

ROTARY TORQUE (hydraulic)



Barrier
Amplifier



Encoder
Interface



Pressure transmitter to monitor the rotary torque

- High stability
- High accuracy
- High shock and vibration compliance
- Individual types and pressure ranges

Parameter Specifications

- Measuring range Depending on rig specification
Normally 0 to 400 bar
- System accuracy $\leq 1\%$ of full scale
- System resolution 0.1 bar

Principle of Operation

A diaphragm separates a micro-machined silicon sensor with temperature compensation from the pressure medium. Silicon oil serves as pressure transmitter. An integrated amplifier converts the output test current, which is proportional to the pressure density, into a corresponding DC signal (4 – 20 mA).

Maintenance

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

Visual routine checks (daily) shall include the observation of possible leaks in the sensor hydraulic system.

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.

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"> Pressure transmitter Intrinsically safe to EEx ia IIC T4 BASEEFA No. Ex-89.C.2251 -20 °C ... +80 °C 24 V DC Connected to the load cell of the rotary torque indicator (process connection e.g. 1/4" NPT HANSEN) 		
		TRANSMITTER / REPEATER UNIT	
<ul style="list-style-type: none"> ▪ Type or model ▪ Certificate of conformity: ▪ Signal output : ▪ Supply voltage: ▪ Bus System: ▪ Installation: 	<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"> Ex-Barrier Amplifier with BUS System Barrier Amplifier - EEx ia IIC TÜV 99 ATEX 1499 X 4 – 20 mA 24 V DC Field bus independant connectors 	