MI_2614: New pressure sensor - conversion

iVario Pro P	16/10/2026
See below under “Required tools”	30 min.

Topic

A new pressure sensor with cast connection cable has been introduced to avoid issues with humidity at the pressure control. This prevents humidity from penetrating the sensor. The pressure sensor connection cable is routed to the I/O board through the lid axis.

These modification instructions describe the conversion to the new pressure sensor with cast connection cable.

The pressure sensor conversion kits are available in different versions depending on the installed condition.

The first section also describes how to check the lid for cracks. In isolated cases, the pressure sensor may malfunction due to an ingress of humidity.

The corresponding Technical Information sheet is: **TI_2617**

Affected units

iVario Pro

- 2-S P
- L P
- XL P

Required tool

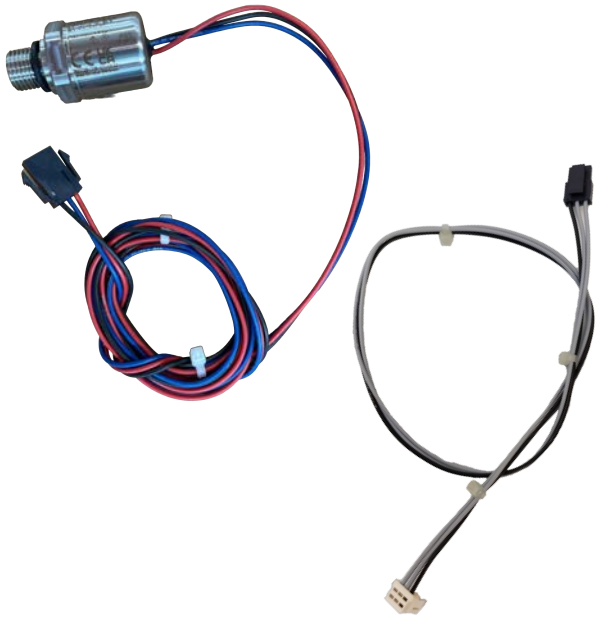
- Standard
- Hose clamp pliers for click clamps – e.g. Knipex **85 51,180 C** (better than long-neck pliers alternative)

Previous components

Previous pressure sensors for iVario Pro P	
¼″ pressure sensor	½″ pressure sensor
(without cast connection cable)	(without cast connection cable)

Required components

New pressure sensor with ¼" cast connection cable – service part		
This service part is required if a pressure sensor with cast connection cable is already installed in the unit. The pressure sensor can be replaced like for like without further adjustments.		
iVario Pro 2-S P left	40.08.432S	
iVario Pro 2-S P right	40.08.433S	
iVario Pro L P / XL P	40.08.976S	

New pressure sensor with ¼"cast connection cable – conversion kit		
This conversion kit is required if a pressure sensor without cast connection cable is installed in the unit. Condition: Pressure sensors must have the same thread (¼").		
iVario Pro 2-S P left	87.02.164S	
iVario Pro 2-S P right	87.02.165S	
iVario Pro L P / XL P	87.02.166S	

New pressure sensor with ¼"cast connection cable - conversion kit (from ½" to ¼")		
This conversion kit is required if **both** of the following conditions are met: – A pressure sensor without a cast connection cable is installed in the unit. – The installed pressure sensor has a ½" thread. For this reason, the sensor module must also be replaced.		
iVario Pro 2-S P left	87.02.167S	
iVario Pro 2-S P right	87.02.168S	
iVario Pro L P / XL P	87.02.169S	

General information

Information

Enter the component's installation at the service level (*Component Replacement* tab). This is an integral part of the maintenance history.

Target group

Installation, inspection, maintenance and repair work must only be carried out by trained technicians and technicians authorised by the manufacturer. In order to prevent accidents or damage, the manufacturer recommends that technicians attend training and safety instructions.

Information

For more information, see the installation manual.

Safety instructions

⚠ DANGER

High voltage when connecting to the mains power

Danger to life when working with high voltage.

1. Disconnect from the power supply.
2. Secure against unintentional switching on.
3. Make sure the unit is disconnected from the power.

⚠ CAUTION

Sharp edges on the housing

Risk of cuts on the housing when working in the electrical compartment.

1. Wear protective gloves.

NOTICE

Damage to the cable trunk and the control panel when removing the control panel

The control panel is connected to the installation compartment by a cable trunk.

1. Remove the control panel carefully in order not to damage the cable trunk.
2. Put down the control panel carefully and protect it against scratching.

NOTICE

Incorrect objects for opening the control panel

The housing and seal can be damaged by pointed or sharp objects.

1. Do not use any sharp or pointy objects to press the control panel upwards.

Information

Observe regional and country-specific safety and testing regulations

The relevant regional, country-specific safety and testing regulations apply to all work on RATIONAL units. These regulations may vary by region and are country-specific and are therefore not listed separately in this document.

The technician is responsible for complying with these regulations.

Installation position

Pressure sensor: in the lid under the maintenance flap

Pressure sensor connection cable on the I/O board: under the control panel

Check – check lid for cracks

1. Open the lid.
2. Pull off the lid gasket.

3. Check the entire area for potential cracks.

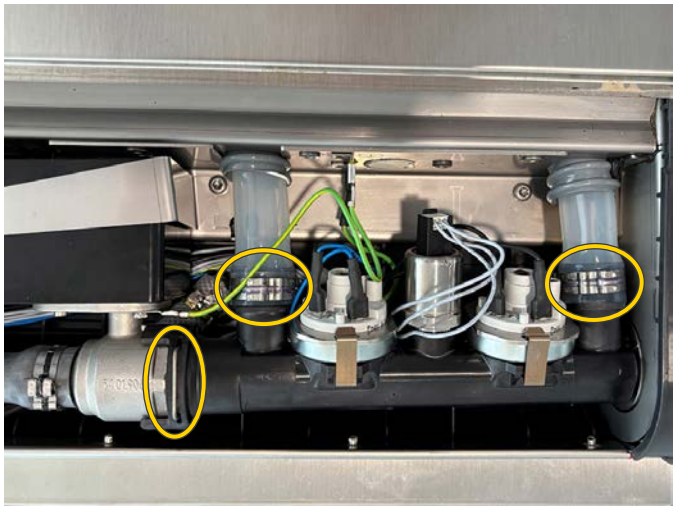
> Check for cracks in the lid:
  - Contact RATIONAL Technical Service.
  - Check with RATIONAL Technical Service whether the pressure sensor must be replaced.

>> Lid check complete.

Removal – sensor module

Information

The following description shows removal in an iVario Pro 2-S. Operation steps are basically identical for L and XL units. Deviating operation steps are described separately below.

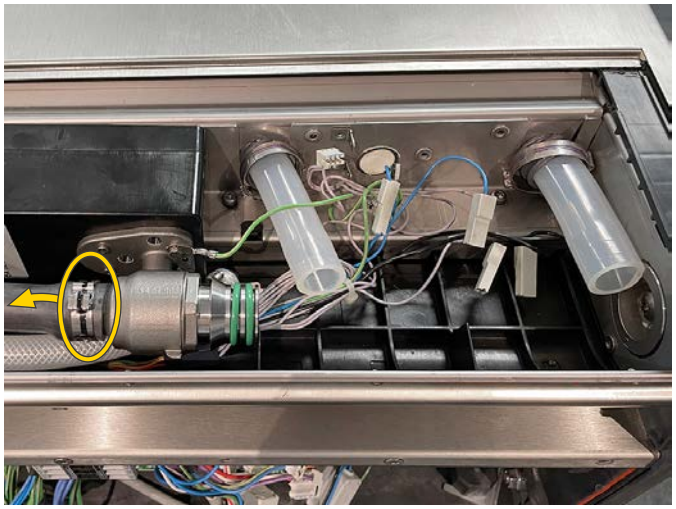


Information

The installed sensor module version may deviate from the illustration. However, operation steps are identical.

- ✔ The unit is switched off and disconnected from the mains.
- ✔ The water supply is shut off and disconnected at the unit rear.
- ✔ The unit is accessible from all sides.
- ✔ The maintenance flap in the lid has been removed, see **MI_2139**.
- ✔ We recommend removing the sensor module to facilitate installation of the new pressure sensor.

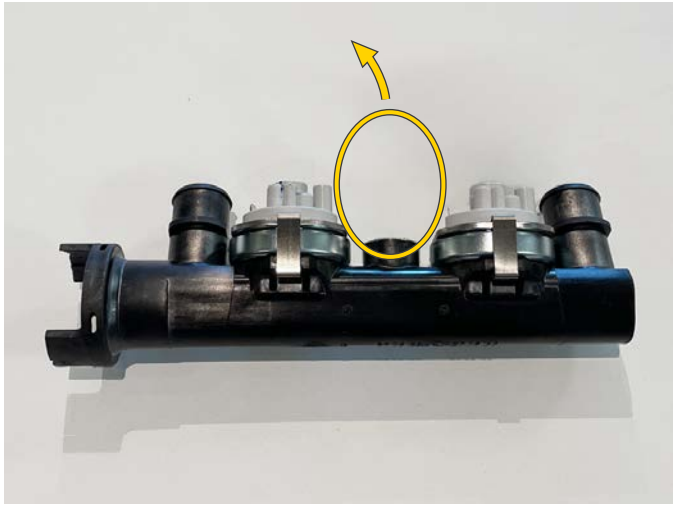
1. Loosen the locking clip on the left side of the sensor module.
2. Use the hose clamp pliers for click clamps to open the two hose clamps.
3. Pull off the connectors from the pressure sensor and the two pressure switches.



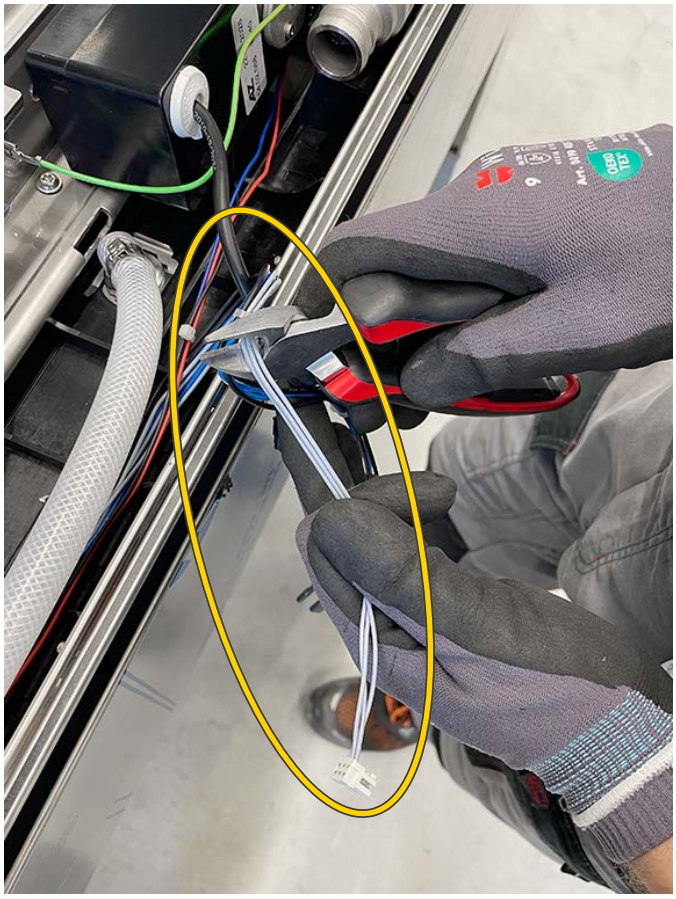
4. Carefully remove the sensor module.

Information

You can also loosen the hose clamp of the black hose on the left and pull the hose off the pressure control valve to facilitate removal.



5. Remove the previous pressure sensor from the sensor module.



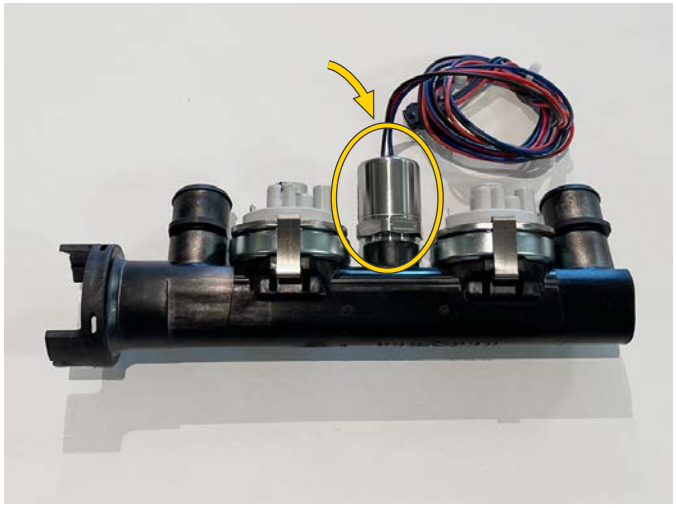
NOTICE

The following step does not apply to already installed pressure sensors with cast connecting cable. The connection cable must exclusively be cut for pressure sensors without a cast connection cable.

6. Cut the connection cable of the previous pressure sensor.

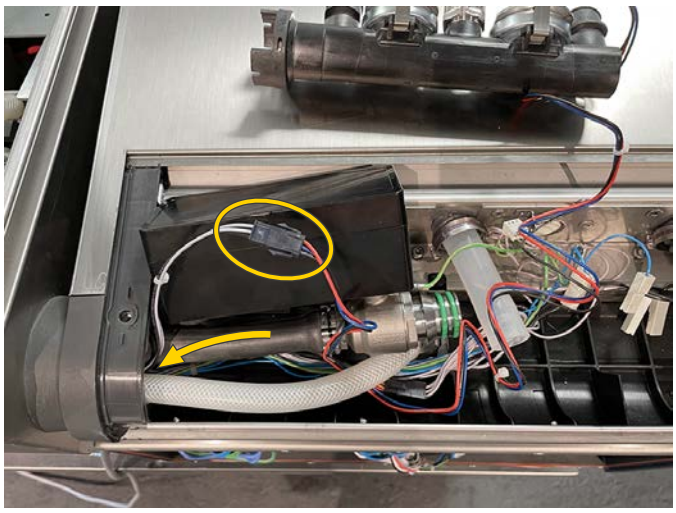
>> The removal of the sensor module unit is complete.

Installation – pressure sensor and sensor module



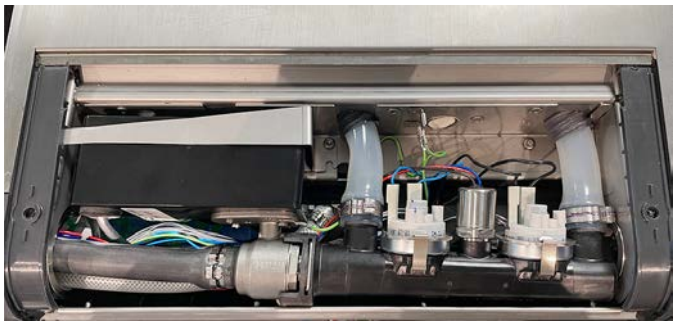
✔ The sensor module has been removed.

1. Install the new pressure sensor with cast connection cable.



2. Connect the black plug of the adapter cable to the plug of the new pressure sensor.
3. Install the connection cable through the lid axis.

Information
Alternatively, you can initially route the pressure sensor connection cable through the lid axis and then connect the adapter cable.

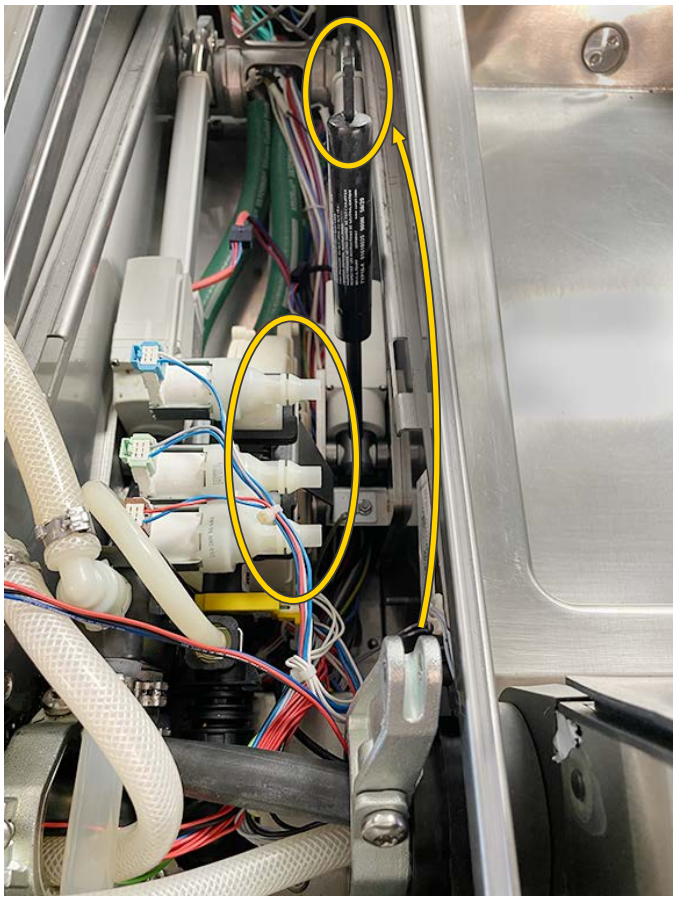


4. Reinstall the sensor module.
5. Carefully route the connection cable of the pressure sensor below the steam pipe.

> The installation of the sensor module is complete.

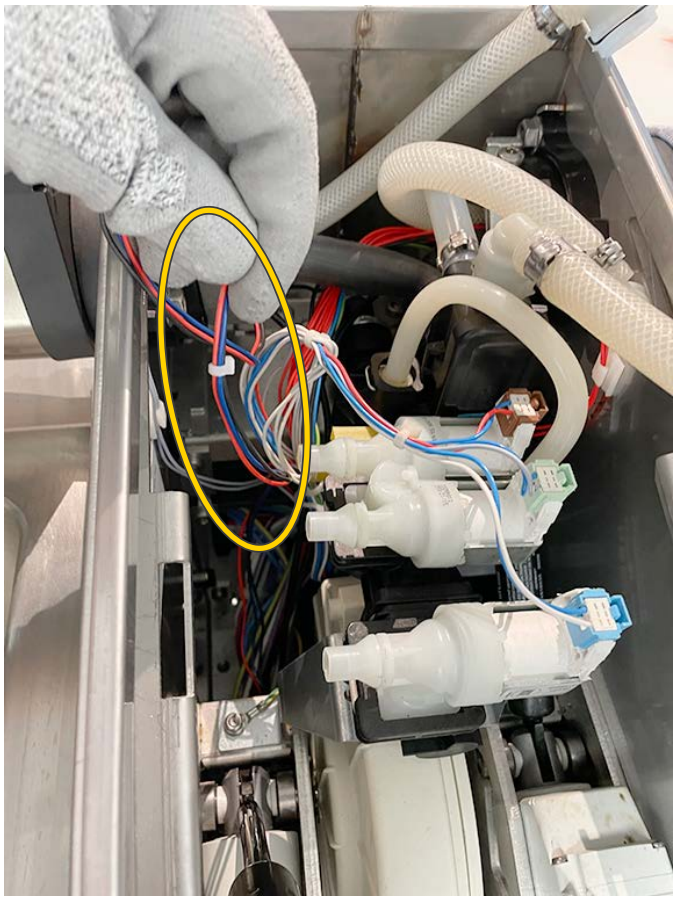
> Additional steps have been described separately in the following description for the 2-S Pro, L Pro and XL Pro unit variants.

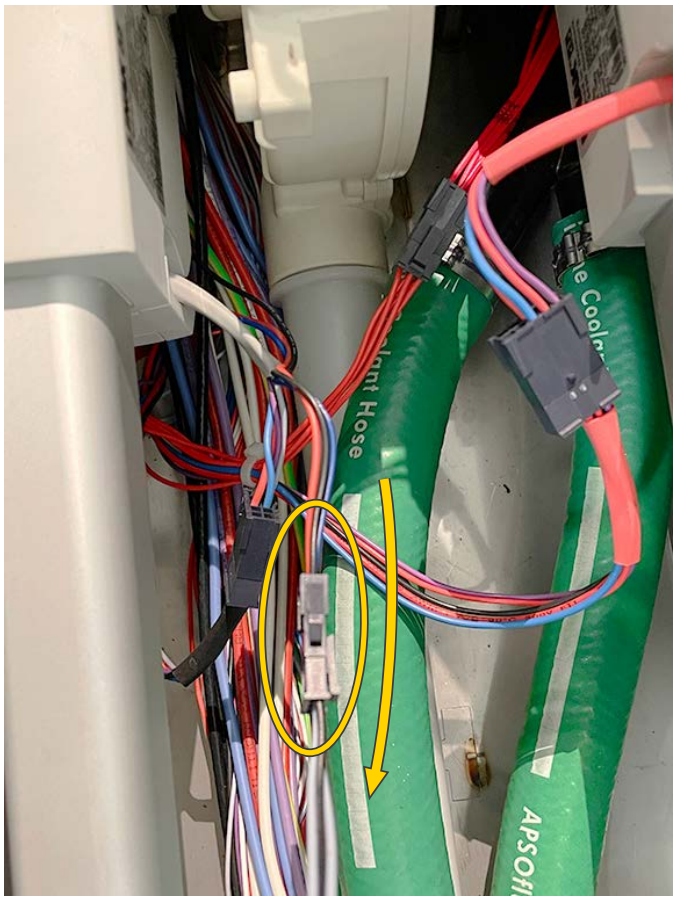
Installation – routing the pressure sensor connection cable - iVario 2-S



- ✔ The control panel is open.
- ✔ The console trim has been disengaged towards the front.
- ✔ The circuit board carrier has been attached vertically.
- ✔ The relevant descriptions has been provided in **MI_2434.**

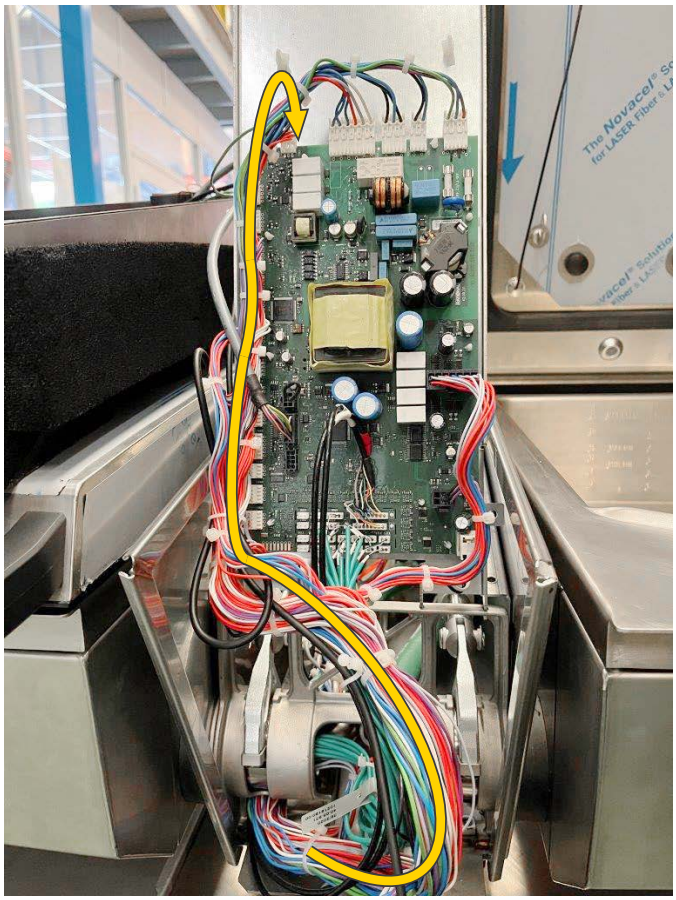
1. Pull off the three water pipes shown, see **MI_2607**.
2. Loosen the gas pressure spring from the lid, see **MI_2607**.
3. Open the lid and secure it against dropping.





4. Route the connection cable of the new pressure sensor including the adapter cable towards the pan axis.
   - Route it along the existing connection cable of the previous pressure sensor.
   - Secure the connection cable with the existing cable clamps.

5. Route the connection cable through the pan axis.

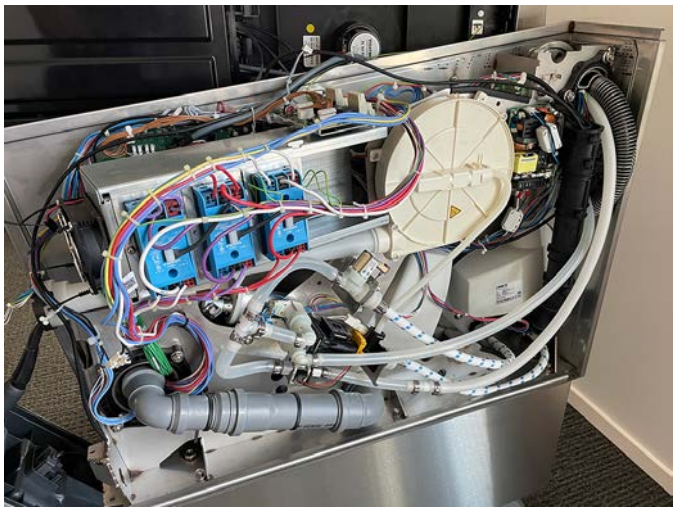


6. Route the connection cable to the upper end of the I/O board, see yellow line.

>> The connection cable routing is complete.

>> The connection to the I/O board has been described in the following section.

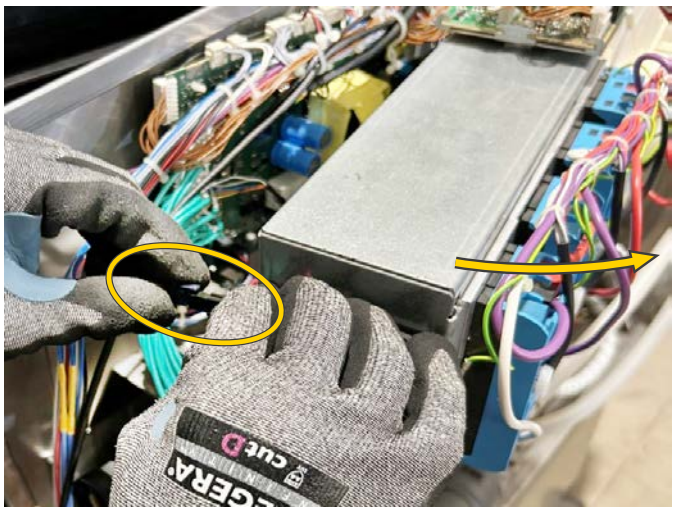
Installation – routing the pressure sensor connection cable to the I/O board – iVario L P / XL P



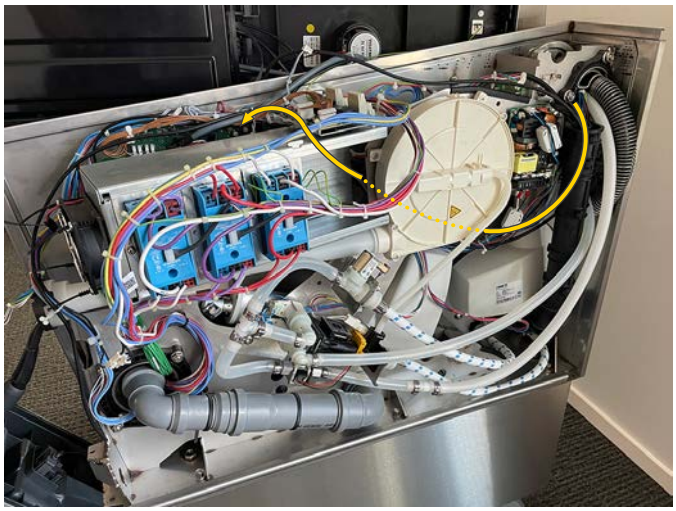
- ✔ The electrical compartment is open.
- ✔ Relevant information has been provided in the **original installation manual**.

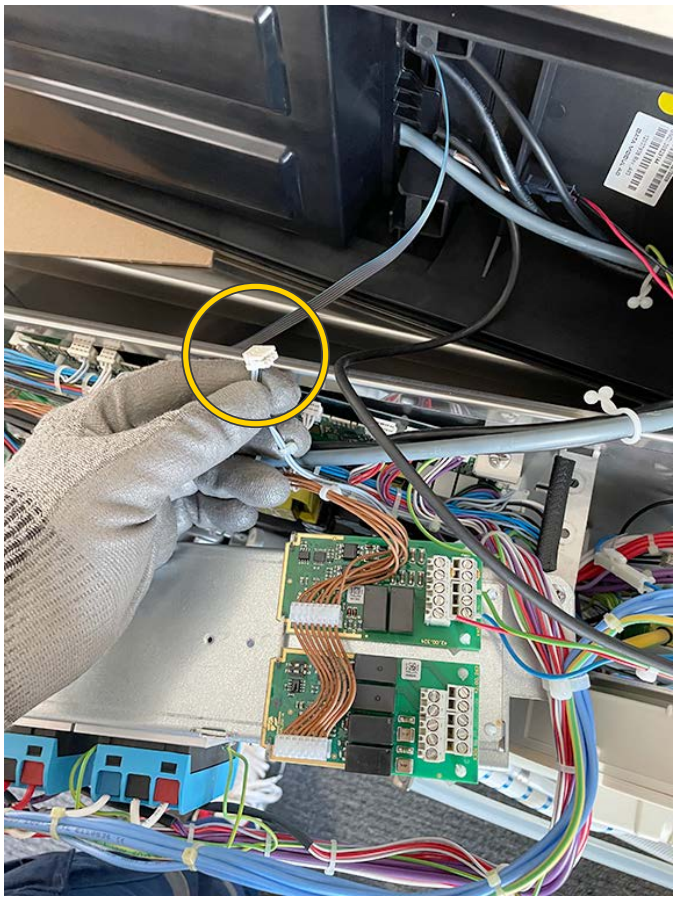
1. Carefully pull the console panel forwards, paying attention to the cables and plug connections.
2. Remove the right side panel.

3. Remove the screw below the cooling fan to release the SSR housing.



4. Disconnect the cooling fan connector.
5. Swivel the SSR housing to the side.



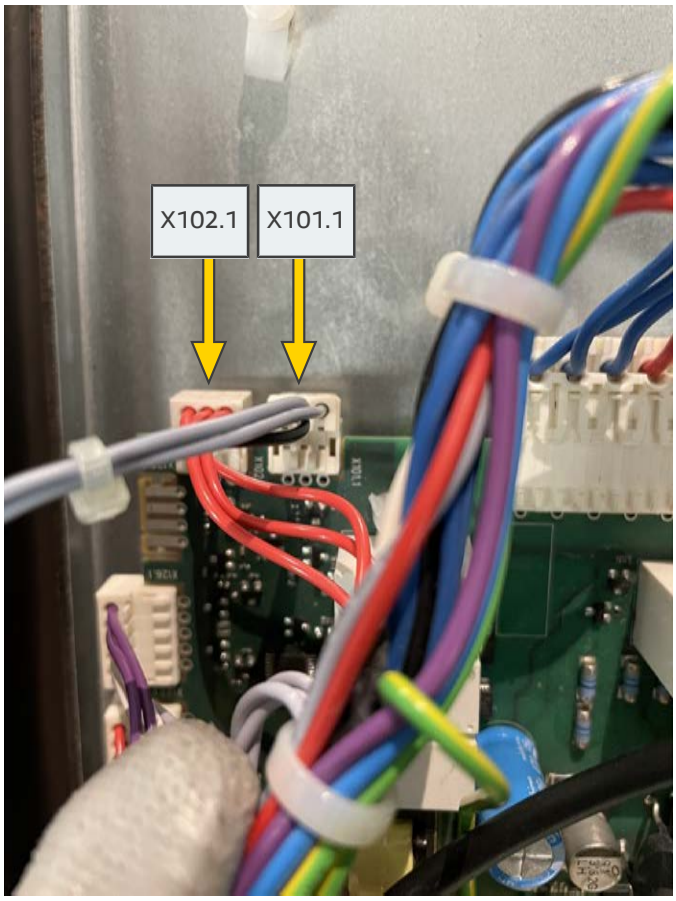


6. Route the connection cable of the new pressure sensor including adapter cable towards the I/O board.
   - Route it along the existing connection cable of the previous pressure sensor, see yellow line.
   - Secure the connection cable with the existing cable clamps.

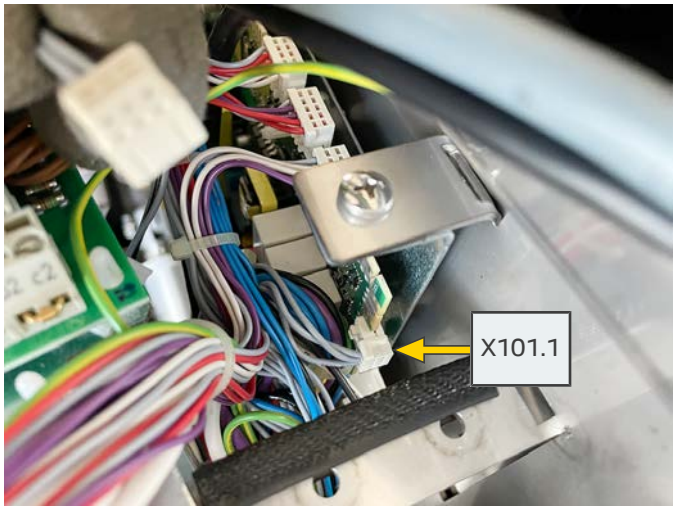
>> The connection cable routing is complete.

>> The connection to the I/O board has been described in the following section.

Installation – connecting the pressure sensor connection cable to the I/O board – all iVario P



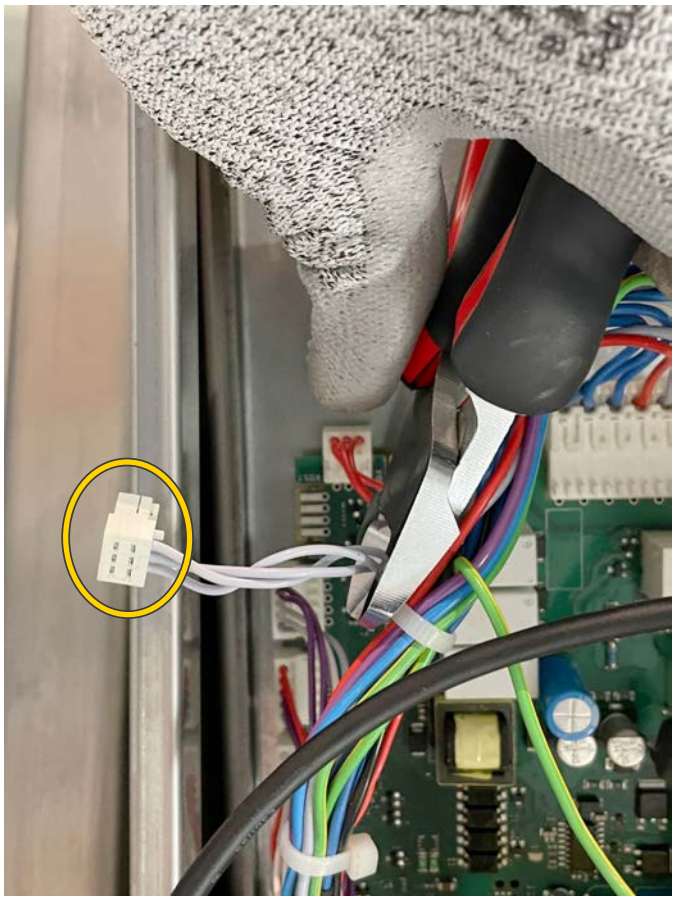
iVario Pro 2-S P



iVario Pro L P / XL P

✔ The new pressure sensor connection cable is ready on the I/O board.

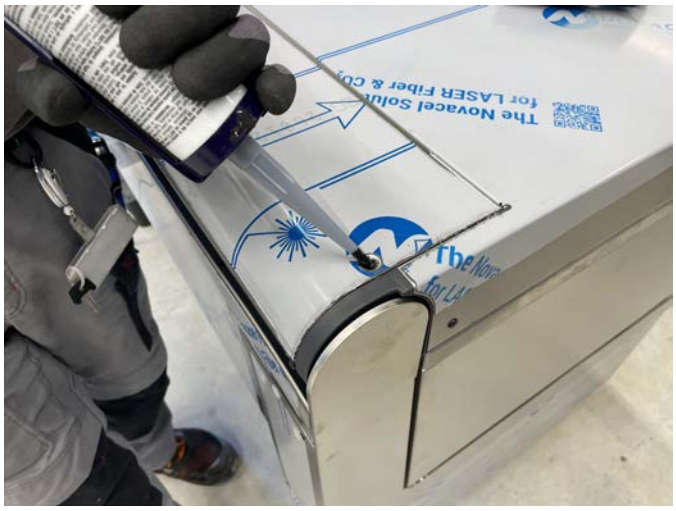
1. Accordingly connect the adapter cables to the I/O board:
   - 2-S P left: **X101.1 (grey)**
   - 2-S P right: **X102.1 (red)**
   - L P/XL P: **X101.1 (grey)**



NOTICE

The following step does not apply to already installed pressure sensors with cast connecting cable. The connection cable must exclusively be cut for pressure sensors without a cast connection cable.

2. Also cut the connection cable of the previous pressure sensor here (I/O board side).
3. The I/O board connection is complete.



4. Reassemble the unit in reverse order.
   - Apply some sealant to the screw holes before installing the lid screws.

>> The installation of the new pressure sensor with cast connecting cable is complete.