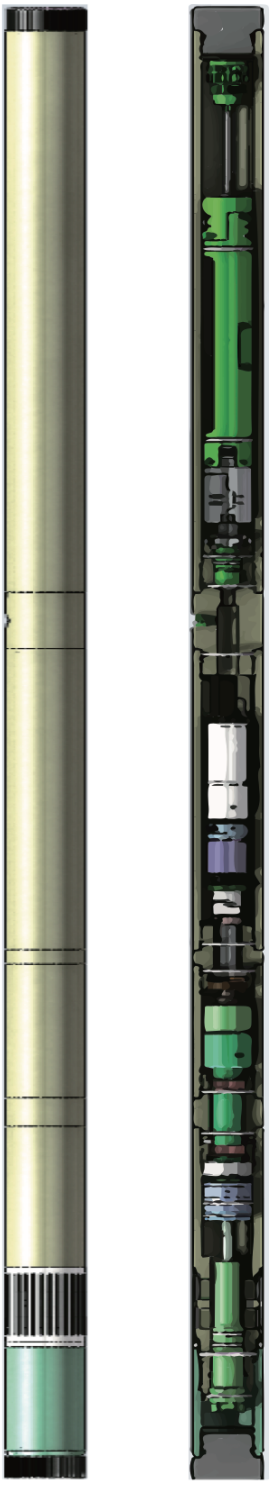
Pulser (Roller Screw Type)



Introduction

Drilling fluid pulse technology is the most common and reliable method used in logging while drilling at present. The core of the technology is the generating mechanism of drilling fluid pressure, namely the pulse generator.
At present, the widely used electromagnetic valve pulser is to lift the stem through the suction of the valve and lower the stem by the return force of the spring.
The defects of the electromagnetic valve pulse are: first, the magnetic characteristics of the valve magnet is restricted by the material, the magnetic properties can not be further improved; Second, the efficiency of the valve is low, and the loss of battery power is severe; Third, the pull/thrust of valve head is small that can not meet the work needs of deep wells.
The roller screw type pulser can solve these shortcomings, its working principle is: the circuit control brushless DC motor rotation, the motor connects with roller screw through flexible coupling to convert rotary motion to linear motion. The screw nut and stem join together to control brushless DC motor work, which realize the stem up and down.

Features

- Accurately control the stem up and down through current feedback
- The working current of motor is adjustable from 0 to 3A.
- Overcurrent protection.

Application

- Suitable for deep wells (more than 6 km), high density mud, high sand content mud and other complex drilling environment.
- Suitable for slim hole directional/horizontal well construction.

Technical Parameters

OD	38.1mm(1.5")
Length	≤1400mm
Operating voltage	20 to 36Vdc
Power consumption	Static operating current<12mA,125mAmp*sec/pulse@28V
Screw stroke	2.54 ±0.1mm
Valve tension/thrust	≥25Kg
Operating temperature	Up to 175°C / 347°F
Max. operating pressure	172MPa(25000Psi)
Random vibration	20grms, 30 to 1000Hz
Shock	1000g/0.5ms 1/2 sine wave