Temperature measurement in Sulfur recovery units (SRU)
Sulfur recovery units (SRU)

Refiners and gas processing operators are legally required to remove sulfur from produced hydrocarbon products. The “claus” process is the primary plant unit employed to recover sulfur and combines thermal and catalytic steps in series to recover up to 97% before final removal in “tail gas treatment” processes.

The “catalytic reactor” is the secondary process where the process temperatures passing through the fixed catalyst beds require multiple sensing points to profile catalyst activity to maximise safe, efficient operation.

**Multipoint Thermocouple TC95**

- Fast response time
- Sensor replacement during operation
- ATEX, IEC Ex i and Ex d approved
The “thermal reactor” separates up to 70% of the sulfur, operating at high temperature in hydrogen rich atmosphere. Temperatures special characteristics need to be incorporated into temperature sensor designs.

**High temperature thermocouple, Sapphire design, TC83**

- 3 times longer service life in hydrogen atmosphere
- Reduction of unplanned downtime
- No purge gas system needed
- ATEX, IEC Ex i and Ex d approved

**High temperature thermocouple TC82**

- Special purge gas system for SRU application
- Purge panel and refractory nozzle insulation available
- ATEX, IEC Ex i and Ex d approved

**Accessories**

- Refractory nozzle insulation
- Purge Panel

- Thermal reactor 950 … 1,400 °C (1,700 … 2,550 °F)
- Sapphire protection tube
- Surface temperature measurement
Surface temperature measurement

Ski Slope Tx54-S
- Easy Replacability, Welded or Strapped Mounting
- Direct parallel surface contact sensor

Magnet thermocouple Tx54-M
- No welding required; High strength 150lb pull
- High temperature material

WIIKA field service
- Installation and/or supervision services
- Instrumentation commissioning services
- On site calibration & repair of your temperature instrumentation