



## R-SERIES QUARTZ MONITORING SYSTEM

The Zenith R-Series quartz reservoir monitoring system measures well pressure and temperature to the accuracy and resolution detailed overleaf. The gauge can be configured to measure either tubing or annulus pressure depending on the porting of the gauge carrier.

The gauge technology comprises of field-proven sensor electronics and design adapted to fit various casing sizes. The electronics signal and power are transmitted via a ¼ inch control line run from the sensor to surface.

### MEASUREMENT

Annulus Pressure (quartz)

Tubing Pressure (quartz)

Annulus Temperature

Tubing Temperature

### MONITORING USES

Monitor well draw-down  
Assess reservoir performance  
Transient analysis

Monitor well draw-down  
Assess reservoir performance  
Transient analysis

Monitor well fluid temperature  
Interference testing

Monitor well fluid temperature

### PARAMETERS MEASURED

Annulus Pressure (quartz)

Tubing Pressure (quartz)

Annulus Temperature

Tubing Temperature

### UNITS

psi/bar

psi/bar

°C/°F

°C/°F

### RANGE

as above

as above

as above

as above

### RESOLUTION

0.01 psi

0.01 psi

0.005°C

0.005°C

### ACCURACY

0.015 %

0.015 %

0.15°C

0.15°C

### DESCRIPTION

R-Series - 5,000 Pressure Gauge

R-Series - 10,000 Pressure Gauge

R-Series - 16,000 Pressure Gauge

### REF. No.

13440001400

13440002400

13440003400

### MAX WORKING PRESSURE (psi)

5,800

10,000

16,000

### TEMPERATURE RATING (°C)

150

150

175

### MAKE UP LENGTH (ft)

2.200

2.200

2.200

### OUTSIDE DIA. (in)

1.25

1.25

1.25

SURFACE EQUIPMENT	REF. No.	DETAILS
ZSP	14460055002	Input: C-Series / R-Series gauge signal. Outputs: Data logger, display, RS232/RS485 Modbus RTU, analogue 4-20mA, trip relay
ZSP Cable Pack	14460004000	Input power, Modbus, analogue and trip relay cables
Wellhead Junction Box	14460029000	Explosion proof
Armoured Surface Cable	34460205000	1pr x 1.5mm armoured cable, cable run length to be specified
DOWNHOLE EQUIPMENT		
Wellhead Feedthrough	30030032400	Pressure rating 10,000 psi, suitable for ¼" instrument line
Wellhead Penetrator		
Cable Banding Material	31020010000	0.025" x ¾" Monel #400 ¼ Hard , 700 feet per roll
Cable Banding Buckles	31020011000	For ¾" continuous banding material, 1,000 per box
Cross Coupling Tubing Clamp	13300003200	2-⅞" EUE tubing, outside diameter: 4.764"
	13300001200	3-½" EUE tubing, outside diameter 5.610"
	13300002200	4-½" EUE tubing, outside diameter 6.890"
Instrument Cable		See Instrument Cable specification sheet

DESCRIPTION	REF. No.	REF. No.	DETAILS
	CARBON STEEL	13 CHROME	
Gauge Retaining Clamp	10590017200	10590017400	5-½" tubing
	10590016200	10590016400	5" tubing
	10590012200	10590012400	4-½" tubing
	10590015200	10590015400	4" tubing
	10590011200	10590011400	3-½" tubing
	10590010200	10590010400	2-⅞" tubing
	10590009200	10590009400	2-¾" tubing

DESCRIPTION	CARBON STEEL	13 CHROME	INCONEL	TOP THREAD	BOTTOM THREAD	MAKE UP LENGTH (ft)	DRIFT (in)	INSIDE DIA. (in)	OUTSIDE DIA. (in)
	REF. No.	REF. No.	REF. No.						
Gauge Carrier Assembly	12460503201	12460503401	12460503503	3-½" 9.3 lb-ft EUE Box	3-½" 9.3 lb-ft EUE Box	3.75	2.867	2.992	5.062
	12460506201	12460506401	12460506503	3-½" 9.2 lb-ft VAM TOP Box	3-½" 9.2 lb-ft VAM TOP Box	3.75	2.867	2.992	5.062
	12460504201	12460504401	12460504503	3-½" 9.2 lb-ft NVAM Box	3-½" 9.2 lb-ft NVAM Box	3.75	2.867	2.992	5.062
	12460508201	12460508401	12460508503	4-½" 12.75 lb-ft EUE Box	4-½" 12.75 lb-ft EUE Box	3.75	3.833	3.900	5.955
	12460507201	12460507401	12460507 503	4-½" 12.6 lb-ft VAM TOP Box	4-½" 12.6 lb-ft VAM TOP Box	3.75	3.833	3.900	5.955
	12460505201	12460505401	12460505503	4-½" 12.6 lb-ft NVAM Box	4-½" 12.6 lb-ft NVAM Box	3.75	3.833	3.900	5.955