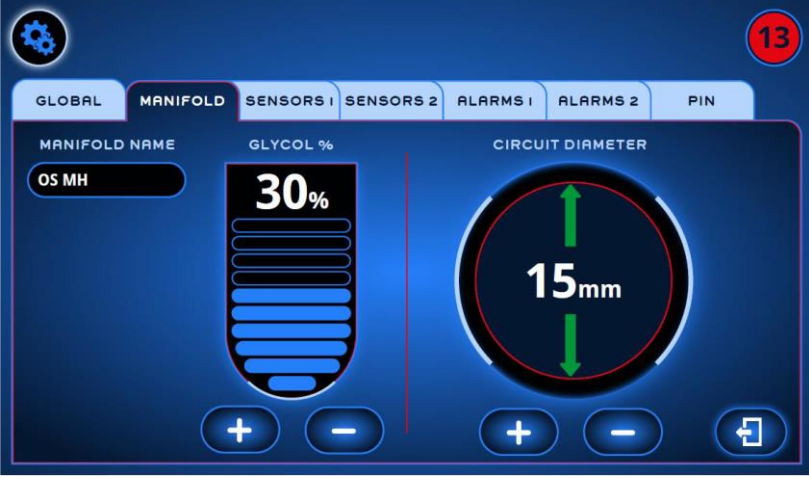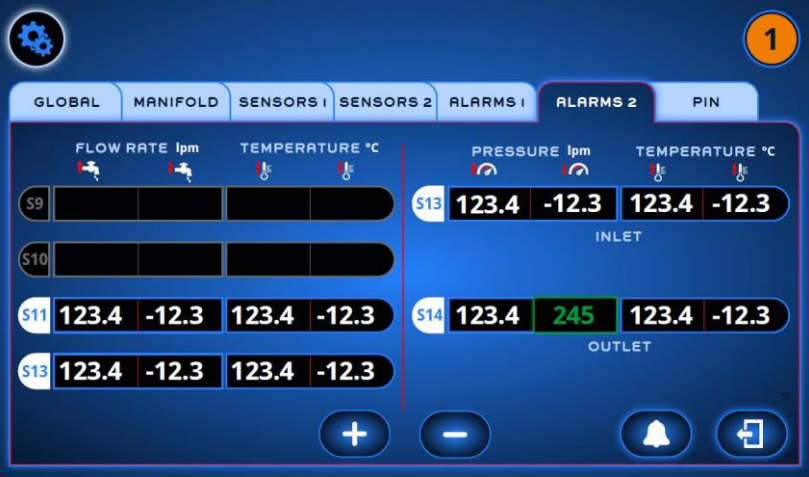| From the settings menu you can enter the configurations menu by pressing the checkmark button in the bottom right corner.[2] If you have a USB with saved configurations, the configurations can be uploaded by connecting the USB and pressing the upload button. If you do not have a USB to upload the configurations, please follow the next 4 steps.	
Set the global settings, such as language, measurement units and logging rate	

Set the cooling circuit diameters and the percentage amount of glycol used in the coolant	
Finally set the alarms for each sensor. It is also possible to use auto-alarm during operation to set the alarms to be 10% higher and lower than the current operating flow, temperature and pressure	
After configuring your system, you can create a new configuration by selecting a greyed out slot or overwrite an old configuration by selecting any of the existing configurations. After selecting and naming the configuration, press the tick icon in the bottom right to save it.	

You are now ready to use your new Flosense system!

Known Issues

Below is a list of known issues that will be fixed with the next software version.

29-04-2020

Software version: 4.0.2.4064

Firmware version: 5.0.0.175

1. The buttons on the bottom of the screen have been rearranged, so the checkmark button is now the leftmost button instead of rightmost. The figure in the manual needs to be updated.

Change log

Date of change	Change	Version
29-04-2020	Product release	001
16-06-2020	Stability issue fixed. Manual edited specifically for Flosense 4.0	002