

PIT LEVEL



Barrier Amplifier



Encoder Interface



Ultrasonic Pulse-Echo Sensor for Monitoring Pit Levels

- Pit volume single active pit
- Pit Volume Totaliser - Active System
- Pit volume single reserve pit
- Pit Volume Totaliser - Reserve Pits
- Pit Volume Totaliser – Active and Reserve Pits

Parameter Specifications

- Measuring range 0.4 – 7 m
- System accuracy < 0.1% of full scale
- System resolution 1 mm

Principle of Operation

Ultrasonic pulses sent out by the transducer are reflected by the mud surface. The receiver translates the time interval between the transmitted signal and its return into an electric current, representing the distance from the transducer head to the mud surface.

Maintenance

Once the system is set up and calibrated, generally no maintenance will be required.

Visual routine checks (daily); remove any obstructions from the field of measurement, change the installation point if the readings are irregular.

Data Processing

The powerful DMS software records, visualizes and displays data on different locations on the well site.

The DMS supports the setting of individual alarms for “High” and “Low” limits for each pit.

Technical Specifications

		SENSOR	
<ul style="list-style-type: none"> ▪ Type or model ▪ Certified for hazardous area ▪ Certificate of conformity ▪ Operating temperature range ▪ Supply voltage ▪ Installation point 	<ul style="list-style-type: none"> Pulse echo sensor Intrinsically safe to EEx ia IIC T6 PTB No. Ex-97.D.2246 -20 °C ... +60 °C 24 V DC Mounted over the mud pit; avoiding obstructions 		
		Evaluation Unit	
		TRANSMITTER / REPEATER UNIT	Ex-Barrier Amplifier with BUS System
<ul style="list-style-type: none"> ▪ Type or model ▪ Certificate of conformity ▪ Signal output ▪ Supply voltage ▪ Bus System: ▪ Installation point 	<ul style="list-style-type: none"> Isolating amplifier – inputs EEx ia IIC BASEEFA No. Ex-90.C.2358X 4 – 20 mA 24 V DC Not applicable Logging unit; plugged into 19-inch frame (DMS rack) 	<ul style="list-style-type: none"> Barrier Amplifier – EEx ia IIC TÜV 99 ATEX 1499 X 4 – 20 mA 24 V DC Field bus independent connectors 	