



FIBER OPTICS

### LIST OF CALIBRATION COEFFICIENTS - EXAMPLE

Customer order: Revision: A Print date: 15.12.2020  
 Quality supervisor: tsalat@sylex.sk Production supervisor: mmucka@sylex.sk

### EQUATIONS

#### TEMPERATURE EQUATION

$$T = T_{S1} \left( \frac{\lambda_{T,act} - \lambda_{T,ref}}{\lambda_{T,ref}} \right)^2 + T_{S2} \left( \frac{\lambda_{T,act} - \lambda_{T,ref}}{\lambda_{T,ref}} \right) + T_{S3}$$

Measurand	Description
T [°C]	Temperature
$\lambda_{T,act}$ [nm] **1	Actual temp. wavelength
$\lambda_{T,ref}$ [nm]	Reference temp. wavelength
T <sub>S1</sub> [°C]	Temperature sensitivity 1
T <sub>S2</sub> [°C]	Temperature sensitivity 2
T <sub>S3</sub> [°C]	Temperature sensitivity 3

#### STRING EXPRESSION

Ts1\*((λT,act-λT,ref)/λT,ref)^2+Ts2\*((λT,act-λT,ref)/λT,ref)+Ts3

\*\*1 Measured value during monitoring of the sensor

### CALIBRATION COEFFICIENTS

Nr.	Serial number	Customer code	Product	T <sub>S1</sub> [°C]	T <sub>S2</sub> [°C]	T <sub>S3</sub> [°C]	$\lambda_{T,ref}$ [nm]
1	197367/0001		TP-03; WL: 1511,9nm, LCP-03: 1x 11m, 1x FC/APC, 1x WCP-01	-1612491,984	52429,01043	22,50110548	1511,738906