

# Temperature Sensors

## C7041 20K ohm NTC Temperature Sensors



The C7041 Electronic Temperature Sensors are 20K ohm NTC sensors designed to be used with electronic controllers in domestic or commercial heating and cooling systems.

- The C7041 series of electronic temperature sensors are designed for use with the Excel 10, Excel 15, or any controller requiring a 20K ohm NTC non-linearized sensor input.
- Various models are available for sensing duct air temperature, averaging air temperature, water temperature, outdoor air temperature, or water pipe temperature.
- All devices consist of a temperature sensitive element and leadwires enclosed for protection from physical damage.
- Sensor element enclosures are made of various lengths and configurations for the specific applications.
- All devices have a wiring box housing to enclose the field wiring connections. C7041F outdoor sensor design, made of aluminum and stainless steel, is waterproof, and includes a sunshield.

**Sensor Type:** 20 K ohm NTC @ 77 F

**Maximum Ambient Temperature:** 302 F (150 C)

**Operating Temperature Range:** -40 F to +250 F (-40 C to +121 C)

**Shipping Temperature Range:** -30 F to +160 F (-34 C to +71 C)

**Used With:** Excel 10, 50, 80, 100, 500

**Accessories:**

**50001774-001**-5 inch Stainless Steel Immersion Well for Use with C7041D2001

**50001775-001**-Immersion well adaptor, to adapt new C7041D2001 to fit into old brass 32005960-001 well used with old C7031D1062 and C7041D1003

| Product Number | Application  | Insertion Length |        | Operating Temperature Range |                 |
|----------------|--|------------------|--------|-----------------------------|-----------------|
|                |  | (inch)           | (mm)   | (F)                         | (C)             |
| C7041B2005/U   | Duct   | 6 in.            | 152 mm | -40 F to +250 F             | -40 C to +121 C |
| C7041B2013/U   | Duct   | 12 in.           | 305 mm | -40 F to +250 F             | -40 C to +121 C |
| C7041C2003/U   | Duct   | 18 in.           | 457 mm | -40 F to +250 F             | -40 C to +121 C |
| C7041D2001/U   | Immersion sensor for hot or chilled water, purchase well 50001774-001 separately | 5 in.            | 127 mm | -40 F to +250 F             | -40 C to +121 C |
| C7041F2006/U   | Outside air temperature  | —                | —      | -40 F to +158 F             | -40 C to +70 C  |
| C7041J2007/U   | Duct (averaging)   | 12 ft.           | 3.66 m | -40 F to +250 F             | -40 C to +121 C |
| C7041K2005/U   | Hot or chilled water (strap on)  | —                | —      | -40 F to +250 F             | -40 C to +121 C |
| C7041N2020/U   | Water or air temperature sensor (probe sensor)                                   | —                | —      | -40 F to +250 F             | -40 C to +121 C |
| C7041P2004/U   | Temperature sensor   | —                | —      | -40 F to +250 F             | -40 C to +121 C |
| C7041R2000/U   | Duct (averaging)   | 12 ft.           | 3.66 m | -40 F to +250 F             | -40 C to +121 C |
| C7041R2018/U   | Duct (averaging)   | 24 ft.           | 7.3 m  | -40 F to +250 F             | -40 C to +121 C |