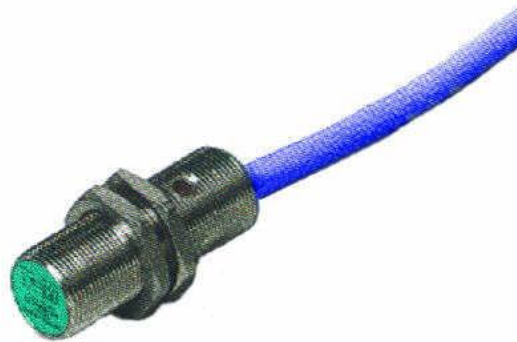


PUMP STROKES (inductive)



Barrier
Amplifier



Encoder
Interface



Inductive Proximity Switch for Counting Pump Strokes

- Pump strokes (pump #1 to n)
- Total pump strokes
- Accumulated pump strokes
- Pump volume (pump #1 to n)
- Total pump volume
- Lag time
- Flow IN

Parameter Specifications

- Measuring range: Max. 5000 pulses/min
- System accuracy: – / –
- System resolution: 1 pulse (1 stroke)

Principle of Operation

An inductive proximity switch attached to the mud pump is tripped by the action of the piston rod. Each pump stroke produces one pulse, which is registered by the evaluation electronic on time-based intervals.

Maintenance

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

Visual routine checks (daily); check the sensor positioning weekly, readjust if necessary.

Data Processing

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

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

Technical Specifications

	SENSOR	
▪ Type or model	Inductive proximity switch	
▪ Certified for hazardous area	Intrinsically safe to EEx ia IIC T6	
▪ Certificate of conformity	PTB No. Ex-83/2022X	
▪ Operating temperature range	-25 °C ... +100 °C	
▪ Supply voltage	8 V DC	
▪ Installation point	At the pump crankcase close to the piston rod	
	Frequency / Current Converter	Ex-Barrier Amplifier with BUS System
▪ Type or model	Isolating amplifier – inputs EEx ia IIC	Barrier Amplifier EEx ia IIC
▪ Certificate of conformity	PTB No. Ex-81/2065X	TÜV 99 ATEX 1499 X
▪ Signal output	4 – 20 mA	4 – 20 mA
▪ Supply voltage	24 V DC	24 V DC
▪ Bus System:	Not applicable	Field bus independent connectors
▪ Installation point	Logging unit; plugged into 19-inch frame (DMS rack)	