

#44: INDUCTION HEATER CONTROL

The induction heating process can be readily controlled by the temperature of the part as measured by an IRt/c non-contact infrared thermocouple. Several issues should be considered in an installation:

1. The effect of the field on the IRt/c: since the measuring signal is electrically isolated from the housing, the IRt/c will operate in even a very strong field. The shield wire should be attached to a proper signal ground. If there is excessive heating from the field, consider using the cooling jacket kit, with the same water source as is used to cool the coil.
2. The field-of-view: the preferred method is to view the part between the coil turns or from the end. Select the IRt/c model that best suits the requirements. For small gaps between coils, consider the focused models.
3. Part temperature: IRt/c models can be used to measure target temperatures up to 2760°C (5000°F). Select the correct model for the control temperature desired.
4. Part surface material: For bare metal parts the Lo E models are recommended. For coated or non-metal surfaces the Hi E models should be used.

