



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

$$T = T_{S1} \left( \frac{\lambda_{T,act} - \lambda_{T,ref}}{\lambda_{T,ref}} \right)^3 + T_{S2} \left( \frac{\lambda_{T,act} - \lambda_{T,ref}}{\lambda_{T,ref}} \right)^2 + T_{S3} \left( \frac{\lambda_{T,act} - \lambda_{T,ref}}{\lambda_{T,ref}} \right) + T_{S4}$$

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
T <sub>S4</sub> [°C]	Temperature sensitivity 4

STRING EXPRESSION

Ts1\*((λT,act-λT,ref)/λT,ref)^3+Ts2\*((λT,act-λT,ref)/λT,ref)^2+Ts3\*((λT,act-λT,ref)/λT,ref)+Ts4

\*\*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]	T <sub>S4</sub> [°C]	$\lambda_{T,ref}$ [nm]
1	197322/0001		TP-01; Range: -20 to +110°C, WL: 1558nm, LCP-01: 0,6mtr SS / 2,5mtr Dyneema, 1x FC/APC	1,05531E+10	-3,32227E+07	1,60646E+05	22,51603856	1558,101696