# DM665TM PROBE MOUNTED TEMPERATURE DISPLAY

- **Pt100 OR THERMOCOUPLE INPUT**
- **BATTERY POWERED**
- **PUSH BUTTON CONFIGURATION**
- **MAX MIN BUTTONS**
- **ADJUSTABLE SAMPLE RATES**




## INTRODUCTION

The DM665TM accepts Pt100 or Thermocouple temperature sensors and displays the sensor temperature in °C or °F on a 6-digit LCD display.

It is an ideal alternative to bi-metal thermometers offering higher accuracy.

The device is easily programmable via a push button located inside the stainless-steel housing.

## BATTERY POWERED

The instrument is powered by two AA batteries. The product is supplied with 1.5 V AA alkaline batteries. This will give the DM650TM a minimum battery lifetime of over one year. Used with Lithium Energizer L91batteries (not supplied), the battery lifetime can be extended to over 5 years. Battery lifetime is dependent on the ambient operating temperature range and the sample rate selected.

## MAXIMUM and MINIMUM VALUE RECALL

The maximum and minimum temperature readings can be displayed by using the two front panel buttons.

## USER OFFSET

The user offset allows the temperature reading to be offset by +/- 10.0 temperature units. This allows compensation for any temperature probe error.

# DM665TM PROBE MOUNTED TEMPERATURE DISPLAY

| **INPUT**<br>**RTD (3 Wire)** | | **SPECIFICATIONS @20°C** |
|---|---|---|
| **Type** | **Range** | **Accuracy/stability** |
| Pt100 (IEC) | (-200 to 850) °C | ±0.2°C ±0.05% of reading<br>(plus, sensor error) |
| Thermal drift | 0°C at 20°C | Typically, 0.01 Ω/°C<br>Example Pt100 0.03°C |

| **INPUT**<br>**Thermocouple (T/C)** | | **SPECIFICATIONS @20°C** |
|---|---|---|
| **Type** | **Range** | **Accuracy/stability** |
| K | (-150 to 1370) °C | ±0.1% of full scale ±0.5°C<br>± CJ error<br>(plus, sensor error) |
| J | (-200 to 1200) °C | |
| N | (-180 to 1300) °C | |
| E | (-260 to 1000) °C | |
| T | (-270 to 400) °C | ±0.2% of full scale ±0.5°C<br>± CJ error<br>(plus, sensor error) |
| R | (0 to 1760)°C | ±0.1% of full scale ±0.5°C<br>± CJ error<br>(plus, sensor error) over range (800 to 1760)°C |
| S | (0 to 1760)°C | |
| Thermal drift | 0°C at 20°C | Typically, ±5 uV/°C |

| **COLD JUNCTION (T/C correction)** | | **SPECIFICATIONS @20°C** |
|---|---|---|
| **Type** | **Range** | **Accuracy/stability** |
| Thermistor 10K Beta 3380 | (-30 to 70) °C | ±0.2°C |
| Thermal drift | 0°C at 20°C | ±0.05°C/°C |

| **DISPLAY** | |
|---|---|
| **Type/options/function** | **Description** |
| Display height | 15.8 mm non-backlit |
| Display units | °C or °F |
| Display resolution | 0.0 or 0.00 (Note 0.00 resolution temperature units not displayed). |
| Sample rate | User-set 5, 10, 30, 60, seconds. |
| Offset | User-set ±10.0 temperature units |
| Display information options | 6 digits, 14 segment input value plus sensor error, low battery<br>Maximum, Minimum. |

| **FRONT PANEL PUSH BUTTON USER INTERFACE** | |
|---|---|
| **Buttons** | **Description** |
| Max and Min | Display Maximum and Minimum value and reset values |

| CONFIGURATION PUSH BUTTON USER INTERFACE | |
|---|---|
| **Function** | **Description** |
| Select Sensor | Pt100, TC types K, J, N, T, R, S |
| Select Sample Rate | 5, 10, 30, 60 seconds |
| Enter Offset | ±10.0 temperature units |
| Select Temperature Units | °C or °F |

| GENERAL | | | | |
|---|---|---|---|---|
| **Function** | **Description** | | | |
| Battery | 2 x (AA 1.5 V alkaline) or (AA 1.5 V lithium*[1]) | | | |
| Battery life @ 20.0 °C typical | | | | |
| Sample Rate | 5 Seconds | 10 Seconds | 30 Seconds | 60 Seconds |
| Alkaline | 1 Year + | 1.5 Years + | 3 Years + | 3 Years + |
| Lithium | 2 Years + | 3 Years + | 4 Years + | 5 Years + |
| *[1] Lithium Energizer L91 Optional | | | | |

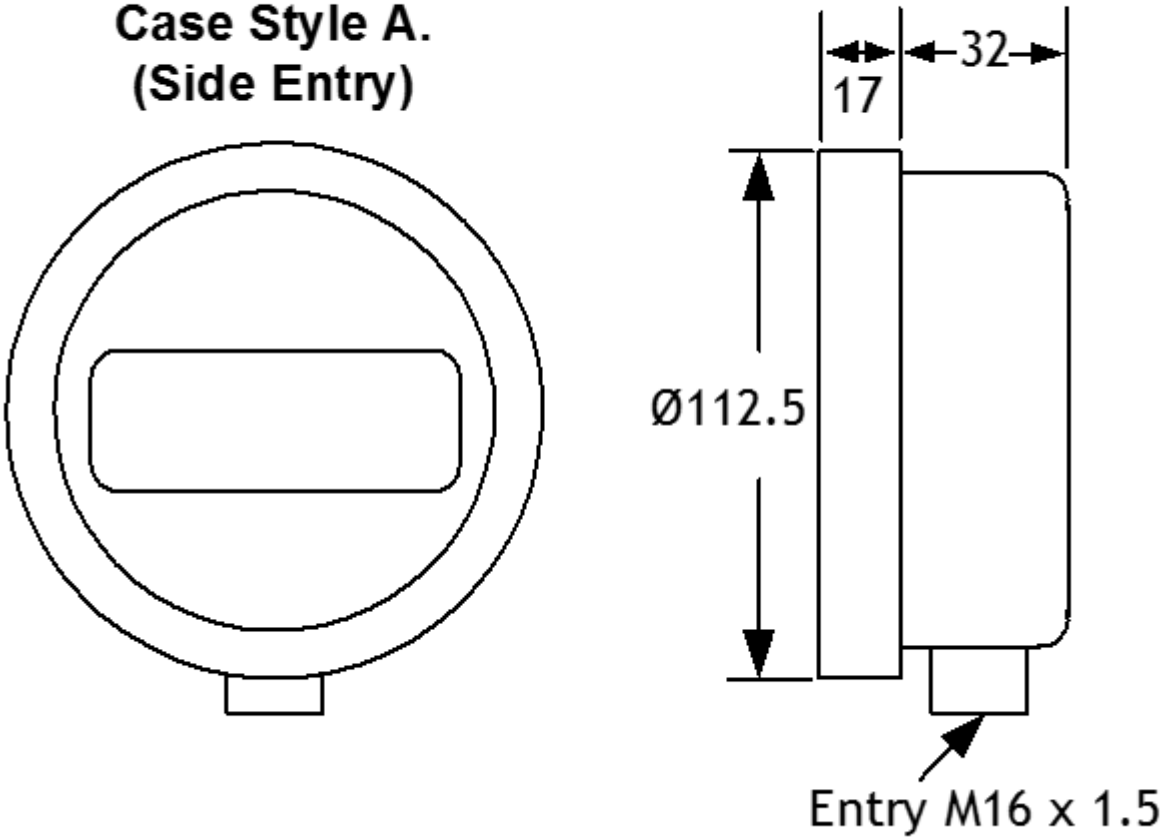
| ENVIRONMENTAL | |
|---|---|
| **Function** | **Description** |
| Ambient temperature | Operating/storage (-15 to 40) °C (Alkaline)<br>Operating/storage (-25 to 60) °C (Lithium Energizer L91) |
| Ambient humidity | Operating/storage (10 to 90) %RH non-condensing |
| Protection | IP65, sensor/probe entry must be sealed to IP65 to maintain |
| | |

| MECHANICAL | |
|---|---|
| Enclosure | Stainless steel, side entry for sensor/probe |
| Case entries | 1x M16 female thread |
| Front bezel diameter | 113 mm |
| Weight (approximate) | 540 g |
| Input sensor | Two-part screw connector |

| APPROVALS | |
|---|---|
| EMC | BS EN 61326: Note - Sensor input wires to be less than 3 m to comply |
| Ingress Protection | BS EN 60529 |
| RoHS | Directive 2011/65/EU incorporating RoHS 3 Amendment Directive EU 2015/836 |
| RoHS | The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulation 2021 |

(All Dimensions in mm)

Case Style A.
(Side Entry)




| ORDER CODE | |
|---|---|
| **DM665TM/A** | Supplied with 2 x 1.5 V AA alkaline batteries |
| **DM665TM/NB** | Supplied without batteries |
| **DM665TM/L** | Supplied with 2 x 1.5 V AA lithium batteries |
| | |

To maintain full accuracy annual calibration is required contact support@status.co.uk for details.
The data in this document is subject to change. Status Instruments assumes no responsibility for errors.

Status Instruments Ltd
Status Business Park
Gannaway Lane, Tewkesbury
Gloucestershire, UK
GL20 8FD
Tel: +44 (0)1684 296818
Fax: +44 (0)1684 293746
Email: sales@status.co.uk
Website: www.status.co.uk