Innovationsführer und Entwickler in der Ölschichtdickensensorik
Innovation leader and developer in oil layer thickness sensor

The combination of IR and UV for oil layer thickness measurement

Fig.: Infralytic UV-Mini in use

Why calibrate the UV with the IR?

The proven method of IR absorption provides good absolute values. Due to the mechanical size, the individual components, the housing size is correspondingly large.
The components of UV fluorescence, on the other hand, require considerably less installation space and can therefore be mounted in significantly smaller housings.

So why not use UV fluorescence as the sole method?

The problem with the UV measurement method lies in the extremely strong dependence of the fluorescence strength on the medium to be measured.
In the case of complex lubricants, not only must the lubricant be individually calibrated, but differences between different batches of the same lubricant (with identical technical data sheet) can already be measured.

A real solution to the problem can therefore only be obtained by a combination of both methods:

Both methods (IR and UV) measure spatially the same area in such a way that the collected data come from the same measurement area.

The determined IR reflectivity of the surface is used to normalize the fluorescence strength (UV) on it.

We have set ourselves this task:

As a solution, we can now offer you the currently developed measuring system NG3 in combination with the UV-Mini.

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