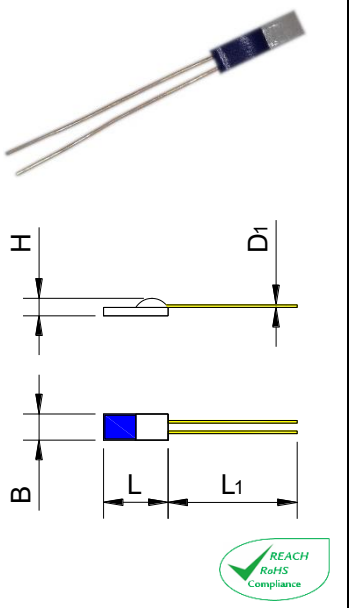
Platinum-Resistance-Temperature-Detector: CRAG Series

Platinum chip temperature sensors of the CRAG series are suitable for universal applications in a temperature range from –200°C to +600°C. The lead wires support all common connection techniques such as welding, soldering, and crimping. The series is available in all tolerance classes from F0.6 (2B) to F0.03 (1/10B).

Type	**CRAG Series**		
Operating temperature range	**-200°C … +600°C**		
Tolerance validity range DIN EN IEC 60751	1/10B	F0.03	-20°C … +200°C
	1/5B	F0.06	-20°C … +200°C
	1/3B	F 0.1	-30°C … +200°C
	A	F 0.15	-30°C … +300°C
	B	F 0.3	-70°C … +600°C
	2B	F 0.6	-70°C … +600°C
Resistance value	Pt100 also double Pt500 also double Pt1000 also double		
Measuring/maximum current	Pt100: 1 mA … 7 mA Pt500: 0.7 mA … 3 mA Pt1000: 0.1 mA … 1 mA		
Measuring point	2mm from the open end		
Temperature coefficient	3850 ppm/K (3810 , 3750 etc.)		
Long-term stability	max. R_0-Drift 0.05 %/year		
Max tensile force	5N .. 10N (see table page 2)		



Available models													
Temperature sensor					**Lead wire**			**Tolerance class**					
Type	R_0/Ω	B	L	H	**Material**	D1	L1	1/10	1/5	1/3	A	B	2B
CRAG-0803-100	100	0.8	3.0	0.85	Pt clad Ni	0.15	10			●	●	●	
CRAG-0803-1000	1000	0.8	3.0	0.85		0.15	10			●	●	●	
CRAG-1216-100	100	1.2	1.6	1.1	Nickel Au plated Ni Pt clad Ni Sn plated Ni Silver Isolated wire	0.2	10	●	●	●	●	●	●
CRAG-1216-500	500	1.2	1.6	1.1		0.2	10	●	●	●	●	●	●
CRAG-1216-1000	1000	1.2	1.6	1.1		0.2	10	●	●	●	●	●	●
CRAG-1204-100	100	1.2	4.0	1.1		0.2	10	●	●	●	●	●	●
CRAG-1204-1000	1000	1.2	4.0	1.1		0.2	10	●	●	●	●	●	●
CRAG-1605-100	100	1.6	5.0	1.1		0.25	10	●	●	●	●	●	●
CRAG-1605-1000	1000	1.6	5.0	1.1		0.25	10	●	●	●	●	●	●
CRAG-2004-100	100	2.0	4.0	1.1		0.25	10	●	●	●	●	●	●
CRAG-2004-1000	1000	2.0	4.0	1.1		0.25	10	●	●	●	●	●	●
CRAG-2005-100	100	2.0	5.0	1.1		0.25	10	●	●	●	●	●	●
CRAG-2005-1000	1000	2.0	5.0	1.1		0.25	10	●	●	●	●	●	●
CRAG-2023-100	100	2.0	2.3	1.1		0.25	10	●	●	●	●	●	●
CRAG-2023-500	500	2.0	2.3	1.1		0.25	10	●	●	●	●	●	●
CRAG-2023-1000	1000	2.0	2.3	1.1		0.25	10	●	●	●	●	●	●
CRAG-2010-100	100	2.0	10.0	1.3		0.25	10	●	●	●	●	●	●
CRAG-2010-1000	1000	2.0	10.0	1.3		0.25	10	●	●	●	●	●	●
CRAG-3010-100	100	2.9	9.8	1.3		0.25	10	●	●	●	●	●	●
CRAG-2804-100	2x 100	2.8	4.4	1.1		0.25	10	●	●	●	●	●	●
CRAG-2804-500	2x 500	2.8	4.4	1.1		0.25	10					●	●
CRAG-2804-1000	2x 1000	2.8	4.4	1.1		0.25	10					●	●

Customized versions on request, e.g. other wire lengths, insulation, dimensions,...

Dimensional tolerances: ΔB = ±0.15 / ΔL = ±0.2 / ΔH = ±0.15 / ΔS = ±0.05 / ΔD1 = ±0.01 / ΔL1 = ±1.0 | Dimensions in mm

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Self-heating coefficients and response times			
Type	Self-heating coefficient E in K/mW	Response times in seconds	
	Air (v = 1 m/s)	in water (v = 0.4 m/s)	in Air (v = 1 m/s)
		$t_{0.9}$	$t_{0.9}$
CRAG-0803	0.5	0.12	6
CRAG-1216	0.6	0.15	6
CRAG-2023	0.5	0.2	10
CRAG-1204	0.5	0.2	10
CRAG-2005	0.33	0.4	10
CRAG-2095	0.25	0.4	20
CRAG-3010	0.16	0.5	45
CRAG-2804	0.5	0.2	10
CRAG-2010	0.33	0.35	17

Size in mm			Wire material	Ø wire in mm	Max. tensile force in N
0.8 x 3			Pt-Ni wire	0.15	5
2 x 2.3			Ni-wire, AuNi-wire	0.25	8
2 x 2.3			Ag-wire	0.30	8
2 x 2.3			Pt-Ni wire	0.20	8
2 x 4	2 x 5		Ni-wire, AuNi-wire	0.25	9
2 x 4	2 x 5		Ag-wire	0.30	8
2 x 4	2 x 5		Pt-Ni-wire	0.20	8
2 x 10	3 x 10		Ni-wire, AuNi-wire	0.25	10
2 x 10	3 x 10		Ag-wire	0.30	9
2 x 10	3 x 10		Pt-Ni-wire	0.20	9
1.2 x 1.6	1.2 x 4	1.6 x 5	Ni-wire, AuNi-wire	0.20	6
1.2 x 1.6	1.2 x 4	1.6 x 5	Ag-wire	0.25	5
1.2 x 1.6	1.2 x 4	1.6 x 5	Pt-Ni-wire	0.20	6

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