



PRODUCT SPECIFICATIONS

PTD 100 EX D RTD PROBE

APPLICATION

The PTD-100 probe is specially designed to improve the measuring accuracy between control input sensors and controllers. The probe is designed to avoid the use of zener barriers between sensor and controllers in installations where the sensor is located in a hazardous area and the controller in a safe area.

The probe can either be connected in an Ex e or Ex d junction box and is suitable for use with Thermon's TC8165 or other electronic controllers.

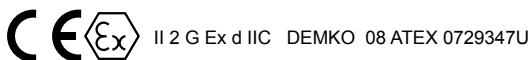
RATINGS

Number of wires 3 wire plus 1 earth tail
 Resistance..... 100 Ohm @ 0°C
 Accuracy..... Class B (DIN/IEC 751)
 Length of the probe ¹ 1 m
 Sheath material of the probe 316L stainless steel
 Gland size..... M20
 Length of lead wires 150 mm
 Lead wire insulation material..... PTFE
 Temperature range, tip of probe -200 to +550°C
 Maximum temperature at gland..... 100°C
 Minimum bending radius ² 30 mm

Notes

1. Longer probe length of 3 meters available. Contact Thermon for additional information.
2. The measuring tip (length 15 mm) should not be bent.
3. Conductor to be solid or stranded.
4. Maximum length for signal cables installed in ambient temperatures up to 40 °C. Max. loop resistance for controller input is 30 Ohm, incl. 1 Ohm allowance for contact resistance at terminal.
5. Refer to the TC-816 Product Specification, form number TEP0087U for more information.

CERTIFICATIONS/APPROVALS



The PTD-100 has additional hazardous area approvals including:
 • GGTN • Kazakhstan
 Contact Thermon for additional approvals and specific information.



FEATURES

Reliable measurements:

Complete earth shielded stainless steel outer jacket prevents electromagnetic radiation to effect the measuring accuracy of control input.

Rugged construction:

Each PTD-100 has a stainless steel outer jacket so that the probe cannot be damaged by sharp edges, for instance the cladding of thermal insulation.

Approved for hazardous areas:

The PTD-100 is suitable for use in hazardous areas without the need for zener barriers. The probe can either be connected in an Ex e or Ex d junction box.

WIRING INFORMATION

To obtain the maximum distance between the PTD-100 and the controller for different conductor sizes of the signal cable use the table below. Thermon recommends to use 3 wire cables with a braided earth shield.

Use Thermon's JB-K-0-PTD or Terminator ZP-PTD100-WP EEx e wall mounted junction box to complete terminations between the PTD-100 and control wiring. The junction boxes include one M25 power gland, two M20 blind plugs, one M20 entry for the PTD-100 and 6x4 mm² terminals. For pipe mounting use stainless steel mounting bracket XP-1 140 x 140 mm.

Conductor ³ cross section	Maximum signal cable length ⁴ between PTD-100 and controller
1.5 mm ²	1,0 km
2.5 mm ²	1,7 km
4.0 mm ²	2,7 km

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