Phason temperature sensor installation guide

Most Phason controls use either a 3K or 20K sensor. Sensors are available in lengths ranging from 1 to 150 feet. To find out which sensor your control requires, see the reference guide on page 2.

- ◇ Switch off the power before servicing the control.
- ◇ Phason controls must be installed by a qualified electrician.

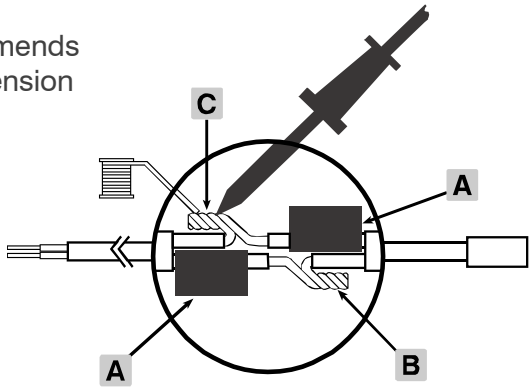
Installing sensors

Follow the guidelines below and the instruction in your control's installation guide to connect the temperature sensor.

- Do not run the sensor cable in the same conduit as AC power cables
- Do not run the sensor cable beside AC power cables or near electrical equipment.
- When crossing other cables or power lines, cross them at a 90-degree angle.

Extending sensor cable

- Use 2-wire 18 AWG jacketed cable. Phason recommends Belden #9408, Alpha #5052, or an equivalent. Extension cable is also available from Phason.
- Join the extension cable to the temperature sensor cable as shown in the following diagram.
- If the unit operates erratically with the extended sensor, run the cable along a different path or shorten it.



A Slide three pieces of heat shrink tubing over the wires: one for the red wire, one for the black wire, and one for both.

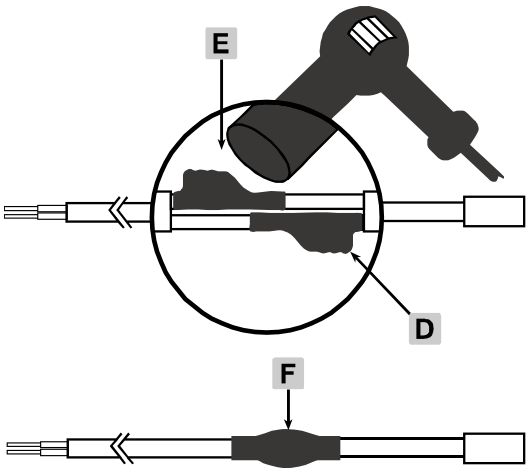
B Strip the ends of the wires and then twist them together.

C Solder the wires together using rosin-core flux solder. DO NOT use acid core solder.

D Slide the heat shrink tubing over the solder joints.

E Shrink the tubing using a heat gun.

F The connection should look like this.



Phason temperature sensor reference guide

Products using 3K sensors	All compatible 3K sensors	
AEC-2		
AUTOFLEX (all versions)		
ECC-1, ECC-2		
FC-1T-1F		
FC-1T-1VAC-1F		
FC-1T-2VAC-3F		
FC-1T-1VDC		
FHC-1D		
HMB, HMC, PBx-HMC (See the note below)		
IN-4	MT-P3B	(1 foot)
LEM	MT-P3A	(6 feet)
NVC, NVC-12V	MT-P3A/30	(30 feet)
NVC-2, NVC-2-12, NVC-2-24	MT-P3A/75	(75 feet)
OWS	MT-P3A/150	(150 feet)
PEC	TP-JUNCTION-BOX	(6 feet, plus extension)
PEC-PLUS, PEC-PLUS-RS, PLUS-TOUCH		
PB-1, PB-2, PB-3, PB-4, PB-5, PB-6		
PBx-10, PBx-11		
SEC-DC, SEC-HD		
SSC-1D		
SSV-DC		
SUPRA, SUPRA-RS, SUPRA-TOUCH		
TVS		
VTC-1D		

Products using 20K sensors	All compatible 20K sensors	
FC-1T-1VAC	MT-P3	(1 foot)
MTC-3C, MTC-3C-8.5	MT-P3/30	(30 feet)
MTC-4C		

- ◇ HMB, HMC, and PBx-HMC heat mat controllers have the option to use mats that have an internal sensor (1K Ω at 25°C), such as the Hog Hearth® heat mat.
- ◇ You can extend temperature sensors up to 500 feet. Extension cable (**model: W20/2X1000**) is available in 1000-foot spools. For more information, contact your dealer.

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