

CFA-300X

Slimline Fiber-Optic Gyro



ACCURACY AT WORK
FOR DRILLING APPLICATIONS

ACCURACY AT WORK



The **CFA-300X** is a slim (OD 1.6") 3-axis FOG attitude and heading reference system designed specifically for horizontal drilling applications (HDD). Internal design comprises an advanced solid-state 3-axis fiber-optic (FOG) inertial measurement unit with highly integrated digital electronics and CPU. The proven MWD crossovers are designed to be mounted in the bottom hole assembly (BHA) of a drill collar. An advanced AHRS algorithm with Kalman Filter continuously monitors sensor performance to provide optimum accuracy in all conditions. After initial alignment, the **CFA-300X** enters navigation mode and provides continuous updates of heading, roll and pitch when requested via the client-server RS485 interface. If necessary, gyrocompassing can be performed at anytime when stationary.

SYSTEM PERFORMANCE

Heading Accuracy (RMS)	$\leq 0.2^\circ$ SecLat 1σ
Inclination / Toolface	$\pm 0.1^\circ$
Gyrocompass	Yes, 4 minutes stationary
Azimuth drift when drilling	$< 0.02^\circ/\text{hr}$
Shock	30g survival (half-sine) 11ms
Vibration	10g survival 5-500Hz random
Magnetic Sensitivity	< 20 Gauss no degradation

PHYSICAL CHARACTERISTICS

Environmental conditions Temp Range: -25 to +70°C	Dimensions Outside Diameter: 40.64mm (1.6") Length: 918mm	Export Classification none
Power Supply Voltage: 24-30V DC Power Dissipation: <12W	Interface RS485 client-server Baudrate 9600 - 23K bps	