



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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

$$\alpha = 3.8285 \cdot 10^{-3}$$

$$\beta = -5.85 \cdot 10^{-7}$$

T (°C)	R <sub>s</sub> (Ω)	U <sub>0</sub> (V)
-40	169.7	0.725
0	200.5	0.835
25	219.6	0.900
50	238.5	0.963
100	275.9	1.081
200	349.0	1.293
300	419.7	1.478
400	488.1	1.640
500	554.1	1.783
600	617.8	1.909
700	679.2	2.022
800	738.2	2.123
850	766.8	2.170

Position	Temperature (*)
A (Tip)	850 °C
B (Flange)	625 °C
C (Rearhousing)	260 °C
D (Cable Seal)	180 °C

(\*)=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

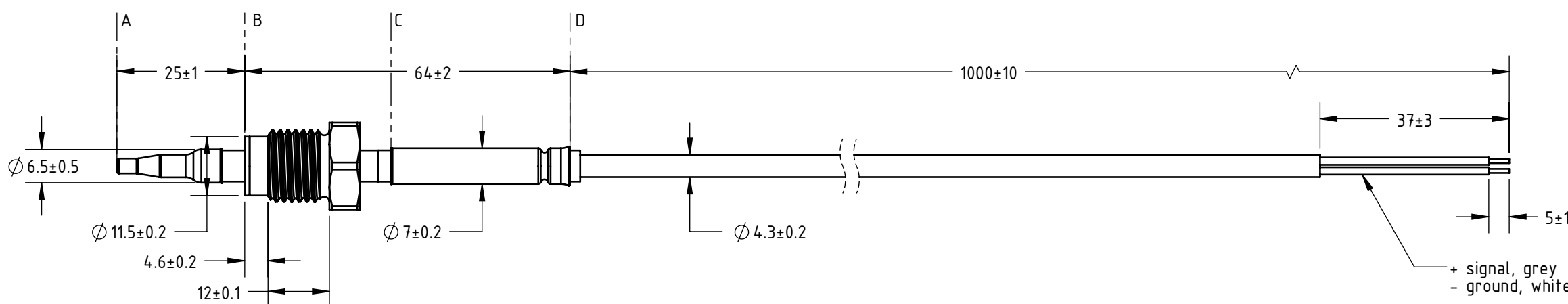
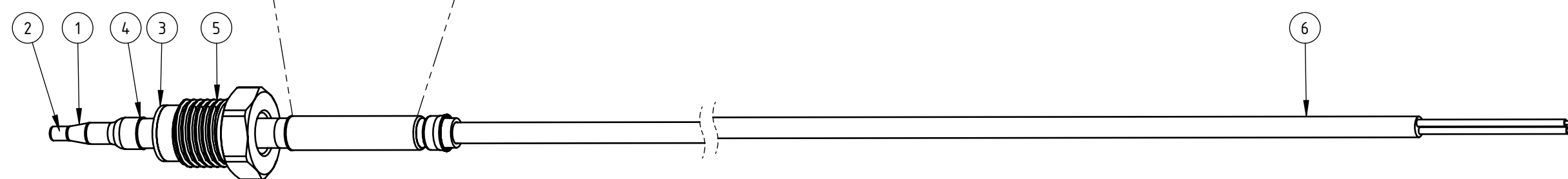
Nr.	Name	Material	Remark
1	Front cover	Inconel 601	
2	Pt-200	Platin temperature sensor element	
3	Flange	1.4845 310H	
4	MI cable	1.4845 310H	
5	Hexagon nut	1.4571	M14x1.5 SW17
6	Flexible cable		

0°  
70°  
140°

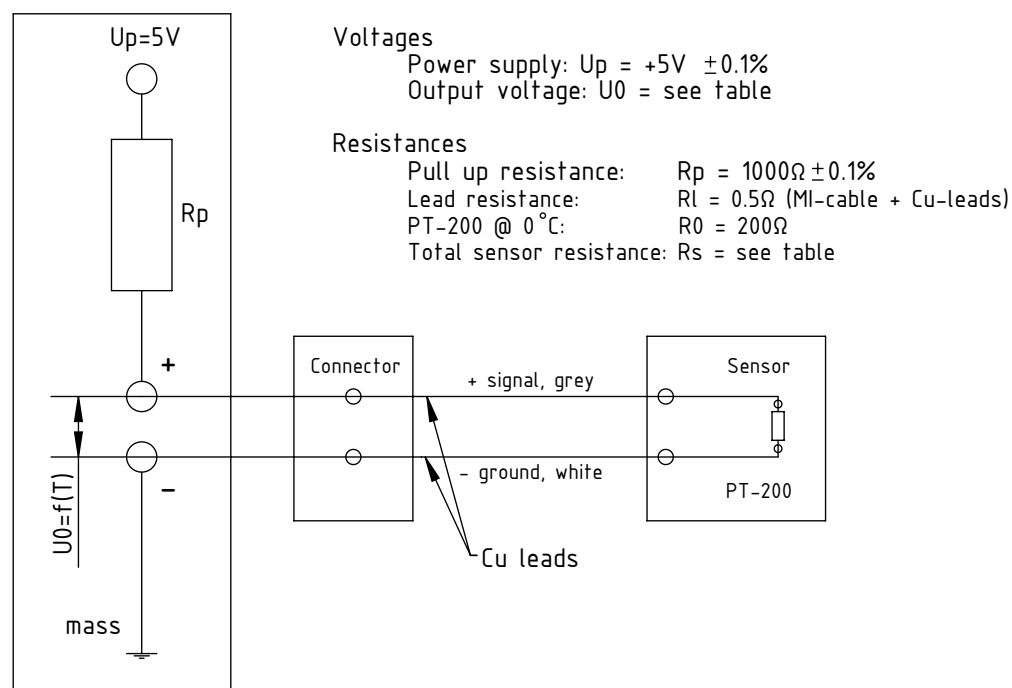
Sensata HTS  
YYWW BBBB NNNNN.  
50782100

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

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



### RTD circuit to MCU



#### Voltages

Power supply:  $U_p = +5V \pm 0.1\%$   
Output voltage:  $U_0 = \text{see table}$

#### Resistances

Pull up resistance:  $R_p = 1000\Omega \pm 0.1\%$   
Lead resistance:  $R_l = 0.5\Omega$  (MI-cable + Cu-leads)  
PT-200 @ 0 °C:  $R_0 = 200\Omega$   
Total sensor resistance:  $R_s = \text{see table}$

**Tightening of the hexagon nut 45 Nm ±15%**

#### PRODUCT DISCLAIMER

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FOR REFERENCE ONLY, CHECK LATEST REVISION BEFORE USE.				INDUSTRIELAAN 24 2250 OLEN BELGIUM	
FIRST ISSUE DATE	24/10/2016	NEITHER THIS PRINT NOR THE INFORMATION CONTAINED HEREON IS TO BE USED AGAINST THE INTERESTS OF SENSATA TECHNOLOGIES OR AGAINST THE INTERESTS OF ANY OF ITS AFFILIATED COMPANIES OR WHOLLY OWNED SUBSIDIARIES		TITLE Temperature Sensor DARTS200-D	
DRAWN	Boris Rizov	INTERPRET DIMENSIONING AND TOLERANCING PER ASME Y14.5-2009. UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS.		DRAWING NUMBER 50782150	
MATERIAL		TOLERANCES: LINEAR ANGLES 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		REV B	
GEN. ROUGHNESS	APPROX. WEIGHT (g)	DO NOT SCALE DRAWING	THIRD ANGLE PROJECTION	DRAWING SIZE A2	SCALE 1:1
REVISION TABLE		SOLIDWORKS		SHEET 1 OF 1	

REV.	DESCRIPTION	ECO No	DATE	REQUESTOR
B	Marking updated	ECO-154321	16/03/17	Daniel Mullen
A	Design Release	ECO-139337	24/10/16	Daniel Mullen