Fronius WF R Wirespool Holder Wire End Sensor Instruction Manual

Fronius WF R Wirespool Holder Wire End Sensor Instruction Manual

Contents

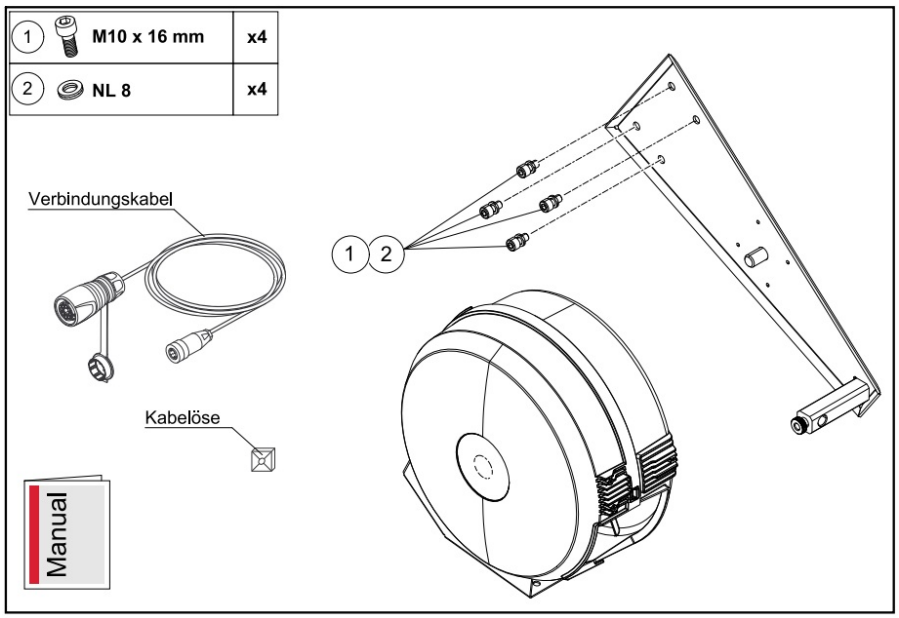
Operating Instructions

General

Functional principle :
The OPT/i WF R wirespool holder wire end sensor constantly monitors the wirespool. Its integrated sensor detects when the final layer of the wire electrode has been wound off and outputs a wire end alarm. This alarm does not interrupt the welding process.

Prerequisites :
Attention! The OPT/i WF R wirespool holder wire end sensor can only be used if an OPT/i ext. sensor plug has been installed in the respective wirefeeder or SplitBox.

Scope of supply



Safety

WARNING!
Danger from incorrect operation and work that is not carried out properly.
This can result in serious personal injury and damage to property.

- All the work and functions described in this document must only be carried out by technically trained and qualified personnel.
- Read and understand this document in full.
- Read and understand all safety rules and user documentation for this equipment and all system components.

WARNING!
Danger from electrical current.
This can result in serious personal injury and damage to property.

- Before starting work, switch off all the devices and components involved and disconnect them from the grid.
- Secure all devices and components involved so they cannot be switched back on.
- After opening the device, use a suitable measuring instrument to check that electrically charged components (such as capacitors) have been discharged.

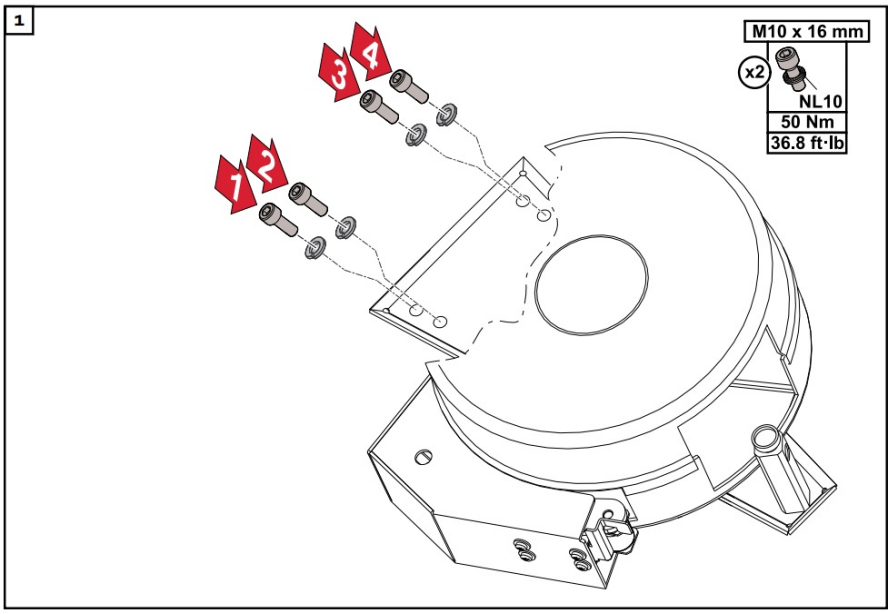
WARNING!
Danger due to hot system components and/or equipment.
This can result in serious burns or scalding.

- Before starting work, allow all hot system components and/or equipment to cool to +25°C/+77°F (e.g., coolant, water-cooled system components, wirefeeder drive motor, etc.).
- Wear suitable protective equipment (e.g., heat-resistant gloves, safety goggles, etc.) if cooling down is not possible.

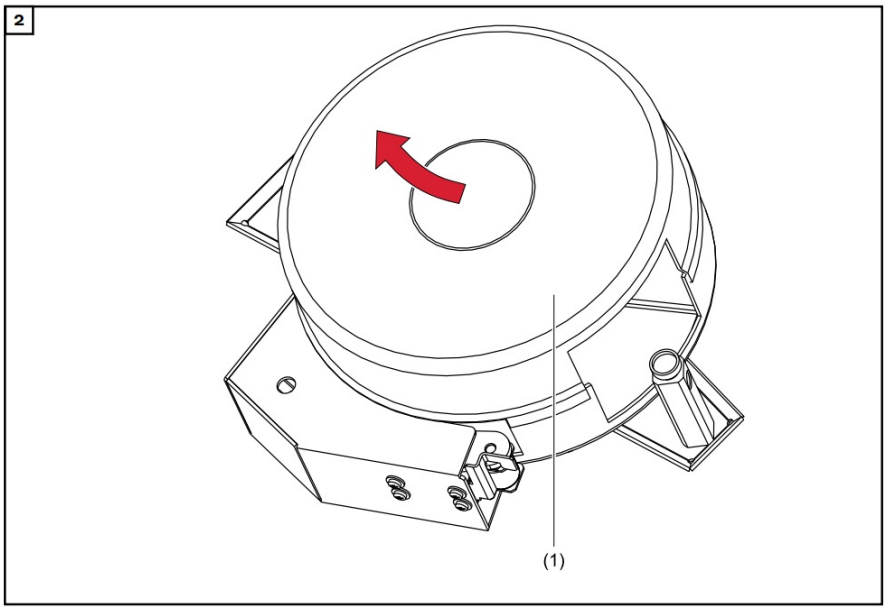
Fitting the OPT/i WF R wirespool holder wire end sensor

Install the OPT/i WF R wirespool holder wire end sensor

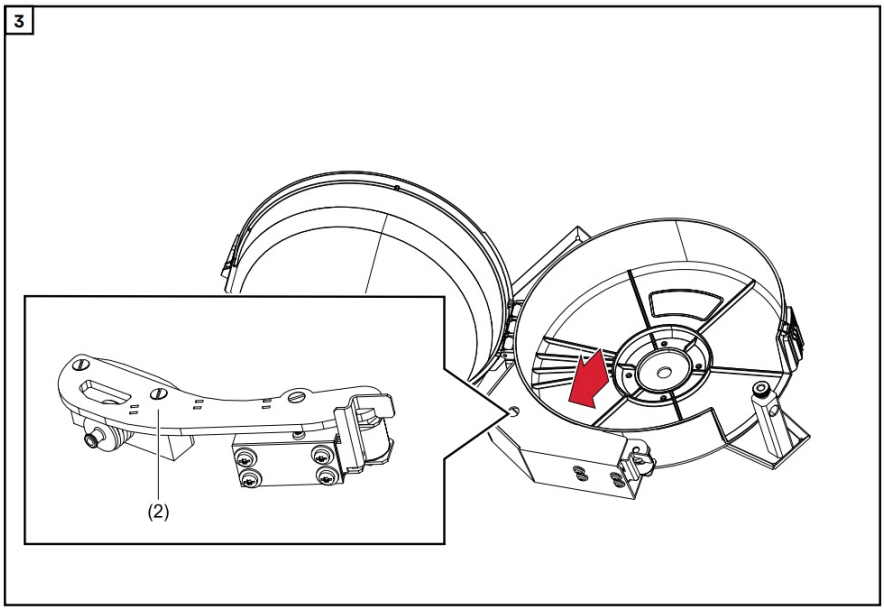
1. Screw the wirespool holder to a flat, clean and smooth surface using the supplied screws and locking rings



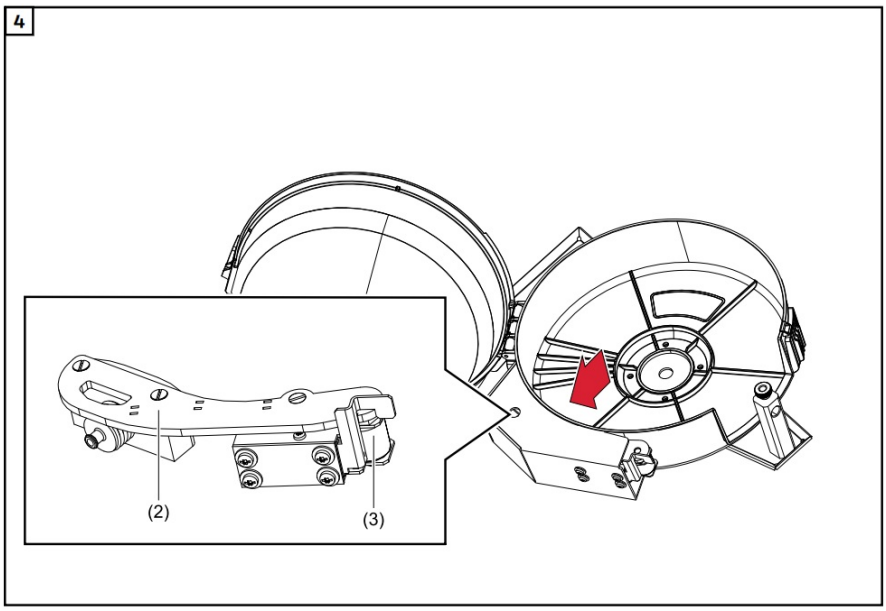
2. Open the wirespool cover (1)



3. Push out the retaining arm (2) and sensor unit to lock in place



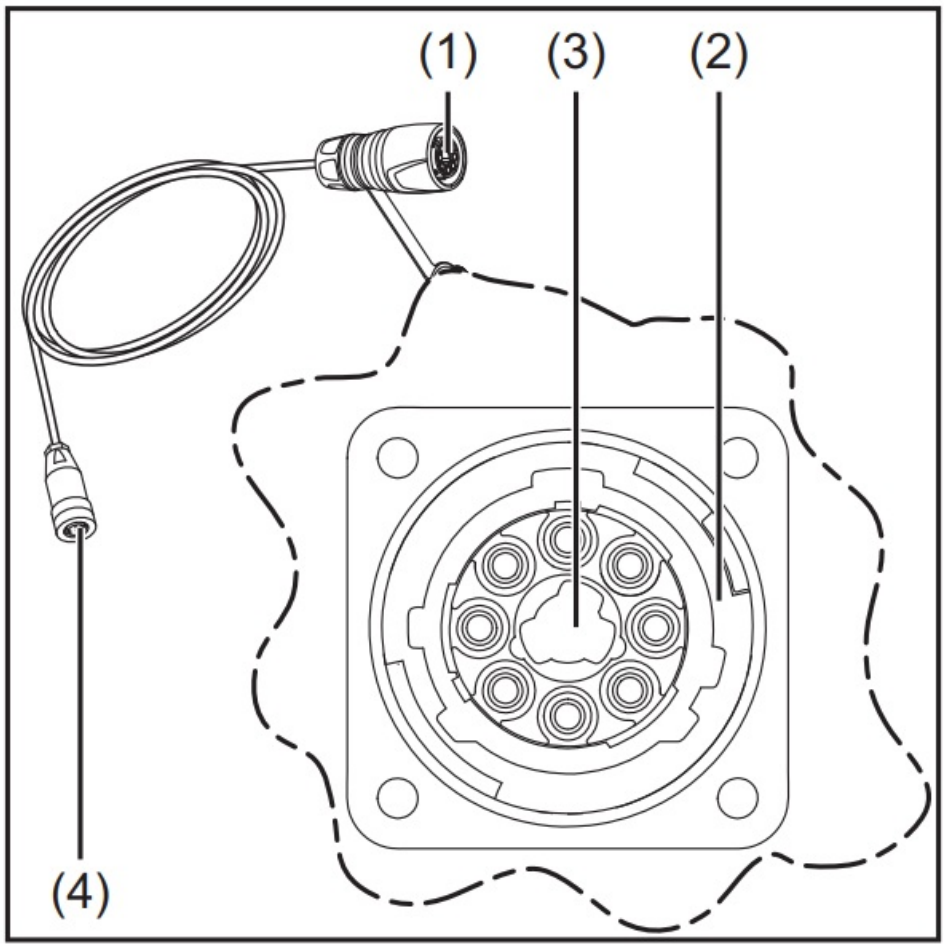
4. Unlock the retaining arm (2) by pressing on the catch (3) and ensure that the shoe is touching the wire electrode



5. Fit the wirefeeding hose between the wirespool holder and the wirefeeder
6. Feed in the wire electrode
7. Close the wirespool cover (1)

Connecting the sensor

NOTE!
The wirefeeder/Split Box recognises that there is a sensor connected to the connecting cable.
Each sensor is supplied with its own connecting cable, which must be used. The sensor connecting cable will be marked with the item number and name of sensor.

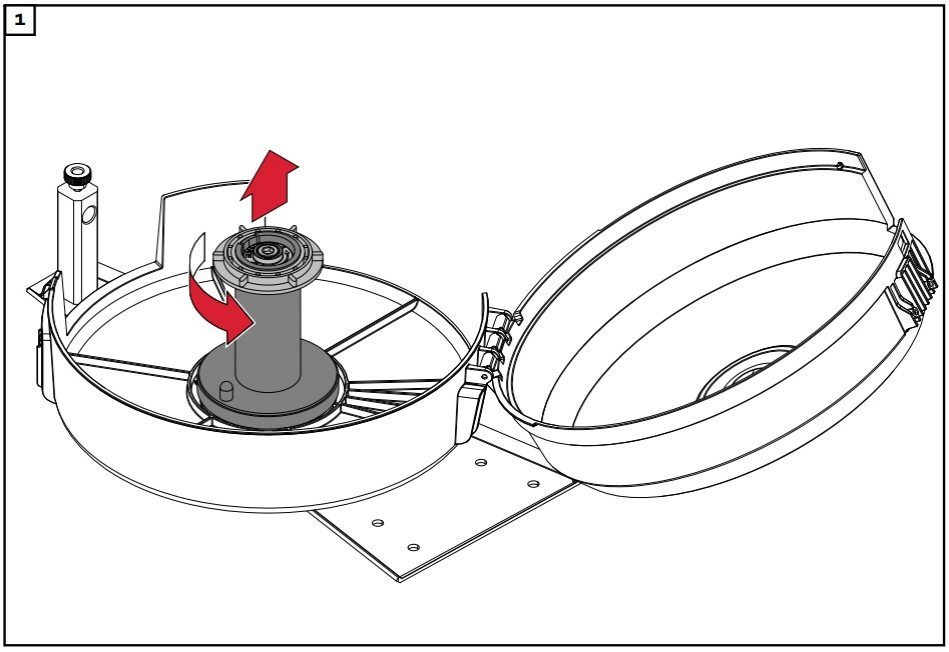


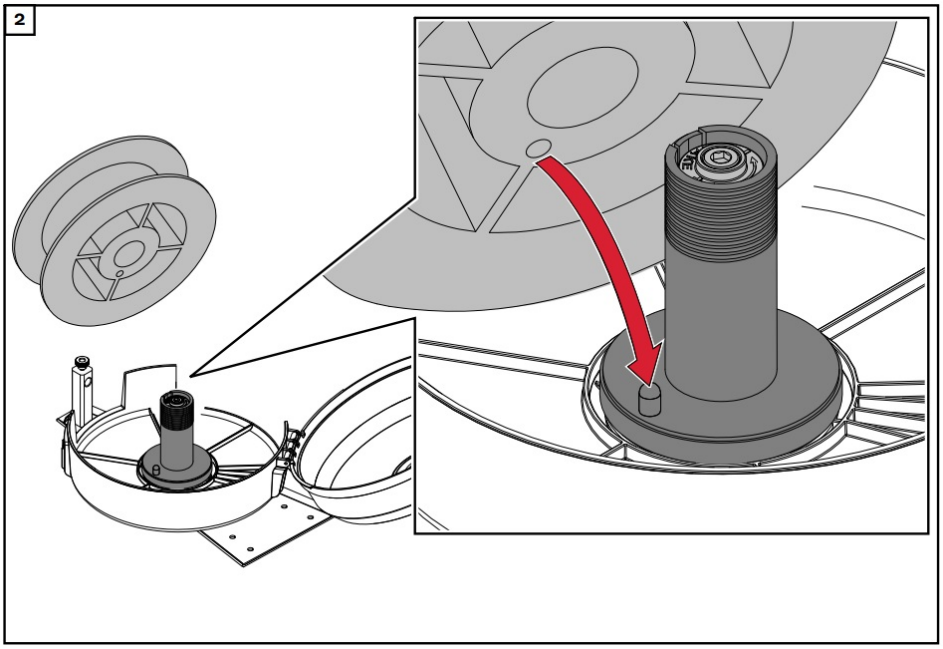
NOTE!
The plug (1) of the connecting cable may only be connected to the sensor connections (2) that are colour-coded red (3).

1. Connect the plug (1) on the connecting cable to an OPT/i ext. sensor plug (2) connection of the wirefeeder/SplitBox
2. Connect plug (4) to the sensor plug of the wirespool holder wire end sensor
3. If necessary, secure the cable with cable ties and cable eyelets

Inserting the wires pool

Inserting the wires pool

1. 

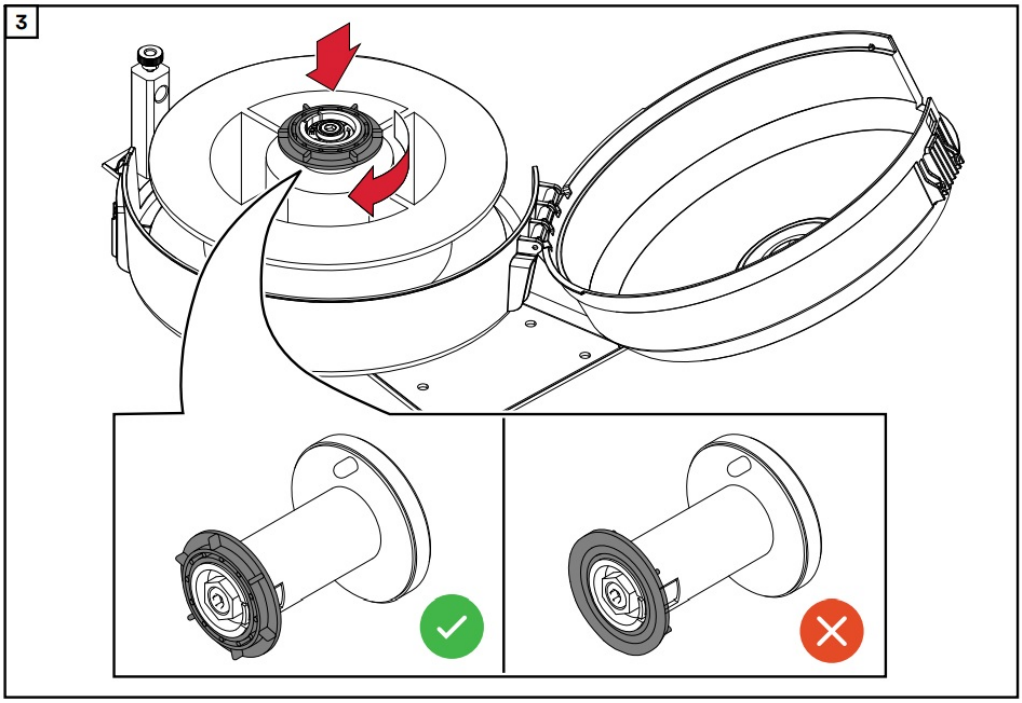
2. 

WARNING!

Danger from falling wirespool/basket-type spool.

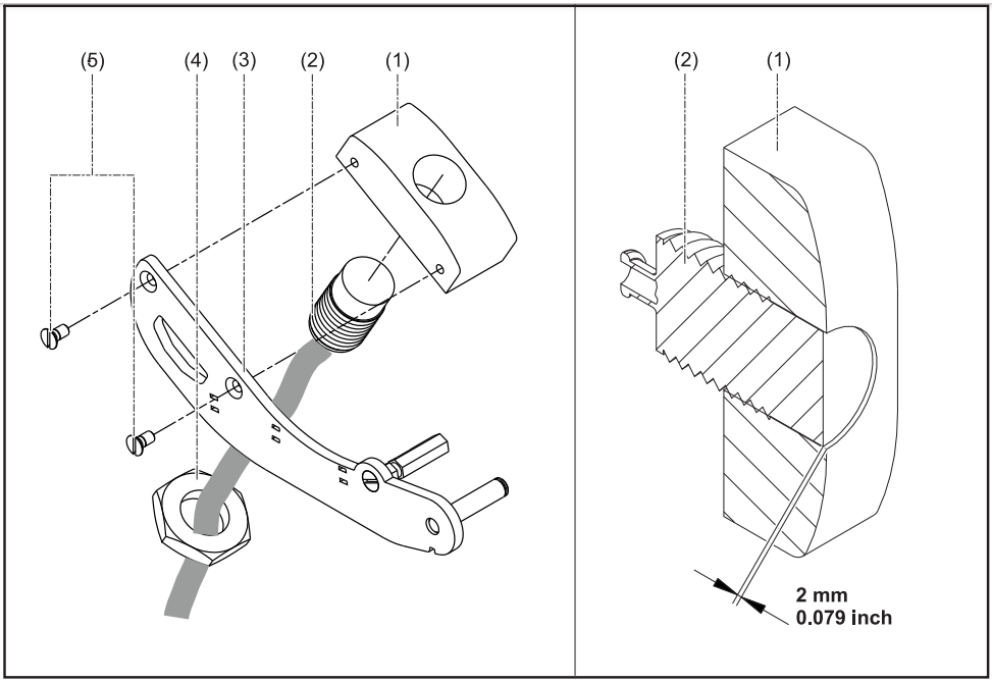
This can result in serious personal injury and damage to property.

- Ensure that the wirespool/basket-type spool including basket-type spool adapter is always firmly seated on the wirespool holder.



Maintenance

Checking that the sensor has been adjusted correctly



NOTE!
Risk due to incorrect sensor setting.
Malfunctions can be the result.

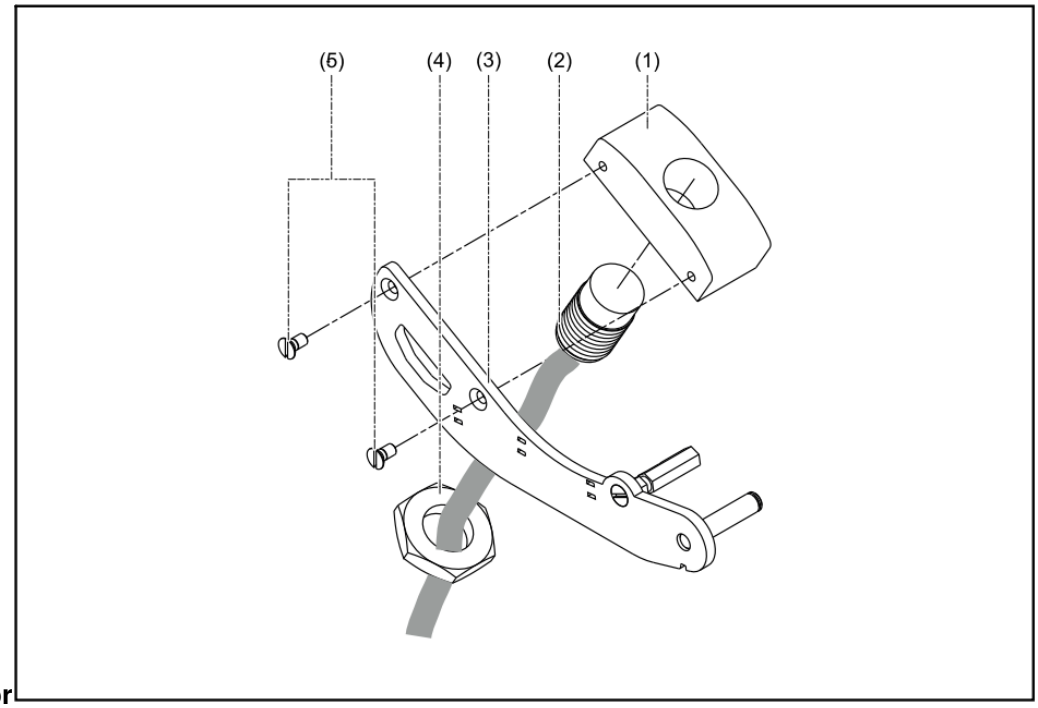
1. Check the following sensor setting after every 25th wirespool change. Adjust or replace shoe and sensor as required.
2. Lift the retaining arm (3) and sensor unit off the wirespool and lock in place

   If the measured distance is less than 0.5 mm (0.02 inch):
3. The gap is too small – adjust the shoe and sensor as described in the following section

   If the measured distance is greater than 0.5 mm (0.02 in):
4. The gap is large enough – undo the retaining arm lock and ensure that the shoe is touching the wire electrode

NOTE!
Risk due to incorrect sensor positioning.
False triggers can be the result.

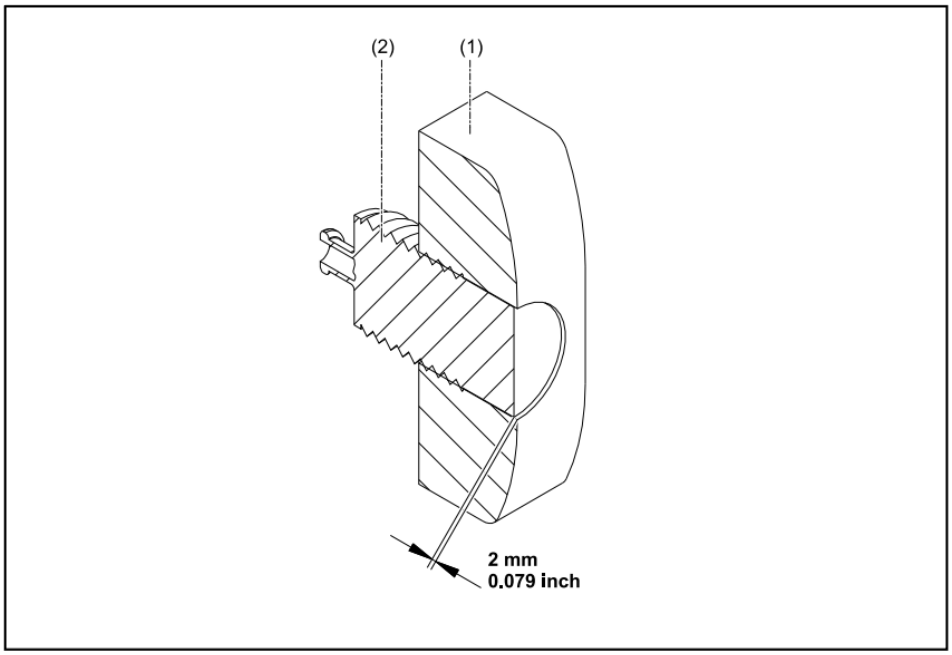
- Make sure, the retaining arm must not touch the wirespool or the wire electrode.



Adjusting the sensor

1. Lift the retaining arm (3) and sensor unit off the wirespool and lock in place
2. Undo screws (5) and take the shoe (1) and sensor (2) off the retaining arm (3)
3. Undo nut (4)

   Attention! When screwing or unscrewing the shoe (1) to/from the sensor (2), ensure that the sensor cable is not twisted.



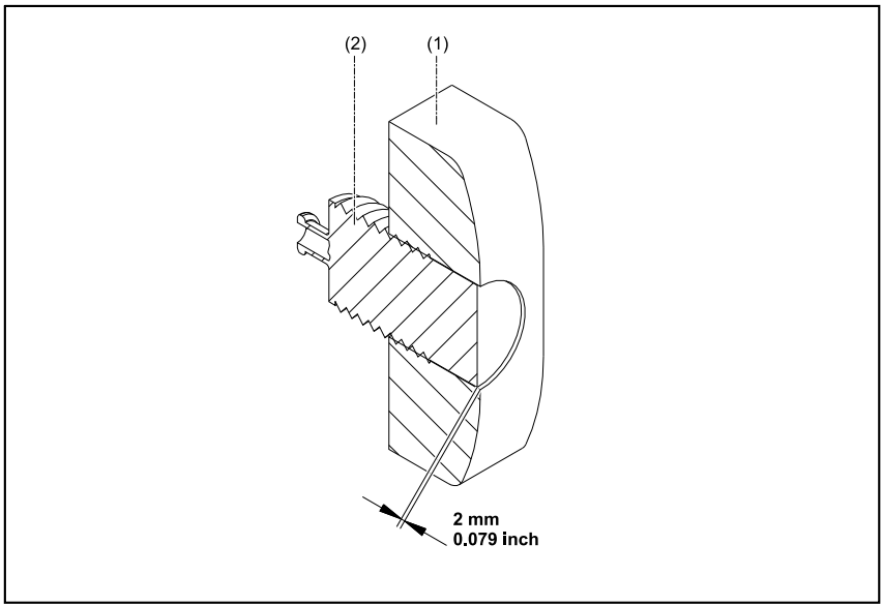
4. Unscrew the shoe (1) from the sensor (2), ensuring that the gap between the sliding surface of the shoe and the surface of the sensor is 2 mm (0.079 inch)
5. Tighten the hexagonal nut (4)

6. Position the shoe (1) and sensor (2) on the retaining arm and tighten using two screws (5)
7. Unlock the retaining arm (3) and ensure that the shoe (1) is touching the wire electrode

Replacing wearing parts

1. Lift the retaining arm (3) and sensor unit off the wirespool and lock in place
2. Undo screws (5) and take the shoe (1) and sensor (2) off the retaining arm (3)
3. Undo the hexagonal nut (4)

   Attention! When screwing or unscrewing the shoe (1) to/from the sensor (2), ensure that the sensor cable is not twisted.



4. Unscrew the shoe (1) from the sensor (2)
5. Screw a new shoe (1) onto the sensor (2), ensuring that the gap between the sliding surface of the shoe and the surface of the sensor is 2 mm (0.079 inch)
6. Tighten the hexagonal nut (4)
7. Position the shoe (1) and sensor (2) on the retaining arm and tighten using two screws (5)
8. Unlock the retaining arm (3) and ensure that the shoe (1) is touching the wire electrode

NOTE!
Risk due to incorrect sensor positioning.
False triggers can be the result.

- Make sure, the retaining arm must not touch the wirespool or the wire electrode.

Fronius International GmbH
Froniusstraße
1 4643 Pettenbach
Austria
contact@fronius.com
www.fronius.com
At www.fronius.com/contact you will find the contact details of all Fronius subsidiaries and Sales & Service Partners.

Documents / Resources

	Fronius WF R Wirespool Holder Wire End Sensor [pdf] Instruction Manual 42, 0410, 2087, WF R Wirespool Holder Wire End Sensor, WF R, Wirespool Holder Wire End Sensor, Holder Wire End Sensor, Wire End Sensor

References

- Fronius Spare Parts
- User Manual