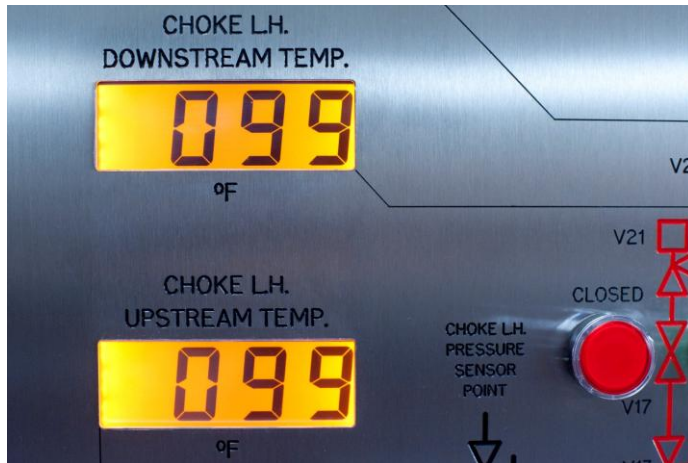


NON-INTRUSIVE TEMPERATURE SENSOR



EFC GROUP WRAPAROUND TEMPERATURE SENSOR IS DESIGNED TO MONITOR SKIN TEMPERATURE OF THE CHOKE AND KILL MANIFOLD

Typically in 4 locations, upstream and downstream of both remote chokes and quite often at the degasser, mug gas inlet or Buffer chamber.

Temperature measurement in pipelines and pressure vessels is essential in process control. Tracking fluctuation and limitations allows users to assess and assure structural safety as well as operational efficiency.

The temperature sensors are non-intrusive so no additional ports are required and it reduces risk of damage occurring to sensor.

NON-INTRUSIVE TEMPERATURE SENSOR

TYPICAL WRAP-AROUND LOCATIONS:

- Kill Upstream
- Choke Upstream
- Kill Downstream
- Choke Downstream
- Buffer or Mud Gas Inlet Temperature

Each Zone 1 Manifold Temperature Sensor Assembly consists of an insulated temperature sensor, signal conditioning module, local junction box, documentation, certification and Installation Manual.

The Temperature Sensor assembly straps to a pipe section at any convenient point. Ideally, the pipe section available should be approx. 600mm (23”), however shorter lengths can be accommodated if required.

Alternative sizes of pipe OD can be accommodated by the temperature sensors. It is recommended to locate the sensors on the Choke and Kill lines immediately upstream of the Choke & Kill Manifold and immediately downstream of the remote Chokes. Normal temperature range monitored is -150°F to +350°F (-150°C to + 177°C).

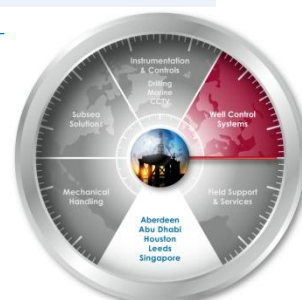
DESCRIPTION	TECHNICAL SPECIFICATION
Overall Size	Sensor size is minimal, Insulation is customized for Pipe length & OD
Output	4-20mA
Overall Size	Sensor size is minimal, Insulation is customized for Pipe length & OD
Zone Rating	Zone 1 Hazardous Area
Temperature Range	-238°F to +350°F (-150°C to + 177°C)
Operating Pressure	N/A
IP Rating	IP 67
Documentation Included	User Manual (UM) Technical & Certification Manual (T&CM)

NB: Technical data may be subject to change

FEATURES	BENEFITS
‘Flowing’ Reading	Sensor monitors the temperature of flowing mud instead of it being a ‘dead end’ reading
Non-Intrusive	Sensor does not need a manifold port and it does not intrude into flowing mud and gas
No Connections	No thermowell ports or companion flange connections are required
Ease of Installation	Sensor format allows for simple retro-fitting to existing systems
Customised Display	Temperature read-outs can be either individual or integrate digital displays, combined with larger HPHT monitoring system or outputs can be provided to 3 rd party system to display

EXPANDABILITY

- High Pressure High Temperature (HPHT) instrumentation systems
- Finescale Pressure Gauges
- Liquid Seal Monitor
- Choke & Kill Manual Valve Status Indication
- Overboard Valve Control sequencing
- Choke Control System



WCI/0114/002/C