

$$R_s = R_l + R_0(1 + \alpha T + \beta T^2)$$

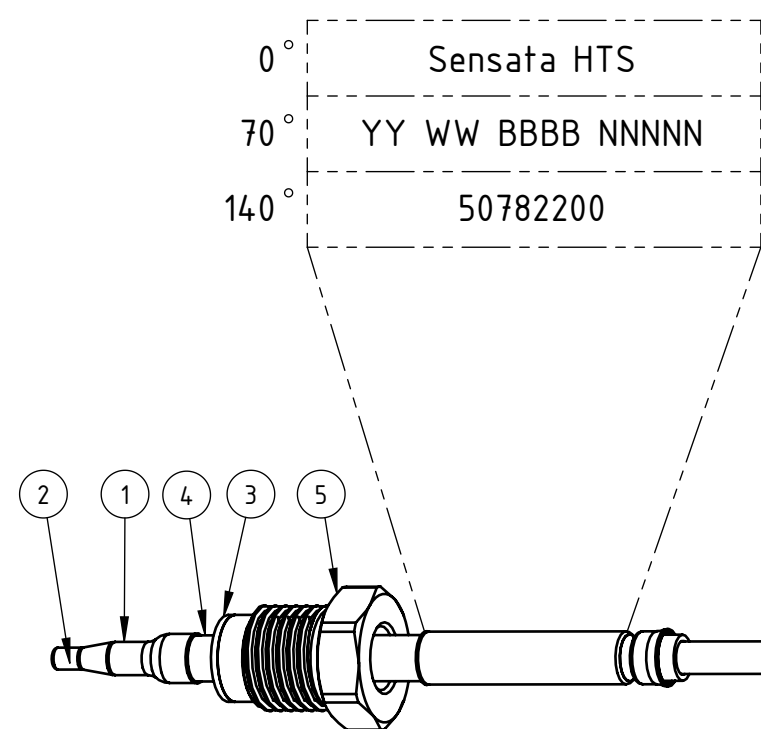
$$\alpha = 3.908 \cdot 10^{-3}$$

$$\beta = -5.78 \cdot 10^{-7}$$

T (°C)	R _s (Ω)	U ₀ (V)
-40	421.9	1.484
0	500.5	1.668
50	597.5	1.870
100	693.0	2.047
200	879.8	2.340
300	1060.7	2.574
400	1235.9	2.764
500	1405.3	2.921

Position	Temperature (°C)
A (Tip)	500
B (Flange)	500
C (Rearhousing)	260
D (Cable Seal)	180

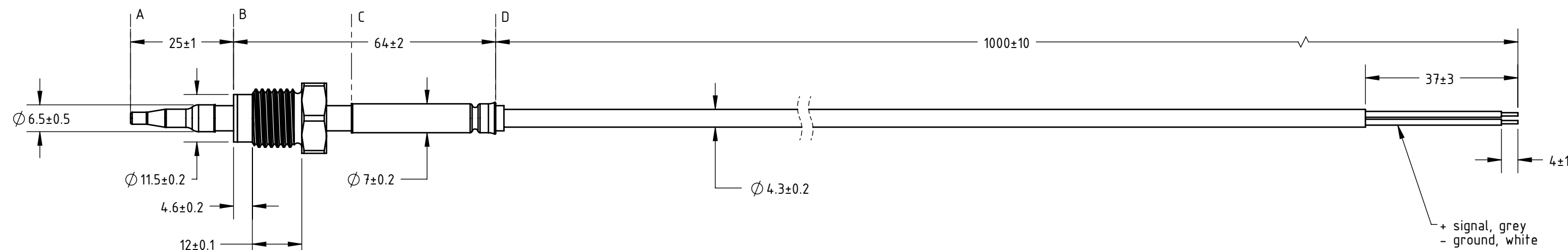
(*)=Temperature higher than indicated in the tabel can be allowed when measured under specific conditions and documented by the customer and approved by Sensor-NITE. Special DARTS200 sensors for these measurements with thermocouples in the sensorbody are made by Sensor-NITE. See also Technical specification and validation DARTS200 Exhaust gas temperature Sensor. For connector, sleeve, clips, labels,...: see individual temperature specifications



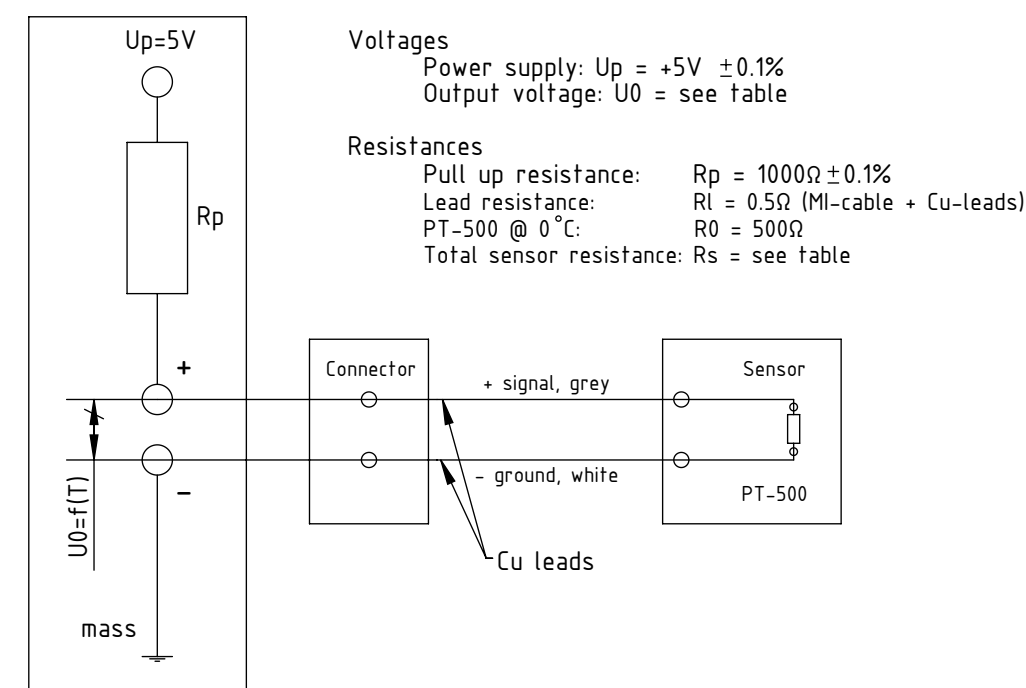
LEGEND
 YY : Year
 WW : Weeknumber
 BBBB : Batchnumber
 NNNNN : Serialnumber

TEXT FORMAT
 Font: DIN 1451
 Size: min 1.5mm
 max 2mm
 Alignment: centered

Nr.	Name	Material	Remark
1	Front cover	Inconel 601	
2	Pt-500	Platin temperature sensor element	CTC - MN220
3	Flange	1.4845 310H	
4	MI cable	1.4845 310H	
5	Hexagon nut	1.4571	M14x1.5 SW17
6	Flexible cable		



RTD circuit to MCU



Tightening of the hexagon nut 45Nm ±10%

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B	Marking updated	ECO-154321	16/03/17	Daniel Mullen
A	Design Release	ECO-139509	26/10/16	Daniel Mullen
REV.	DESCRIPTION	ECO No	DATE	REQUESTOR

REVISION TABLE				
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DRAWN	Boris Rizov	INDUSTRIELAAN 24 2250 OLEN BELGIUM		
MATERIAL		TITLE Temperature Sensor DARTS500-E		
GEN. ROUGHNESS		TOLERANCES: LINEAR ANGLES		
APPROX. WEIGHT (g)		0 UP TO 6: ±0.1 OVER 6 UP TO 30: ±0.2 OVER 30 UP TO 120: ±0.3 OVER 120 UP TO ∞: ±0.5		
DO NOT SCALE DRAWING		THIRD ANGLE PROJECTION		
DRAWING SIZE		DRAWING NUMBER		
SCALE 1:1		50782250		REV B
SOLIDWORKS		SHEET 1 OF 1		