# Honeywell



Representative photograph, actual product appearance may vary.

Due to regional agency approval requirements, some products may not be available in your area. Please contact your regional Honeywell office regarding your product of choice.

# Honeywell

## HEL-705-U-1-12-00

HEL-700 Series Temperature Sensor, Platinum RTD, Ceramic case leadwire

#### **Features**

- Linear resistance vs temperature
- Accurate and interchangeable
- Excellent stability
- Small for fast response
- Wide temperature range

### **Typical Applications**

- HVAC room, duct and refrigerant temperature
- Electronic assemblies thermal management, temperature compensation
- Process control temperature regulation

### **Description**

HEL-700 Thin Film Platinum RTDs (Resistance Temperature Detectors) provide excellent linearity, accuracy, stability and interchangeability. Resistance changes linearly with temperature.

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| Product Specifications                       |  |
|--|--|
| Termination                                  | Leadwires  |
| Availability                                 | Global   |
| Sensor Type                                  | 1000 Ohm Platinum RTD  |
| Temperature Coefficient                      | 0.00375 Ohm /Ohm/°C  |
| Packaging Type                               | Ceramic case   |
| Temperature Sensing Range                    | -200 °C to 260 °C (-320 °F to 500 °F)  |
| Base Resistance and Interchangeability       | 1000 ± 1 Ohm at 0 °C   |
| Linearity % of Full Scale                    | $\pm$ 0.1%, Typ40 °C to +125 °C [-40 °F to 257 °F]; $\pm$ 2.0%, max75 °C to +540 °C [-167 °F to 1004 °F] |
| Time Constant in water at 0.914 m/s [3 ft/s] | < 0.5 s  |
| Stability                                    | > 0,25 °C Per year; 0,05 °C per five years in occupied environment                                       |
| Supply Voltage                               | 4.0 Vdc to 9.0 Vdc   |
| Supply Current (Recommended)                 | 1 mA typ., 2 mA max.   |
| Self Heating                                 | < 15  mW/°C typ.   |
| Insulation Resistance                        | > 50 MOhms at 50 Vdc, 25 °C [77 °F]  |
| Termination Details                          | 28 gauge, Nickel coated stranded copper, Teflon insulated  |
| Series Name                                  | HEL-700 Series   |
| Construction                                 | Alumina case; epoxy potting ( Teflon leads);<br>ceramic potting (Fiberglass leads)                       |
| UNSPSC Code                                  | 411121   |
| UNSPSC Commodity                             | 411121 Transducers   |

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#### **A** WARNING PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

# A WARNING

#### MISUSE OF DOCUMENTATION

- The information presented in this product sheet (or catalog) is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

#### Failure to comply with these instructions could result in death or serious injury.

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