Output	4-20mA loop powered max. 30mA
Loop supply	10 to 30 Vdc reverse polarity protection
Loop resistance	700Ω @ 24V
Loop sensitivity	10µA/volt
Temperature stability	Zero drift typ. 0.02%/°C, Span typ. 0.005%/°C
Ambient temperature	0 to 70°C, (95% humidity, max. non-condensing)

	PT100 Version	Thermocouple Versions (J,K, T)
Input	to **DIN 43760** 100R @ 0°C (2 or 3 wire)	Insulated junction J K or T sensor
Accuracy	±0.2°C and +0.2% rdg.	±0.1% FS and cold junction errors
Offset adjustment	range dependant	±100°C, solder link & potentiometer
Gain/adjustment	25°C to 500°C	100 to 1000°C
Impendance		>1MΩ
Burn out	Up scale standard (downscale option)	
Cold junction	Automation 0 to 70°C ±0.2%	
Temperature range	-30°C to +400°C	J=0 to +400°C, K=0 to +1000°C, T=0 to +400°C

229914

Sensor Type	Mftrs. List No.	Order Code	Price Each 1+	5+	10+	25+
PT100	SEM104PT100	**615-675**	3,347.00	3,207.00	3,110.00	2,962.00
Thermocouple	SEM104TC	**615-687**	4,330.00	4,133.00	3,887.00	3,671.00

Platinum Resistance Sensors

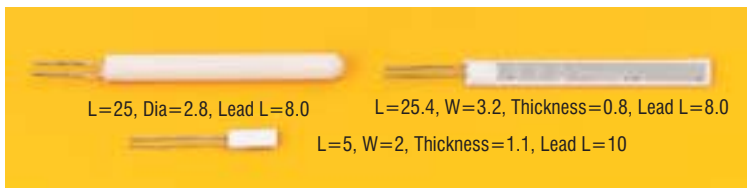
Platinum Resistance Thermometry

The platinum sensing resistor, Pt100 to **IEC 751**, is dominant in Europe and in many other parts of the world. Its advantages include chemical stability, relative ease of manufacture, the availability of wire in a highly pure form and excellent reproducibility of its electrical characteristic. The result is a truly interchangeable sensing resistor which is widely commercially available at a reasonable cost.

Source: LABFACILITY TEMPERATURE HANDBOOK - Part No. 656-069

224663

PT100 Elements



- Meets requirements of **BS1904 Class B** and **DIN43760**
- Suitable for air and gas temperature measurement
- Cylindral wire-wound element also particularly suitable for use within protective stainless steel tubular sheath
- Flat element features thick film technology giving particularly good vibration resistance and long term stability
- Flat element is more suited to surface measurements
- Low cost thin-film element is small in size for fast response to temperature changes
- Thin-film element gives good vibration and shock resistance

	Flat (**146-884**)	Cylindrical (**541-102**)	Thin-film (**721-8850**)
Temperature range	-70°C to +600°C	-200°C to +800°C	-50°C to +500°C
Ice point resistance	100±0.12Ω	100±0.12Ω	100±0.12Ω
Fundamental interval (0°C to 100°C)	38.5Ω (nominal)	38.5Ω (nominal)	38.5Ω (nominal)
Self heating	<.005°C/mW	<.003°C/mW	Use <2mA excitation
Thermal response	0.1s	0.4s	0.3s
Stability	±0.05%	±0.05%	±0.06%
Mftrs. List Nos.		P100/2528 = 541-102, DM503 (5) = 721-8850	

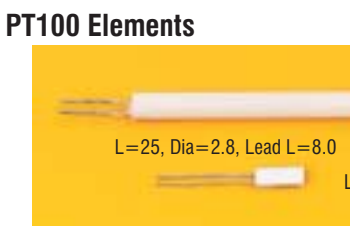
FOR SUITABLE EXTENSION CABLE (SILVER PLATED COPPER CONDUCTOR), SEE **ORDER CODE 277-095**

222135

	Order Code	Price Each 1+	10+	25+
Cylindrical element	**541-102**	969.00	888.00	837.00
Flat element	**146-884**	1,073.00	983.00	927.00
		Price Per Pack		
Thin film element		**1+**	**10+**	**25+**
(Pack of 5)	**721-8850**	1,544.00	1,467.00	1,389.00

PT100 Elements with Extension Wires

LABFACILITY TEMPERATURE TECHNOLOGY



High quality PT100 sensing resistor of wire-wound construction fitted with extension wires for convenient application.

- PT100 sensing element to **IEC 751 Class B**
- PTFE insulated stranded tails, 2 or 4 wire configuration
- For use from -60°C to +250°C

725-5731: L=35, Dia.=5, 2 leads L=50

725-5743: L=35, Dia.=5, 4 leads L=450

212375

	Mftr. List No.	Order Code	Price Each 1+	5+	10+	25+
2-wire	010011TD	**725-5731**	1,211.00	1,126.00	1,065.00	1,005.00
4-wire	010010TD	**725-5743**	1,403.00	1,305.00	1,234.00	1,164.00

PT100 Probe

LABFACILITY TEMPERATURE TECHNOLOGY

Probe L=117, Dia.=4, Overall length=146, Bush thread= " BSP, Lead L=1m

- Multi-purpose fast response 2-wire platinum resistance probe
- Manufactured from seamless stainless steel tube
- Tube is fitted with a ⅛" BSP compression fiting moveable over its entire length to allow flexibility in siting the probe
- Excellent stability and resistance to vibration and shock
- Sensor meets requirements of **BS1904 Class B**

Temperature range	-70°C to +200°C	Thermal response	1.2s typical
Ice point resistance	100±0.1Ω		

212164

Order Code	Price Each 1+	10+	25+
146-885	2,823.00	2,555.00	2,519.00

Clean Room Pt100 Assembly

LABFACILITY TEMPERATURE TECHNOLOGY

- Wall mounting Pt100 sensor, mounts on standard electrical conduit
- Pt100 to **IEC 751 Class B**
- Suitable for use with any 2, 3 or 4 wire instrument
- Flame retardant vented moulded case

H=85, W=85, D=30

212383

Mftrs. List No.	Order Code	Price Each 1+	10+	25+
010014TD	**725-5720**	2,543.00	2,365.00	2,212.00

Thermal Switches

Bi-Metallic, Auto Reset

Style A
H=21 (overall), W=31, D=19
Fixing centres = 24 (holes M3)

Style B
H=16 (overall), W=30, D=17
Fixing centres=24 (hole dia 3.7)

- Automatically re-setting thermal switches with snap action bi-metallic SPST contacts
- Contacts are isolated from the mounting base
- Reset level is specified to within a close tolerance band
- All types are **UL** and **VDE** approved. Style A types also **CSA** approved
- Indication of switch temperature is given on base of switch

Normally closed (opening on temperature rise) and normally open (closing on temperature rise) types are available. All the switches reset when the temperature falls to the reset level. Connection is by ¼" (6.3 x 0.8mm) terminals.

Contact rating (all types)	10A 250V ac, 15A 125Vac (100,000 cycles)
Body material	Phenolic (style A), Thermoplastic (style B)
Base material	Aluminium
Mounting flange material	Stainless steel (style A), aluminium (style B)

Normally Closed Types

Opening Temp.	Reclosing Temp.	Style	Order Code
15°C ± 3°C	5°C ± 4°C	A	732-400
20°C ± 3°C	10°C ± 3°C	A	732-412
30°C ± 3°C	20°C ± 3°C	A	606-686
40°C ± 3°C	25°C ± 4°C	A	491-445
50°C ± 3°C	35°C ± 4°C	B	100-6842
70°C ± 3°C	55°C ± 4°C	B	100-6843
90°C ± 3°C	70°C ± 4°C	B	100-6844
100°C ± 3°C	85°C ± 4°C	B	100-6845
112°C ± 3°C	97°C ± 4°C	B	100-6846
125°C ± 3°C	110°C ± 4°C	B	100-6847
150°C ± 3°C	135°C ± 4°C	B	100-6849

Normally Open Types

Closing Temp.	Reopening Temp.	Style	Order Code
30°C ± 4°C	20°C ± 5°C	A	732-424
40°C ± 3°C	25°C ± 4°C	A	491-524
35°C ± 3°C	50°C ± 4°C	A	100-6851
45°C ± 3°C	60°C ± 4°C	A	100-6852
55°C ± 3°C	70°C ± 4°C	A	100-6853
70°C ± 3°C	90°C ± 4°C	A	100-6854

RoHS Compliant ● Non-compliant ▲ ‡ Limited stock - RoHS replacement available