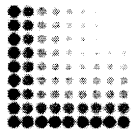


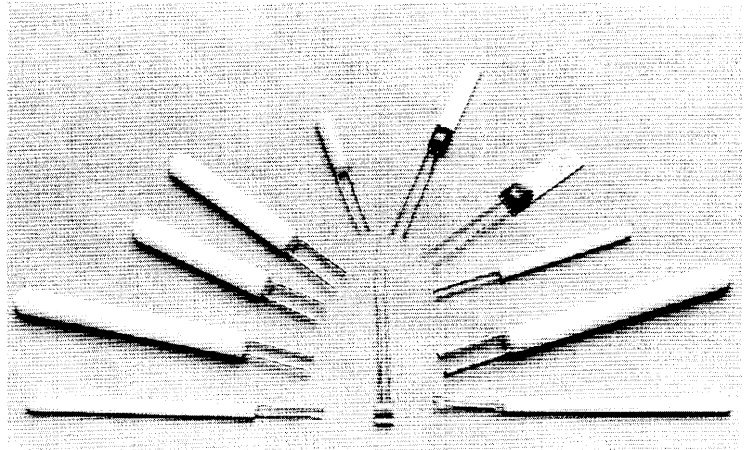
560 170



LABFACILITY

TEMPERATURE & PROCESS TECHNOLOGY

- ◆ Precision platinum temperature sensors
- ◆ Pt100, Pt500, Pt1000 and other values available
- ◆ Available from stock
- ◆ Wire-wound and flat film types Wide range of sizes
- ◆ Tolerance values from Class B to 1/10 Class B
- ◆ Single or duplex detectors Specials available to order including alternative R_0 values and nickel resistors



Labfacility offers a wide range of precision platinum temperature sensing resistors in both wire-wound and flat film construction. All standard items are available in quantity from stock; non-standard detectors can be supplied to order.

Platinum **wire-wound detectors** comprise a pure platinum wire wound into a miniature spiral and located within axial holes in a high purity alumina rod. The freedom of movement of the platinum wire gives good long term stability and a wide operating temperature range of -200 to $+800^{\circ}\text{C}$. Labfacility wire-wound detectors are cylindrical in shape and ideally suited for housing within a protective metal tube.

Although more expensive than flat film alternatives, wire-wound detectors have a wider temperature range (particularly below -50°C) and are readily available in close tolerance classes.

A range of alternative diameters and lengths is available. Duplex detectors containing two platinum resistors are also available.

Platinum **flat-film detectors** are produced by the deposition of a platinum film on to a flat ceramic substrate, the platinum being sealed to provide protection. Flat-film detectors are available in a range of sizes and are recommended for applications requiring small size, fast response to temperature changes, surface measurement, and resistance to vibration and shock. They are generally less expensive than wire-wound detectors, but the choice of tolerance classes is more limited.

In addition to the standard detectors listed in this data sheet, specials are available including other sizes, duplex detectors, alternative R_0 values, and nickel detectors to suit a wide range of applications.

LABFACILITY LIMITED

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LABFACILITY LTD, 8 Feltham Business Complex, Browells Lane, Feltham, Middlesex TW13 7LW
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Tel: +44(0)1243 871280 Fax: +44(0)1243 871281;



Registration Certificate No. 17/98

SPECIFICATIONS

Sensor type Unless stated all detectors are Pt100 to BS EN60751:1996, BS1904:1984, DIN 43760:1980 and IEC 751:1983
 Ro 100 Ohms
 Temperature range Wire wound: -200 to +800°C
 Flat film: -50°C to maximum value shown below.

Resistance v temperature and tolerances for Pt100 thermometers to IEC 751

Temperature Resistance		Tolerance				Temperature Resistance		Tolerance			
(°C)	(Ω)	Class A (±°C)	Class A (±Ω)	Class B (±°C)	Class B (±Ω)	(°C)	(Ω)	Class A (±°C)	Class A (±Ω)	Class B (±°C)	Class B (±Ω)
-200	18.52	0.55	0.24	1.3	0.56	500	280.98	1.15	0.38	2.8	0.93
-100	60.26	0.35	0.14	0.8	0.32	600	313.71	1.35	0.43	3.3	1.06
0	100.00	0.15	0.06	0.3	0.12	650	329.74	1.45	0.46	3.6	1.13
100	138.51	0.35	0.13	0.8	0.30	700	345.28	—	—	3.8	1.17
200	175.86	0.55	0.20	1.3	0.48	800	375.70	—	—	4.3	1.28
300	212.05	0.75	0.27	1.8	0.64	850	390.48	—	—	4.6	1.34
400	247.09	0.95	0.33	2.3	0.79						

Tolerances

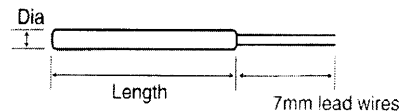
Class B $\pm(0.3^{\circ}\text{C} + 0.005t)$
 Class A $\pm(0.15^{\circ}\text{C} + 0.002t)$
 Where t is the measured temperature
 1/3 Class B $\pm(0.1^{\circ}\text{C at } 0^{\circ}\text{C})$
 1/5 Class B $\pm(0.06^{\circ}\text{C at } 0^{\circ}\text{C})$
 1/10 Class B $\pm(0.03^{\circ}\text{C at } 0^{\circ}\text{C})$
 Note: 1/3, 1/5 and 1/10 Class B
 Tolerances apply at 0°C

Specifications may be subject to change

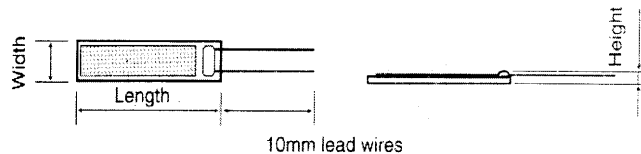
Dimensions

Individual dimensions are given in Order Codes & Dimensions below.

Wire Wound



Flat-film



Order Codes and Dimensions

Wire Wound Detectors, PT100

Dimensions	Tolerance	Class	Specification No.
Dia x length (mm)			
2.8 x 25	B		P100/2528 B
2.8 x 25	A		P100/2528 A
2.8 x 25	1/3		P100/2528 1/3
2.8 x 25	1/5		P100/2528 1/5
2.8 x 25	1/10		P100/2528 1/10
1.5 x 25	B		P100/2515 B
2.8 x 15	B		P100/1528 B
2.8 x 15	A		P100/1528 A
2.8 x 15	1/3		P100/1528 1/3
2.8 x 15	1/5		P100/1528 1/5
2.8 x 15	1/10		P100/1528 1/10
2.4 x 15	B		P100/1524 B
1.6 x 15	B		P100/1516 B
1.5 x 15	B		P100/1515 B
1.5 x 15	A		P100/1515 A
1.5 x 15	1/3		P100/1515 1/3
1.5 x 15	1/5		P100/1515 1/5
1.5 x 15	1/10		P100/1515 1/10
0.8 x 15	B		P100/0815 B
0.8 x 15	A		P100/0815 A
0.8 x 15	1/3		P100/0815 1/3
0.8 x 15	1/5		P100/0815 1/5
0.8 x 15	1/10		P100/0815 1/10

Flat-film detectors, Pt100 and Pt1000

Sensor type	Dimensions WxLxH (mm)	Tolerance Class	Max temperature (°C)
Pt100Ω	2 x 5 x 1.1	B	500
Pt100Ω	2 x 5 x 1.1	A	400
Pt100Ω	1.7 x 5 x 1.1	B	600
Pt100Ω	2 x 10 x 1.4	B	600
Pt100Ω	2 x 10 x 1.4	A	400
Pt1000Ω	2 x 10 x 1.1	B	500
Pt1000Ω	2 x 10 x 1.4	B	600

Order Code
DM-503
DM-508
DM-385
DM-333
DM-334
DM-507
DM-367

Class A and B detectors are readily available from stock.

When ordering alternative tolerance devices please call to first to confirm availability.

For sizes and types not listed, contact sales office

Labfacility manufactures and stocks a wide range of RTD probes



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Order Code
DA-016
DA-017
DA-018
DA-019
DA-020
DA-026
DA-041
DA-042
DA-043
DA-044
DA-045
DA-046
DA-056
DA-061
DA-062
DA-063
DA-064
DA-065
DA-081
DA-082
DA-083
DA-084
DA-085