



## **THERMON PN50834U Terminator ZP-PTD100-XP Temperature Sensor Connection Kit Instruction Manual**

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**THERMON PN50834U Terminator ZP-PTD100-XP Temperature Sensor Connection Kit**



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## Terminator™ ZP-PTD100-XP

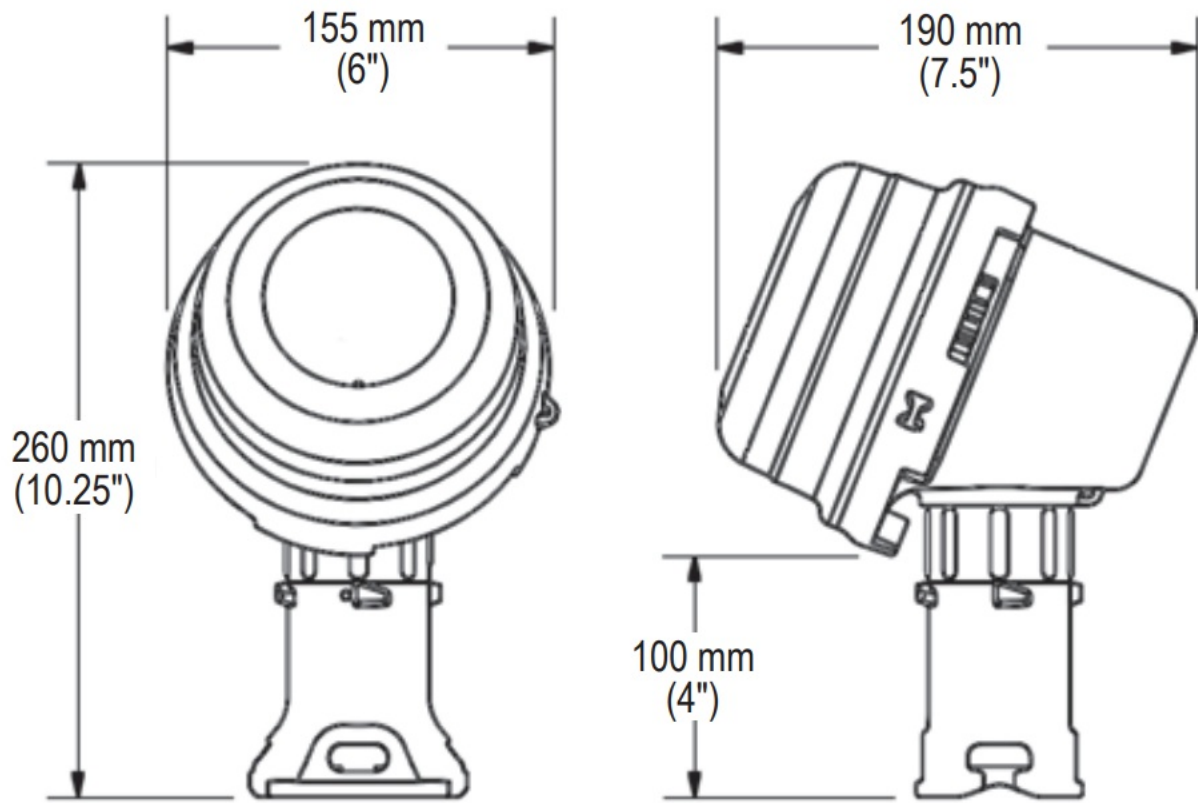
The following installation procedures are suggested guidelines for the installation of the Terminator ZP-PTD100-XP Kit. For translations other than English and local language translation provided here, please contact Thermon. The English language installation procedure shall govern.

## Kit Contents



Item	Quantity	Description
1	1	Expediter Assembly Support Cap with O-Ring Threaded Grommet Compressor Grommet
2	1	Junction Box Lid
3	1	Junction Box Base with O-Ring
4	1	Terminal Block with DIN Rail
5	1	Junction Box Lid Cord 6 1 Nut
7	2	Blind Plugs
8	1-2	PTD-100 Temperature Sensor(s) (ordered separately)
9	1	Sealing Washer

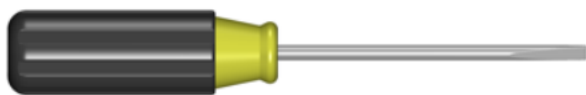
## Dimensions



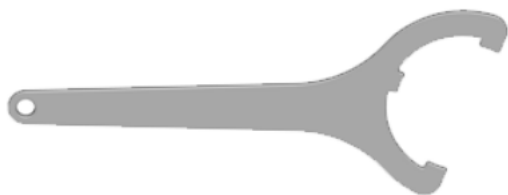
## Warnings

- Due to the risk of electrical shock, arcing and fire caused by product damage or improper usage, installation or maintenance, a ground-fault protection device is required.
- Installation must comply with Thermon requirements (including form PN 50207U for Ex systems) and be installed in accordance with the regulations as per the norm EN IEC 60079-14 for hazardous areas (where applicable), or any other applicable national and local codes.
- Component approvals and performance ratings are based on the use of Thermon specified parts only.
- De-energize all power sources before opening enclosure.
- Avoid electrostatic charge. Clean only with a damp cloth.
- Keep ends of heating cable and kit components dry before and during installation.
- Minimum bending radius of heating cable is 32 mm (except HPT is 57 mm and FP is 19 mm).
- Individuals installing these products are responsible for complying with all applicable safety and health guidelines. Proper Personal Protective Equipment (PPE) should be utilized during installation. Contact Thermon if you have any additional questions.
- Consult the manufacturer for dimensional information on the flameproof joints for repair.

## Tools Required



3 mm  
8 mm



Terminator-LN-Tool  
(order separately)



19 mm  
22 mm  
23 mm  
29 mm  
33 mm

#### Certifications/Approvals

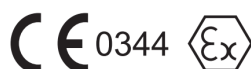
#### Temperature Sensor

IP66  $-48^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$

Ordinary & Hazardous Locations



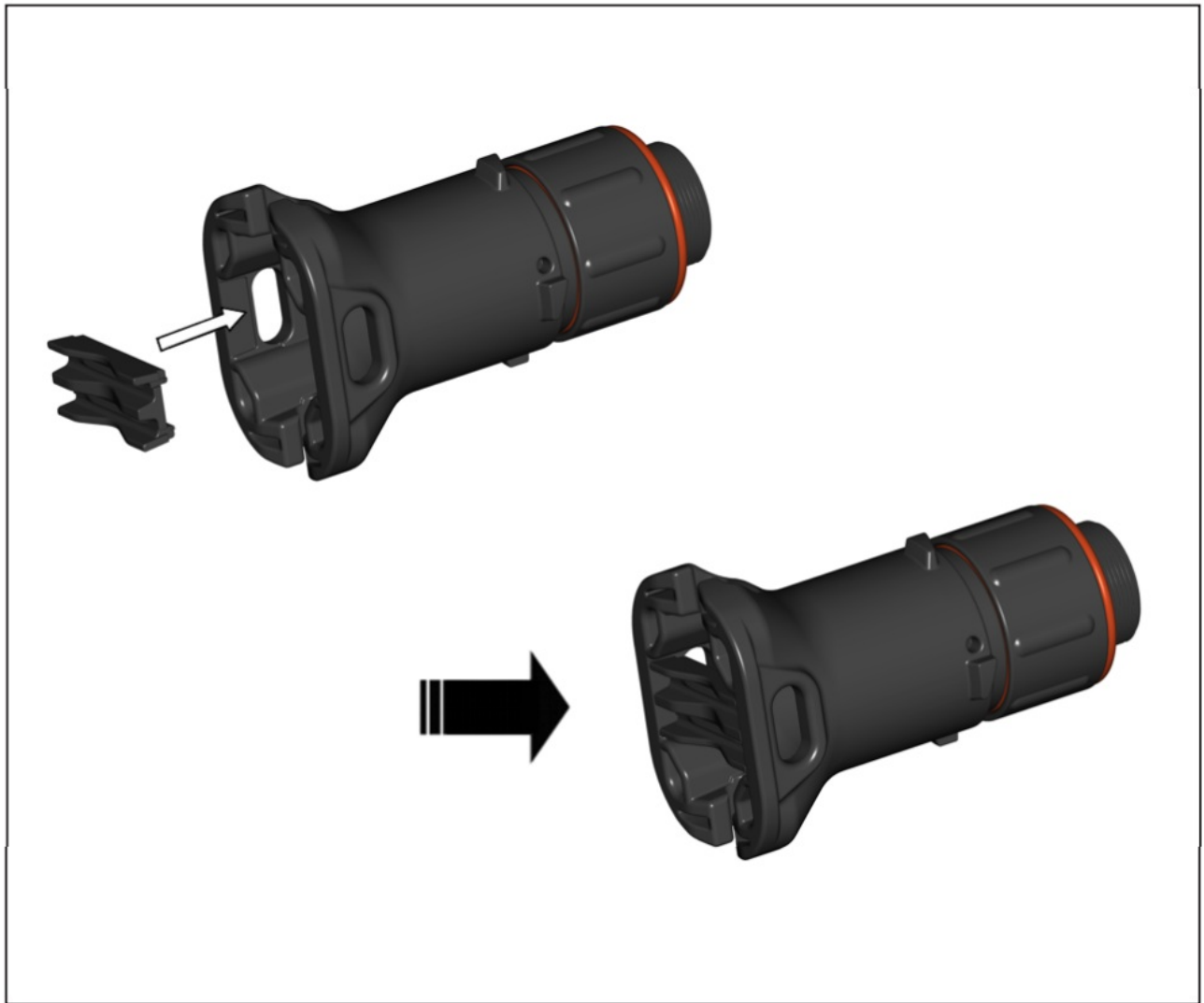
IECEX FMG 10.0022X Ex db eb IIC T6...T4 Gb,  
Ex tb IIIC T85°C...T135°C Db



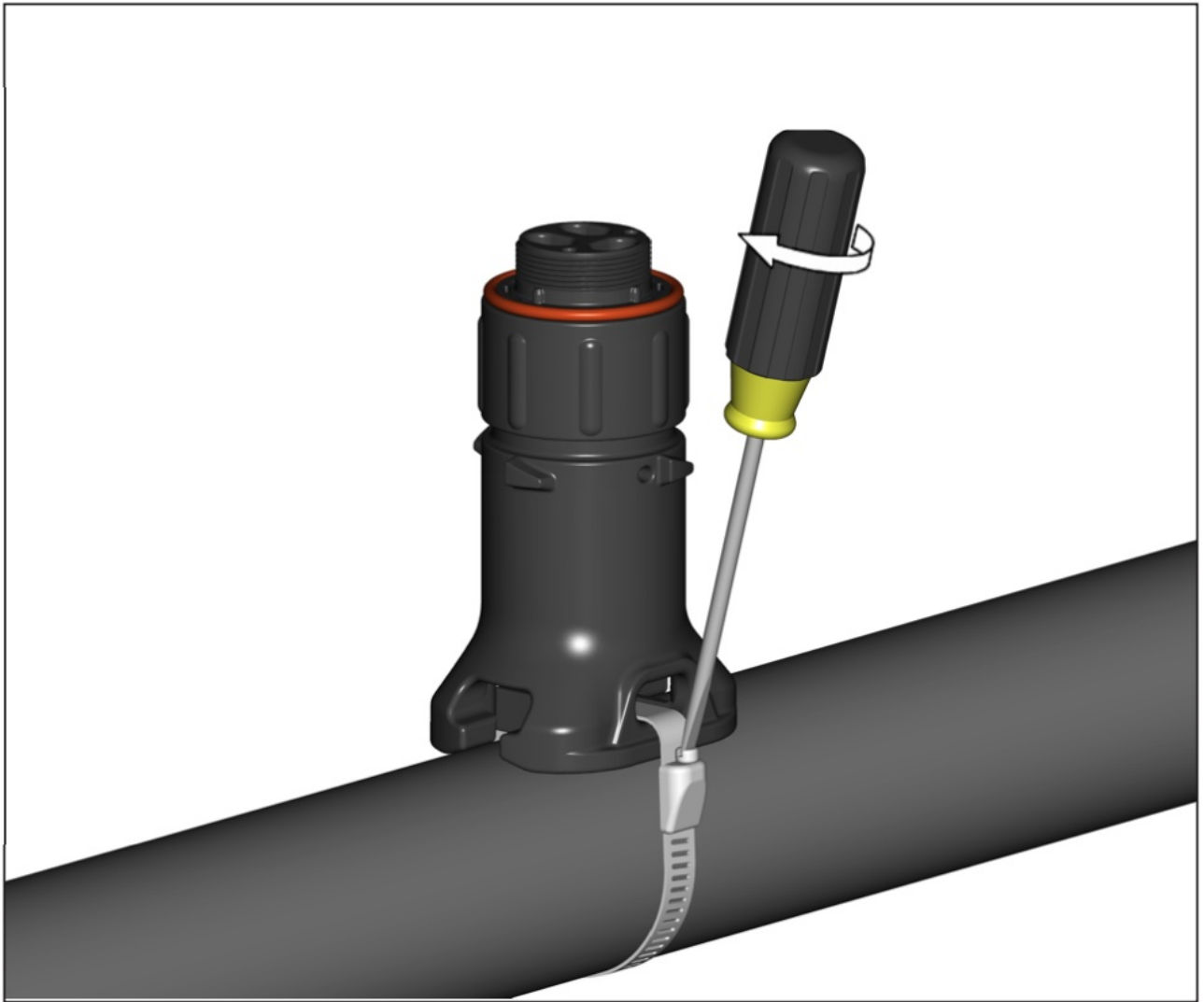
II 2 GD Ex db eb IIC T6...T4 Gb,  
Ex tb IIIC T85°C...T135°C Db FM 10ATEX0058X

#### INSTALLATION PROCEDURES

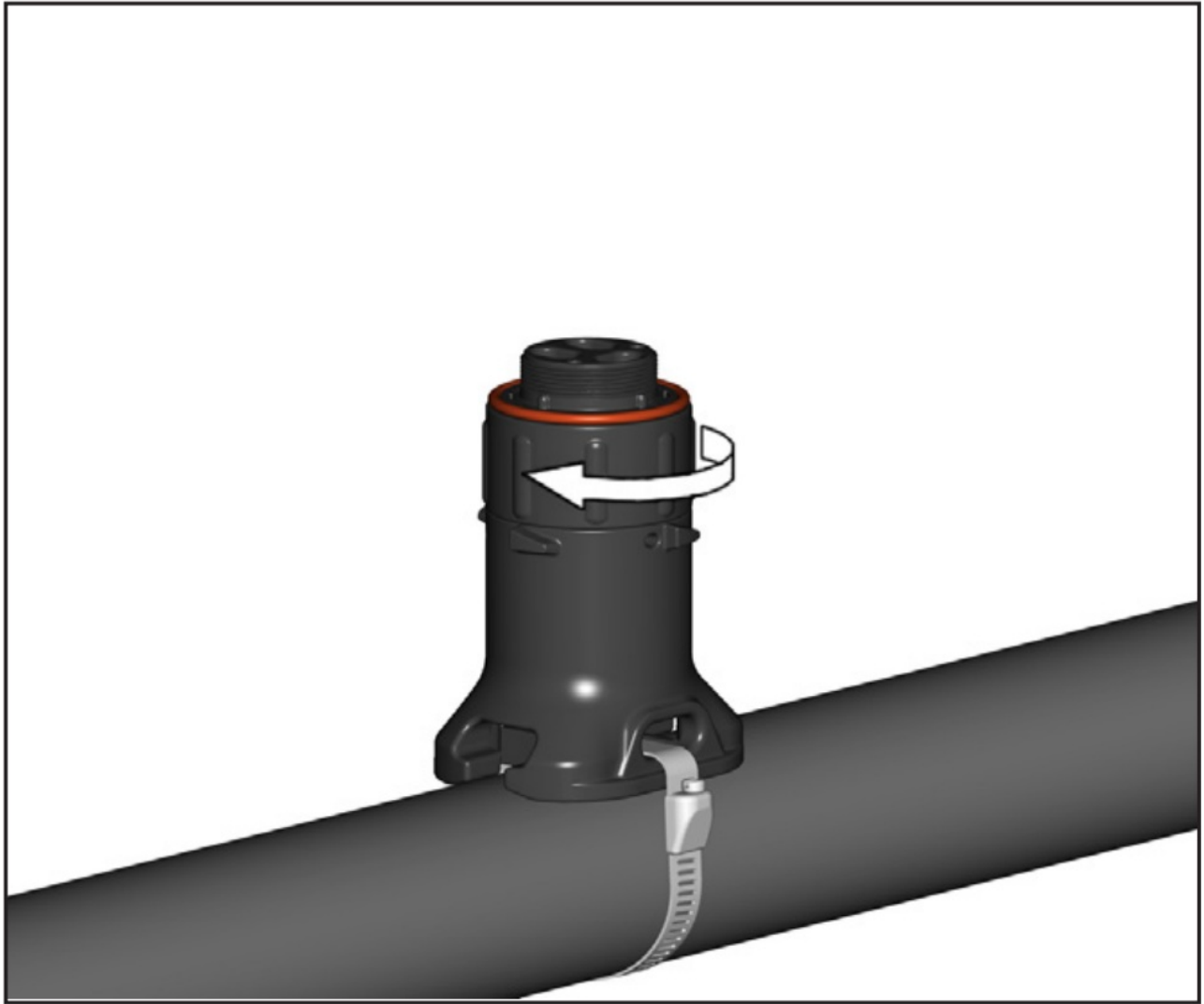
1. Insert banding guide into expediter and snap into place.



2. Mount expediter to pipe using pipe band.

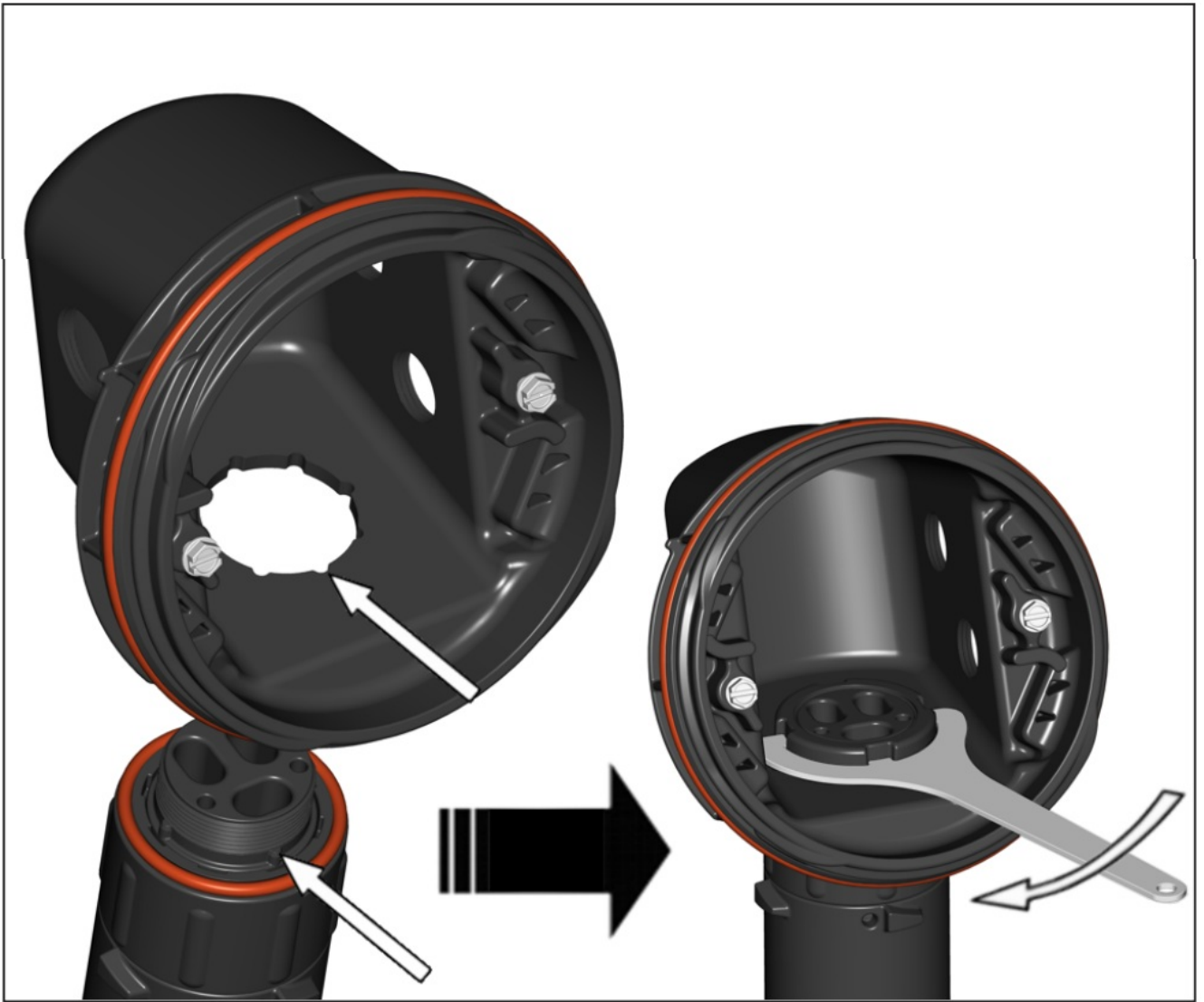


3. Tighten cap securely

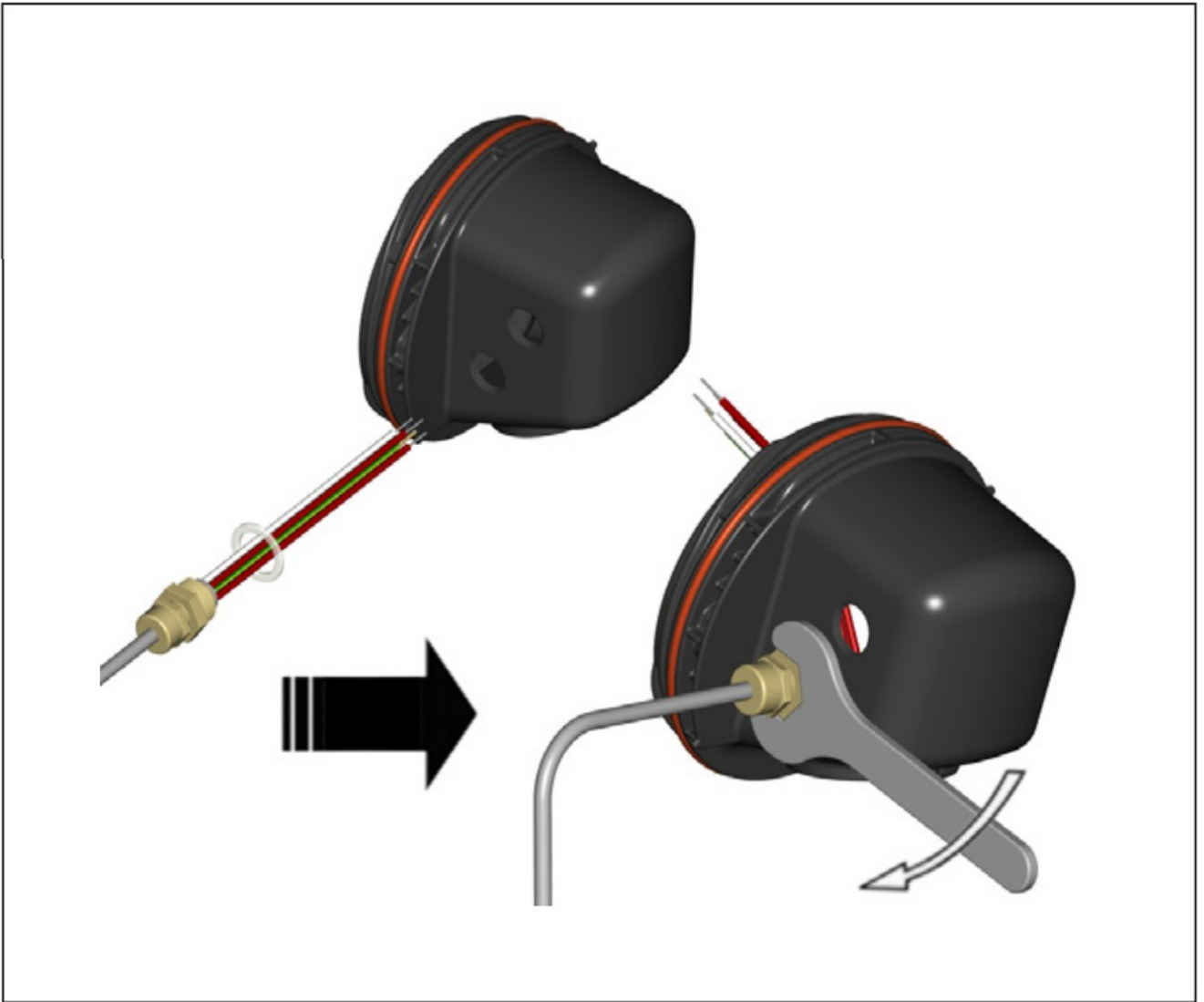


4. Mount junction box base on expediter. Make sure to align slots to properly orient junction box base. Tighten nut with Terminator-LN-Tool. If mounting horizontally, threaded gland holes must face downward.

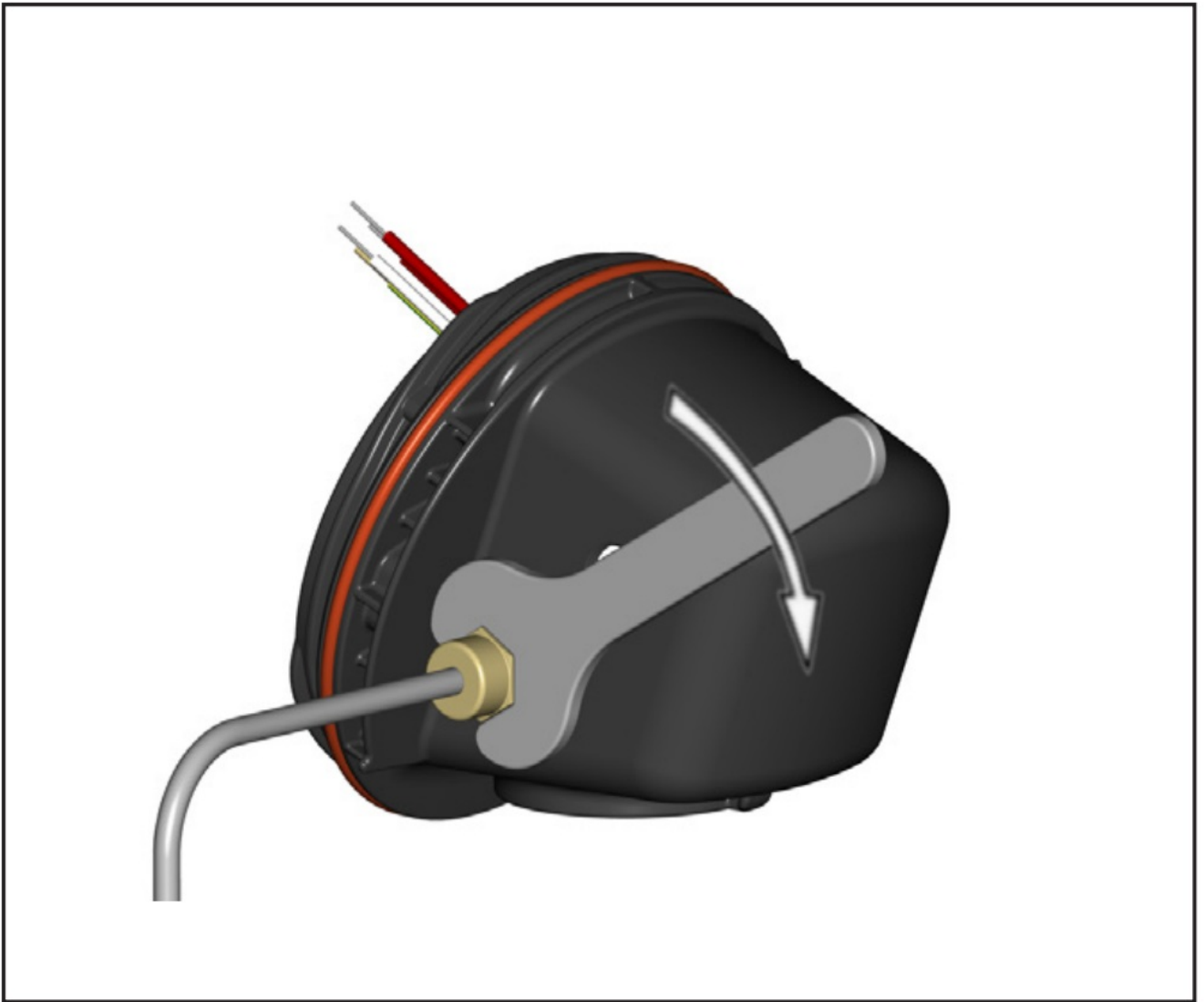




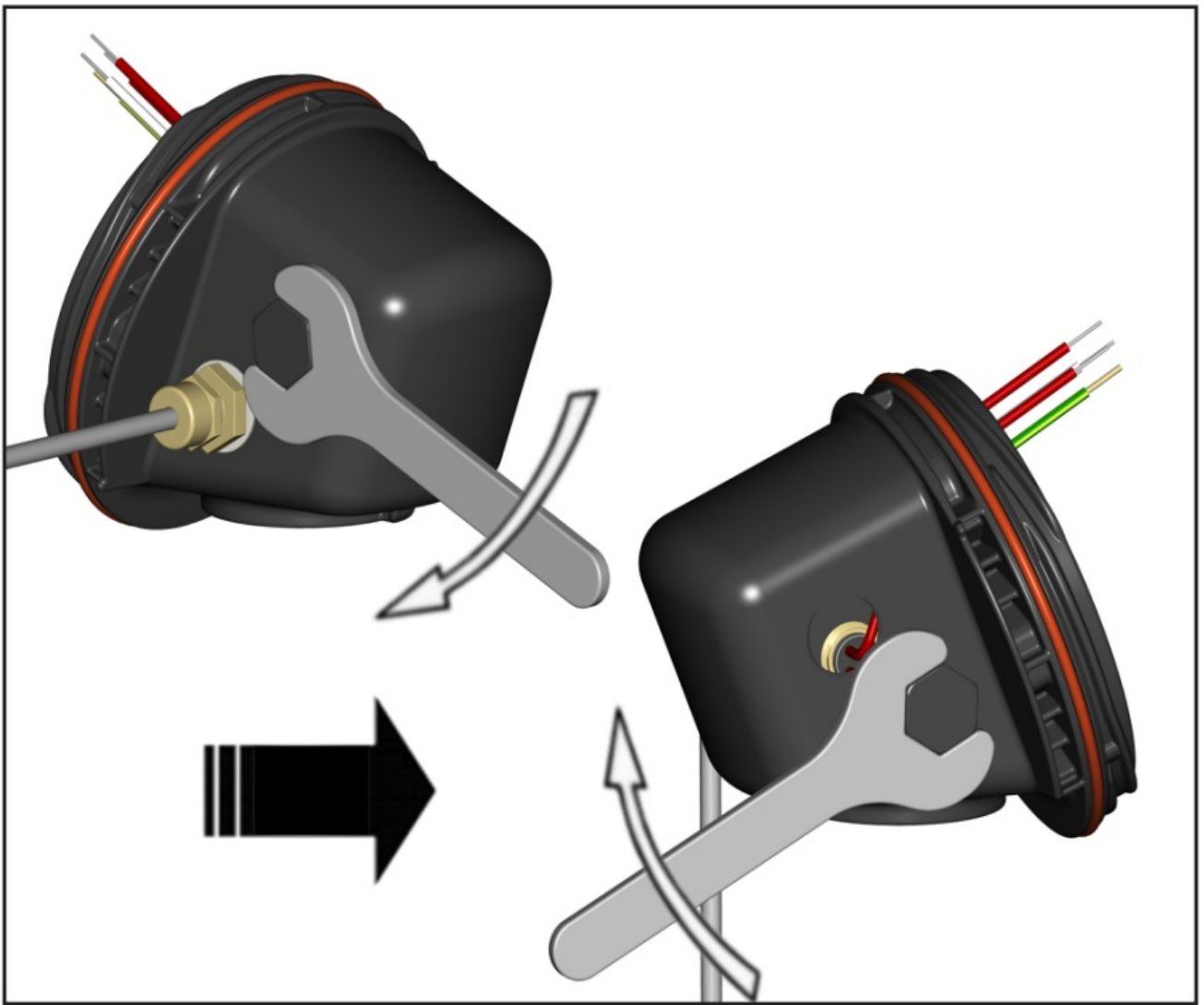
5. Place M20 sealing washer on temperature sensor gland connector. Route temperature sensor leads through M20 threaded entry. Screw gland connector into junction box.



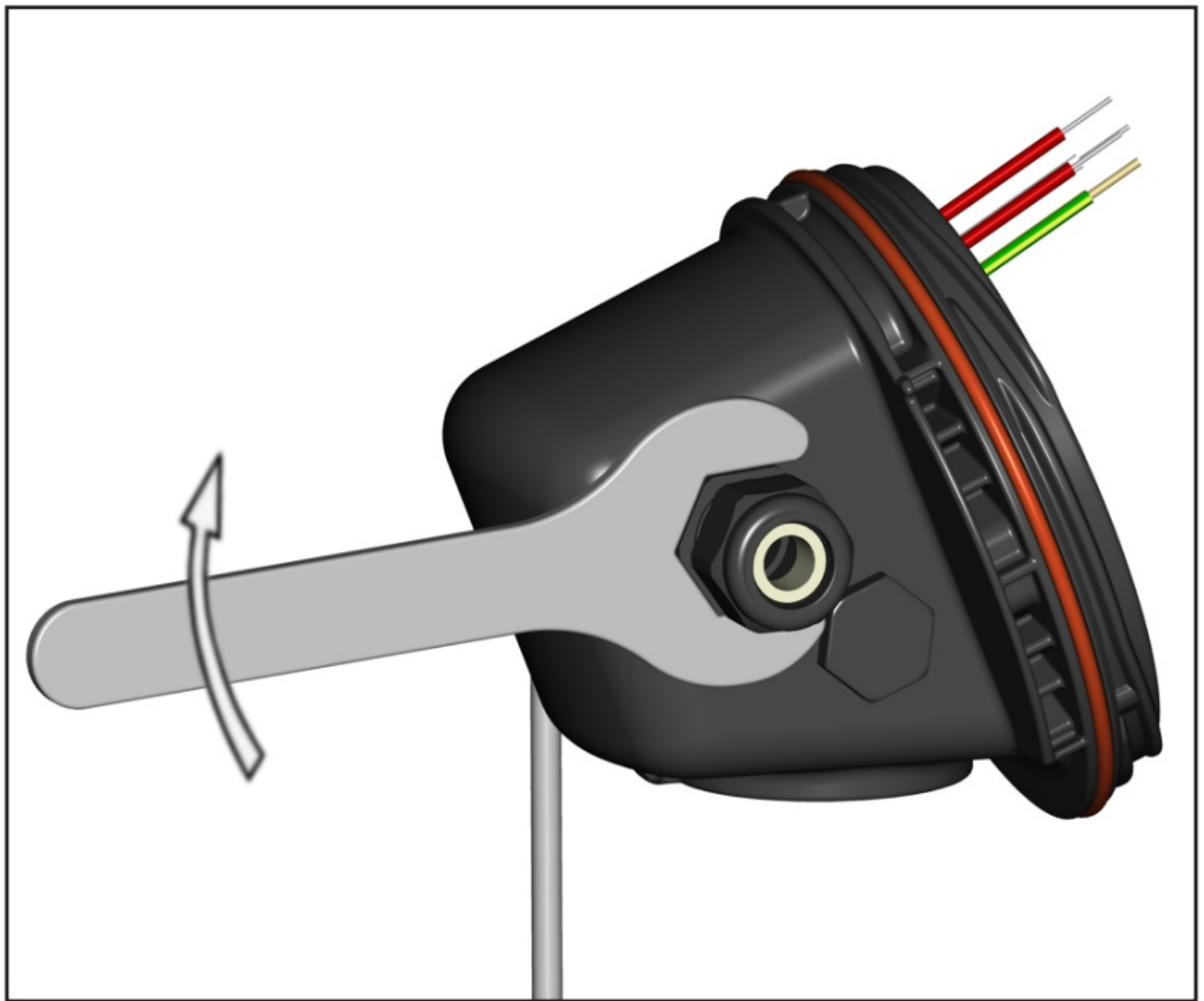
6. Make sure temperature sensor body is fully inserted into gland connector. Tighten gland connector.



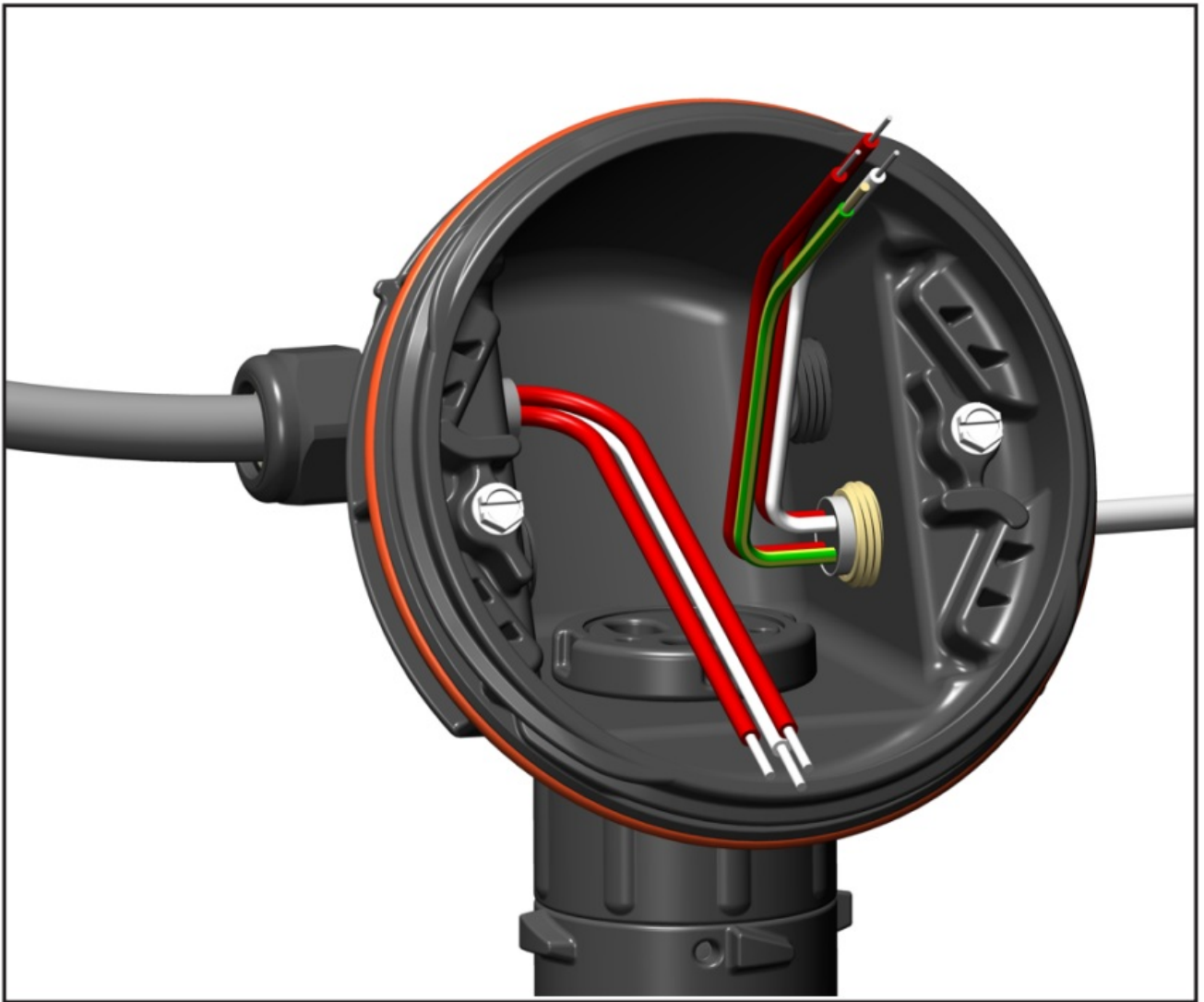
7. Install M20 blind plugs in remaining M20 threaded entries.



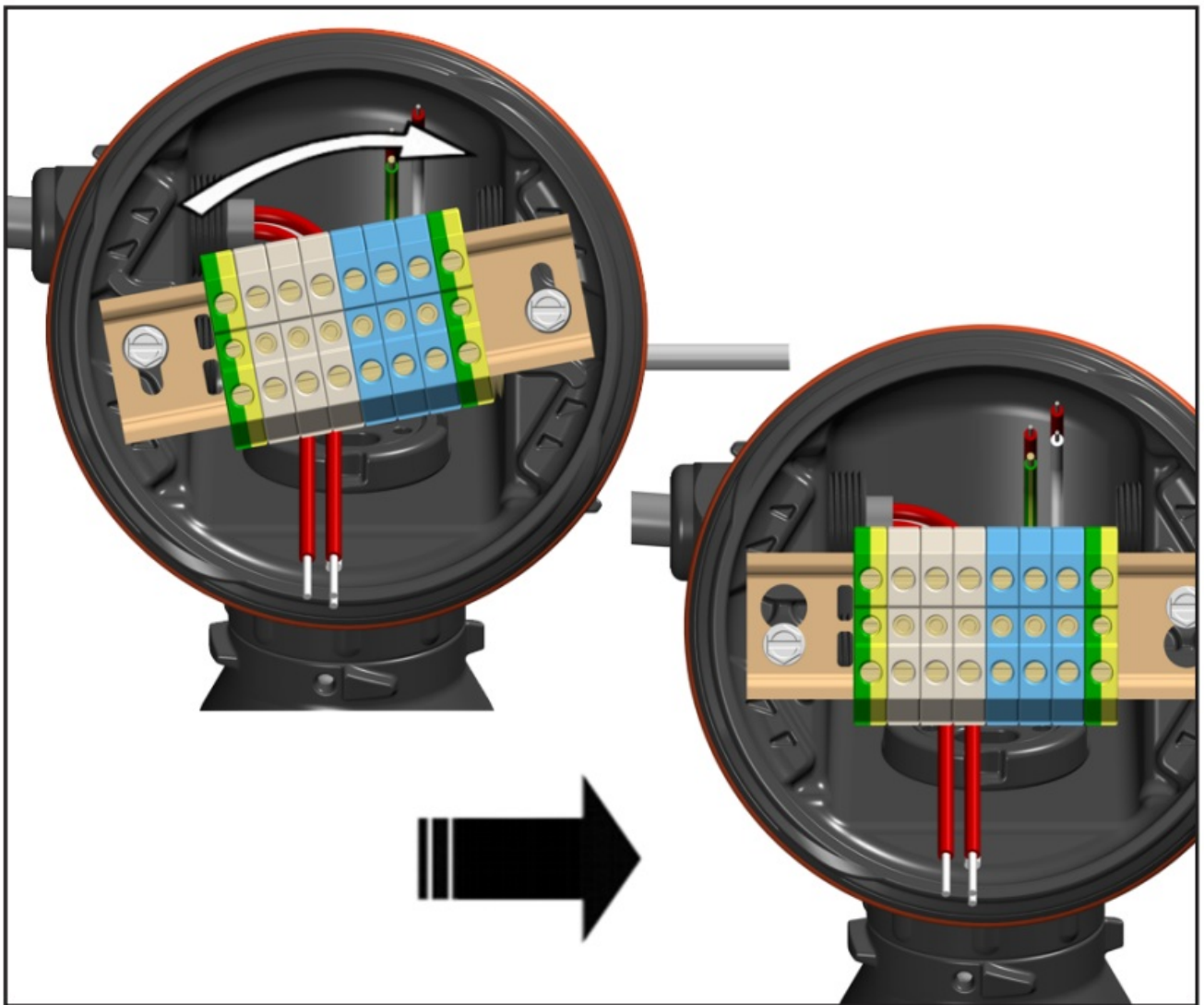
8. Install M25 power gland in M25 threaded entry. (Customer Supplied)



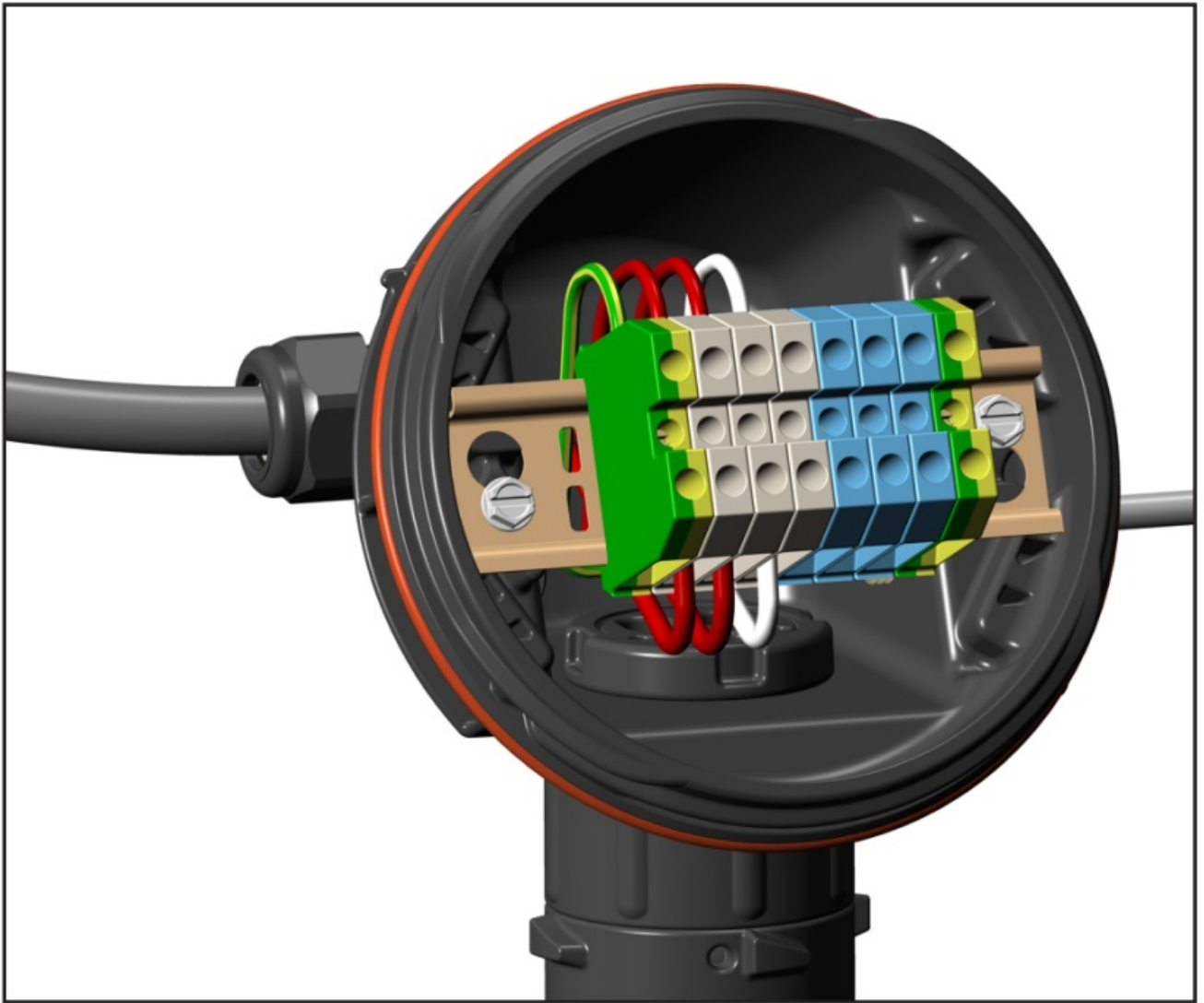
9. Install control wiring (user supplied, 6 mm<sup>2</sup> max). 3 wire cable (for 1 sensor) or 6 wire cable (for 2 sensors) with braided earth shield is recommended.



10. Install quick mount terminal blocks and tighten screws (if necessary)

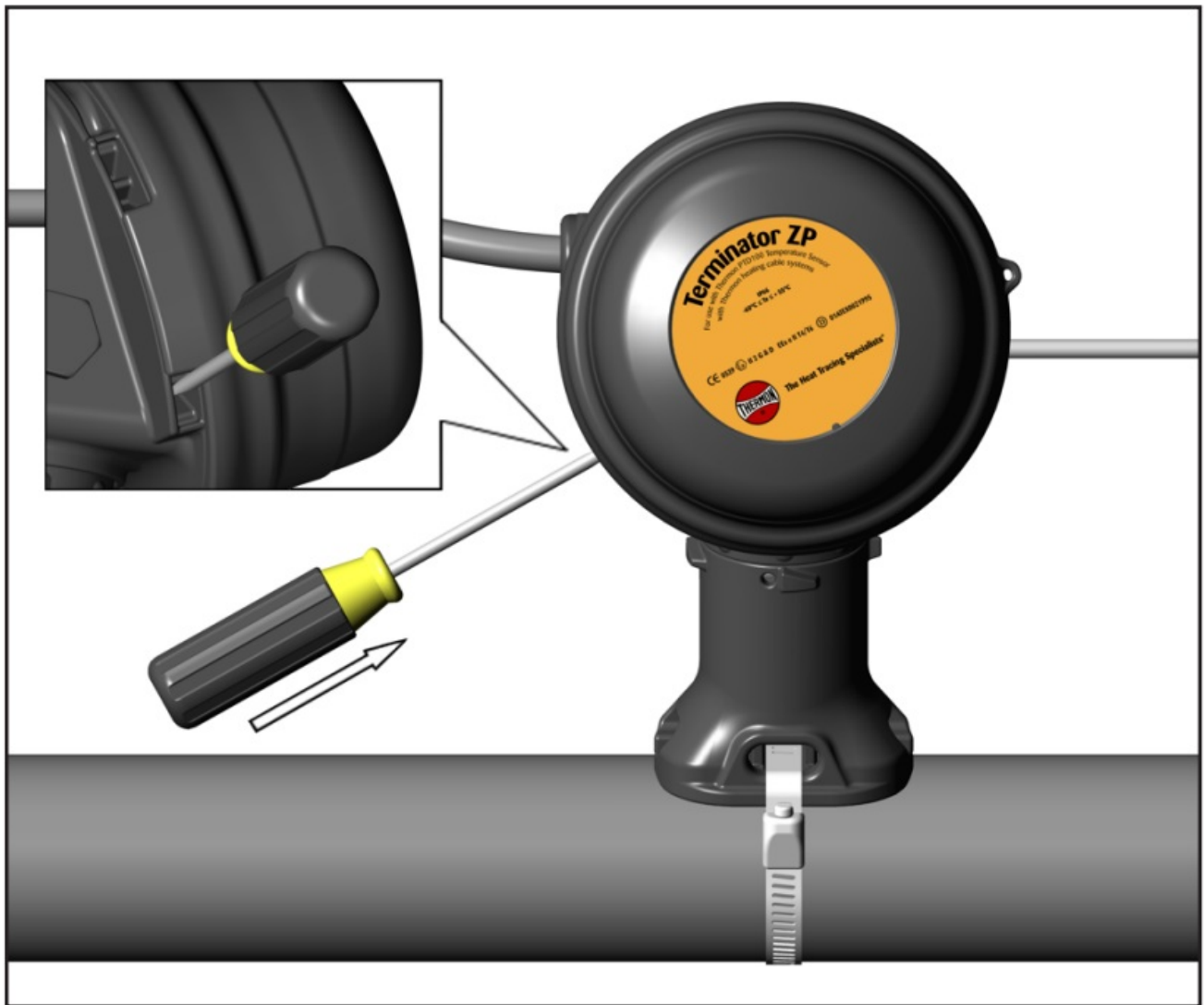


11. Complete system wiring. Terminal set screws shall be tightened to a torque value of 1.4 Nm (12.4 lb-in). See page 5 for wiring details.

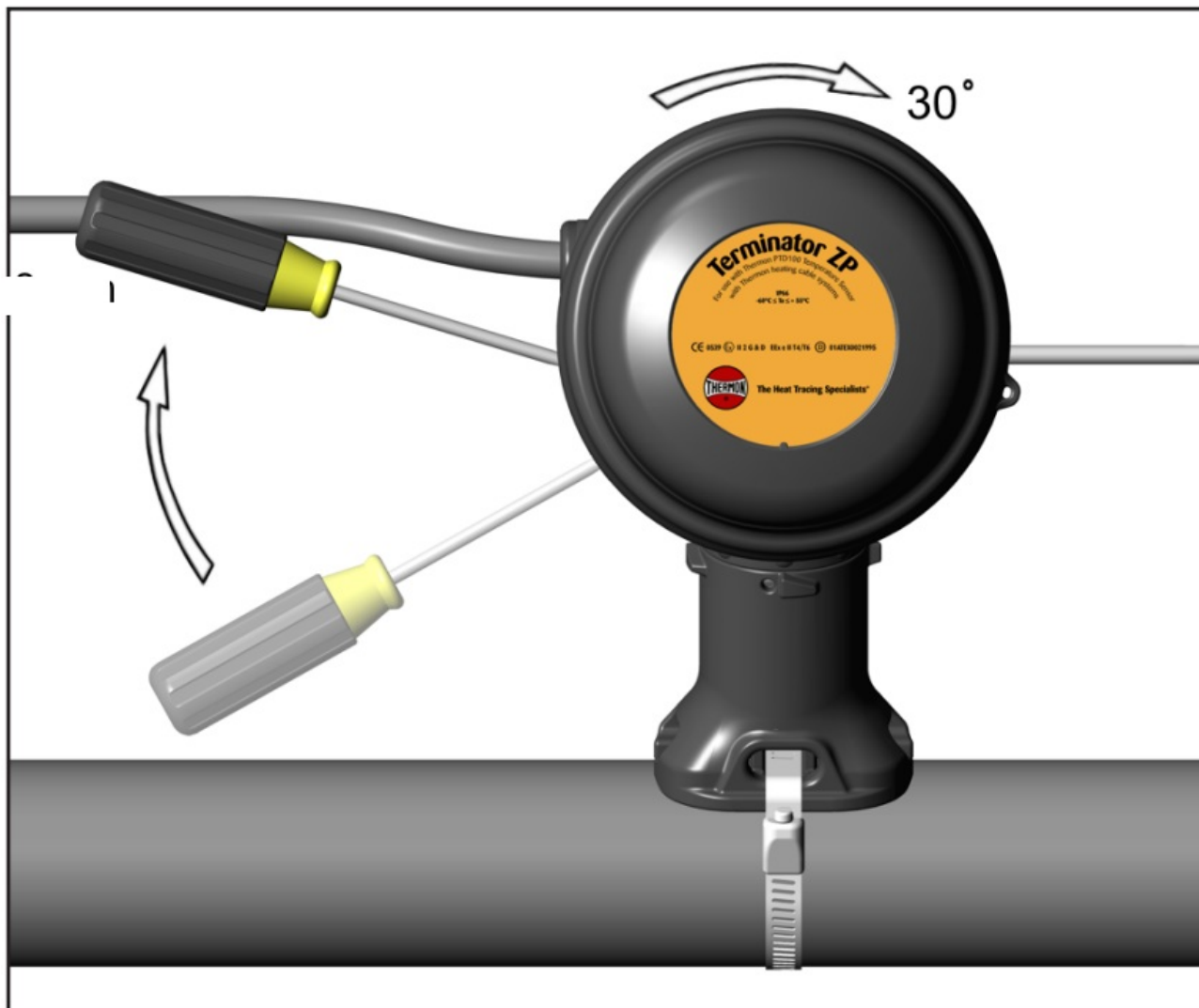


12. Install junction box lid and twist hand tight. Insert screwdriver into ratchet slots located on side of junction box base.

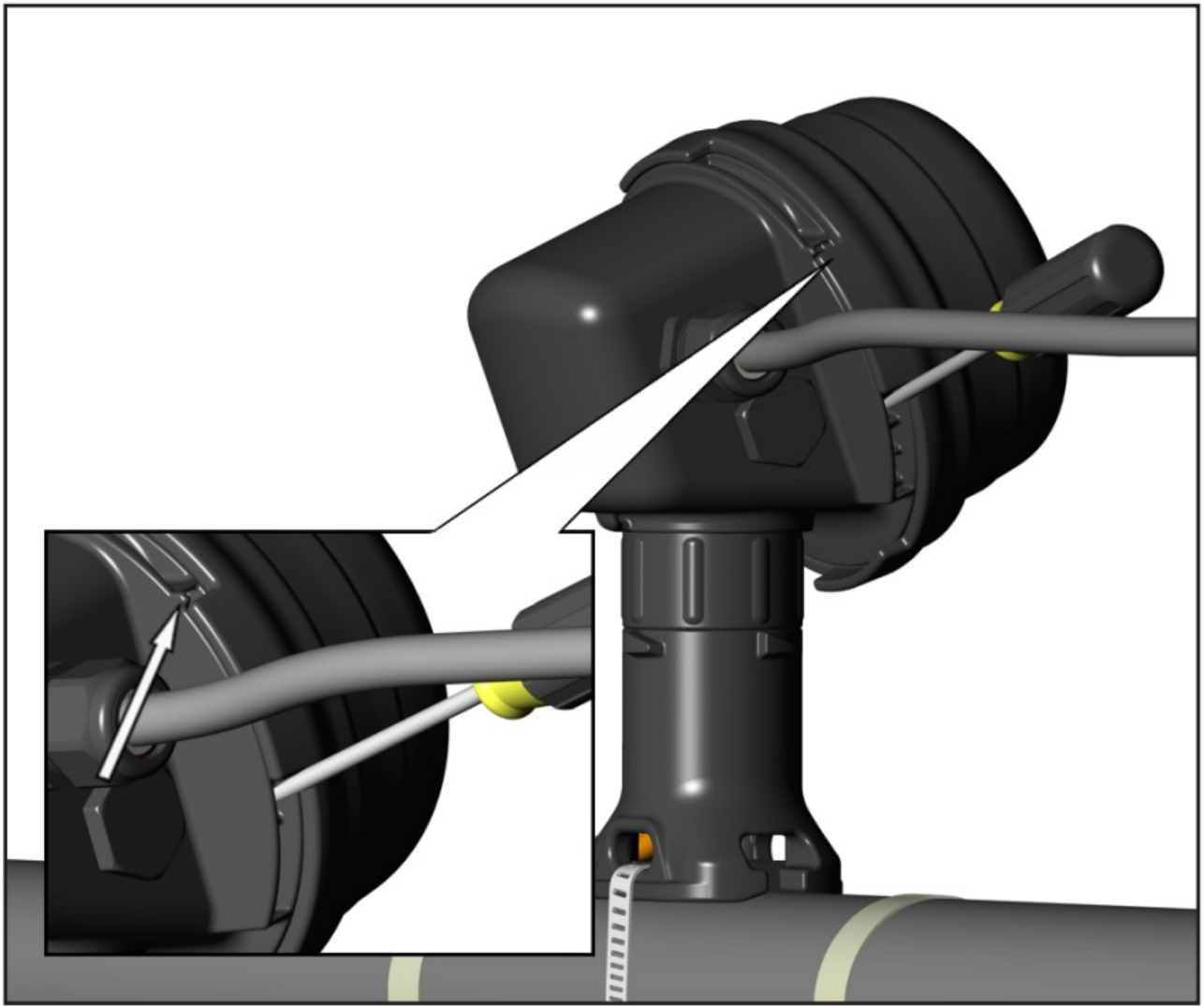




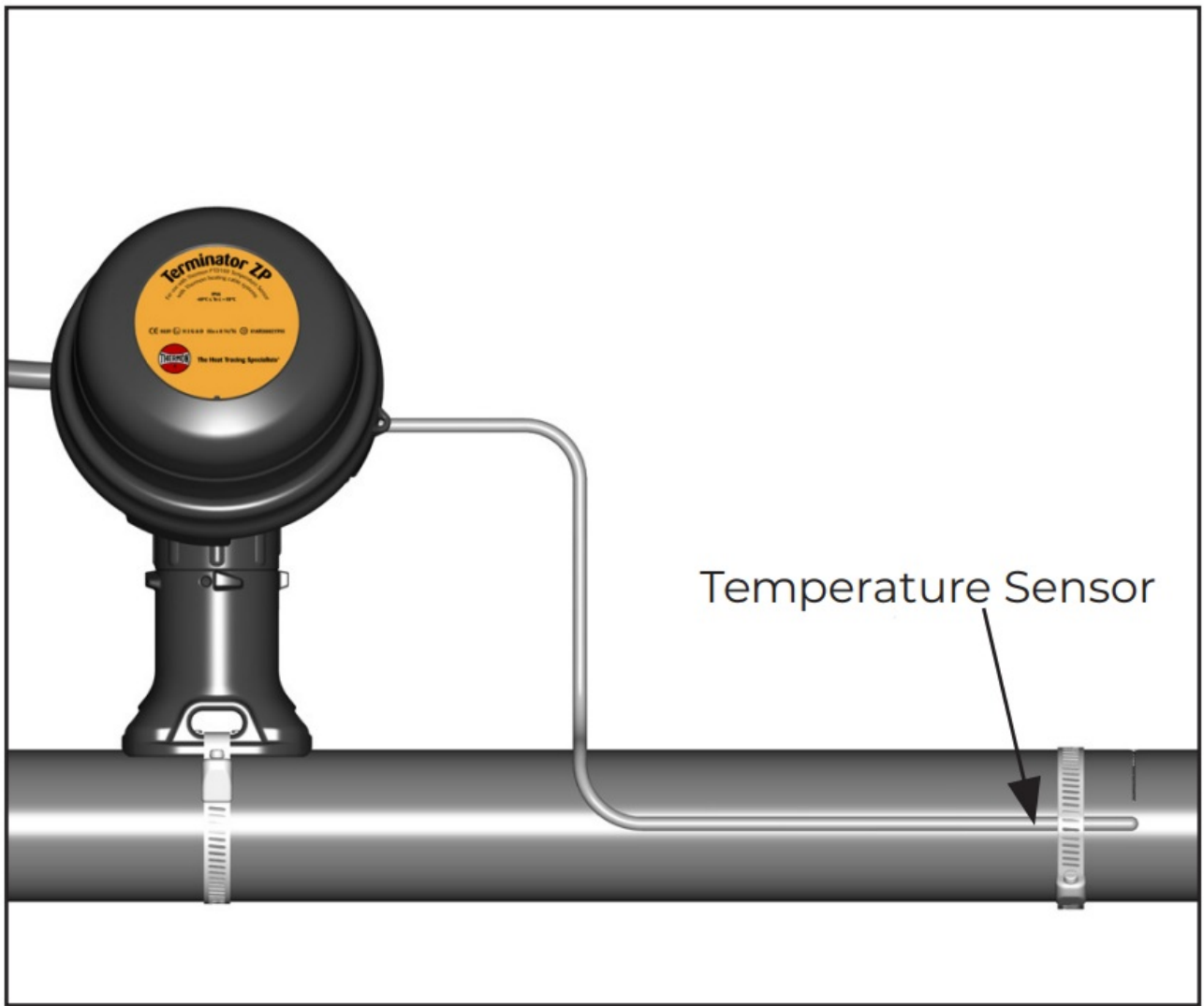
13. Use screwdriver to ratchet on junction box lid. Lid will rotate 30 degrees.



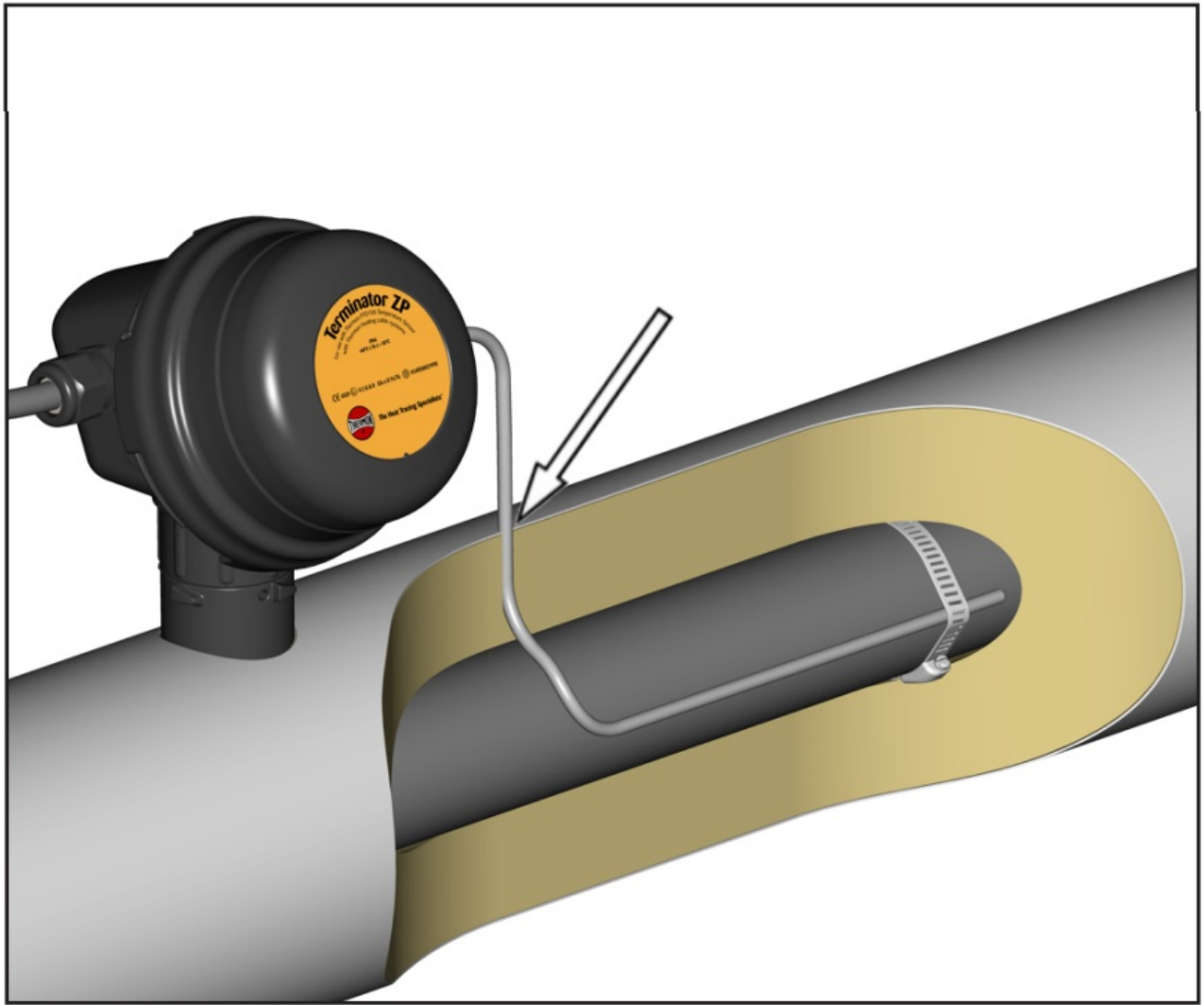
14. Lid latch mechanism fully engaged. To remove lid, repeat steps 12 and 13 but in the opposite direction.



15. Mount the temperature sensor securely to the pipe using pipe band. Make sure the entire length of the sensor is in intimate contact with the pipe. The sensor should be placed at least 90° around the circumference from the heating cable.



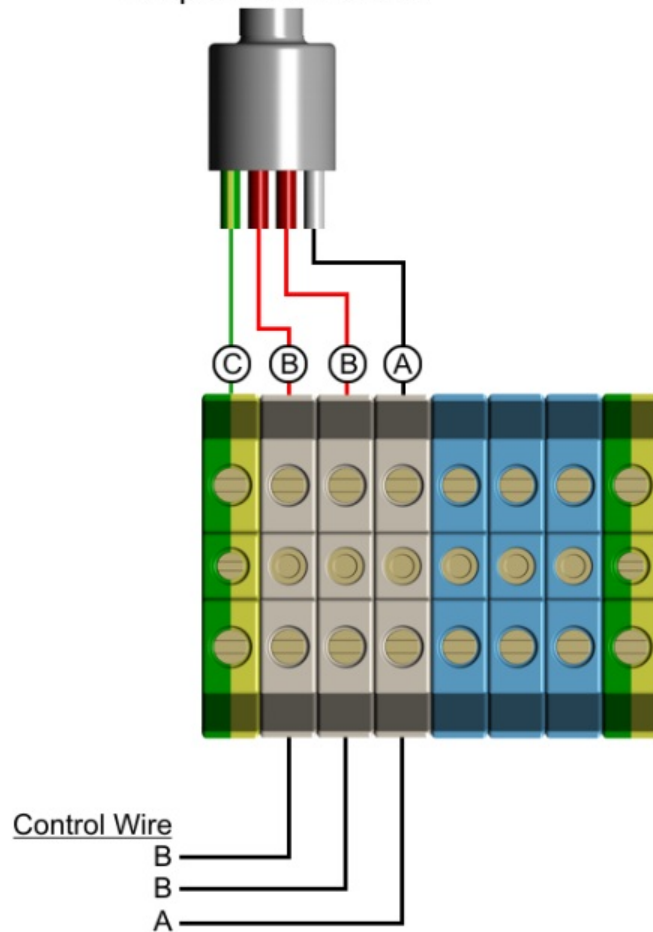
16. Seal temperature sensor penetration through insulation cladding. For ambient sensing applications, the mounting location should be representative of the coldest region, and the sensing element should not be exposed to direct sunlight or any additional heat source.



## Wiring Details

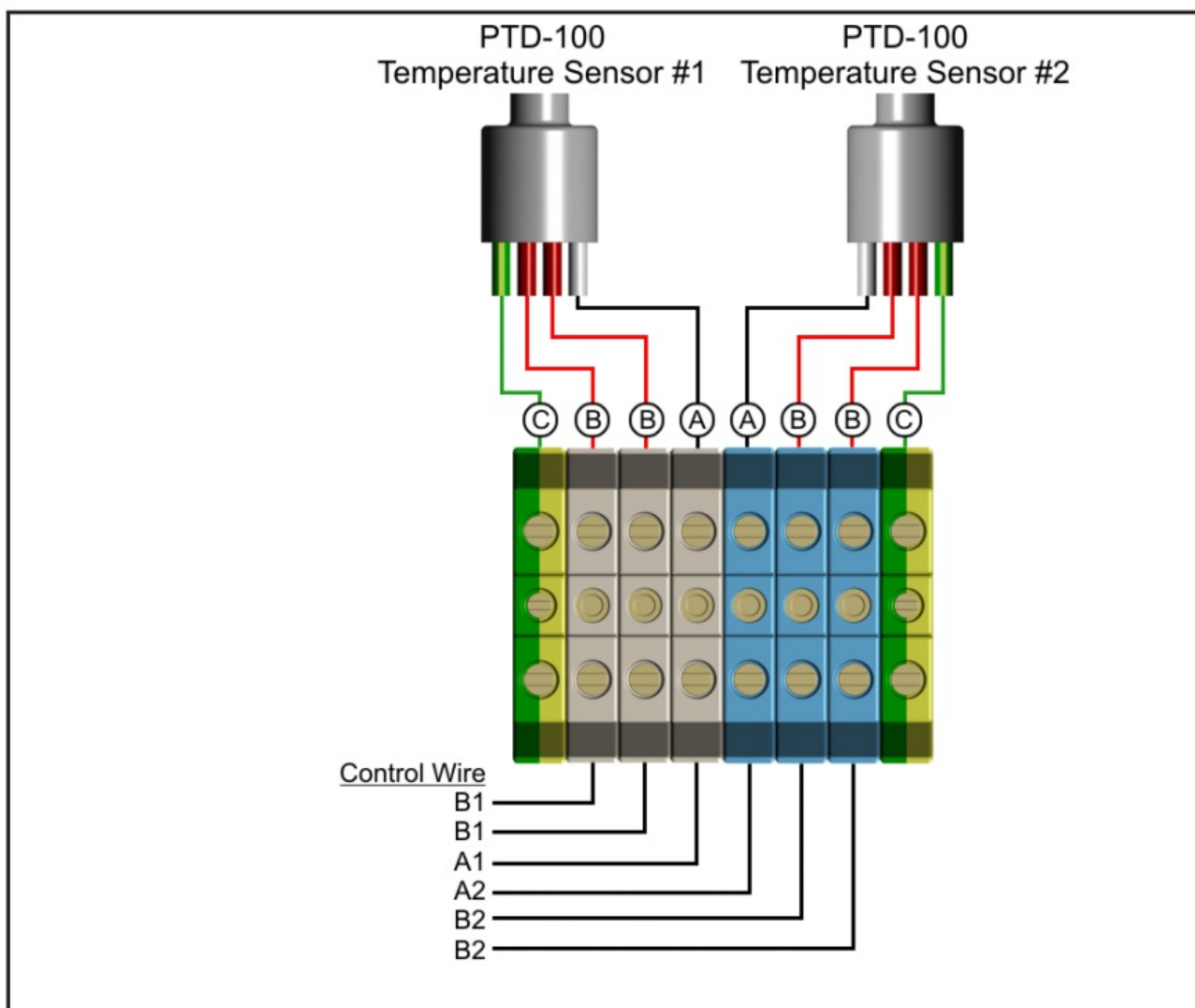
**A1.** Control Wire Connection (1 Sensor)  
A = White, B = Red, C = Green / Yellow

PTD-100  
Temperature Sensor



**A2. Control Wire Connection (2 Sensors)**

A = White, B = Red, C = Green / Yellow



In order to avoid EMI issues with a temperature controller, the shield of the control wire shall be connected to the instrumentation earth only. Do not connect the control wire shield in the junction box.

## CUSTOMER SUPPORT


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Corporate Headquarters: 100 Thermon Dr • PO Box 609 San Marcos, TX 78667-0609 • Phone: 512-396-5801 • 1-800-820-4328

For the Thermon office nearest you visit us at . . . [www.thermon.com](http://www.thermon.com)



## Documents / Resources

	<p><a href="#">THERMON PN50834U Terminator ZP-PTD100-XP Temperature Sensor Connection Kit</a> [pdf] ] Instruction Manual</p> <p>PN50834U Terminator ZP-PTD100-XP Temperature Sensor Connection Kit, PN50834U, Terminator ZP-PTD100-XP Temperature Sensor Connection Kit, Temperature Sensor Connection Kit, Connection Kit</p>
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## References

-  [World Leader in Industrial Process Heating | Thermon](#)