

-Not applicable to general IR thermography

Process Temp. Management of Copper Elongate Products

Challenge

- Due to reflection, accurate measurement of metal during heating in chamber is difficult.
- 100% pull test is difficult for coiled products.

■ Avio Solution ! !

◆ World's First ! *

Metal surface temp. – impossible by general IR camera

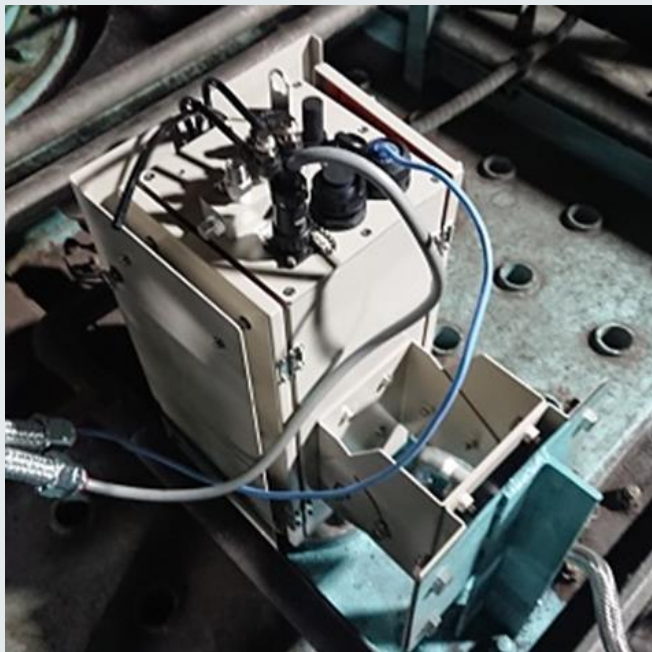
◆ 2 dimensional measurement, not only point !

Check temp. unevenness – for supporting data of pull test.

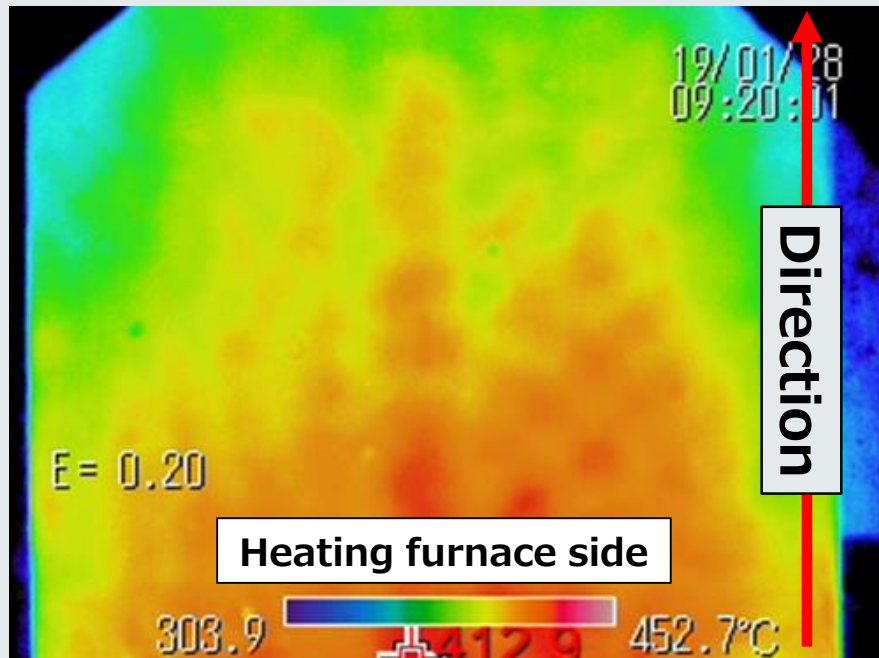
◆ System extensibility !

Data acquisition at optimum range with use of PLC

Supporting quality management by temp. distribution of mold.



Thermography is placed in a housing to avoid seasonal environmental influence.



Temp. is measured by TS300SW, metal measurement model, after Cu product is transferred from furnace to cooling chamber.

*July 2017. Our investigation It may be affected by surroundings depending on environmental conditions.

Avio Thermography Line up for Special Measurement

■ Metal Measurement Model TS300SW

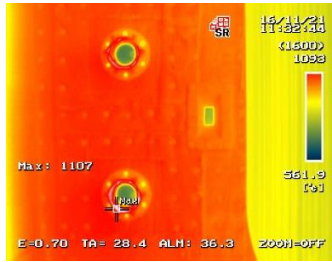
- ◆ Custom order item
- ◆ Pixels : 320 x 256
- ◆ Frame rate : 100Hz
- ◆ External I/F : Gig-E
- ◆ Range : 160°C~(Al)
180°C~(Cu)



- ➔ Custom order item
- ➔ Various lens are available by C-Mount mechanism
- ➔ High speed temperature transition can be measured by min. 5μs exposure time.

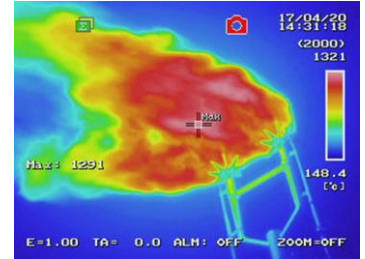
■ R300BP-TF

- ◆ Measurement through flame
- ◆ Wavelength : 3.7~3.9μm
- ◆ Range : 400~1500°C



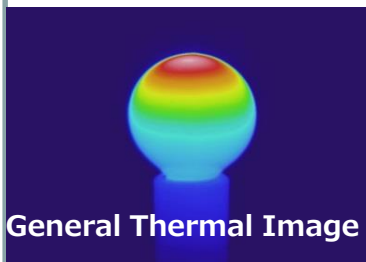
■ R300BP-OF

- ◆ Measurement of flame
- ◆ Wavelength : 4.25 to 4.75μm
- ◆ Range : 600~2000°C



■ R300BP-TG

- ◆ Measurement through glass
- ◆ Wavelength : 3.0 to 3.5μm
- ◆ Range : 500~1000°C



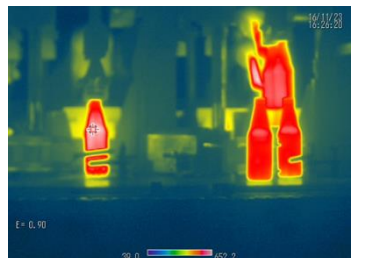
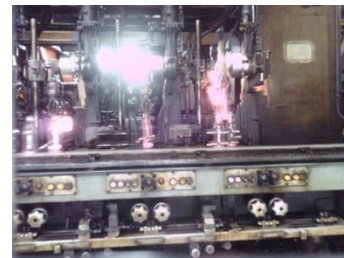
General Thermal Image



R300BP-TG

■ R300BP-OG

- ◆ Measurement of glass surface
- ◆ Wavelength : 5.2 to 7.4μm
- ◆ Range : 400~1500°C



Avio offers most suitable model for all of your measurement needs.

 NIPPON AVIONICS CO., LTD.

Overseas Sales Department
 Industrial Electronic Products Sales Division
 4475, Ikonobe-cho, Yokohama, 224-0053, Japan
 TEL +81-45-930-3596
 Fax +81-45-930-3597
 E-mail : product-irc-e@ml.avio.co.jp

<http://www.avio.co.jp/english/>



WARNINGS & CAUTIONS

- Before using this product, please carefully read the provided Operation Manual "WARNINGS" & "CAUTIONS" section to ensure proper operation.
- Please do not place the product in high temperature, high humidity or high inert gas environments.

Distributor: