



Zenith[®] R-Series Reservoir Gauges

The Zenith R-Series quartz reservoir monitoring system measures well pressure and temperature with the high accuracy and resolution required for reservoir monitoring.

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.

Construction

Material	1 7/8 stainless steel as standard
Max working pressure	5,000 / 10,000 / 16,000psi
Temperature rating	150°C
Make up length	2.20ft
Outside diameter	1.125in



Measurement	Units	Range	Resolution	Accuracy	Data Rate
tubing pressure	psi/bar	0-5,000 / 10,000 / 16,000psi	0.05 psi	0.015%	1s
tubing temperature	°C/°F	0-150°C	0.005°C	0.15°C	1s

System features

- High quality, modular construction
- Long service life allowing repeated deployment
- Downhole data collection
 - SD card – simple data transfer to removable memory card
 - Data display with live on-screen data charting, drive mounted or enclosure
 - Data trending software
 - Dedicated engineers' port
 - Connectivity to remote data collection or SCADA systems

Downhole Gauge	Ref. No.
Zenith R-Series gauge - 5kpsi	13450521402
Zenith R-Series gauge - 10kpsi	13450522402
Zenith R-Series gauge - 16kpsi	13450523402

Surface data acquisition

Zenith Surface Panel (ZSP) provides on-screen data charting, alarms and trips, analogue and data (Modbus) communication signals.

Surface Equipment	Ref. No.	Details
ZIU	14460119000	Input: R-Series gauge signal Output: RS485 Modbus RTU
ZSP	14460110005	Input: 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	14460029002	Explosion proof
Armoured surface cable	34460205000	1pr x 1.5mm armoured cable, cable run length to be specified

Downhole Equipment	Ref. No.	Details
Wellhead feedthrough	30030032400	Pressure rating 10,000 psi, suitable for ¼" instrument line
Cable banding material	31020010000	0.025" x ¾" Monel #400 ½ Hard , 700 feet per roll
Cable banding buckles	31020011000	For ¾" continuous banding material, 1,000 per box
Cross coupling tubing clamp	13300004200	2-7/8" EUE tubing, outside diameter: 4.764"
	13300001200	3-½" EUE tubing, outside diameter 5.610"
	13300002200	4-½" EUE tubing, outside diameter 6.654"
Instrument cable		See instrument cable specifications sheet

Description	Ref. No. Carbon Steel	Ref. No. 13 Chrome	Top Thread	Bottom Thread	Make Up Length (ft)	Drift (in)	Inside Dia. (in)	Outside Dia. (in)
Gauge mandrel assembly	12466510201	12466510401	5-1/2" 20# FOX Box	5-1/2" 20# FOX Pin	4.640	4.653	4.778	7.059
	12466507201	12466507401	4-1/2" VAM TOP Box	4-1/2" VAM TOP Pin	3.222	3.833	3.958	5.960
	12466508201	12466508401	4-1/2" 12.75# EUE Box	4-1/2" 12.75# EUE Pin	2.625	3.833	3.958	5.960
	12466509201	12466509401	4-1/2" 12.6# FOX Box	4-1/2" 12.6# FOX Pin	4.440	3.833	3.958	6.212
	12466503201	12466503401	3-1/2" 9.3# EUE Box	3-1/2" 9.3# EUE Pin	2.375	2.867	2.992	5.375
	12466504201	12466504401	3-1/2" 12.7# FOX Box	3-1/2" 12.7# FOX Pin	3.145	2.625	2.750	5.375
	12466505201	12466505401	3-1/2" 9.2# FOX Box	3-1/2" 9.2# FOX Pin	3.145	2.625	2.750	5.375
	12466502201	12466502401	2-7/8" 6.5# EUE Box	2-7/8" 6.5# EUE Pin	2.125	2.347	2.400	4.500
	12466511201	12466511201	2-7/8" 6.4# VAM TOP Box	2-7/8" 6.4# VAM TOP Pin	2.519	2.347	2.441	4.500

Other gauge clamp, carrier and mandrel threads and sizes available.