

# FLUE GAS TEMPERATURE

- Two wire 4-20mA connection
- Rugged design
- 0.5% accuracy

## Sensor selection:

**Thermistors** will not withstand the high flue gas temperatures and can not be used.

**RTD's** are the most stable and accurate sensors up to 400C and are normally selected for this range.

**Thermocouples** are extremely rugged and durable at high temperatures and are the best choice for measurements from 400C to 1200C.

We TIG weld the thermocouple junction to the tip of the sheath in order to ensure the fastest possible response time.

We add 2-wire 4-20mA transmitters if your panel will not accept RTD's or thermocouples directly.

## CONSTRUCTION

Our flue gas temperature transmitters are constructed using the same technique we use in the industrial sensors we supply to power plants and heavy industries. The RTD or thermocouple is embedded in magnesium oxide, packed and sealed within a stainless steel sheath.

Because the sensor is so well protected from shock in this construction, long life is ensured, even under the most severe conditions.

We incorporate a flange in our standard design in order to make mounting easy.

The terminal box containing the transmitter electronics is mounted on a stand-off to minimize heat transfer from the flue gas to the electronics.

The electronics convert the sensor signal to a

## ORDERING DATA

**TS - F - ( stem length in inches ) - ( R-100=RTD, K=thermocouple )**

**TT - F - ( stem length in inches ) - ( R-100=RTD, K=thermocouple ) - ( transmitter range )**

e.g.

**TT-F-12-K-0+600C** Flue gas temperature transmitter assembly with 12" immersion, "K" thermocouple & 4-20mA transmitter with 0 to 600C span

**TS-F-18-R-100** Flue gas temperature assembly with 18" immersion, 100 ohm RTD but NO transmitter



standard 4 to 20mA 2-wire signal, for simple, economical and reliable wiring over long transmission lines.

## TECHNICAL DATA

### RTD models

*Operating Temperature:* -50 to +400C

*Optional 4-20mA transmitter*

*Ranges:* 0 to +200C or 0 to +400C,

others on request. The temperature of the head containing the transmitter has a maximum temperature of 70C.

### Thermocouple models

*Operating Temperature:* -50 to +1000C

*Optional 4-20mA transmitter Ranges:* 0 to +600C or 0 to +1000C, others on request. The temperature of the

head containing the transmitter has a maximum temperature of 70C

### All models

Supply Voltage: 13 to 30 Vdc (24Vdc nominal)

Output: 2-wire 4 to 20mA

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