

LIST OF CALIBRATION COEFFICIENTS

Customer order:

Revision:

C

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EQUATIONS
ACCELERATION EQUATION

$$\Theta = \left(\frac{\lambda_1 - \lambda_{1,ref}}{C_3} - \frac{\lambda_2 - \lambda_{2,ref}}{C_4} \right) \cdot \left(\frac{C_1}{C_3} - \frac{C_2}{C_4} \right)^{-1}$$

STRING EXPRESSION
 $Fi[angle] = (((l1 - l1ref)/C3) - ((l2 - l2ref)/C4)) * pow((C1/C3) - (C2/C4), -1)$

Measurand	Description
θ [°]	Tilt
$\lambda_{1,ref}$ [nm]	Reference wavelength, lower FBG
$\lambda_{2,ref}$ [nm]	Reference wavelength, higher FBG
λ_1 [nm]	Actual wavelength, lower FBG
λ_2 [nm]	Actual wavelength, higher FBG
C1 [nm/°CW1]	Tilt sensitivity coefficient
C2 [nm/°CW1]	Tilt sensitivity coefficient
C3 [nm/K]	Temperature sensitivity coefficient
C4 [nm/K]	Temperature sensitivity coefficient

CALIBRATION COEFFICIENTS

Nr.	Serial number	Customer code	Product	TILT COEFFICIENTS					
				C1 [nm/°CW1]	C2 [nm/°CW1]	C3 [nm/K]	C4 [nm/K]	$\lambda_{1,ref}$ [nm]	$\lambda_{2,ref}$ [nm]
1	222758/0001		SAT-01; +/-5°; WL: 1542,9/1547,1nm; LCP-03: 2x 1m, 2x FC/APC	-2,830714E-01	2,706429E-01	1,350184E-02	1,182187E-02	1543,29000	1547,11800
2	222759/0001		SAT-01; +/-5°; WL: 1552,9/1557,1nm; LCP-03: 2x 1m, 2x FC/APC	-2,799286E-01	2,771429E-01	1,313446E-02	1,139812E-02	1553,60800	1557,31000