

CFA-100IC

Compact High Performance
Fiber Optic Heading Reference



THE LATEST INNOVATION
IN CIVITANAVI'S INDUSTRIAL PRODUCT RANGE

RUGGED ACCURACY AT WORK

FOR TUNNEL GUIDANCE & CIVIL ENGINEERING STEERING APPLICATIONS



The **CFA-100IC** is a 3-axis FOG (fiber optic gyro) attitude and heading reference system and has been designed to provide a stable and accurate reference in harsh conditions, without the need for any external GPS signal.

Rugged simulation, lab and field tests have been performed to verify these performance goals.

After the initial gyrocompassing alignment process the system gives continuous outputs of heading, roll and pitch. There is also the possibility to align during drilling (optional).

The product is currently available in two heading accuracy versions: 0.1° and 0.05°.

APPLICATION EXAMPLES:

- TUNNEL GUIDANCE
- MICRO-TUNNELLING
- PIPE JACKING MACHINES

CHARACTERISTICS	CFA-100IC	CFA-50IC
Heading (°)*	0.1	0.05
Roll / Pitch (°) RMS	0.1	0.05
Alignment Time (min)**	10	12
Dual-Use (EC428-2017)	Yes	Yes

* SecLat 1σ (no GPS required)

** When stationary. During motion requires longer time.

SYSTEM CHARACTERISTICS

Environmental

Operating Temperature: -25°C to $+55^{\circ}\text{C}$ (opt + 70°C)

Storage Temperature: -40°C to $+85^{\circ}\text{C}$

Vibration: DO-160G Sec8, CatS 0.74grms

Shock: DO-160G Sec7, CatB 20g 11ms

Power requirements

Input voltage: 24VDC (18-36V)

Power consumption: 18W

Signal outputs/inputs

RS422

Physical Properties

Dimensions: 106x132x225mm

Weight: 4kg