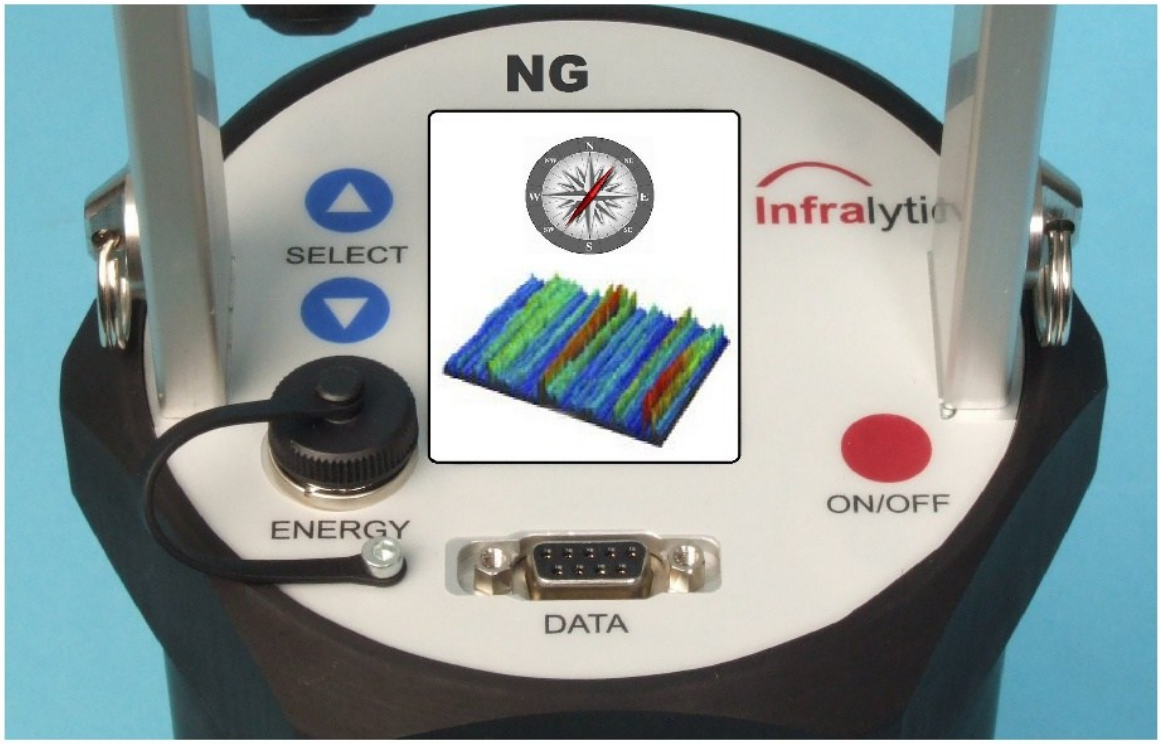
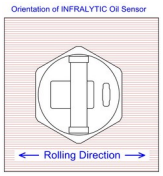
Compass function
for Infralytic NG Oil Level Sensors





Some steel surfaces but especially aluminum surfaces are structured very in-homogeneously, due to the rolling process. Therefore, make sure that the sensors handle is positioned perpendicular with regard to the rolling direction, when taking a measurement on these surfaces.

You may have read this note several times. But what can be done, if the rolling direction is not visible to the naked eye?

For this the compass function will help, which is now available for your Infralytic NG sensor.

Find more information on the following two pages.

Background

All rolling processes produce anisotropic structures – in the bulk as well as on the surface, but only those on the surface count when measuring lubricant layers on sheet metal.

Such structures are most pronounced on mill finished aluminum, but they should also be considered on EDT aluminum and some cases of hot dip galvanized steel.

Rolling direction:

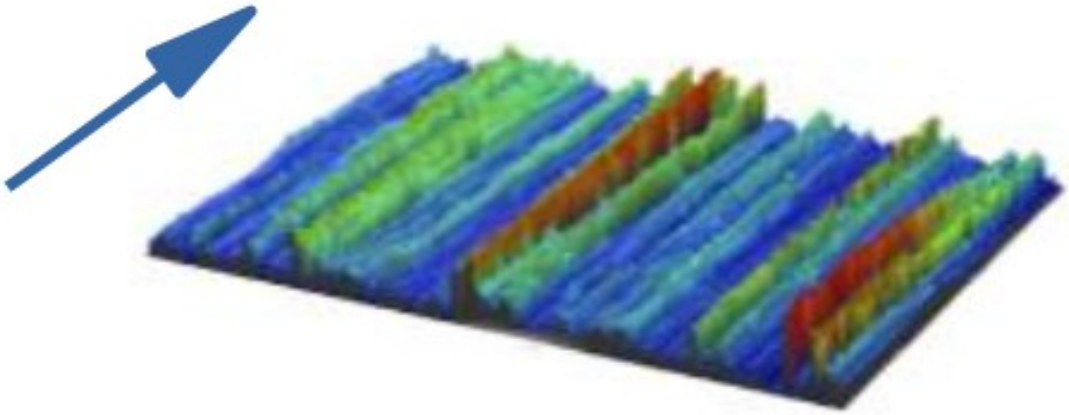


Figure 1: scanning electron microscopic (REM) image of an aluminum mill-finish-surface

In all Infralytic NG sensors illumination is from the side, hence it makes a large difference if the light hits 'mountain slopes' when shone from the side (perpendicular to the rolling direction), or if the valleys are lit when illuminated in rolling direction.

Measuring perpendicular to the rolling direction has proven to give far more reliable results, hence all calibrations for anisotropic surfaces have been made in 'perpendicular' orientation.

This orientation is also indicated by the handle that should be perpendicular to the rolling direction:

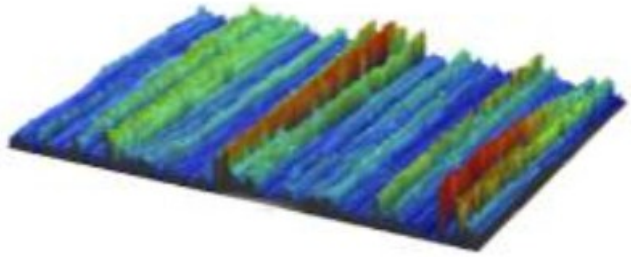


Figure 2: Handle of sensor perpendicular to the rolling direction

This easy procedure works whenever you can detect the rolling direction by eye, seeing imprints, strip bending, scratches or even texture.

In all other cases: Simply use the compass!

Operation

1. Hold the trigger button until the display clears (about three seconds)
2. Release the button, then a bar indication appears
3. Turn the sensor on the spot at least one whole turn without tilt, that means without any foot loosing ground
4. Turn until the bar shows maximum indication
5. Trigger a measurement in the usual way

You are done: the measurement was performed in perfect orientation and the compass is switched off already. Continue measuring in this direction.

Please note, if you have an older NG2 sensor: The new compass function is only available since 2018. But don’t worry, it can be provided in older NG2 sensors as an upgrade. Please contact us, if you want to make use of this function.