

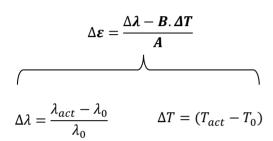
# **EX** FIBER OPTICS

## LIST OF CALIBRATION COEFFICIENTS

Customer order: Revision: A Print date: 22.03.2022

## **EQUATIONS**

### **STRAIN EQUATION**



Measurand	Description
Δε [με]	Strain shift
$\lambda_{0,inst,strain}$ [nm] **1	Initial strain wavelength
T <sub>0,inst</sub> [°C] **1	Initial temperature
T <sub>act</sub> [°C] **2	Actual temperature
$\lambda_{\text{act,strain}}$ [nm] **2	Actual strain wavelength

#### **STRING EXPRESSION**

 $\Delta \varepsilon = ((\Delta \lambda - B * \Delta T) / A)$   $\Delta \lambda = ((\lambda act - \lambda 0) / \lambda 0)$  $\Delta T = (T act - T0)$ 

For the determination of the strain sensitivity the free fiber length was used as a basis

\*\*1 To be measured after installation of the sensor

\*\*2 Measured value during monitoring of the sensor

## **CALIBRATION COEFFICIENTS**

			STRAIN COEFFICIENTS	
Nr. Serial number	Customer code	Product	A [με <sup>-1</sup> ]	В [°С <sup>-1</sup> ]
1 123456/0001	SB-01; 1550nm; 2x 1,5mtr		7,75842E-07	5,89292E-06