DUAL TECHNO

# STIL-DUO + OPILB

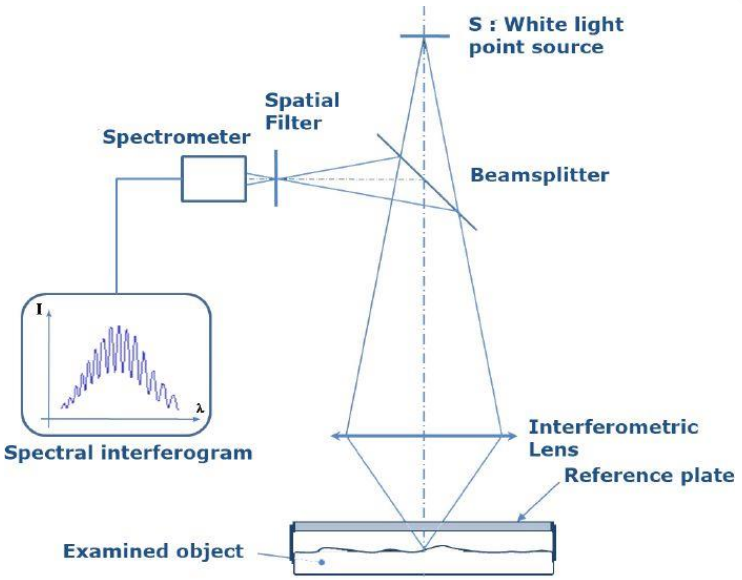
Spectral Confocal Interferometry Sensor - Non-contact


STIL-DUO controller offers two measurement technologies: Chromatic Confocal and Interferometry with an original confocal setup. STIL interferometric method is based on Spectroscopic Analysis of White Light Interferograms (SAWLI). It analyzes the interference signal observed on a spectrometer to measure:

- The thickness between reference surface and sample, or
- The thickness of a transparent layer on the sample.

**STIL** expanded its portfolio with a white light interferometer to open the range of applications. This unique technology allows to:

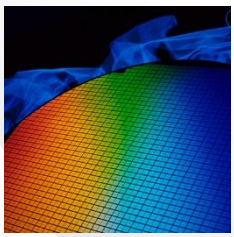
- measure thickness that is too thin to be measured with a classic chromatic confocal sensor,
- measure the shape of samples as TSV (Through-Silicon Via) which present a very high ratio depth/diameter,
- free measurements from environmental perturbations with a vibration insensitive interferometric method.



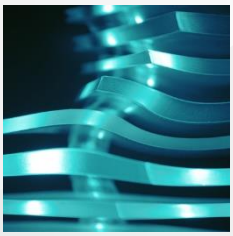

## DESIGNED FOR

**Micromechanics**

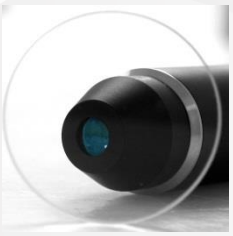
**Semiconductors**



**Glass**



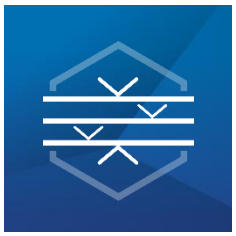
**Metrology**



## PERFECT FOR

**Distance**

**Multilayer**



**Thickness**

**Displacement**

25 YEARS OF INNOVATION

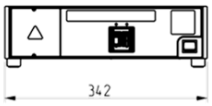
DUAL TECHNO

# STIL-DUO + OPILB

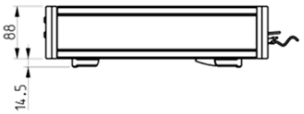
Spectral Confocal Interferometry Sensor - Non-contact

## DIMENSIONAL DRAWING

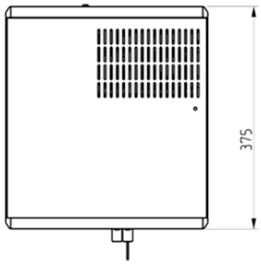
**Front View**




**Side view**

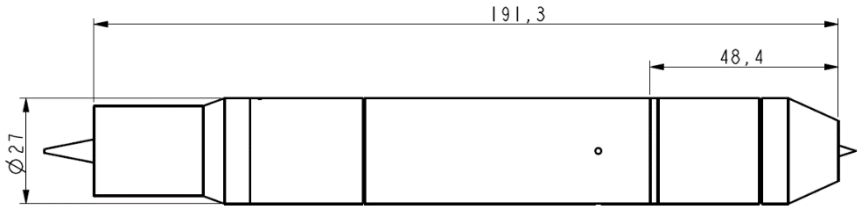



**Top view**




**3D view**

**OPILB-LWD-D + MG140**




## SPECIFICATIONS

| Controller | STIL-DUO |
|---|---|
| Multiplexed Channels | 1 – Chromatic Confocal sensing |
| | 2- Confocal spectral Interferometry |
| Measuring frequency | Up to 2000 Hz |
| Light Source | Tungsten halogen lamp & white LED |
| Input & Output | Ethernet / RS232 / Trigger in&out |
| Measuring mode | Distance & Thickness |

| Model | unit | OPILB-LWD-RP+MG140 | OPILB-LWD-D+MG140 | OPILB-LWD-T+MG35 | OPILB |
|---|---|---|---|---|---|
| Measuring mode | | Distance | Distance | Thickness | Thickness |
| Measuring range | µm | 135 | 135 | 90 (n=1.5) | 90 (n=1.5) |
| Depth of field | µm | 135 | 135 | 200 | 1200 |
| Working distance | mm | 9.7 | 4.6 | 9 | 42 |
| Numerical aperture | | 0.3 | 0.3 | 0.3 | 0.09 |
| Max. sample slope | ° | 17 | 17 | 17 | 5.4 |
| Reference plate | | on the sample | no | yes | no |
| Spot size | µm | 5.7 | 5.7 | 22.9 | 32 |
| Dist. Static noise | nm | 0.5 | 2 | - | - |
| Thick. Static noise | nm | - | - | 0.3 | 0.3 |
| Min. measurable thickness | µm | - | - | 0.4 (n=1.5) | 0.4 (n=1.5) |