



LIST OF CALIBRATION COEFFICIENTS - EXAMPLE

Customer order:

Revision: A

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EQUATIONS

DISPLACEMENT EQUATION

$$L(\mu m) = \psi \cdot \left(\lambda_{act,\epsilon} - \left(\left(\phi \cdot \left(\frac{\lambda_{act,T} - \lambda_{ref,T}}{\lambda_{ref,T}} \right)^2 + \chi \right) \right) \right)^2 + \omega \cdot \left(\lambda_{act,\epsilon} - \left(\left(\phi \cdot \left(\frac{\lambda_{act,T} - \lambda_{ref,T}}{\lambda_{ref,T}} \right)^2 + \chi \right) \right) \right) + \tau$$

Measurand	Description
L [μm]	Displacement change
λ _{act,ε} [nm] **1	Actual displacement wavelength
λ _{act,T} [nm] **1	Actual temperature wavelength
λ _{ref,T} [nm]	Reference temperature wavelength
ψ [μm.nm ⁻²]	Displacement sensitivity coefficient
ω [μm.nm ⁻¹]	Displacement sensitivity coefficient
τ [μm]	Displacement sensitivity coefficient
φ [nm]	Temperature sensitivity coefficient
ϕ [nm]	Temperature sensitivity coefficient
χ [nm]	Temperature sensitivity coefficient

The sensor measures the change in displacement and therefore we recommend „reference“ it after installation using the software in-built option.

**1 Measured value during monitoring of the sensor

CALIBRATION COEFFICIENTS

Nr.	Serial number	Customer code	Product	DISPLACEMENT COEFFICIENTS						
				λ _{ref,T} [nm]	ψ [μm.nm ⁻²]	ω [μm.nm ⁻¹]	τ [μm]	φ [nm]	ϕ [nm]	χ [nm]
1	181685/0001		D-02; WL: 1556,9 / 1557,9nm, LCP-03: 1x 1mtr, 1x FC/APC, 1x WCP-01	1556,69110723	-2,38376E+01	6,26289E+04	-3,96975E+07	6,31231E+04	5,05285E+02	4,95529E-05